5.0 SITE CONTEXT

5.1 Defining an Activity Area

Activity areas are identified at archaeological sites by the spatial clustering (i.e., quantity and density) of artifacts. Not every peak in artifact density reflects a focus of pre-contact activity. Overlapping activities and site occupation episodes can create palimpsests which do not directly reflect the location and extent of a specific behavioral episode. Because one of the major research issues at archaeological site 7NC-B-54 (Ronald McDonald House) is to compare and contrast individual use episodes, it is important to consider traits that would characterize such episodes. Since the activity areas at the site appear to be short-term representations of individual activities, as represented by lithic remains, it is most appropriate to characterize short-term, limited activity loci as follows.

- There should have been little to no concern with removing refuse from its primary context. Lacking an expectation of further use or revisit to the specific location on a site, visitors would not be expected to clean or sweep the activity locus.

- The activity area should measure approximately 1.0 to 3.0 m (3.3 to 9.8 ft) in diameter. Sassaman (1993), after review of ethnographic and archaeological sources, argues that loci of short-term, focused activities fall within this size range.

- There should be a relative consistency in the raw materials that have been processed. Raw material selection is related to availability, the seasonal round, the desired performance parameters of the tool, and possibly aesthetic traditions. If a limited scope of activities was pursued at a given time/place, there should be very limited variability in the raw material mix. Items that do not match with the rest of the assemblage should generally represent curated or exhausted formal tools.

- There should be consistency in the lithic reduction technology utilized. If single task episodes are present, there should be no highly variable lithic technology. The same methods should have been used for the resharpening of all tools. The same methods should have been used to create expedient flake tools. There should be no evidence of fine retouch, soft hammer percussion, and hard-hammer percussion in the same behavioral episode.

- There should be consistency in the suites of tools. Each behavioral cluster should be internally consistent as a suite of butchering (projectile point/knives, large utilized flakes), hide processing (scrapers), plant processing (mano/metate, pitted cobbles), or wood working (axes, adzes) tools. A hide is

rarely scraped at the exact location and time that an animal is killed and butchered. A person in the process of making cattail mats typically does not suddenly switch to butchering an animal in the same location.

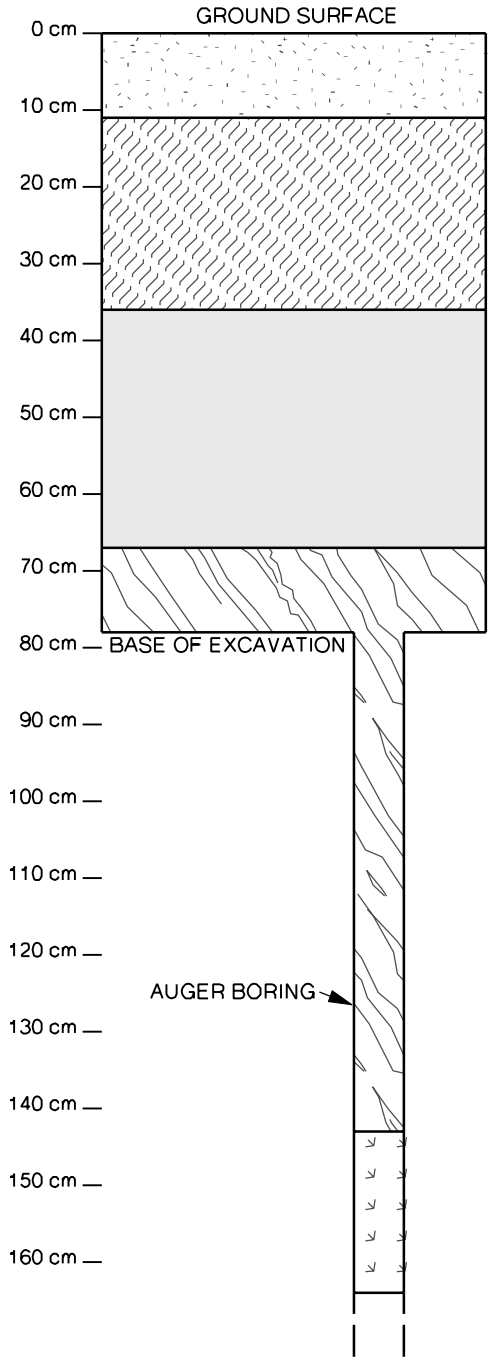
5.2 Geomorphology and Site Formation Processes

Geomorphological investigations at archaeological site 7NC-B-54 (Ronald McDonald House) included examination of the soils present in the excavated profiles from Block 1 and Block 3. Although the surrounding area has been extensively disturbed by broad residential and commercial development, the site is located in a wooded area which has remained relatively undisturbed. The soil profiles viewed within the profiles of each of the two block excavations were essentially the same, with minor variations in the color, depth, and thickness of individual soil horizons (Figures 4 and 5; Appendix G). The west wall of Test Unit N515 E493 is the soil profile described from Block 1. This profile is comprised of an undisturbed, well drained, and strongly developed soil. The surface layer is thin and high in organic matter (an OA horizon). A thin, highly organic surface typically forms under a woodland context, as organics (mostly leaf litter) accumulate onto the ground surface and are not deeply incorporated into the soil. Deep surface horizons normally develop under a prairie context, from the annual growth and decay of deep grass roots.

An E horizon, a zone of eluviation, is encountered immediately below the surface in the Test Unit N515 E493 soil profile. An E horizon develops as weathering processes strip clay particles and sesquioxides (such as iron and aluminum) out of the upper subsoil. Leaching translocates these weathering products deeper into the subsoil, leaving the upper subsoil with a lighter color and silty texture. When a soil is plowed, the surface and the E horizon are normally mixed together into what is commonly called the plow zone. After plowing, the E horizon can no longer be viewed as a separate horizon from the surface, unless a very thick surface horizon (as develops in a grassland/prairie context) totally contains the plow's depth and separates the E horizon from the bottom of the plow blade. Subsequent surface erosion can cause the plow to dip more deeply into the soil, eventually reaching and obliterating the E horizon. However, because this area has most likely been wooded throughout the majority of the Holocene epoch, and the resulting surface has always been thin, the presence of this distinct E horizon indicates that this area has not been plowed.

Below the E horizon, a well developed argillic (Bt) horizon is found. The argillic horizon is a zone of illuviation, where the clay particles and sesquioxides leached from the upper subsoil adhere to soil particles and accumulate. This process gradually produces changes in the lower

SOIL PROFILE
1X1 METER UNIT
BLOCK 1, N515 E493
WEST WALL



OA — 7.5YR 2.5/2 very dark brown silt loam, with 30% organics

E — 10YR 5/4 yellowish brown silt loam

Bt — 7.5YR 5/6 strong brown silty clay loam

Btx — 7.5YR 5/4 brown silty clay loam, with 10% rock fragments and 7.5YR 4/3 brown and N 2/0 black mottles

C — 5YR 5/6 yellowish red very channery clay loam, with 50% rock fragments

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

SOIL PROFILE 1X1 METER UNIT
BLOCK 1, N515 E493, WEST WALL

FIGURE - 4

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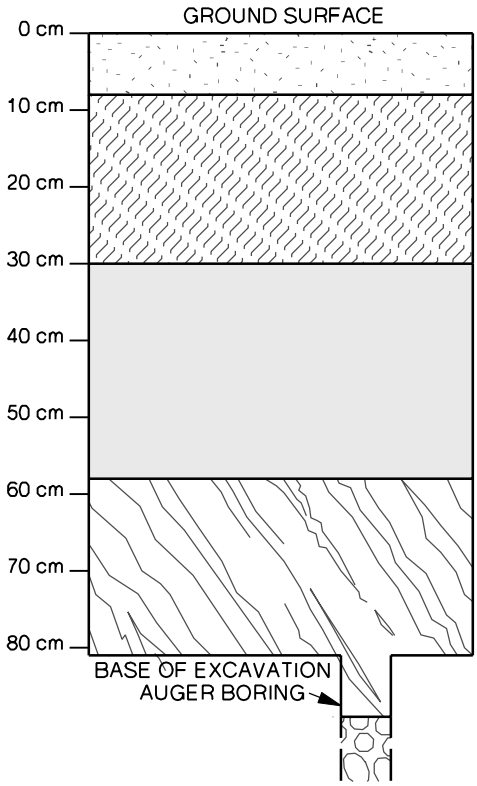
ENGINEERING - PLANNING

SOIL PROFILE
1X1 METER UNIT
BLOCK 3, N524 E438
SOUTH WALL



OA	7.5YR 2.5/2 very dark brown silt loam, with 30% organics
E	10YR 5/4 yellowish brown silt loam
Bt	7.5YR 5/6 strong brown silty clay loam
Btx	7.5YR 5/4 brown silty clay loam, with 3% coarse fragments and 7.5YR 4/3 brown and N 2/0 black mottles
CR	weathered diabase bedrock

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

SOIL PROFILE 1X1 METER UNIT
BLOCK 3, N524 E438, SOUTH WALL

FIGURE - 5

SKELLY AND LOY, INC.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING

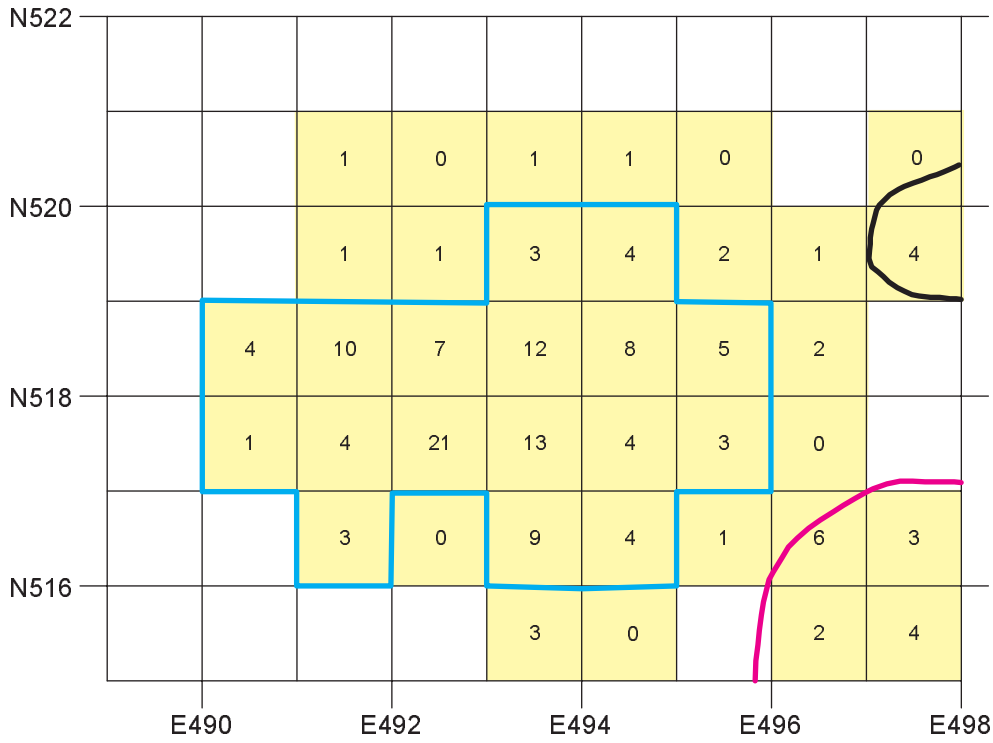
subsoil, such as reddening, a stronger soil structure, and an increase in clay content. This horizon occurs only in stable soil profiles which have been exposed *in situ* to weathering for a significant period of time. A combined fragipan/argillic horizon (Btx) is encountered immediately below the Bt horizon. Within this Btx horizon, leached silicates have accumulated and produced a very firm and brittle horizon. Less weathered residual material high in rock fragments (C horizon) is found underlying the Btx horizon, indicating that unweathered bedrock may be encountered not far below the described base of the C horizon.

The described soil profile within Block 3 was taken from the south wall of Test Unit N524 E438 (see Figure 5). This profile is almost identical to that present in Block 1, but with weathered diabase bedrock encountered at a shallow depth, below 89.0 cm (35.0 in).

Pre-contact period artifacts were recovered from the surface OA horizon and two levels (0-10.0 cm and 10.0-20.0 cm [0-3.9 in and 3.9-7.9 in]) within the E horizon. One deep test unit that was excavated in each block confirmed the cultural sterility of all levels below the E horizon. The geomorphological data are consistent in expecting no cultural deposits below the E horizon. The entire E horizon was in place at the time of site occupation, and bioturbation and frost-thaw cycling are responsible for the movement of the artifacts into the E horizon. There has been neither significant deposition (alluvial, colluvial, or aeolian), nor significant erosion since the time that the site was occupied/used in the Woodland I period.

5.3 Block 1 Results

A total of 148 lithic artifacts was recovered during the Phase III data recovery excavations in Block 1 (Figure 6; Table 2; Appendix B). The recovered artifacts include 27 biface thinning flakes, 19 cortex removal flakes, 32 cortex trimming flakes, 33 flake fragments, one indeterminate biface, nine indeterminate flakes, one piece of non-diagnostic shatter, one potlid, seven projectile points, three Stage 2 bifaces, two Stage 3 bifaces, two Stage 4 bifaces, three uniface endscrapers, two uniface indeterminate, one uniface resharpening flake, and five uniface retouched flakes (Figures 7, 8, 9, 10, 11, 12, and 13). Overall, the Block 1 artifact counts per excavated test unit ranged from 0 to 21.



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, ARTIFACT DISTRIBUTION

FIGURE - 6

SKELLY and LOY Inc.
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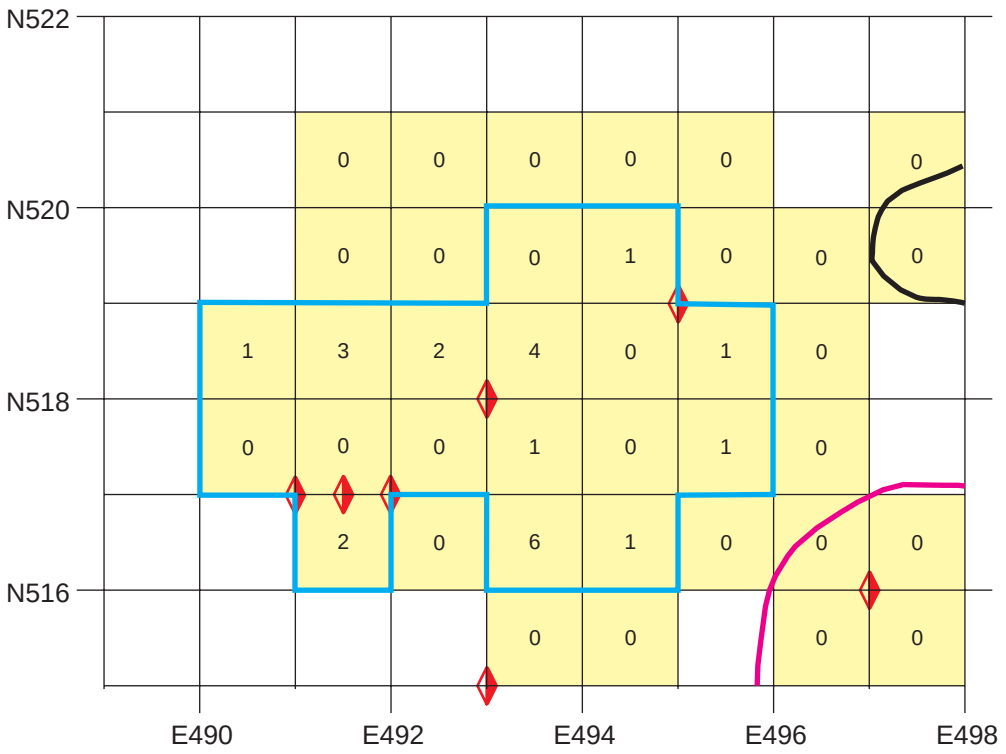
ENGINEERING - PLANNING



LEGEND:

- BIFACE
- CLUSTER 1
- CLUSTER 2
- CLUSTER 3
- BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, BIFACE AND BIFACE REDUCTION FLAKE DISTRIBUTION

FIGURE - 7

SKELLY and LOY Inc.
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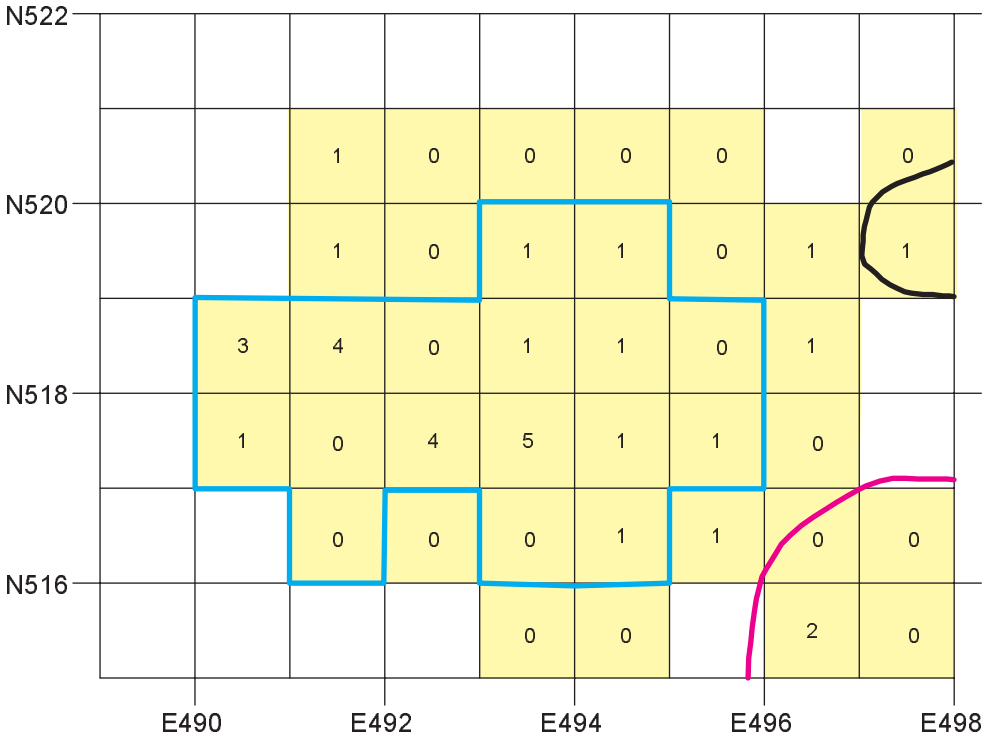
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, CORE REDUCTION FLAKE DISTRIBUTION

FIGURE - 8

SKELLY and LOY Inc.
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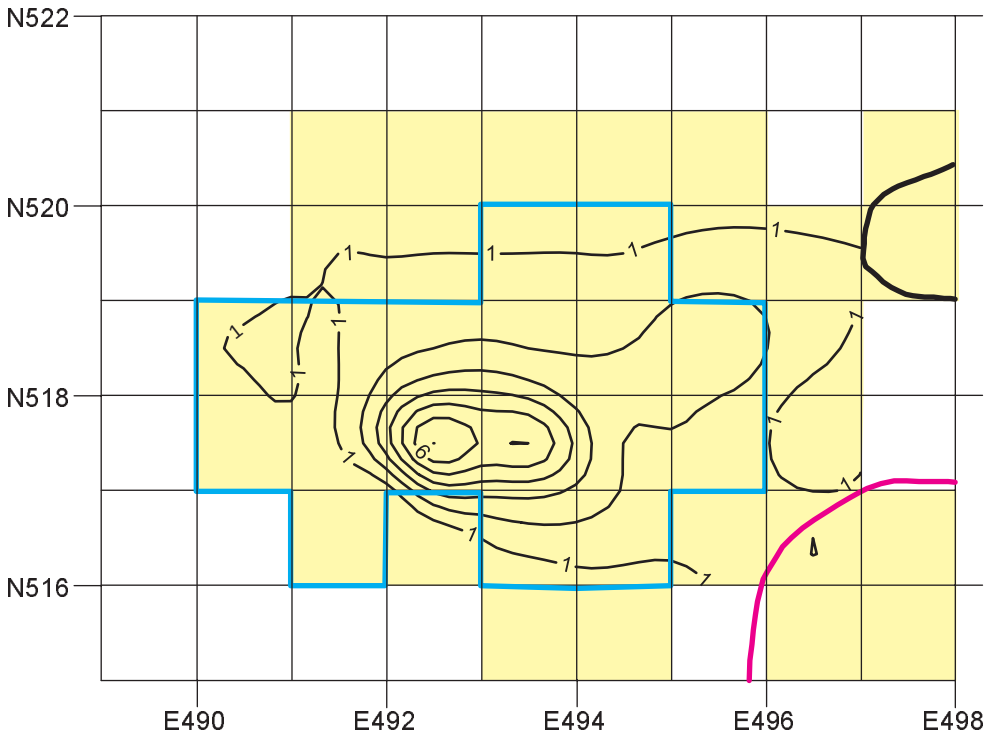
ENGINEERING - PLANNING



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, PRIMARY FLAKE DISTRIBUTION

FIGURE - 9

SKELLY and LOY Inc.
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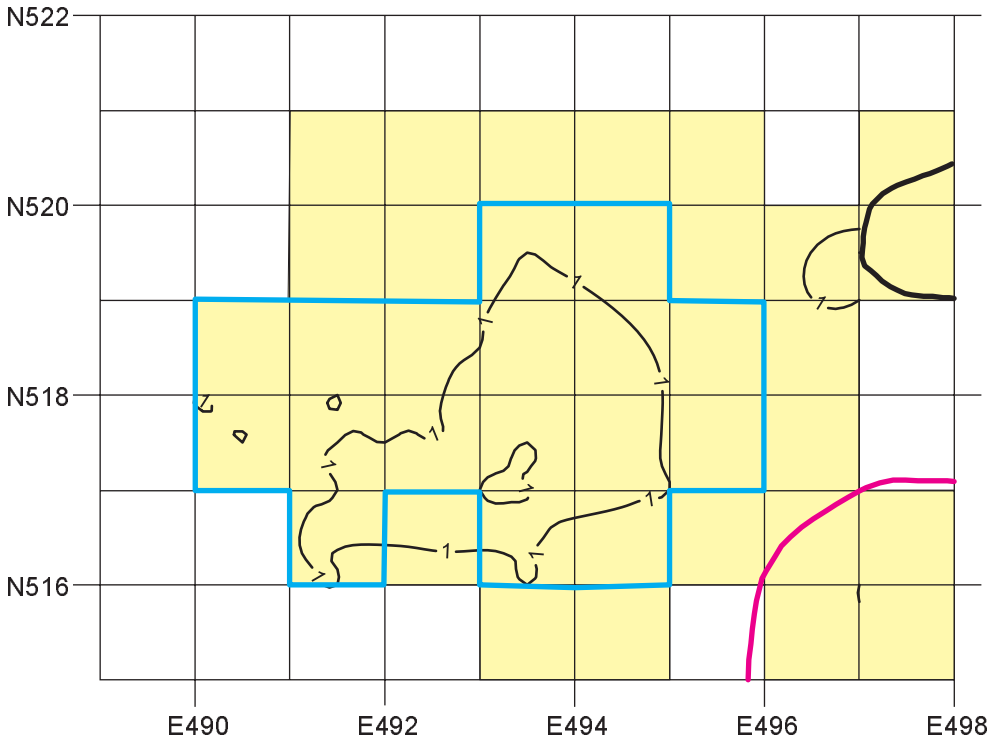
ENGINEERING - PLANNING



LEGEND:

- CLUSTER 1
- CLUSTER 2
- CLUSTER 3
- BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, MICRODEBITAGE DISTRIBUTION

FIGURE - 10

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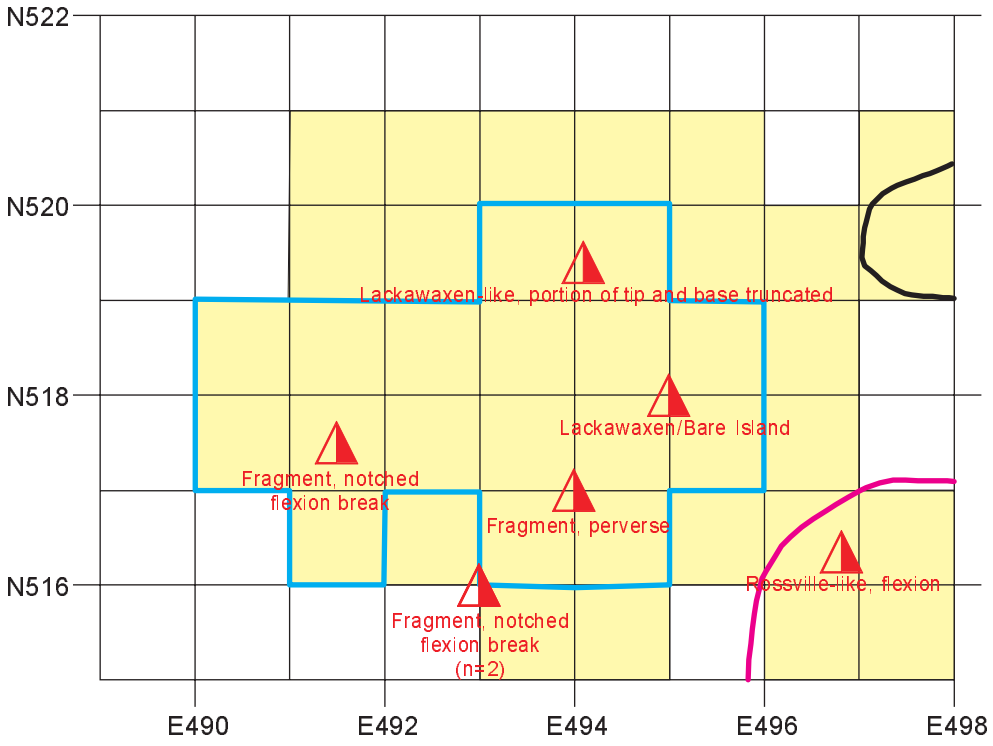
ENGINEERING - PLANNING



LEGEND:

- PROJECTILE POINT
- CLUSTER 1
- CLUSTER 2
- CLUSTER 3
- BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, FORMAL TOOL DISTRIBUTION

FIGURE - 11

SKELLY and LOY Inc.
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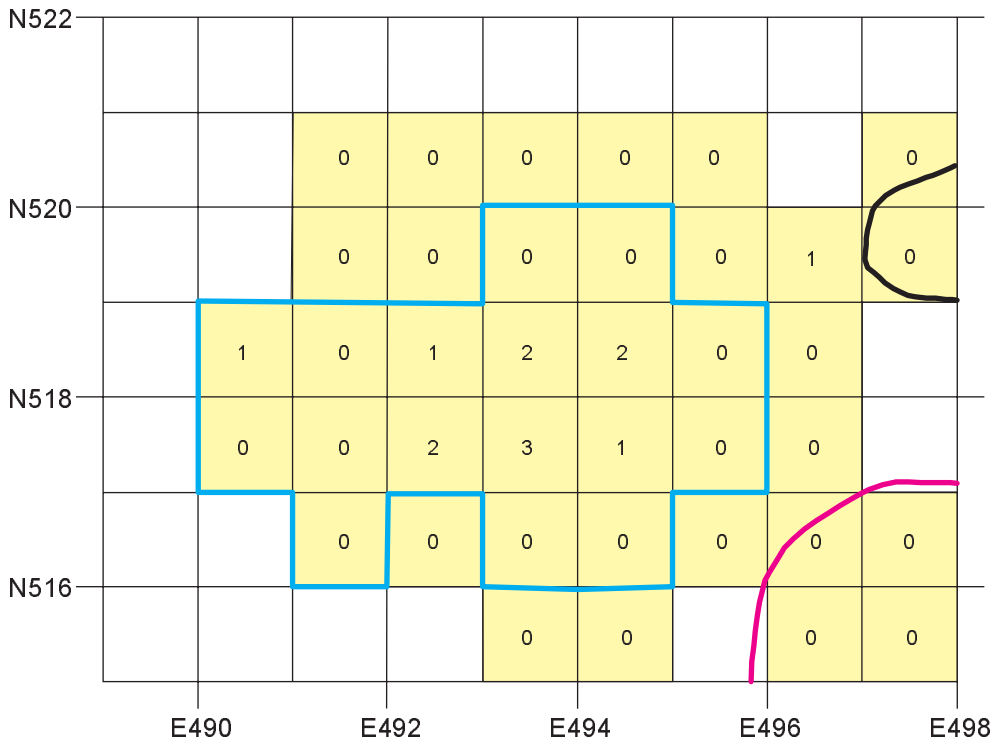
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, INFORMAL TOOL DISTRIBUTION

FIGURE - 12

SKELLY and LOY Inc.
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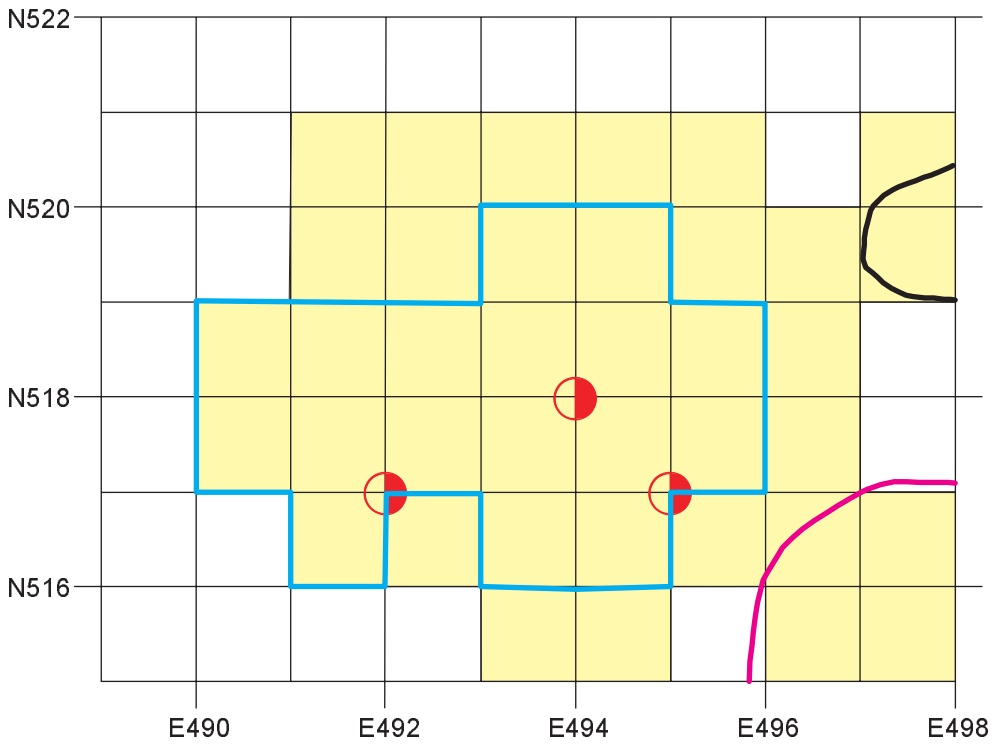
ENGINEERING - PLANNING



LEGEND:

SCRAPER

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, SCRAPER DISTRIBUTION

FIGURE - 13

SKELLY and LOY Inc.
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ENGINEERING - PLANNING

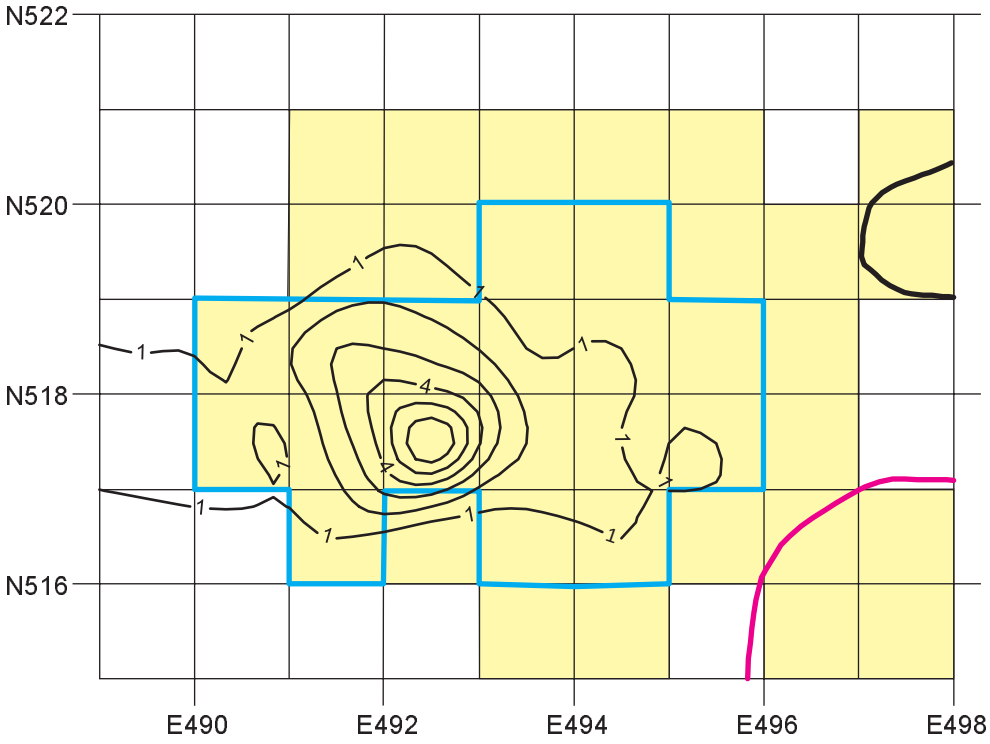
Table 2.
Percentage of Lithic Technotypes by Block, Cluster, and Full Site Assemblage

Lithic Technotype	Block 1	Block 3			Site
	Cluster 1 Activity Area	Cluster 4 Activity Area	Cluster 5 Activity Area	Cluster 6 Activity Area	Full Site Assemblage*
Biface Thinning Flake, Initial Edging		1.01%		1.05%	0.92%
Biface Thinning Flake, Late/Pressure	10.43%	7.07%	5.77%	5.23%	5.80%
Biface Thinning Flake, Notching		1.01%			0.08%
Biface Thinning Flake, Standard	9.57%	28.28%	17.31%	22.21%	20.46%
Core Trimming Flake, Bipolar	0.87%		0.96%	0.12%	0.31%
Core Trimming Flake, Standard	20.00%	7.07%	12.50%	6.05%	8.32%
Cortex Removal Flake	13.04%	15.15%	14.42%	19.53%	17.63%
Flake Fragment	22.61%	28.28%	41.35%	36.15%	34.35%
Multidirectional Core					0.08%
Non-diagnostic Shatter				0.58%	0.46%
Potlid	0.87%			0.12%	0.15%
Projectile Point	5.22%	3.03%	0.96%	0.12%	1.07%
Stage 2 Biface	1.74%	2.02%	0.96%	0.23%	0.69%
Stage 3 Biface	0.87%	2.02%			0.38%
Stage 4 Biface	0.87%		0.96%	0.12%	0.31%
Uniface Endscraper	2.61%				0.31%
Uniface Resharpening Flake	0.87%				0.15%
Uniface Retouched Flake	4.35%				0.08%
Uniface Indeterminate	1.74%				0.38%
Indeterminate Biface	0.87%			0.23%	0.46%
Indeterminate Flake	3.48%	5.05%	4.81%	8.26%	7.63%

*Includes all excavated artifacts from Site 7NC-B-54 (Ronald McDonald House), including those not assigned to any of the four studied cluster activity areas.

Lithic raw materials represented in the Block 1 assemblage include 4.7 percent creamy yellow chert, 0.6 percent dark gray chert, 6.8 percent mottled gray chert, 1.4 percent uniform gray chert, 31.1 percent jasper, 38.5 percent quartz, 12.2 percent quartzite, and 4.7 percent indeterminate lithic raw materials (Figures 14, 15, 16, and 17). Fifty-two lithic artifacts exhibit some type of intentional or unintentional exposure to heat, while 17 specimens appear to be utilized.

The artifact distributions in Block 1 suggest one major artifact cluster (Cluster 1 Activity Area) and parts of two smaller artifact clusters (Cluster 2 Activity Area and Cluster 3 Activity



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, CHERT DISTRIBUTION

FIGURE - 14

SKELLY and LOY Inc.
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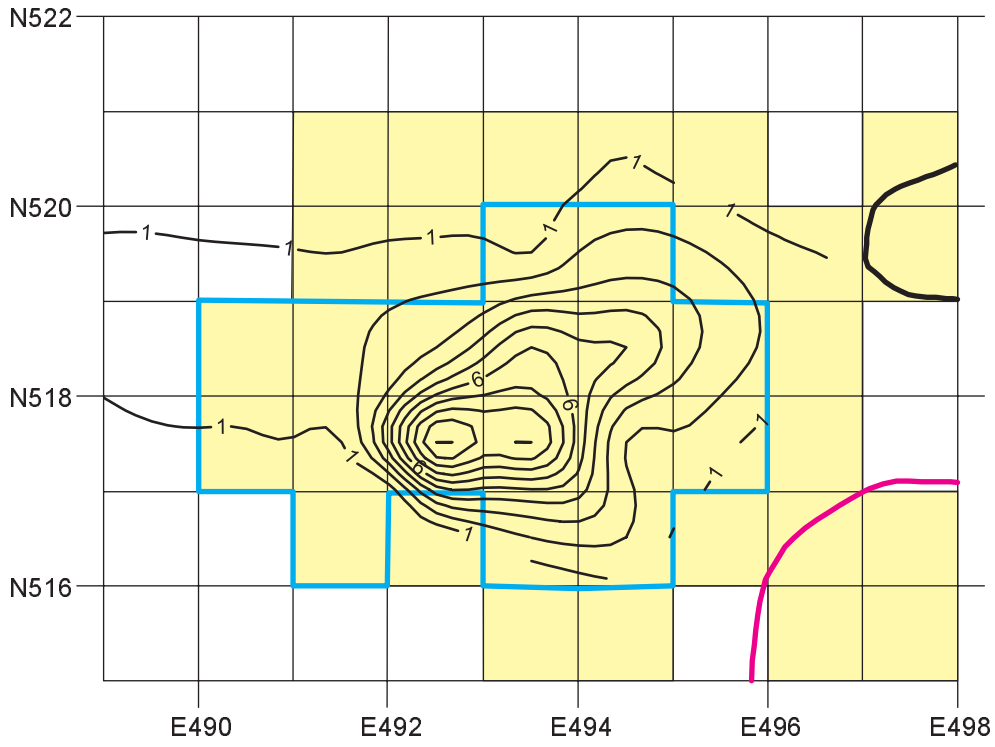
ENGINEERING - PLANNING



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, JASPER DISTRIBUTION

FIGURE - 15

SKELLY and LOY Inc.
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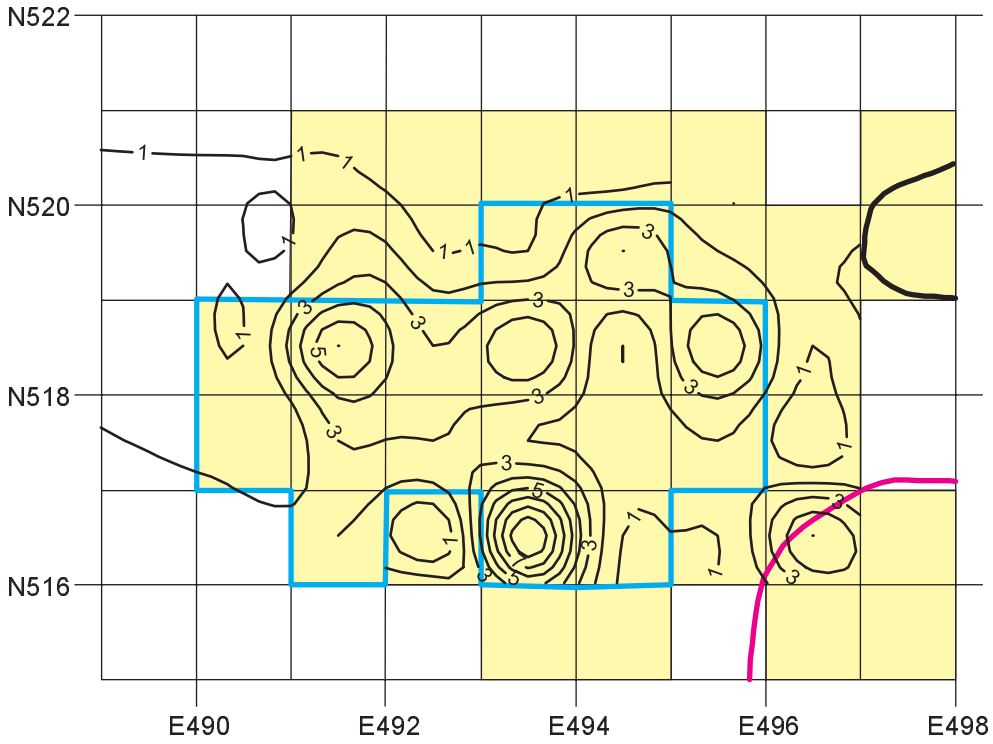
ENGINEERING - PLANNING



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, QUARTZ DISTRIBUTION

FIGURE - 16

SKELLY and LOY Inc.
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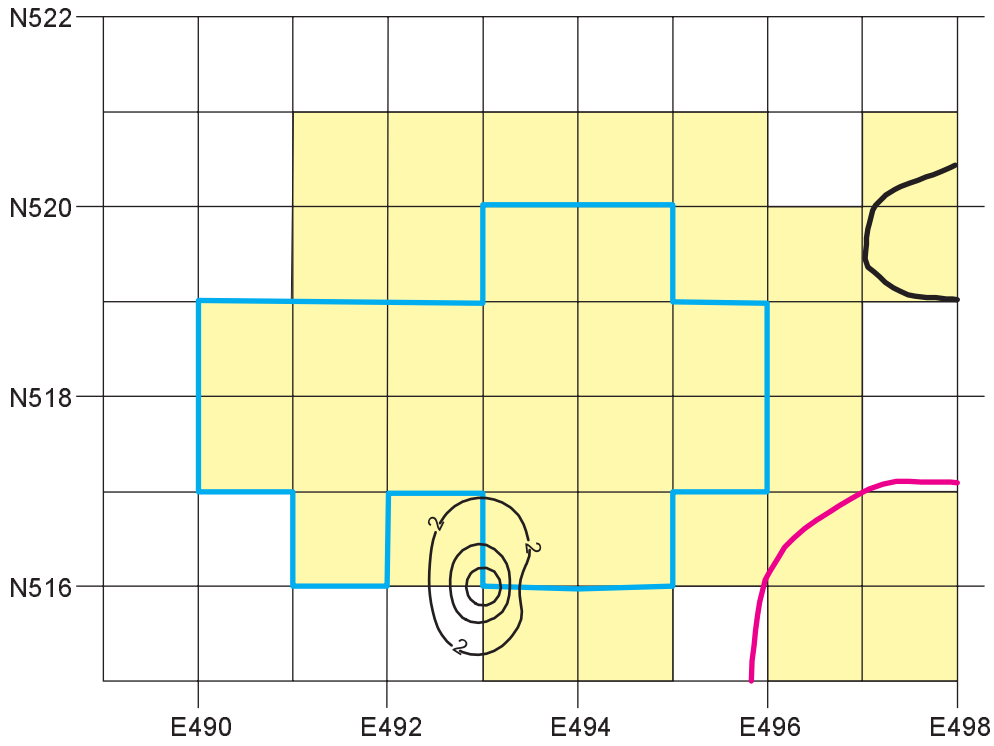
ENGINEERING - PLANNING



LEGEND:

CLUSTER 1

CLUSTER 2

CLUSTER 3

BLOCK 1

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 1, QUARTZITE DISTRIBUTION

FIGURE - 17

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ENVIRONMENT - ENERGY
ENGINEERING - PLANNING

Area). The Cluster 1 Activity Area yielded 115 artifacts, while the excavated portion of the Cluster 2 Activity Area yielded four artifacts, and the excavated portion of the Cluster 3 Activity Area yielded 15 artifacts. The remaining 14 artifacts (9.5% of Block 1 artifacts) were from proveniences that fell outside of the three well-defined artifact clusters.

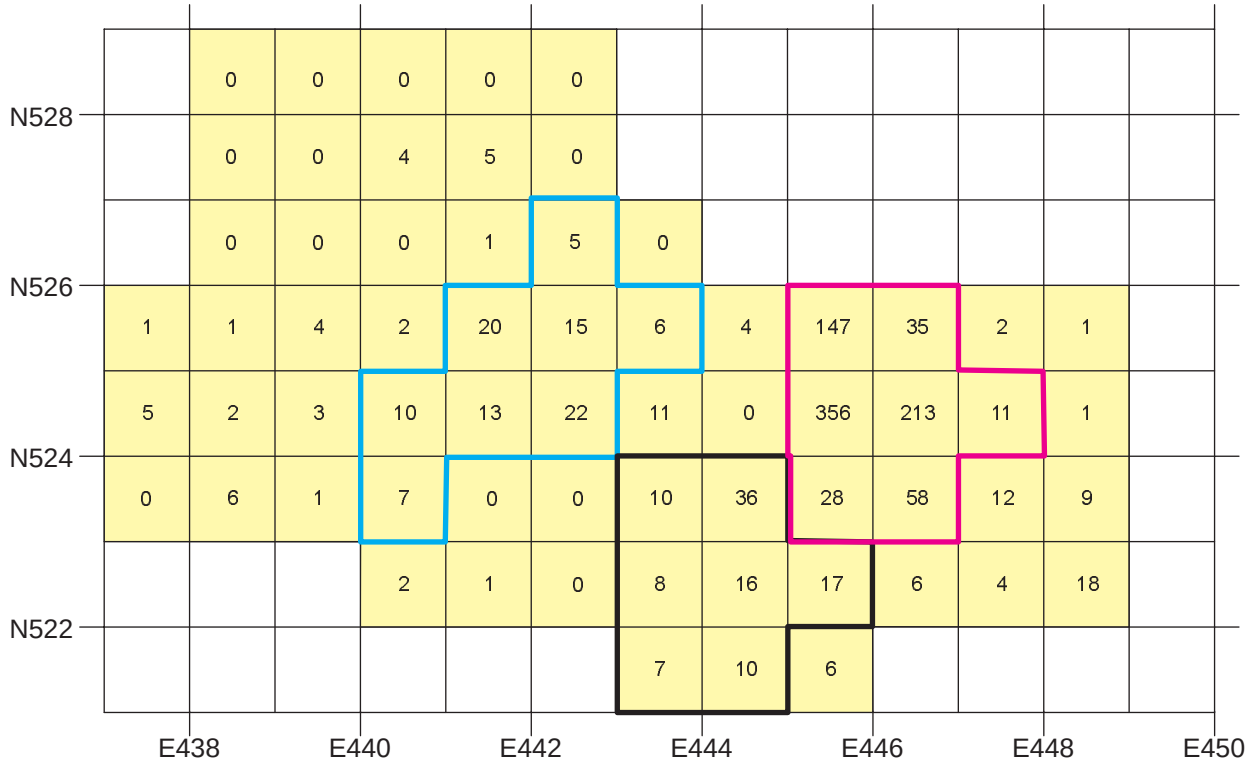
The two partial clusters discovered in Block 1 (Cluster 2 Activity Area centered at N519 E498, and Cluster 3 Activity Area centered at N515 E498) are of undetermined size, but clearly differ from Cluster 1 in the nature of their associated artifacts. The Cluster 2 Activity Area and the Cluster 3 Activity Area both had low artifact densities, yielding only four artifacts per test unit and two to six artifacts per test unit, respectively. Neither the Cluster 2 Activity Area nor the Cluster 3 Activity Area had the tool diversity and high tool-to-debitage ratio seen in the Cluster 1 Activity Area. The Cluster 2 Activity Area and the Cluster 3 Activity Area yielded primarily quartz artifacts. Neither the Cluster 2 Activity Area nor the Cluster 3 Activity Area was further analyzed as part of the Site 7NC-B-54 (Ronald McDonald House) Phase III data recovery.

No cultural features were identified, and no floral or faunal remains or materials suitable for radiometric assay were recovered during the Phase III data recovery excavations of Block 1 at archaeological site 7NC-B-54 (Ronald McDonald House).

5.4 Block 3 Results

A total of 1,162 lithic artifacts was recovered during the Phase III data recovery excavations in Block 3 (Figure 18; see Table 2; Appendix B). The recovered artifacts include 330 biface thinning flakes, 212 cortex removal flakes, 81 cortex trimming flakes, 417 flake fragments, five indeterminate bifaces, 91 indeterminate flakes, one multidirectional core, five pieces of non-diagnostic shatter, one potlid, seven projectile points, six Stage 2 bifaces, three Stage 3 bifaces, two Stage 4 bifaces, and one uniface endscraper (Figures 19, 20, 21, 22, 23, 24, and 25). Overall, the Block 3 artifact counts per excavated test unit ranged from 0 to 212, with clearly over one-half of the artifacts recovered from the block being recovered from three test units.

Lithic raw materials represented in the Block 3 assemblage include 0.1 percent creamy yellow chert, 1.2 percent dark gray chert, 0.3 percent mottled gray chert, less than 0.1 percent uniform gray chert, 0.1 percent chalcedony, 0.3 percent jasper, 92.2 percent quartz, 5.5 percent quartzite, and 0.1 percent rhyolite (Figures 26, 27, 28, and 29). Only five lithic artifacts recovered from Block 3 exhibit some type of intentional or unintentional exposure to heat, while nine specimens appear to be utilized.



LEGEND:

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, ARTIFACT DISTRIBUTION

FIGURE - 18

SKELLY and LOY Inc.
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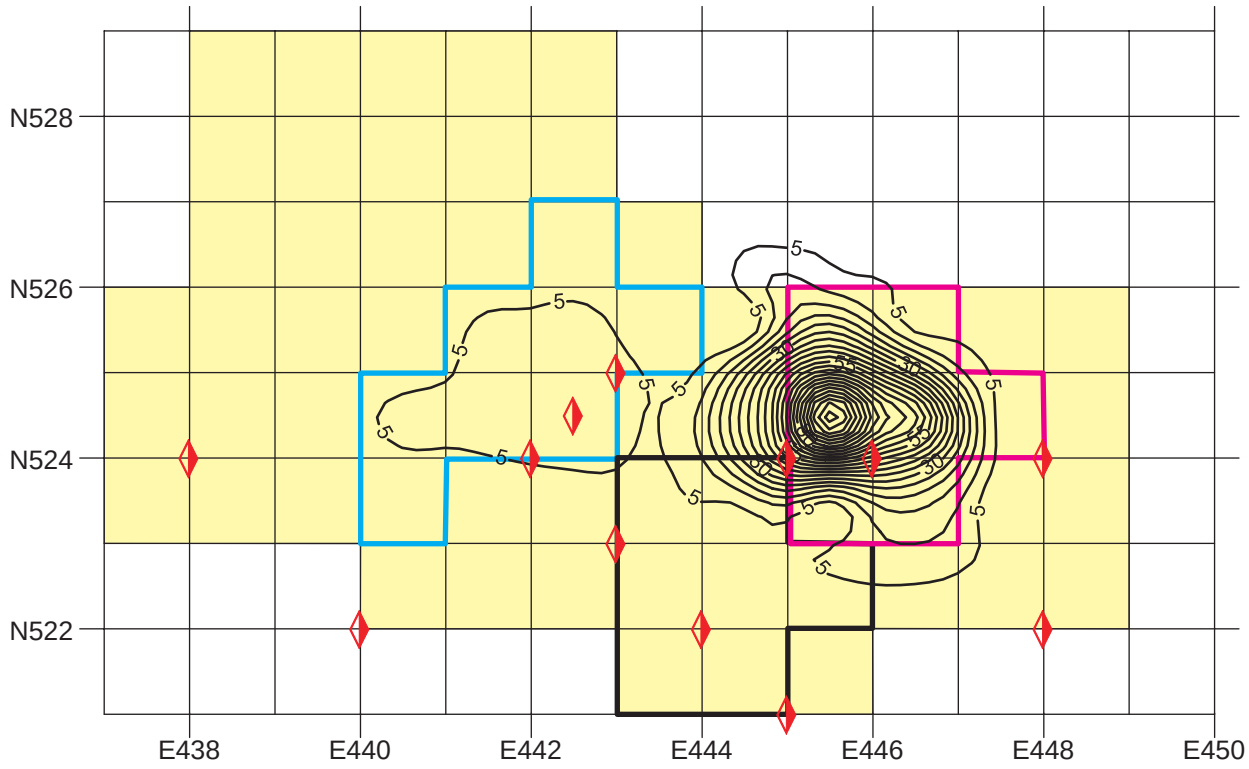
ENGINEERING - PLANNING



LEGEND:

- BIFACE
- CLUSTER 4
- CLUSTER 5
- CLUSTER 6
- BLOCK 3

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, BIFACE AND BIFACE REDUCTION FLAKE DISTRIBUTION

FIGURE - 19

SKELLY and LOY Inc.
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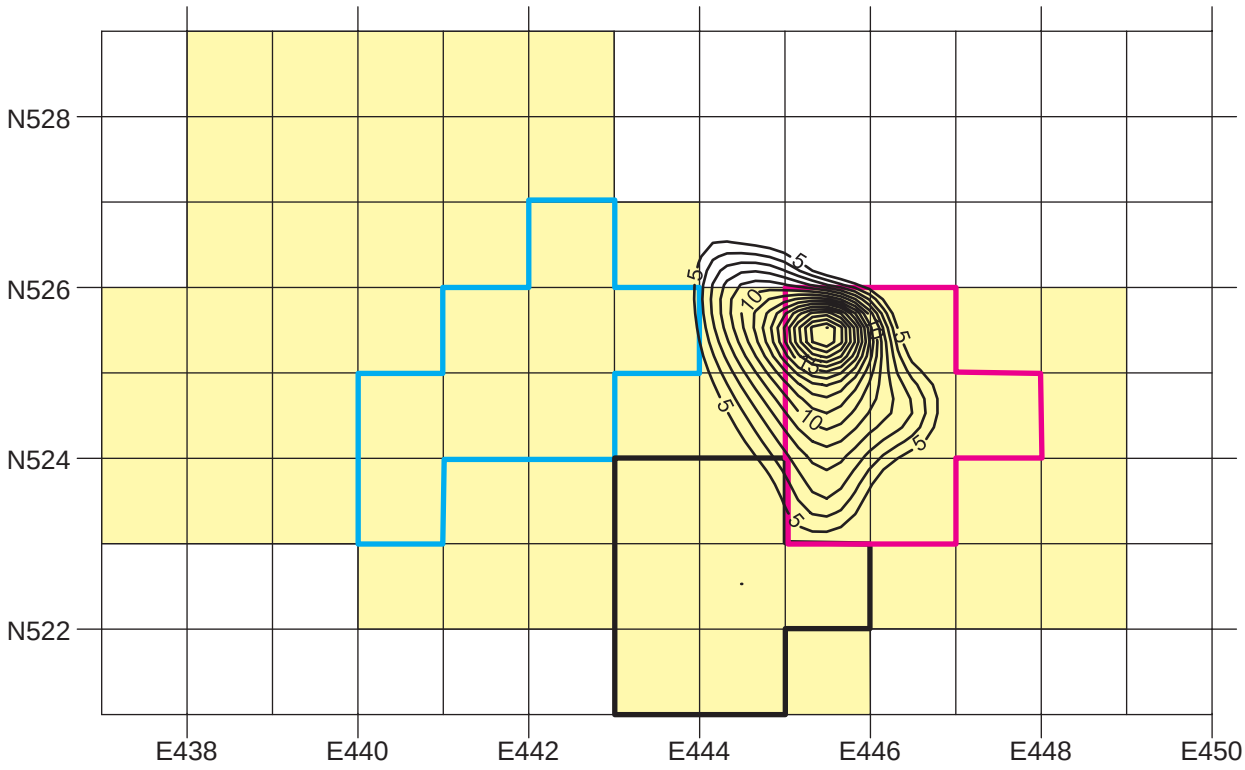
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

- CLUSTER 4
- CLUSTER 5
- CLUSTER 6
- BLOCK 3

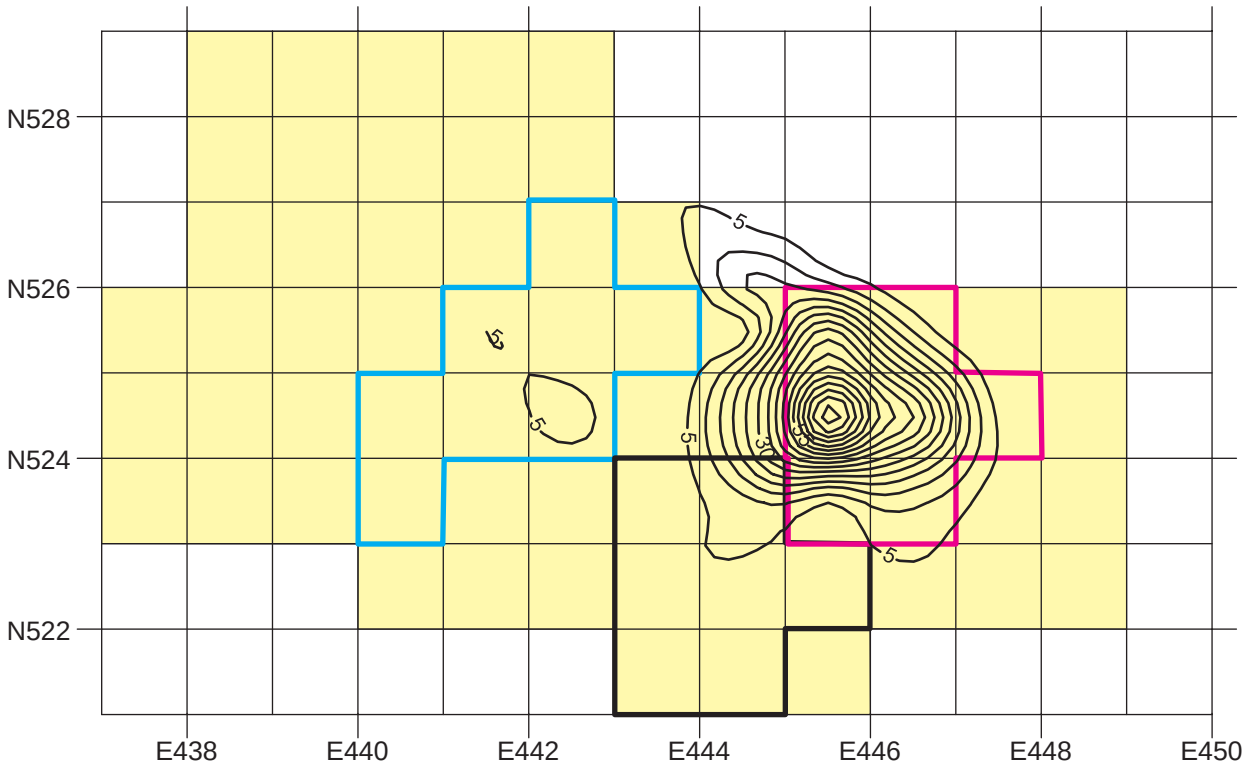
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, CORE REDUCTION FLAKE DISTRIBUTION

FIGURE - 20

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

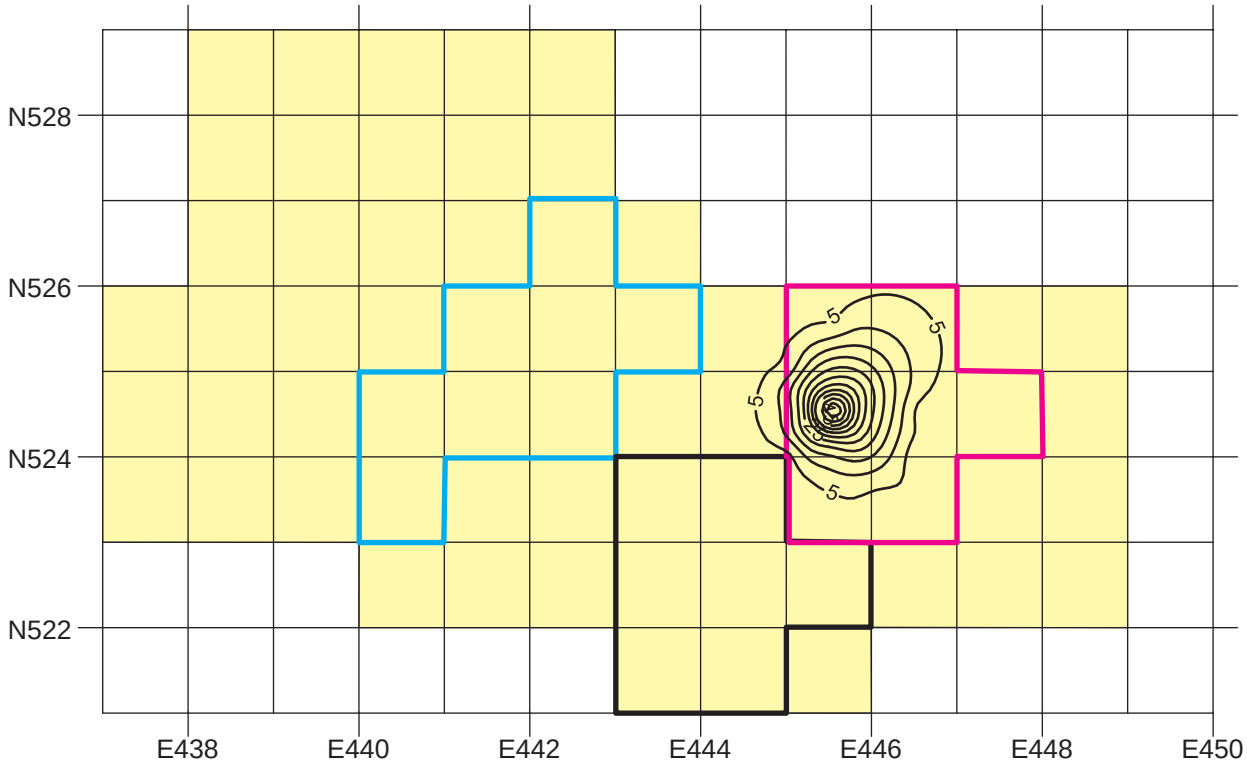
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, PRIMARY FLAKE DISTRIBUTION

FIGURE - 21

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

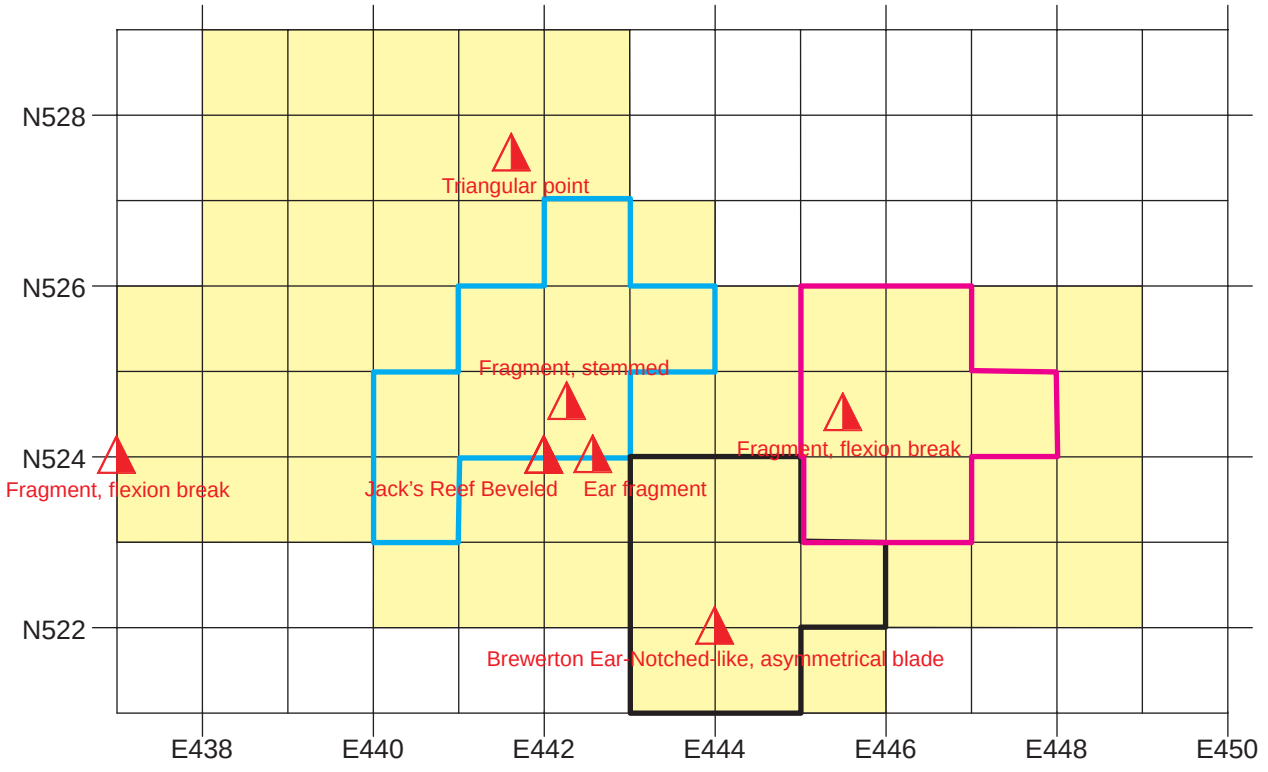
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, MICRODEBITAGE DISTRIBUTION

FIGURE - 22

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

- PROJECTILE POINT
- CLUSTER 1
- CLUSTER 2
- CLUSTER 3
- BLOCK 1

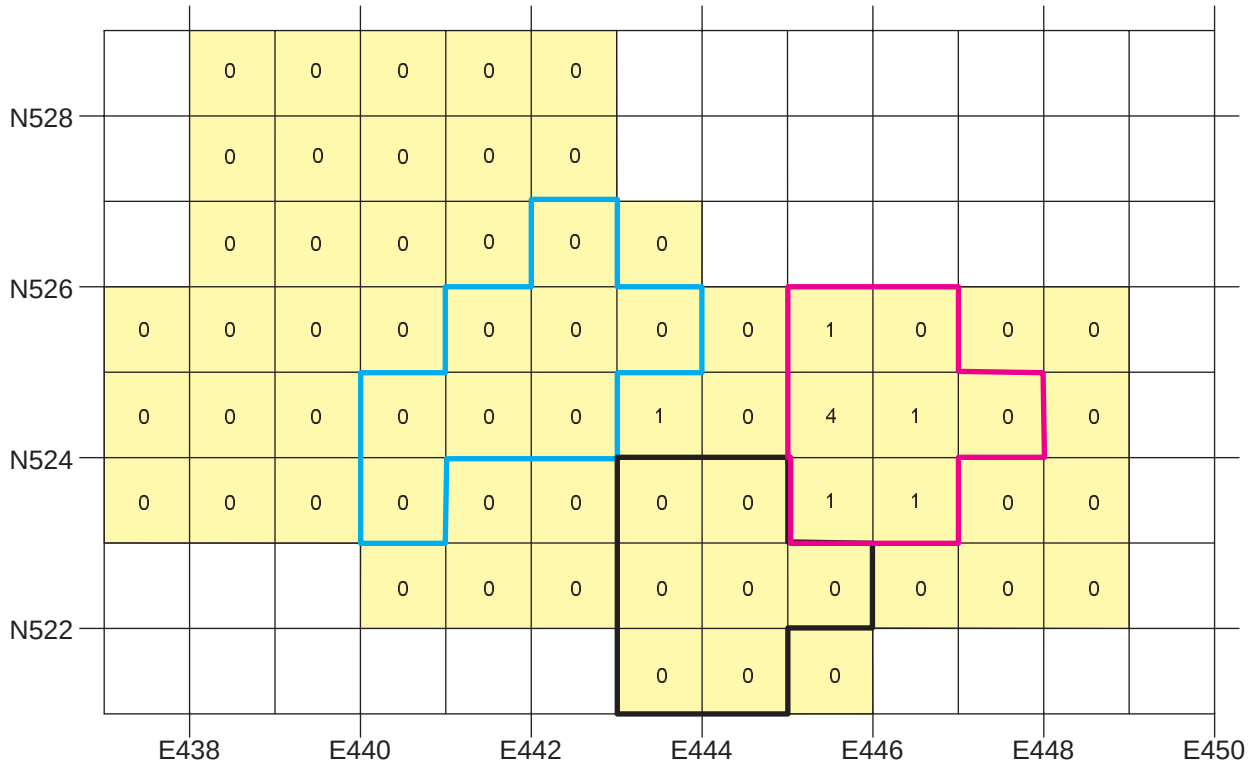
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, FORMAL TOOL DISTRIBUTION

FIGURE - 23

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

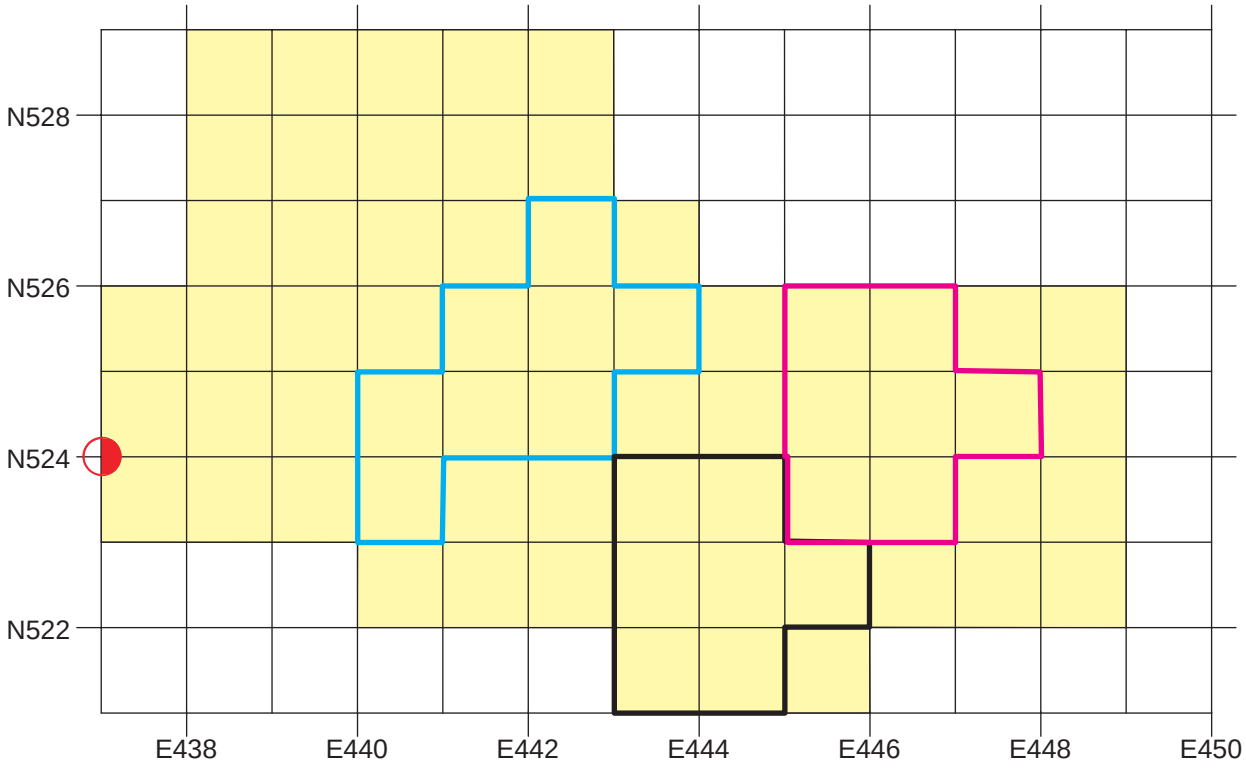
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, INFORMAL TOOL DISTRIBUTION

FIGURE - 24

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

SCRAPER

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

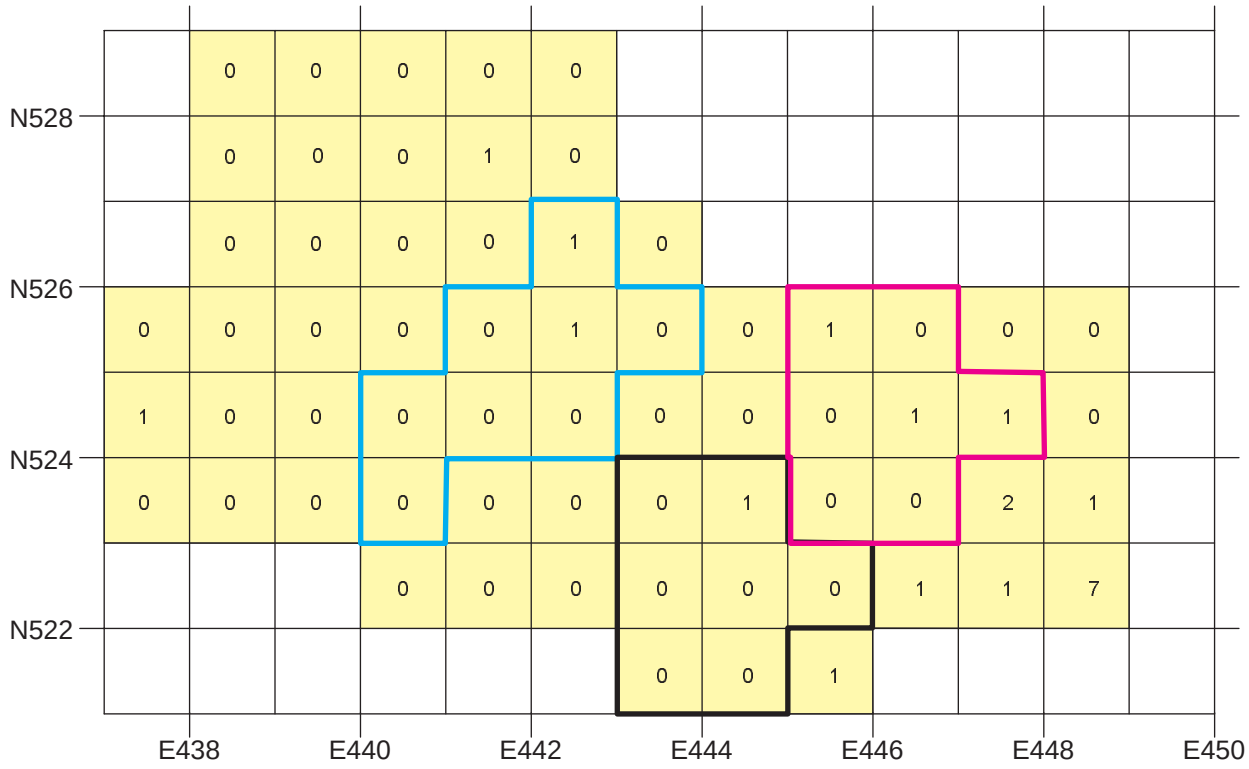
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, SCRAPER DISTRIBUTION

FIGURE - 25

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

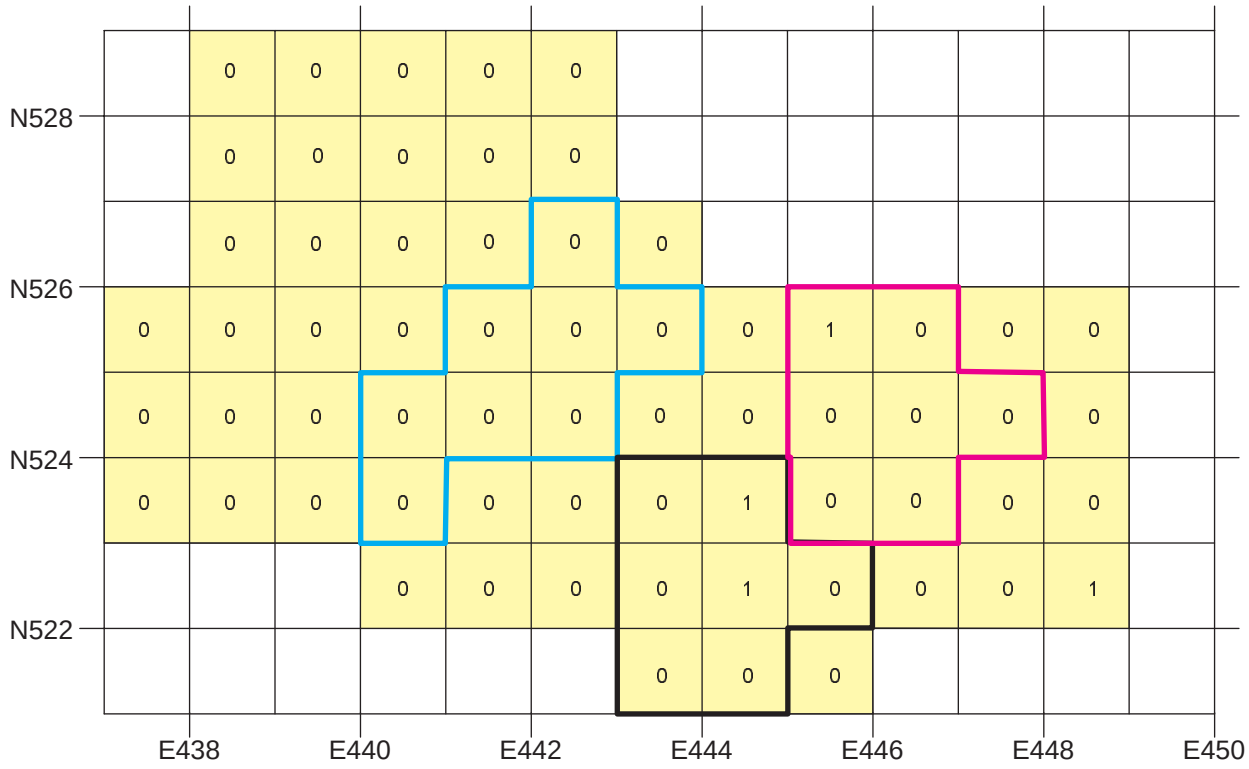
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, CHERT DISTRIBUTION

FIGURE - 26

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

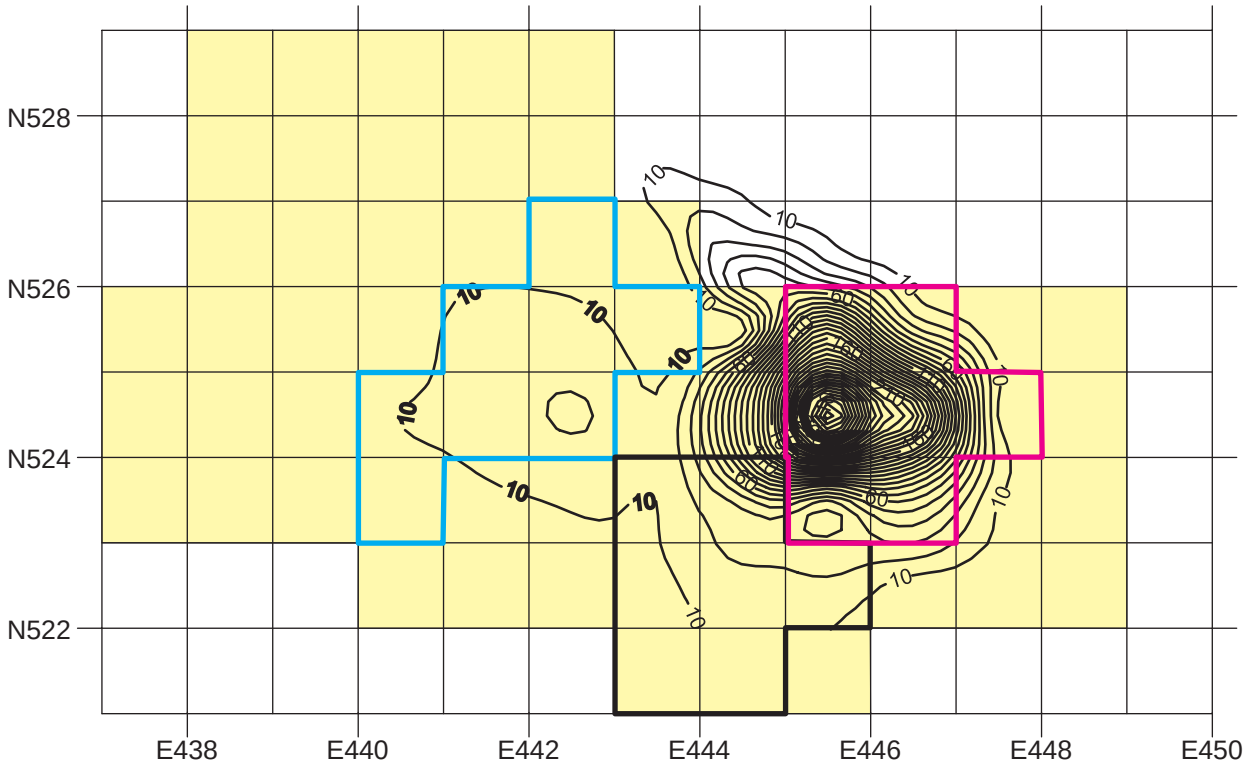
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, JASPER DISTRIBUTION

FIGURE - 27

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

- CLUSTER 4
- CLUSTER 5
- CLUSTER 6
- BLOCK 3

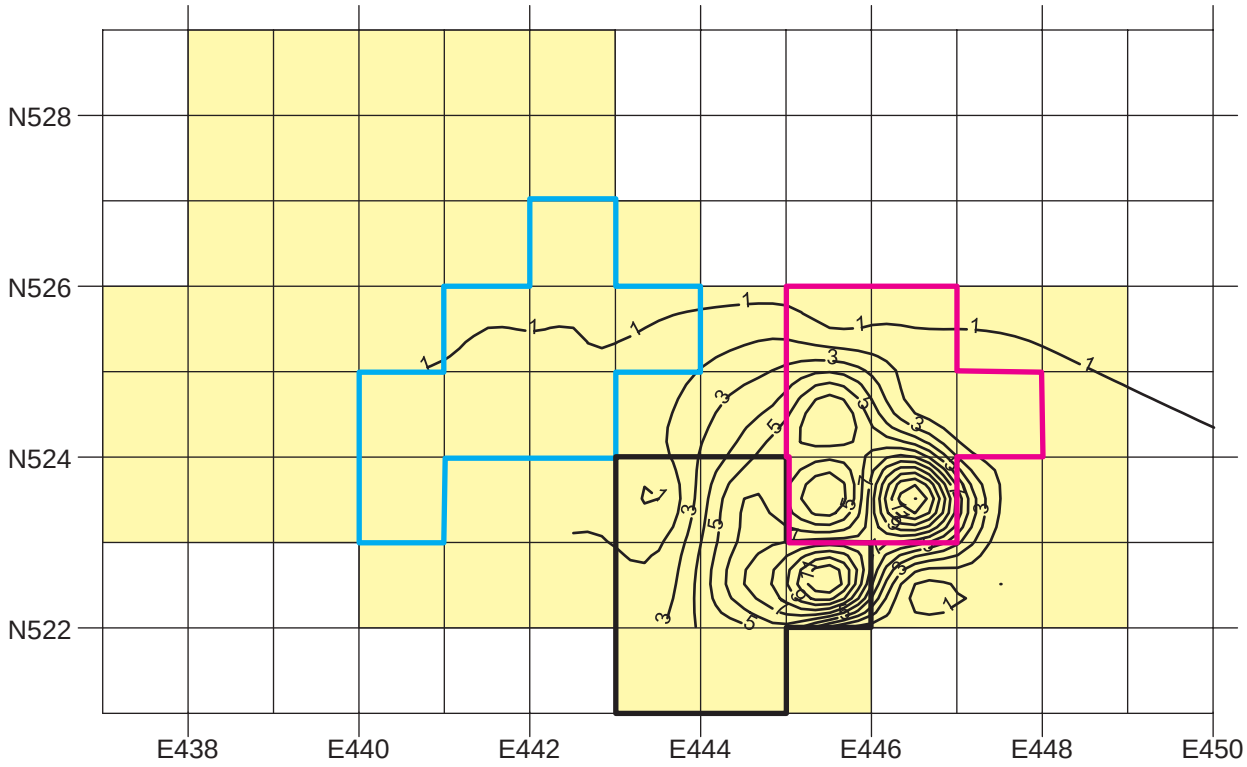
DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, QUARTZ DISTRIBUTION

FIGURE - 28

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING



LEGEND:

CLUSTER 4

CLUSTER 5

CLUSTER 6

BLOCK 3

DELAWARE DEPARTMENT OF TRANSPORTATION

BLUE BALL AREA TRANSPORTATION IMPROVEMENTS
PHASE III
SITE 7NC-B-54 (RONALD MCDONALD HOUSE)
BRANDYWINE HUNDRED NEW CASTLE COUNTY

BLOCK 3, QUARTZITE DISTRIBUTION

FIGURE - 29

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING

The artifact distributions in Block 3 suggest three artifact clusters (Cluster 4 Activity Area, Cluster 5 Activity Area, and Cluster 6 Activity Area). The Cluster 4 Activity Area contained 99 artifacts, the Cluster 5 Activity Area contained 104 artifacts, and the Cluster 6 Activity Area contained 860 artifacts. The remaining 99 artifacts (8.5% of Block 3 artifacts) were from proveniences that fell outside of the three well-defined artifact clusters.

No cultural features were identified, and no floral or faunal remains or materials suitable for radiometric assay were recovered during the Phase III data recovery excavations of Block 3 at archaeological site 7NC-B-54 (Ronald McDonald House).

5.5 Reconsideration of Phase II Artifact Clusters

Artifact density peaks and unique distribution patterns suggestive of behavioral clusters were noted for Site 7NC-B-54 (Ronald McDonald House) in the Phase II testing data. The Phase III data recovery results, however, suggest that many of the artifact peaks identified during the Phase II testing may actually be palimpsests (i.e., several overlapping activity areas) of multiple activity areas, rather than true peaks indicative of a particular and isolated activity. The Phase III results have demonstrated that the coarseness of the Phase II excavation grid, in concert with the limited areal excavation exposure, make it unlikely that culturally relevant artifact clusters can be defined by the Phase II testing data. The combination of Phase II testing material recovered from STPs spaced at 5.0 m (16.4 m) intervals and more widely spaced test units cannot be supported. Although the nature of suspected clusters delineated during the Phase II testing lead to the resulting data recovery, the intrinsic nature of the testing data gives it a much lower level of reliability, and as such, is not considered in depth for this research.