

GIS Spatial Analysis of FxJj20 AB, Koobi Fora, Kenya, with Implications on Modern Behavior and Fire Control

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ABSTRACT OF THE THESIS

GIS Spatial Analysis of FxJj20 AB, Koobi Fora, Kenya, with Implications on Modern Behavior and Fire Control

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Spatial analysis studies can shed light on questions of behavior. Using ethnoarchaeological examples of the patterns that behaviors leave behind can provide insight into the behaviors of the remote past. An example of this is the use of 'toss and drop' zones by the researchers at Gesher Benot Ya'akov, in Israel. This work demonstrated that hearth activities were distinguishable through the behavioral signatures of the hominins living in the area, namely that smaller materials are found closer to hearth areas, whereas larger materials are removed from the locus of activity, and these areas can be distinguished on sites through the use of size classification and spatial location.

The current study applies this logic to the site of FxJj20 AB, in Koobi Fora, Kenya. The site in question is minimally disturbed by water or wind acting directly on the materials within the site, and preserves the location of many pieces of lithic material. The lithics found on the site were classified as either micro-artifacts or macro-artifacts, depending on their size, and then the entire site was analyzed to determine if and where clusters of materials form. The clusters were analyzed for size, and a profile was created of where larger and smaller materials are found on the site.

The site is known for the presence of discolored, reddened clasts of earth. On neighboring sites, these reddened clasts are found in large consolidated patches, but at FxJj20 AB, these clasts are found scattered throughout the excavation. The location of these clasts is also analyzed as part of the research to determine if they can be used as an indicator of potential hearth sites.

The lithic material is found to cluster with smaller materials being found primarily in northeastern corner of the excavated area. Larger materials are found in the western and southwestern portions of the site. The southeastern portion of the site remains largely unexcavated. The discolored earth clusters in the northeastern portion of the site, between the two large clusters of micro-artifacts identified there. This configuration suggests a possible hearth area and suggests that the pattern of ‘toss and drop’ zones is found in the remote past.

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I. Introduction

The advent of many modern human behaviors has been a source of contention in anthropological discussions for years. The use of fire as a cultural tool is among the most contentious behaviors, as it is not prone to preservation in the record, and many geologic and chemical processes can mimic the signal left by fire. Examining early sites for evidence of fire has proven difficult because of lithic raw material type, the ephemeral nature of fire, and the fragility of materials once they have been treated by fire. Volcanic materials are among the most common raw materials for flintknapping and these do not reflect changes due to heat very readily, if at all. Because fire is a transient actor on the landscape, it is sometimes difficult to detect the traces. Fired sediment may be carried away from the site by wind or water. Materials like wood that have been treated by fire are even more fragile than unfired pieces of the same material, and are even less likely to preserve over long spans of time.

The search for early fire must then be undertaken through indirect means. This requires the indirect identification of fire's presence on a site through the lithic artifacts, bone material, or the spatial configuration of the site. Hanson and Cain (2007) have identified burned bone using the histological changes that occur as a result of burning. The researchers at Gesher Benot Ya'akov (GBY) have shown that the presence of burned flint micro-artifacts can establish the location of former hearth areas, because they sort spatially from larger materials (Alperson-Afil, 2008; Alperson-Afil et al., 2009; Alperson-Afil and Goren-Inbar, 2010). This research has increased the evidentiary means of identification of burned material, and pushed the advent of fire to 0.7 million

years ago (Alperson-Afil and Goren-Inbar, 2010). This work has also established a good reason to look at small debitage on the site.

The Usefulness of Fire

As a cultural tool, fire would have provided many advantages to prehistoric man. Firstly, fire can be used to provide light, warmth, and safety after sunset. This very basic service is easily overlooked or under-appreciated, but would have provided a range of benefit to the hominins that initially controlled the element of fire. Though evidence for the manipulation of fire to construct or improve tools is not seen until much later in the record, fire can be used to make or maintain tools (Purdy and Brooks, 1971; Mandeville, 1973; Thieme, 2000; Brown et al., 2009), allowing for the production of lighter more effective tools (Thieme, 2000) or to improve the quality of poor materials (Purdy and Brooks, 1971; Mandeville, 1973; Brown et al., 2009). Perhaps more applicable to the early adoption of fire, it can also be used to improve diet, by expanding the number of foods exploited and increase the nutritive value of foods (Wrangham et al., 1999; Boback et al., 2007; Marshall and Wrangham, 2007; Carmody and Wrangham, 2009; Wrangham, 2009; Wrangham and Carmody, 2010; Carmody et al., 2011).

Fire would have effectively extended the amount of time available to work in a day, allowing the daylight hours to be used for hunting or gathering activities and the evening and nighttime hours to be used for tool production and maintenance (Clark and Harris, 1985). With an increase in the amount of usable time after the sun set, hominins would have been able to pass information between generations or convey useful information to the group such as the presence of fruiting trees, scavengable meat, or predator dens. The

information being passed along has implications for the development of rudimentary language capabilities.

Fire would have effectively extended the range of the individuals using it by allowing further expansion into more open areas or highland areas. Fire can be used as a protection against predators because many animals, specifically big cats and hyenas, fear it and will not venture into an area maintained by fire (Clark and Harris, 1985). Using fire in this manner would have enabled hominins to travel over larger distances, perhaps following migrating animals or the fruiting patterns of trees.

Fire can also be used to improve tools. Using fire to harden points of wooden throwing spears allows the spears to be balanced while still providing the hard and sharp tip needed to penetrate animal hide (Thieme, 2000). Annealing stone materials makes them more effective cutting tools and allows them to keep a sharp edge for a longer period of time (Purdy and Brooks, 1971; Mandeville, 1973). This behavior is recognized worldwide as a method to improve flaking and hardness in material of poorer quality.

South African silcretes consistently produce more workable stone material when heat-treated (Brown et al., 2009). Using thermoluminescence and maximum gloss techniques, Brown, *et al* (2009) were able to identify heat-treated silcrete tools at Pinnacle point, dating to at least ~71 thousand years ago (ka), but as early as 164 ka. The practice of heat treatment allows individuals to exploit material that is more local, but of poorer quality. It shifts the cost of tool production from locating and transporting material to producing and maintaining a fire, a practice that becomes advantageous when access to better quality

material is restricted or fuel for a fire is readily abundant (Brown et al., 2009). This study pushes the use of fire as an engineering tool back into the Middle Stone Age.

Fire has the capacity to greatly increase the diet of the individuals using it. Cooking plants increases the caloric uptake in plants by breaking down cellular material and complex starches, making material more available to digestion (Koebnick et al., 1999; Wrangham et al., 1999). This means individuals heating plants even slightly will be able to get more energy from those plants than from raw foods. Additionally, many plants incorporate toxins with effects that can range from stomach upsets to debilitating muscular cramping. Heat often denatures these toxins (Stahl et al., 1984), so individuals eating cooked plants will suffer from fewer adverse effects as a result. Finally, cooking can remove pathogens from meats and make meat easier to digest (Boback et al., 2007).

The importance of fire in human culture is incontrovertible. In modern life, fire provides the means to heat houses, cook food, travel around and light up the night. Prehistorically, fire was used as an annealing agent to improve the flaking quality of lithic raw materials (Purdy and Brooks 1971, Mandeville 1973). Fire would have also provided heat and light to early man as well as protection from large predators (Clark and Harris 1985).

The timing of when humanly controlled fire became culturally significant is a contentious issue. Many researchers believe that controlled use of fire was not culturally significant until about 500 ka or later, when hearths, fire-starting technology, and fire-tempered artifacts appear in the record (Clark and Harris, 1985). Recently, some researchers have suggested that habitual use of fire may not even be as old as the Middle Pleistocene, but instead may be confined to the Upper Pleistocene (Goldberg et al., 2010; Sandgathe et al.,

2011). However, several researchers still contend that the fire innovation occurred as early as 1.5 million years ago (ma) and allowed early man to take control of his environment, improve his diet, and expand his activity regime and the climates he could occupy (Clark and Harris, 1985; James, 1989; Bellomo, 1990, 1993; O'Connell and Hawkes, 1999; Wrangham et al., 1999; Wrangham, 2009). Some argue that while it may appear that fire is not as frequently present in the record throughout the Middle Pleistocene, due to a lack of hearths being found on sites, proxy indicators such as burned stone and charcoal indicate that fire use does indeed extend at least through the Middle Pleistocene (Roebroeks and Villa, 2011)

A number of sites in Africa and Asia show evidence for controlled fire before 500 ka. In Africa, sites in the Middle Awash and Gadeb of Ethiopia, Olduvai Gorge in Tanzania, Swartkrans in South Africa, and Koobi Fora and Chesowanja in Kenya, all show evidence for early fire in the form of thermally altered earth, bone, or artifacts, or ash deposits (Clark and Kurashina, 1979; Barbetti et al., 1980; Gowlett et al., 1981; Clark and Harris, 1985; Barbetti, 1986; Brain and Sillen, 1988; Brain, 1993). In Asia, ash layers, thermally altered artifacts and/or charcoal have been found at Gesher Benot Ya'akov in Israel (Goren-Inbar et al., 2004; Alperson-Afil, 2008; Alperson-Afil et al., 2009; Alperson-Afil and Goren-Inbar, 2010). These sites are all dated between 700 ka and 1.6 ma (Clark and Kurashina, 1979; Gowlett et al., 1981; Clark and Harris, 1985; Barbetti, 1986; Brain, 1993; Person et al., 1996; Harris, 1997; Alperson-Afil and Goren-Inbar, 2010). The evidence for fire at these sites will be detailed below.

II. Evidence for Early Fire:

The following sites contain various lines of evidence for early fire in the record. The evidence for fire ranges from anecdotal evidence for fire from stone tools to the preservation of fire features including charcoal.



Figure 1: Map showing sites with evidence or potential evidence for early fire. A: Gesher Benot Ya'akov, Israel; B: Gadeb, Ethiopia; C: Middle Awash, Ethiopia; D: Koobi Fora, Kenya; E: Chesowanja, Kenya; F: Olduvai Gorge, Tanzania; G: Swartkrans, South Africa. Base map from GoogleEarth 2010.

Middle Awash and Gadeb, Ethiopia

The site at Gadeb is located on the Ethiopian highlands, near the site of Paleo-Lake Gadeb (Clark and Kurashina, 1979). Several small sites have been excavated, many out of primary context, but the assemblages show only moderate water abrasion, leading

researchers to believe that the sites are deposited not far from their point of origin (Clark and Kurushina, 1979). Clark and Kurushina (1979) postulate that the hominins occupying this area could have had fire technology since the site is located at a high altitude outside the Rift Valley. The site of Gadeb 8E is dated to between 1.5 and 0.7 ma, and is found on the gravel bar of a shallow stream. While there is some evidence that water has moved some of the artifacts, there is no preferred orientation of these artifacts, so it is postulated that movement is minimal (Clark and Harris, 1985). Excavations at 8E yielded some welded tuff (ignimbrite) artifacts with differential red and grey discoloration; the stone in fresh sections of a nearby outcrop is light brown (Clark and Harris, 1985). Determination of thermoremnant magnetism of these rocks is complicated by their volcanic origin and the lack of established magnetic orientation in the field, but the samples tested showed evidence for both thermoremnant magnetism of geologic and archaeological origin (Clark and Harris, 1985). However, four of the Acheulian artifacts have identical ancient field strengths, and these are different from the field strength of fresh welded tuff, lending support to the hypothesis that fire was present on the site (Clark and Harris, 1985).

Olduvai Gorge, Tanzania

The evidence from Olduvai Gorge is strictly circumstantial, but is provocative nonetheless. While doing research on the stone technology at Olduvai, Brian Ludwig (2000) noticed that some artifacts from Bed II appeared to have evidence for thermal alteration in the form of discoloration and potlidding. It is important to note that no evidence for potlidding is found in the Bed I artifacts.

Swartkrans, South Africa

The suspected thermally altered material from Swartkrans consists of blackened bone, dating to about 1.0-1.8 ma (Brain and Sellen, 1988; Brain, 1993). The excavations of Member 3 of the cave yielded 20 separate levels containing burned bone fragments (Brain and Sellen, 1988). These fragments were judged by color and structural changes to have been heated in antiquity (Brain and Sellen, 1988). The temperatures to which the bones have been heated are variable, ranging from below 300°C to above 500°C (Brain and Sellen, 1988; Brain, 1993).

Chesowanja, Kenya

The material found at Chesowanja consists of reddened clasts of baked clay, found at GnJi 1/6E, dating to about 1.4 ma (Gowlett et al., 1981). These clasts are found in association with a number of artifacts and are thoroughly intermingled with the artifacts; no clasts are found unassociated with artifacts (Gowlett, et al., 1981). These clasts were determined through thermomagnetic testing to be baked to about 400°C, a temperature well within the range of modern campfires (Gowlett, et al., 1981).

Koobi Fora, Kenya

The evidence from Koobi Fora comes from the site complex of FxJj20. This complex holds a number of smaller sites, which are located at roughly contemporaneous strata and dated to about 1.5 ma (Harris, 1978, 1997; Clark and Harris, 1985). Two of these sites, FxJj20 East and FxJj20 Main have a number of consolidated, oxidized patches of earth that are bowl-shaped in cross-section (Clark and Harris, 1985; Isaac, 1997). The bowl-shaped cross-section is similar to that seen in the campfires of modern pastoralists in the basin (Clark and Harris, 1985). These patches were tested using thermo-remnant magnetism to determine the likelihood of being the result of controlled fire, and while

several showed inconclusive results, at least one indicates having been the result of a fire reaching at least 400°C. Despite the equivocality of the results, two of the features at FxJj20 Main are fully oxidized to a depth of 5 cm, which is consistent with a multiple-burn campfire, and this is distinctively different than the results seen with grassfires, forest fires, and burning tree stumps (Bellomo and Kean, 1997). Material from the patches at FxJj20 East did not show as strong a signal as patches from FxJj20 Main (Bellomo and Kean, 1997). The lack of signal and low signal from these patches may be the result of erosion and weathering of the patches from 10-15 years of exposure to the elements before being tested (Bellomo and Kean, 1997). Spatial analysis indicates that tool-making and maintenance behaviors took place in close proximity to the oxidized features on the site (Bellomo, 1994). Bellomo's research (1994, 1990, 1993) concentrated on the spatial relationship of the artifacts found on site to the oxidized patches, but did not take into account possible sorting of artifacts by size, which may prove to be a critical factor in determining behavioral activities on a site, especially when associated with potential fire.

Gesher Benot Ya'akov, Israel

The site of Gesher Benot Ya'akov is a water-logged site on the shores of the ancient Lake Hula in the Jordan Rift (Goren-Inbar et al., 2004; Alperson-Afil and Goren-Inbar, 2006, 2010; Alperson-Afil et al., 2007, 2009; Alperson-Afil, 2008). The site is an open-air site, situated in a lake margin environment, with preservation of organic macro-botanical materials and a number of burned and unburned flint artifacts (Goren-Inbar et al., 2004; Alperson-Afil and Goren-Inbar, 2006, 2010; Alperson-Afil et al., 2007, 2009; Alperson-Afil, 2008). The researchers classed the artifacts as micro-artifacts or macro-artifacts

based on size. A maximum dimension of 2cm was used to define micro-artifacts and potlidding was used to determine whether an artifact was burned (Alperson-Afil, 2008; Alperson-Afil and Goren-Inbar, 2010). Because the site has been continually waterlogged, discoloration was insufficient to determine whether or not an artifact was burned (Alperson-Afil and Goren-Inbar, 2010). The researchers performed a number of spatial analyses using ArcGIS to determine whether the placement of materials indicated the presence of phantom hearths (Alperson-Afil et al., 2007; Alperson-Afil and Goren-Inbar, 2010). The results showed that the burned micro-artifacts were clustering and distinctly separate from larger macro-artifacts which were not burned (Alperson-Afil et al., 2007; Alperson-Afil and Goren-Inbar, 2010). This is reflective of the ‘drop’ and ‘toss’ zones proposed by Binford (1983), which were first observed through Binford’s ethnoarchaeological studies of the Nunamiut, but which are borne out in the archaeological record.

III. Current Study:

Methods

The work for this study was completed in three parts: a field component, a lab component, and an analysis component. The field component consisted of excavation and field curation of artifacts. The lab component consisted of artifact measurement, and the analytical component consisted of data entry and analysis in Microsoft Excel and ArcGIS.

Field Methods

The excavations took place as part of a teaching exercise for the Koobi Fora Field School, a joint operation between Rutgers, the State University of New Jersey (Rutgers) and the National Museums of Kenya, in Nairobi, Kenya (NMK). The site for excavation was chosen on the basis of previous excavations done in the area. The FxJj20 Site Complex has been known for over 30 years, and a preliminary excavation of the FxJj20 AB site was conducted in 1973 (Harris, 1978, 1997). On the basis of the field notes from the excavation, it was decided that we would return to the FxJj20 AB site and continue excavations, expanding the area opened. Upon arrival at the site, we conducted a surface collection. The students of the field school were shown what to look for, given orange flags, and told to flag anything that looked like a fossil or an artifact. The instructors of the field school then collected the material flagged by the students, and the material was shot in using a Topcon GTS-229 Total Station transit machine and TDS Nomad hand-held data collector running the EDM-Mobile survey software developed by Shannon McPherron and Harold Dibble. Materials were surveyed in using an arbitrarily determined local datum. The previous excavation was readily identifiable, and the grid was recreated using the

transit machine. The area for the new excavation was identified, and using shovels and picks, cleared approximately 0.75m of overburden from the excavation surface. The site is immediately overlain by a calcium carbonate layer, and in some instances, geo-hammers were used to break up the larger pieces of material.

When the overburden was cleared, we set up a grid, building off the previous excavation grid and utilizing the numbering system. The occupation levels were excavated using Olduvai picks, trowels, dental picks, and paint brushes. Material was screened through a ¾-inch hardware mesh fabric screen. The calcium carbonate layer extended down into the excavation in some places, and geo-hammers were used to break up materials in these instances. Materials found *in situ* were flagged using orange flags and shot in using the transit machine. Materials were then bagged in 2-mil plastic bags and carded with the site number, artifact number, class, and north, east, and elevation coordinates.

Excavations took place nearly every day over the course of three weeks in the field, except when the students were changing camps because this logistically required all staff to be present to organize the move. The individual units were excavated in 5 cm levels.

Materials were field curated in boxes and kept in a tent which served as a field laboratory. After the excavations were complete for the season, the materials were packed up and taken to Koobi Fora Base Camp. At Base Camp, the materials were unpacked, re-examined, and re-bagged and re-tagged if necessary. The materials were packed carefully into boxes, and transported back to the NMK in Nairobi at the conclusion of the Field School.

Lab Methods

In the lab, materials were carefully examined. Excess dirt was removed with a toothbrush, but materials were not washed. In lieu of labeling each individual artifact, the hand-written cards in the bags were replaced with printed cards bearing the site number, catalog number, coordinates, and artifact class. Materials were sorted according to class and boxed with similar classes. Artifacts found *in situ* were measured; materials that were photographed were boxed separately from the materials that were not photographed. Measurements taken included: maximum dimensions of length, width, and breadth, and typological dimensions of length, width and breadth for artifacts which could be classed as flakes. Raw material was identified, as were any indications of potlidding or discoloration. Because of time constraints, measurements were only taken on materials found *in situ* that had three dimensional coordinates. Materials recovered from the surface or the screens were not included in this analysis. Measurements were taken on materials recovered during the original excavations and during the summer 2010 excavations.

Analytical Methods

For analysis, the data collected was organized into an Excel Spreadsheet. Three-dimensional coordinates for material excavated during the 2010 field season were taken using a Topcom laser theodolite, which were then uploaded to a comma-delimited data file. This file was then converted to an Excel spreadsheet, which became the basis for the master sheet. The material excavated in 1973 was input by hand into an Excel spreadsheet from the original site notebook. The data from the 1973 excavation was then merged with the master sheet. The master sheet included all collected data, and

subsequent sheets were created for actual analysis. The master sheet was not manipulated in any way in order to preserve the integrity of the information and provide a reference for entries if any calculations or operations went wrong and the data needed to be recreated. Spreadsheets were created that broke materials down by class and raw material. Some spreadsheets were created to do mathematical calculations, and for this, irrelevant fields were deleted.

GPS points were estimated for the datum using Google Earth to facilitate the analysis. The location data from the excavation was converted to UTM using the estimated coordinates. Statistical analysis was done using Microsoft Excel. ArcGIS and Geospatial Modeling Environment, available from spatialecology.com were used to perform the spatial analysis.

IV. Results:

The excavations of 1973 and 2010 recovered 2157 artifacts with three-dimensional coordinates. Table 1 presents the summary statistics of these artifacts. Of the artifacts, 1051, or 48.73%, were angular fragments, or pieces of stone that had no identifying flake features. These could be flakingdebitage or material produced from thermal fracture. Since thermal fracture, especially in volcanic materials, is poorly understood and not readily recognizable, it is difficult to determine the exact origin of these angular fragments on the site. There are 997 flakes, or 46.22% of the assemblage. This count includes split or snapped flakes. Cobbles or cores make up 3.85% (n=83), and hammerstones and pebbles each make up 0.6% (n=13).

Of the assemblage, 29.9% (n=645) is made up of micro-artifacts. Of this portion, 75.5% (n=487) are angular fragments and 23.57% (n=152) are flakes. Only 0.93% (n=6) of the micro-artifacts are pebbles.

Table 1: Summary statistics for the in situ artifacts found at FxJj20 AB.

Class	Counts	Percent
Angular fragments	1051	48.73
Cobble/core	83	3.85
Flake	997	46.22
hammerstone	13	0.60
pebble	13	0.60
Total artifacts	2157	
Micro-artifacts	645	29.90
Micro-artifacts angular	487	75.50
Micro-artifacts flakes	152	23.57
Micro-artifacts pebble	6	0.93

Figure 2 shows the physical location of materials across the site. The local Cartesian system was converted into UTM coordinates by determining the coordinates of the datum and subtracting the local Cartesian coordinates from the UTM coordinates. The northeast corner of the grid is denoted in the local Cartesian grid as 506N/505E. The grid counts down to the south and west, so the southwest corner is 500N/499E. The material within the grid is material recovered during the excavation. The shaded light green area is the original excavation, and all material outside the grid is surface-collected material. There

catalog records obtained from the NMK were incomplete, and time constraints at the museum meant that I had to concentrate on the work with the stone tools and could not search for the records of bone and tooth, nor could I devote the time to recreating the records from the catalog cards included with the excavated materials. Future work in this area will need to address this issue and recreate the catalog from the records included in the curated materials.

Because the main concentrations of artifacts are found at different levels over the entire site, the first task in analysis was to determine whether or not this represented a natural slope of the excavation surface or whether the differing levels represented different occupations of the site. To determine this, I performed a simple slope regression (Figures 2 and 3) for both east and north compared to the elevation. As shown in Figures 2 and 3, there appears to be a strong relationship between east coordinates and the elevation, indicating that the artifacts are found on a sloping surface rather than representing several layers of occupation. The regression statistics shown in Tables 1 and 2 confirm this belief.

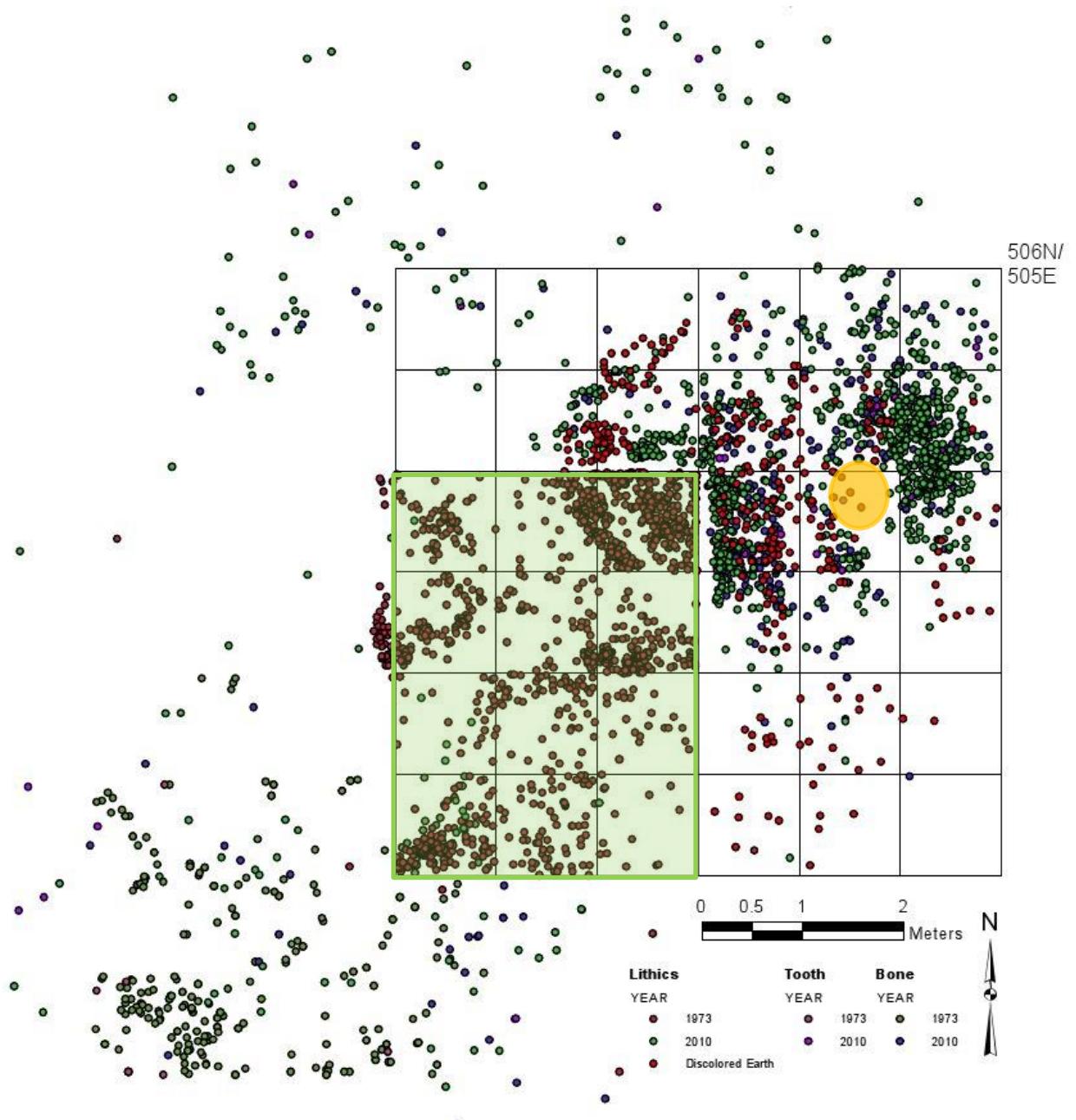


Figure 2: Excavation map showing the materials excavated by year. Records from the National Museums of Kenya are incomplete, accounting for the lack of bone and tooth shown here from the excavation dating to 1973. The green shaded area is the original 1973 test excavation, and all materials outside the grid are unprovenienced surface finds. The lithic material clearly shows the original excavation as the 12 units in the southwest portion of the excavated area; the 2010 excavation occupies the remaining grid. Materials found outside the grid are surface finds. The grid counts up to the north and east, making the northeast corner the highest numbers for both easting and northing. Highlighted circle represents blank space in the excavation – no materials were found in this area, though discolored earth was found throughout. Material included in figure (n=2299), artifacts in grid (n = 2157).

All material that had a maximum dimension of 20 mm or less was classed as micro-artifacts, and those with a maximum dimension of more than 20 mm were classed as macro-artifacts. This classification is the same as that used by researchers at GBY (Alperson-Afil and Goren-Inbar, 2010), and while using this classification may exclude some pieces that have a larger maximum dimension but could conceivably still be considered micro-artifacts, an empirical cut-off is necessary to facilitate analysis. Figure 3 shows a summary of the maximum length dimensions of all artifacts found on FxJj20 AB, during the original excavation and during the summer 2010 excavations. Most materials have a maximum length of 15-30 mm, indicating that much of the assemblage is made up of small materials, many of which would fall under the category of micro-artifacts. Figures 4 and 5 summarize the maximum width and breadth dimensions of the artifacts from the site. Most artifacts are between 15-25 mm in width and 5-10 mm in breadth, emphasizing the small nature of the collection. This also highlights the need for an empirical cut-off for classifying micro-artifacts, since many of the artifacts are so small. That many of the artifacts have a relatively wide breath shows that many of these small pieces are not flakes, but more likely flaking debris.

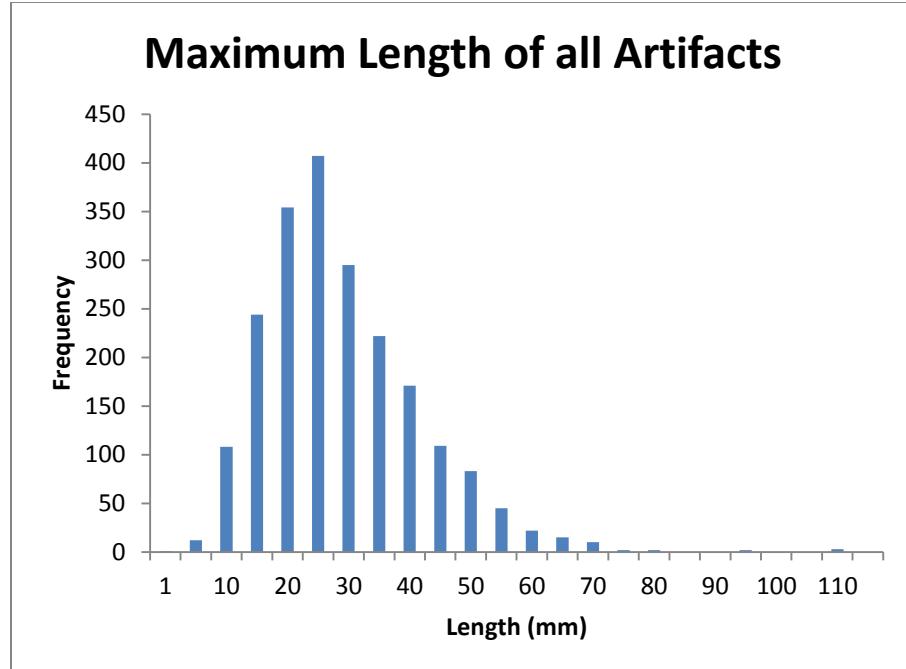


Figure 3: Histogram summarizing maximum length dimensions of all ($n= 2157$) in situ artifacts found at FxJj20 AB. The site has a large number of smaller artifacts, with the highest peak at 25mm, but a large number of artifacts measure between 15 and 20mm. Above 25mm, the distribution drops steadily but sharply.

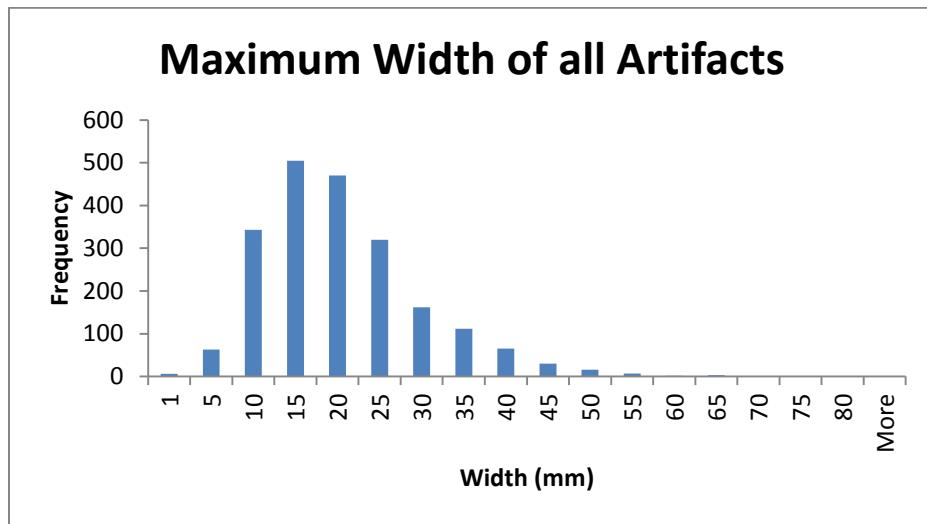


Figure 4: Histogram summarizing maximum length dimensions of all ($n= 2157$) in situ artifacts recovered from FxJj 20AB. The highest peak of maximum width is at 15mm, with nearly as many artifacts measuring 20mm in width. The greatest range is between 10 and 25mm.

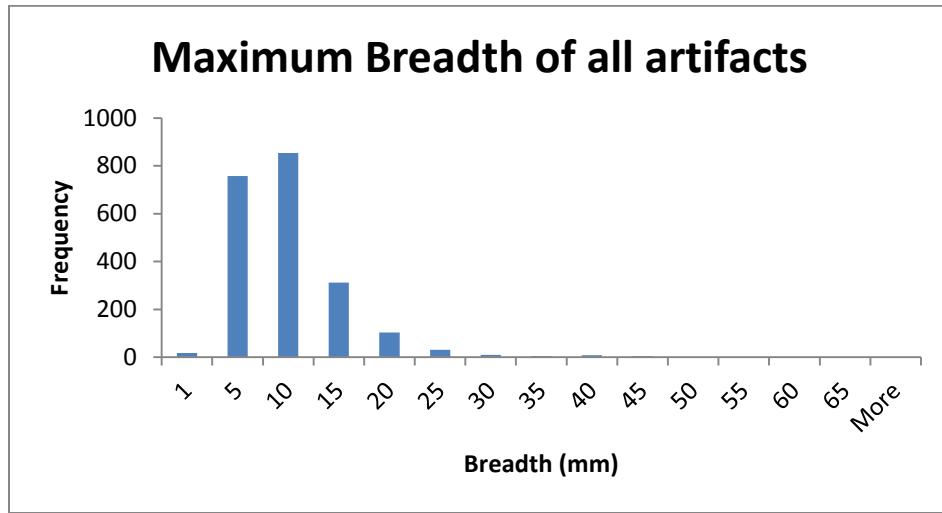


Figure 5: Histogram summarizing maximum breadth dimensions of all ($n= 2157$) in situ artifacts recovered from FxJj20 AB. Most artifacts measure between 5 and 10mm in breadth.

The vertical dispersion on the site appears to be a result of a sloped surface running from the east to the west. Figure 6 shows the easting coordinates plotted against the elevation and Figure 7 shows the northing coordinates plotted against elevation. Outliers were removed from the sample by determining the first and third quartiles, then subtracting or adding 1.5 times the interquartile range, respectively:

$$\text{Lower limit: } Q1 - (IQR * 1.5)$$

$$\text{Upper limit: } Q3 + (IQR * 1.5)$$

Where $Q1$ and $Q3$ are the first and third quartiles, respectively and IQR is the interquartile range.

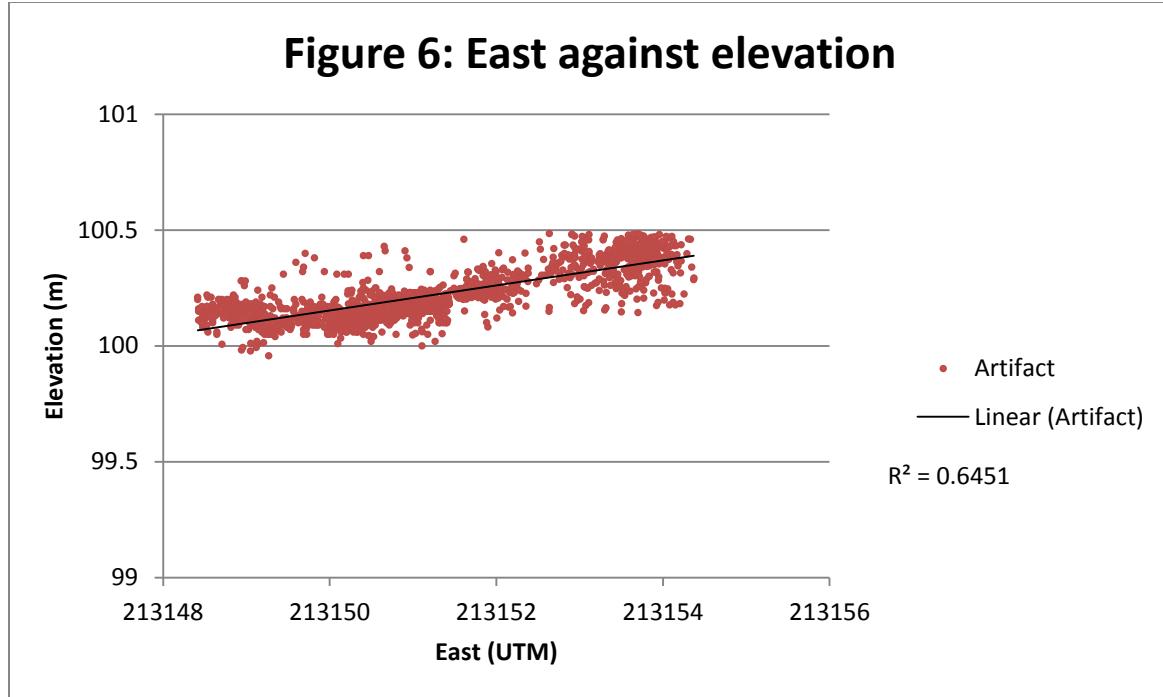


Figure 6 Graph plotting east coordinates against elevation, excluding outliers, $n=1965$. The R^2 is 0.645, showing that there is a tight cluster of materials and that the vertical dispersion of the site is related to a sloped surface trending east to west rather than multiple layers of occupation.

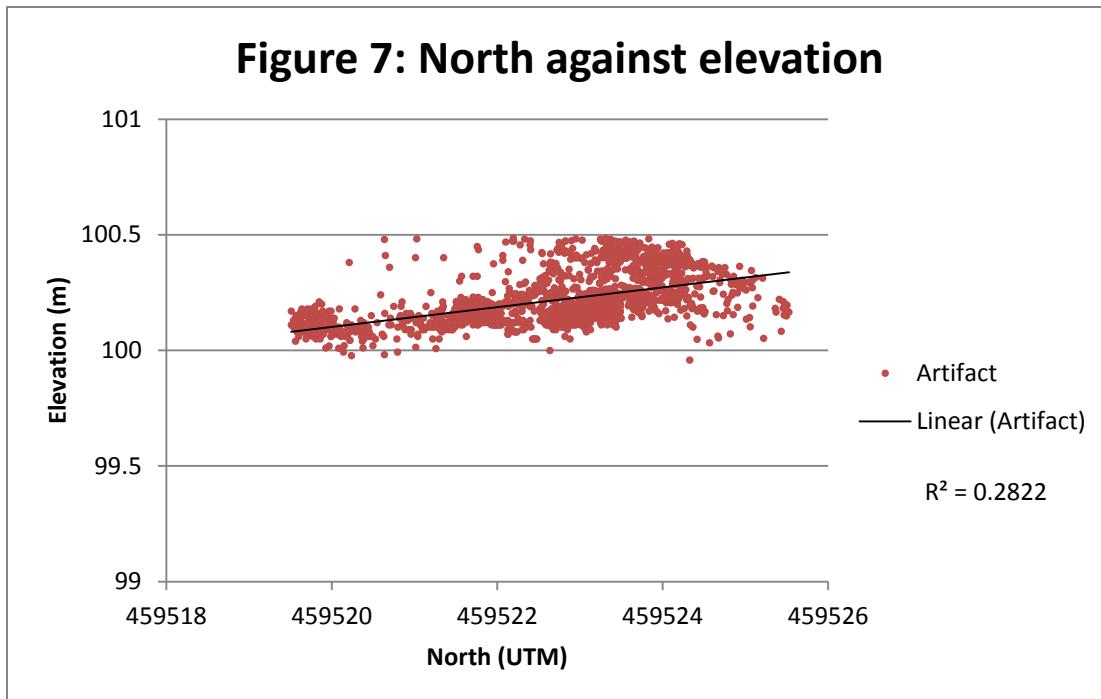


Figure 7 Graph plotting north coordinates against elevation, excluding outliers, $n=1965$. The R^2 is 0.282, showing that there is not a tight cluster of materials and that the vertical dispersion of the site is not related to a sloped surface trending north to south. Because the excavation is not completed in the southern portion of the grid, this may be creating the illusion of a slight slope from north to south.

Table 2: Regression statistics showing the relationship between the east-west coordinates and elevation. The data show that the excavated material is likely one instance of occupation on a sloped surface.

<i>Table 2: Regression Statistics for East against Elevation</i>	
Multiple R	0.80318195
R Square	0.645101245
Adjusted R Square	0.644920451
Standard Error	0.063154869
Observations	1965

Table 3: Regression statistics showing the relationship between north-south coordinates and elevation. The data show that there is no slope in this direction.

<i>Table 3: Regression Statistics for North against Elevation</i>	
Multiple R	0.531263537
R Square	0.282240946
Adjusted R Square	0.281875302
Standard Error	0.089813979
Observations	1965

Kernel density maps were generated in ArcGIS using the spatial data analysis tool. The input feature was the layer representing all lithic artifacts, the search radius was set to 0.5, and the output cell size was set at 0.02. The units for the analysis were set to square meters. Maps were generated for all lithics (Figure 8), all macro-artifacts (Figure 9), all micro-artifacts (Figure 10), and discolored earth (Figure 12). Figure 13 shows an overlay of macro-artifacts, micro-artifacts and discolored earth.

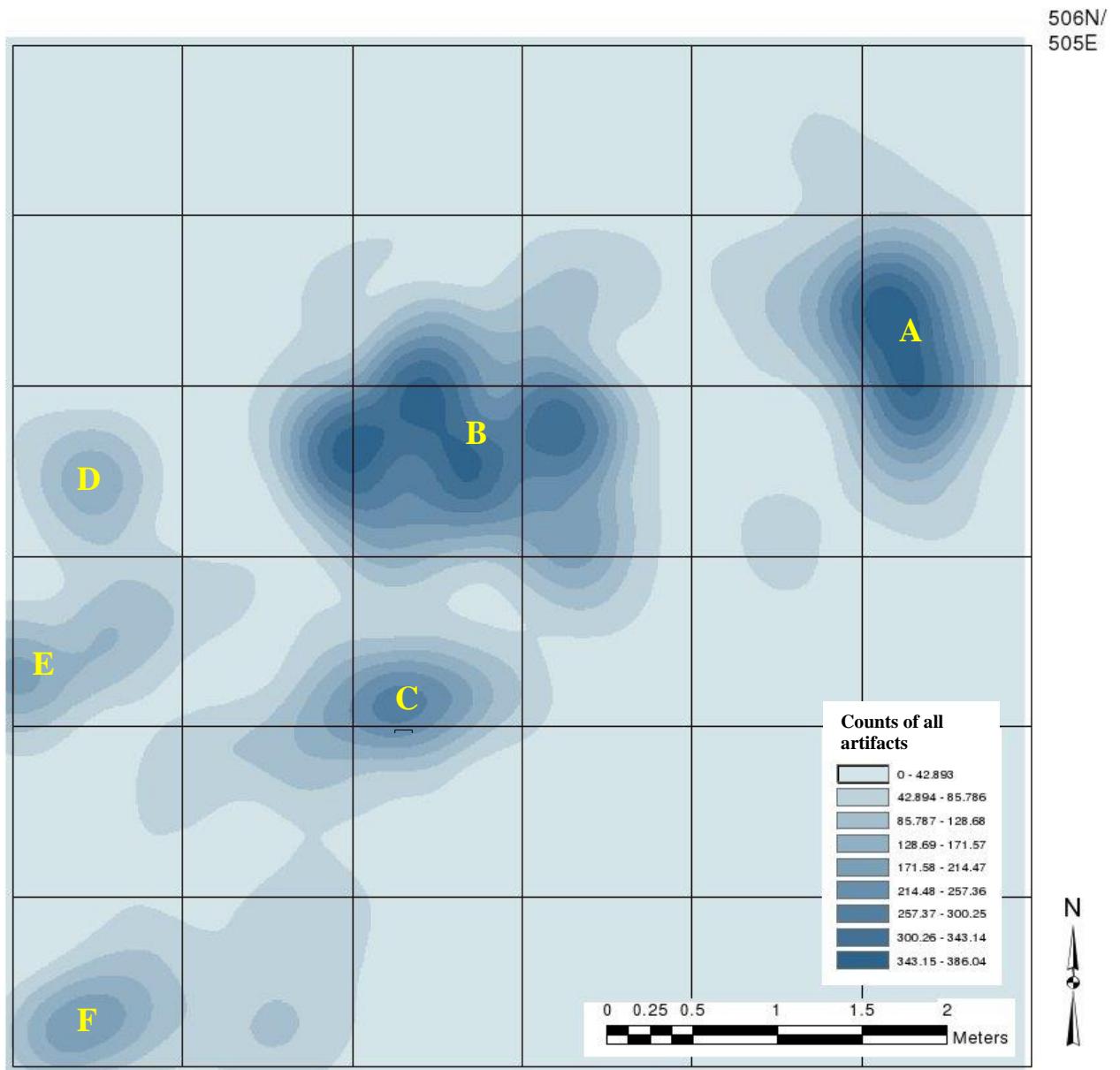


Figure 8: Kernel density map of all lithic artifacts showing clusters of materials. The color ramp indicates increasing density with darker colors. The material clearly clusters in three main clusters and three smaller clusters. Clusters are labeled for discussion. Clusters A, B, and C are the densest clusters, while clusters D, E, and F are much less dense.

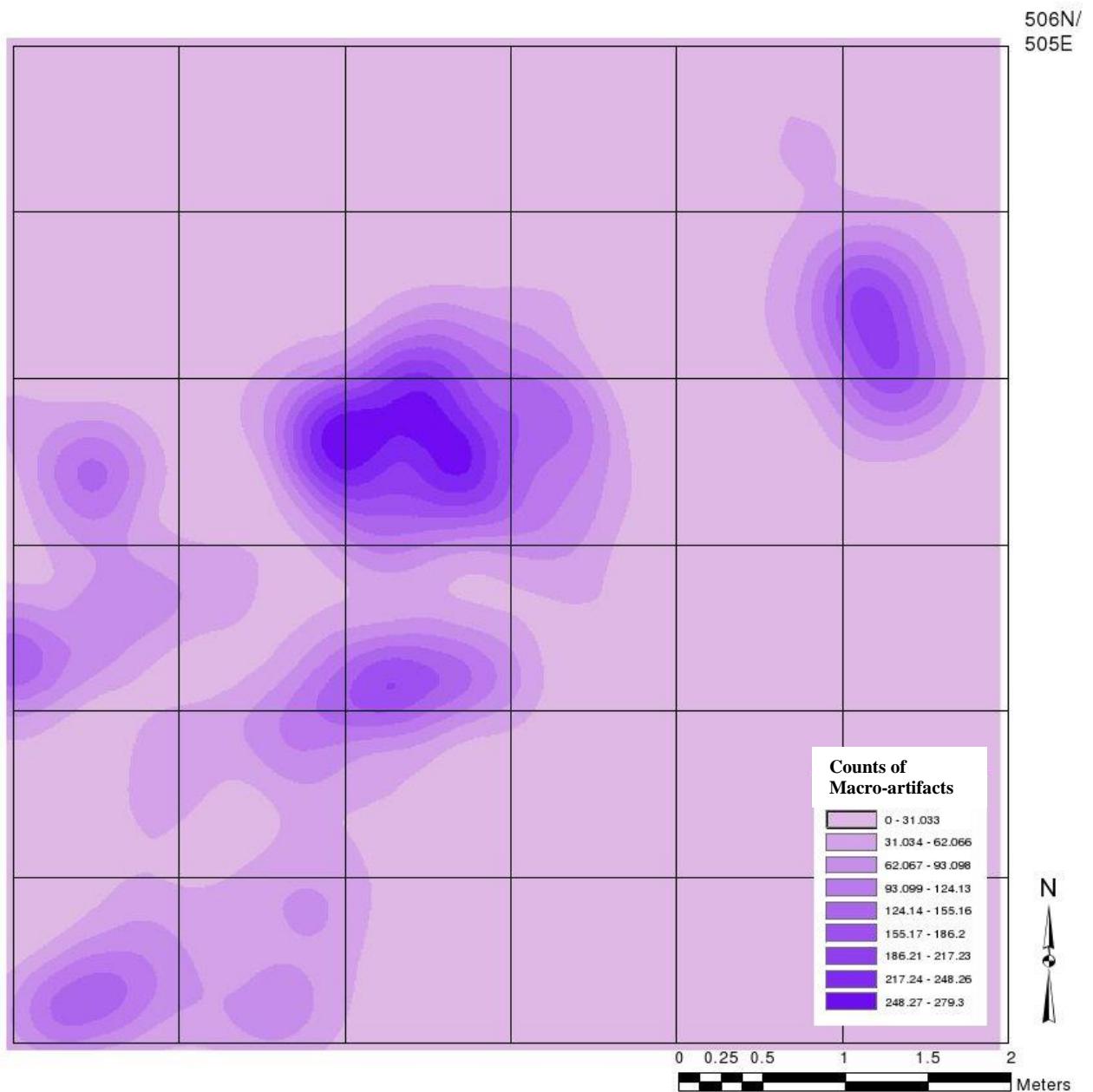


Figure 9: Kernel density map showing the peak locations of macro-artifacts on the site. Darkening colors indicate increasing density.

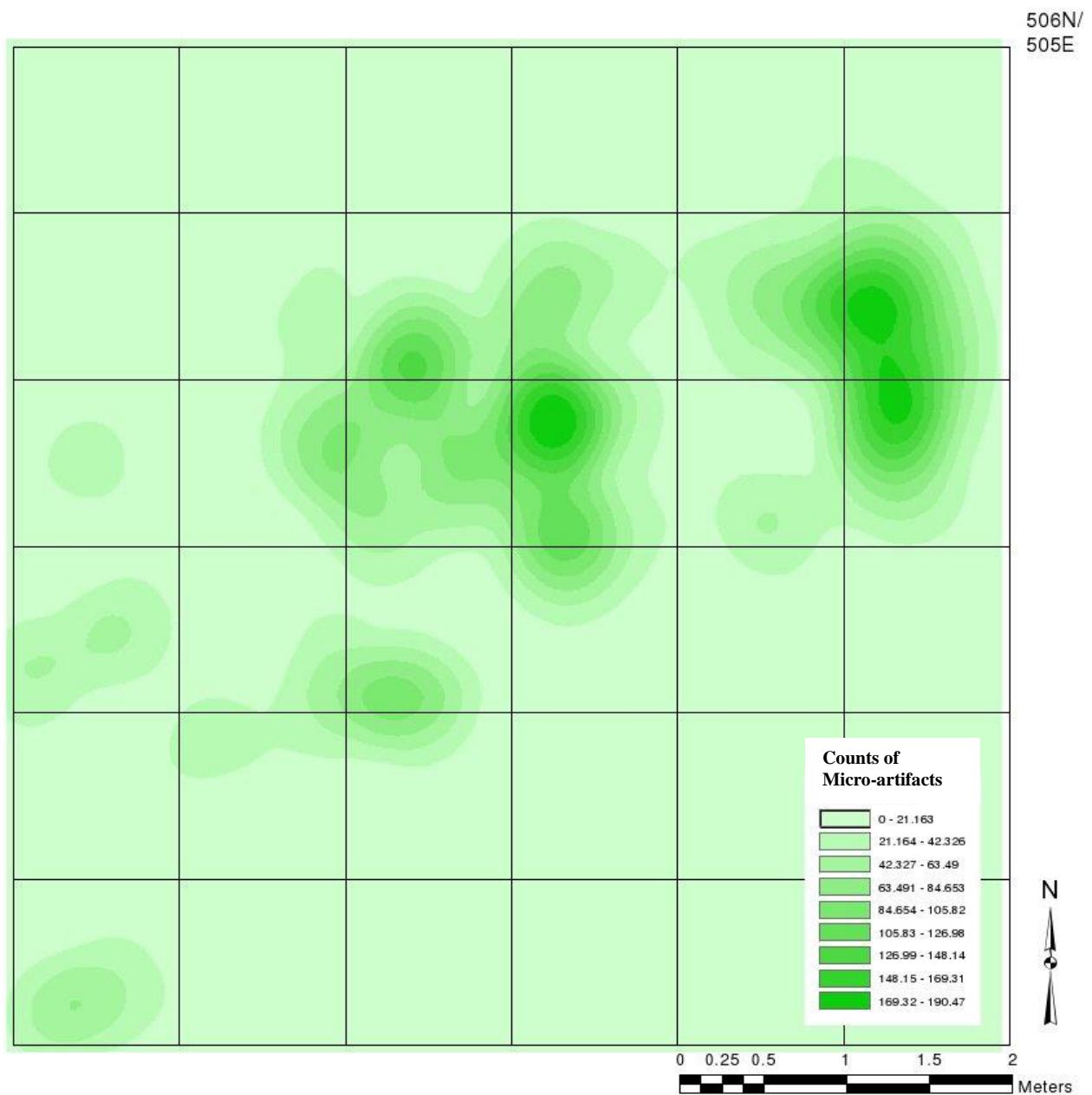


Figure 10: Density map showing locations of density peaks of micro-artifacts. Darkening colors indicate increasing density.

Interestingly, a blank spot on the excavation was identified between Cluster A and Cluster B, in the vicinity of square 503N/503E (highlighted circle, Figure 2). The only thing found in this spot during the 2010 excavation was discolored earth, despite the fact that the square had been excavated to the same or similar levels as the squares around it.

Figures 9 and 10 show an apparent separation of micro- and macro-artifacts, respectively, on the site.

To look at the differences between clusters, I looked at the maximum dimension measurements of all the artifacts within each cluster. First, I used the polygon select tool in ArcGIS to surround the clusters at the level represented by the unit with artifact counts of 85.768-128.68 on the kernel density map of all lithic artifacts. I used the selection menu to create a layer from the selected polygon, then copy and pasted the selected records into Excel. I removed all entries with no maximum dimension data. Because excavation methods were different during the 1970s excavation and could account for differences in recovery of very small material, I removed all entries that were less than 5mm in maximum dimension. This resulted in the removal of 5 records. I then used the R (v. 2.15.0) statistical package (CRAN, 2013) to run an analysis of variance (ANOVA) test and Tukey's Honest Significance Difference Test (Tukey's HSD) to look at the differences of size between the clusters. I divided Cluster B into two components (Clusters B1 and B2) because there are two distinct density peaks within the larger cluster (see Figure 9 for Clusters). I then divided it three distinct clusters (Clusters B1, B2a and B2b, see Figure 12) because there are two distinct peaks within the B2 cluster.

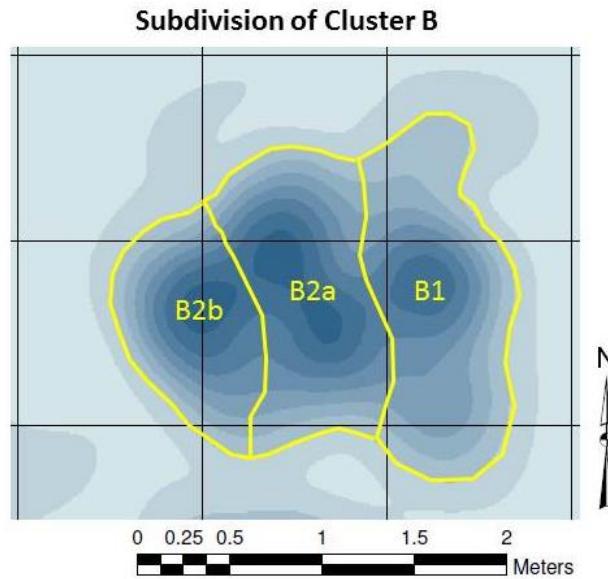


Figure 11: Showing the subdivision of Cluster B into smaller sub-clusters based on the individual peaks within the larger cluster.

The ANOVA analysis shows that, taken together, the clusters are significantly different (Table 4). The difference between groups is significant at an alpha level of 0.05 with a *p*-value of $2.20E^{-16}$, showing that at least the mean maximum length of at minimum one cluster is significantly different from the other clusters. A Tukey's HSD was then run on the matrix for a pairwise comparison of all the clusters (Table 5). The Tukey's HSD shows that Cluster A and B1 are similar to each other, but dissimilar to all other clusters and all other clusters are similar to each other at an alpha level of 0.05.

Table 4: Analysis of Variance of mean maximum length of all clusters. Analysis shows significance at an alpha level of 0.05

	Df	Sum Squares	Mean Square	F value	Pr(>F)
Cluster	7	1615 5	2307 .9	18.1720 00	2.20 E-16
Residuals	34	1821 24	127		

Table 5: Tukey's pairwise comparison of mean maximum length between clusters. Analysis shows that there is a significant difference between Cluster A and all other clusters, except Cluster B1. Similarly, Cluster B1 is significantly different from all other clusters except Cluster A. All other clusters are similar to each other at an alpha level of 0.05.

	difference	Lower	Upper	p adjusted
Cluster A-Cluster B2a	-5.7426029	-8.507176	-2.97803	0.000000
Cluster A-Cluster B2b	-4.3297611	-7.489394	-1.17013	0.000883
Cluster A-Cluster C	-6.689003	-9.897776	-3.48023	0.000000
Cluster A-Cluster D	-8.3927389	-13.522699	-3.26278	0.000021
Cluster A-Cluster E	-7.9719102	-11.768151	-4.17567	0.000000
Cluster A-Cluster F	-5.4543198	-9.399109	-1.50953	0.000753
Cluster B1-Cluster B2a	-6.9793023	-10.068256	-3.89035	0.000000
Cluster B1-Cluster B2b	-5.5664605	-9.013495	-2.11943	0.000029
Cluster B1-Cluster C	-7.9257023	-11.417836	-4.43357	0.000000
Cluster B1-Cluster D	-9.6294383	-14.941242	-4.31763	0.000001
Cluster B1-Cluster E	-9.2086096	-13.2472	-5.17002	0.000000
Cluster B1-Cluster F	-6.6910191	-10.869551	-2.51249	0.000036
Cluster B1-ClusterA	-1.2366994	-4.176631	1.703232	0.907435
Cluster B2b-Cluster B2a	-1.4128418	-4.711586	1.885903	0.899019
Cluster C-Cluster B2a	0.9464	-2.399443	4.292243	0.989484
Cluster C-Cluster B2b	2.3592418	-1.319763	6.038247	0.518892
Cluster D-Cluster B2a	2.650136	-2.566657	7.866929	0.784469
Cluster D-Cluster B2b	4.0629777	-1.373505	9.49946	0.311854
Cluster D-Cluster C	1.7037359	-3.761453	7.168925	0.981386
Cluster E-Cluster B2a	2.2293073	-1.683477	6.142091	0.667930
Cluster E-Cluster B2b	3.642149	-0.559076	7.843374	0.145496
Cluster E-Cluster C	1.2829072	-2.955399	5.521214	0.984310
Cluster E-Cluster D	-0.4208287	-6.250366	5.408709	0.999999
Cluster F-Cluster B2a	-0.2882832	-4.345351	3.768785	0.999999
Cluster F-Cluster B2b	1.1245586	-3.211362	5.46048	0.993779
Cluster F-Cluster C	-1.2346832	-5.606543	3.137177	0.989582
Cluster F-Cluster D	-2.9384191	-8.865765	2.988927	0.805090
Cluster F-Cluster E	-2.5175904	-7.337173	2.301992	0.759107

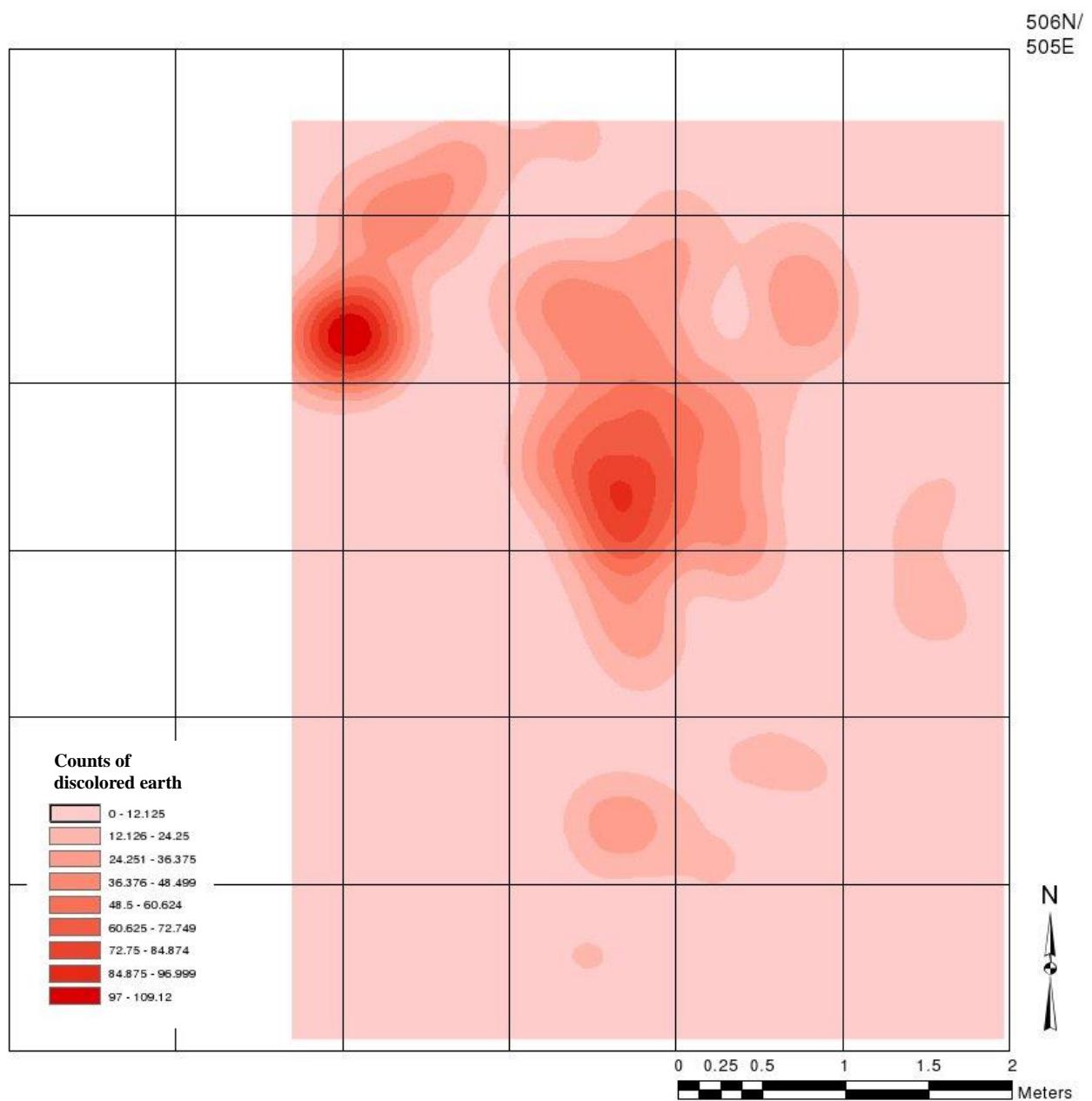


Figure 12: Density map showing density peaks of discolored earth. Darkening colors indicate increasing density.

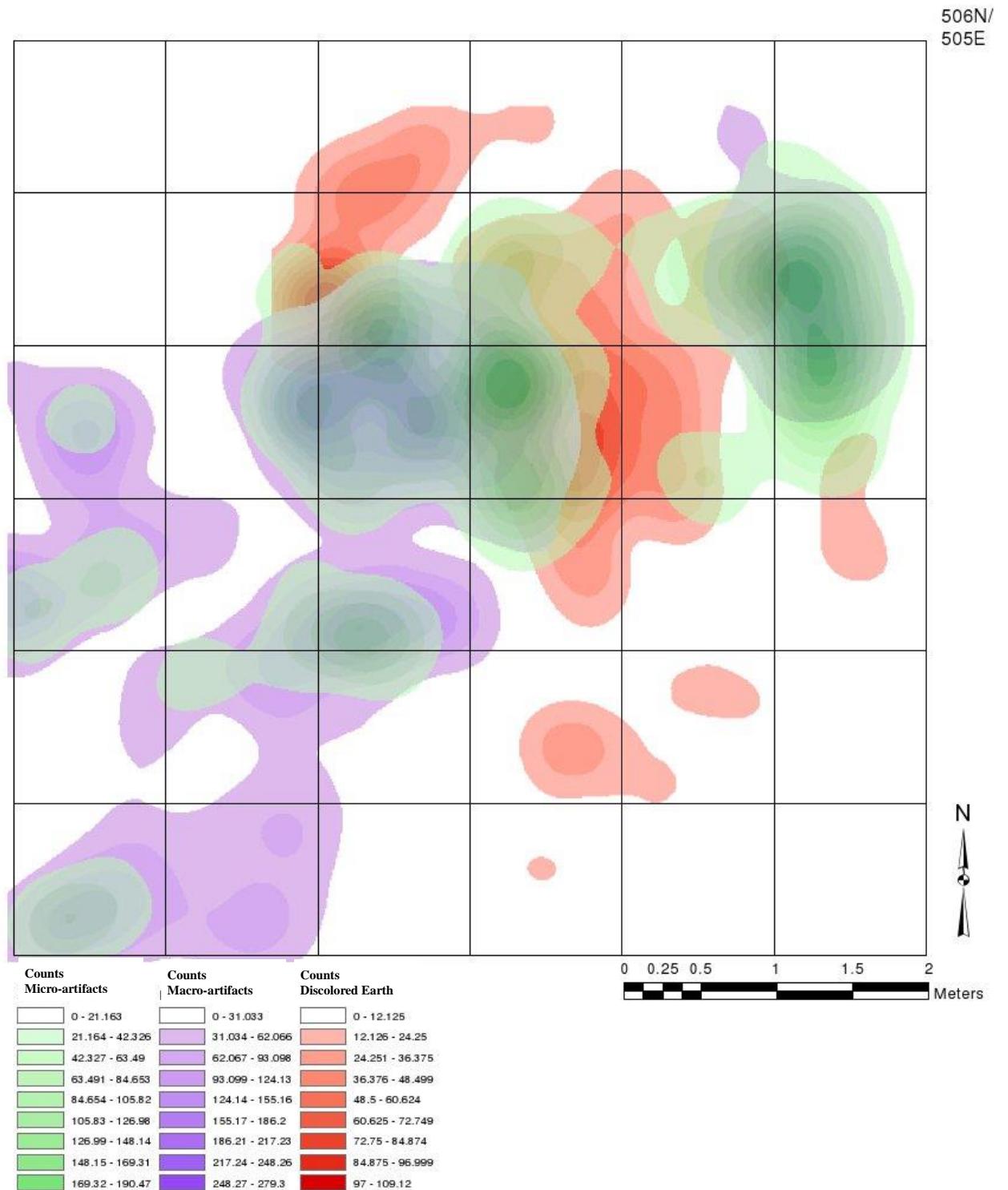


Figure 13: Kernel density map showing the density peaks of micro-artifacts, macro-artifacts and discolored earth. The figure clearly shows the overlap between micro- and macro-artifacts and separation of artifacts from discolored earth.

The maps showing the locations of micro- and macro- artifact corresponds to the peaks clusters of materials identified as being either larger or smaller in the analysis of all the artifacts. That is, the locations of the peaks of Clusters A and B1 correspond to the location of the peaks of micro-artifacts identified in Figure 10, though there are micro-artifacts found in all clusters. The peaks of the macro-artifacts in Figure 9 correspond to the peaks of Clusters B2a, B2b, C, D, E, and F. The peak of the discolored earth peak is east of B1, between Clusters B1 and A, and adjacent to the bank space identified from the 2010 excavation. I hypothesize that the blank space may be the best candidate for an ancient fireplace, and the alignment of the discolored earth with this space supports this hypothesis.

V. Discussion

Researchers at GBY used the spatial sorting of burned flint artifacts to postulate the existence of hearth areas (Alperson-Afil and Goren-Inbar, 2010). At FxJj20, because much of the material is volcanic in nature, it is difficult to visually identify burned artifacts. At FxJj20 Main and FxJj20 East, consolidated patches of oxidized sediment provide good indicators of possible hearth areas, but at FxJj20 AB, no patches of oxidized earth exist. Instead, the site is littered with small clumps of reddened or oxidized earth that are not consolidated enough to form a patch. While there are several possible explanations for this oxidation that relate to chemical weathering of the sediments, a preliminary analysis by Paul Goldberg and Francesco Berna shows that the infrared signature of the reddened clasts is consistent with material that has been burned to 400° C or better. No ashed plant remains appear to be part of the initial sample, though (Goldberg and Berna personal communication). More samples have been taken and are awaiting analysis.

Perhaps the most compelling piece of evidence for a potential hearth is the existence of the blank spot (highlighted in Figure 2), adjacent to the highest concentration of discolored earth and between the two densest clusters of micro-artifacts. This pattern is consistent with the hypothesis that fire-using hominins would be using the fire as a focal point of their activities and that housekeeping activities would keep the larger material away from the main locus of activity. This is the pattern shown by the work at GBY, and is consistent with the idea of a hearth area on the site. That the highest concentration of discolored earth occurs adjacent to the blank space could be explained by the existence of a slightly sloping surface, which is apparent from the change in elevation along the east-

west axis of the site. A slope on the site would explain the location of discolored material that is most susceptible to wind or very low-energy water movement that would not affect the movement of stone. There does not appear to be any perceptible movement of stone material given that the micro-artifacts are found on the eastern and western side and the densest concentrations of these stones are found at the highest and middle elevations of the site. This does not mean that very light materials produced from burned plants would not be susceptible to movement by wind or very low-energy water, which may be the case here. It is still to be determined from further sampling and testing of sediment from the blank spot and the surrounding areas whether the blank spot is likely the hearth source. At this time, though, it appears to be the best candidate for a hearth location. It is important to note that discolored earth was recorded during the 1973 excavation, but no locational information was collected. This could mean that the truly highest concentration of discolored earth might conceivably have been in that part of the excavation. No concentration of discolored material was noted in the excavation notes or any publications, so it is unlikely, but this would not be entirely unexpected if we allow for some movement of the friable, light particulates of a fire according to the slope of the site.

Interestingly, there are very few large pieces of stone found on the site. Only 68 pieces identified as choppers, polyhedrons, discoids, or scrapers were found and only 35 cores, 45 cobbles, and 6 manuports (total 154 out of 3462 recovered artifacts) were found on the site during the 1973 excavation (Harris, 1978). The lack of large pieces in conjunction with the prevalence of small and very small pieces presents an interesting question about site use. These small and very small pieces indicate that this is a tool manufacturing

workshop, but the lack of large pieces may indicate that the individuals using this site curated most of the larger cobbles of raw materials away from this location. A look at the density of Oldowan sites by Kathy Schick (1987) shows that in the 1973 excavation, the density of artifacts per meter square is 288.5 artifacts per meter, which is nearly ten times greater than the density per square meter at FxJj20 M and nearly twenty times greater than the density at FxJj20 E. To date, the expansion excavation is not complete, and so a calculation of the density of the newly opened area is not necessarily reflective of true density of the site. Currently the per meter density of the expansion is 73.8 artifacts per square meter, which is still 25 times greater than the density reflected at FxJj20 M. This high density may be an artifact of the overall size of the excavation, and comparisons between the cluster densities between sites should be done to determine whether the anomalously high numbers are due to a unique circumstance on the site or due to the fact that the entirety of the site has not been uncovered.

The high density of material on the site means that there is a good possibility that refits of materials could be done on the artifacts at FxJj20 AB. Refitting studies would assess the number of cores that would be necessary to produce such high numbers of artifacts. A comparison of the number of cores and the numbers of flakes produced would provide an insight into curation behaviors of early hominins. Such studies would help determine the curation and discard patterns that the hominins using the site would have employed (Schick, 1987). It is likely from the high numbers of flakes present that their occurrence on the site is the result of their having been dulled during use and discarded. Useful cores would have been taken from the site, while spent cores were discarded with the dulled

flakes. If such a pattern can be shown on the site through refitting studies, it would have implications on the behaviors of early hominins.

The presence of animal bones indicates the possibility of butchery, though there have not been any cutmark studies to date on the bone. Indeed, this may not be possible due to the fragmentary nature of the bone found on the site, though some recovered pieces of bone have preserved surfaces, which may yield some cutmark evidence. However, the bone is found thoroughly intermixed with the stone, so a behavioral association between the bone and stone can be concluded.

Any discussion of potential fire in the very early paleolithic needs to address alternative explanations for the configurations found on the site. It is highly unlikely that movement of material across the site is responsible for the size sorting shown in the analysis, as the smaller materials are found on the higher and middle range elevations, while size sorting due to movement would have the lightest material at the base of the slope.

There is a potential that different collection methods are responsible for the difference between the clusters identified from the 2010 and 1973 excavations. The excavations in the 1970s were not concentrating on recovering all materials, large and small, and preserving their 3-D coordinates the way that the 2010 excavation was. Since the analysis concentrated on the materials recovered with 3-D coordinates, it is possible that materials recovered in the screens might change the mean maximum length dimensions of clusters. The materials recovered from the screens were not counted in this analysis, though, because exact locational data is required for cluster analysis. Because the analysis has a defined radius, the lack of locational data would skew the location of the clusters.

Depending on the location inside each square (i.e. the midpoint of the square versus a corner) the count is placed, the density of that square and surrounding squares would be affected. While a separate analysis of materials recovered in the screen may give an approximate density, time constraints at the NMK required me to concentrate on retrieving all possible information on the material with locational data intact, so as to be able to present as complete a picture of the data as possible. Future work will include the material recovered from the screens in analysis.

VI. Conclusions

The data support the claim of a potential hearth area on the site. The blank spot on the excavation is adjacent to and upslope from the highest concentration of discolored earth. If it were a hearth feature, one would expect few artifacts to be found within the fire, as stone has a tendency to break dangerously when exposed to high temperatures and animal bone may be completely consumed by the fire.

From the evidence of the size of the material and their arrangement on site, it appears that there is evidence for a ‘toss and drop zone’-like accumulation. The smaller materials are tightly clustered around this blank space and the materials further from the space are larger. Flakes and fragments of a larger nature are more frequent and more likely to be further from the proposed hearth spot.

Based on the evidence collected from FxJj20 AB, it would seem that fire-using behavior was possible and possibly a regular enough occurrence that the hominins using the fire were indeed influenced by its use.

VII. Future Directions

Future research at this and other sites in the area will hopefully bear more evidence of this patterning and coupled with chemical, microstratigraphic, or phytolithic evidence, this research may indicate strong evidence for the presence of hearths at an early date.

Future research at the FxJj20 site will include continuation of the excavations that were reopened in 2010. These excavations will continue using only small instruments, including dental picks and paintbrushes, instead of large trowels or Olduvai picks. This will extend the time spent excavating but increase the chance that small materials found on the site will be found in their original location and not recovered in the screen.

Screening will also include using a smaller hardware mesh than the standard ¼-inch that is generally used. Other possibilities for future fieldwork include trenching between the sites to determine whether or not the sites occupy the same horizon and whether or not there is material between the known sites. Additionally, I would like to take some samples for wet-sieving at the lake. I would also like to employ more accurate methods for survey of the materials on the site by establishing a local benchmark datum. This can be accomplished by utilizing a Trimble hand-held GPS unit like the GeoXH Handheld.

I will be employing aerial survey methods into the excavations. These aerial photographs will allow me to make detailed maps of the site, and allow me to track progress as the dig progresses. I will be converting some digital cameras to take infrared and ultraviolet photographs. These photographs can be overlain on each other to make a composite multi-band image. These photos, analyzed both individually and as composites may be able to identify features on the landscape, which are not apparently with visible light.

The analysis will be extended to look at all materials recovered from the site and include bone fragments. Bone fragments will be measured and analyzed in the same manner that artifacts were analyzed, with an attempt to separate the fragments by size. The usefulness of this will, of course, depend on the stage of preservation, and may not prove ultimately useful, seeing much of the bone found on site is degraded. Regardless of the condition of the bone, it may be useful to look at the raw concentrations of bone, regardless of size.

Additionally, future work will look into alternative methods on how to identify burned bone. There is some indication that burned bone responds differently to non-visible light spectra than bone that has not been exposed to fire (Calvey, 2011). This phenomenon will be investigated further to assess whether this technique is applicable to material in the deep past and whether or not the condition of the bone affects the signal. If this technique is applicable to material that is in less than perfect condition, then this may help to identify burned bone material when other methods, such as looking at histology, are not applicable.

Refitting studies should be done on the material. Refitting studies are time consuming regardless of the type of materials available, but became more difficult with material that is largely the same. A careful study of the materials including exacting photographs taken to virtually recreate materials may help to ease these studies, because pieces can be fit using a computer program and confirmed in the lab. In the case of the material at FxJj20 AB, using a computer to recreate the pieces has an advantage in that many of the FxJj20 AB artifacts are too small to be individually labeled. The computer generated model of an artifact will be labeled virtually and there will be no risk of misidentifying the proper

catalog number for each artifact. It is important that I be able to look at the spatial data associated with any refitting materials to be able to assess behaviors of hominins on the site. A virtual refitting may also produce phantom cores, an inner shape of what may have been taken off the site.

Finally, these research methods should be applied to more sites around this time period, in order to corroborate the evidence from the FxJj 20 sites. Other similarly dated locations on the landscape may hold more evidence of fire technology and use by our human ancestors. This will require more survey and identification of relatively undisturbed high-density sites with micro-artifacts present. An undertaking of this magnitude will require the effective use of technology and field resources to quickly identify new potential sites for investigation.

Works Cited

- Alperson-Afil, N., 2008. Continual fire-making by hominins at Gesher Benot Ya'akov, Israel. *Quaternary Science Reviews* 27, 1733–1739.
- Alperson-Afil, N., Goren-Inbar, N., 2006. Out of Africa and into Eurasia with controlled use of fire: evidence from Gesher Benot Ya'akov, Isreal. *Archaeology, ethnology &anthropology of Eurasia* 2006, 63–78.
- Alperson-Afil, N., Goren-Inbar, N., 2010. The Acheulian Site of Gesher Benot Ya'akov Volume II: Ancient Flames and Controlled Use of Fire, in: Delson, E., Sargis, E. (Eds.), *The Acheulean Site of Gesher Benot Ya'akov Volume II*. Springer, Dordrecht, Heidelberg, London, New York, pp. i–xxviii.
- Alperson-Afil, N., Ricter, D., Goren-Inbar, N., 2007. Phantom hearths and the use of fire at Gesher Benot Ya`aqov, Israel. *PaleoAnthropology* 1–15.
- Alperson-Afil, N., Sharon, G., Kislev, M., Melamed, Y., Zohar, I., Ashkenazi, S., Rabinovich, R., Biton, R., Werker, E., Hartman, G., Feibel, C., Goren-Inbar, N., 2009. Spatial organization of hominin activities at Gesher Benot Ya'akov, Israel. *Science (New York, N.Y.)* 326, 1677–80.
- Barbetti, M., 1986. Traces of fire in the archaeological record before one million years ago? *Journal of Human Evolution* 15, 771–781.
- Barbetti, M., Williams, F.M., Williams, M.A.J., 1980. Paleomagnetism and the search for very early fireplaces in Africa. *Anthropologie* 18, 299–304.

- Bellomo, R., 1994. Methods of determining early hominid behavioral activities associated with controlled use of fire at FxJj 20 Main, Koobi Fora, Kenya. *Journal of Human Evolution* 27, 173–195.
- Bellomo, R.V., 1990. Methods for documenting unequivocal evidence of humanly controlled fire at early Pleistocene sites in East Africa: the role of actualistic studies. University of Wisconsin, Milwaukee.
- Bellomo, R.V., 1993. A methodological approach for identifying archaeological evidence of fire resulting from human activities. *Journal of Archaeological Science* 20, 525–553.
- Bellomo, R.V., Kean, W., 1997. Evidence of hominid-controlled fire at the FxJj20 site complex, Karari Escarpment, in: Isaac, G.L., Issac, B. (Eds.), *Koobi Fora Research Project Volume 51*. Clarendon Press, Oxford, p. Appendix 4A.
- Beyer, H., 2012. Geospatial Modeling Environment (0.6.2.0).
- Binford, L.R., 1983. *In Pursuit of the Past: Decoding the Archaeological Record*. University of California Press, Berkeley and Los Angeles.
- Boback, S.M., Cox, C.L., Ott, B.D., Carmody, R., Wrangham, R.W., Secor, S.M., 2007. Cooking and grinding reduces the cost of meat digestion. *Comparative biochemistry and physiology. Part A, Molecular & integrative physiology* 148, 651–6.

- Brain, C.K., 1993. The occurrence of burnt bones at Swartkrans and their implications for the control of fire by early hominids, in: Brain, C.K. (Ed.), *Swartkrans: A Cave's Chronicle of Early Man*. Transvaal Museum, Pretoria, pp. 229–242.
- Brain, C.K., Sellen, A., 1988. Evidence from Swartkrans cave for the earliest use of fire. *Nature* 336, 464–466.
- Brown, K.S., Marean, C.W., Herries, A.I.R., Jacobs, Z., Tribolo, C., Braun, D., Roberts, D.L., Meyer, M.C., Bernatchez, J., 2009. Fire as an engineering tool of early modern humans. *Science* (New York, N.Y.) 325, 859–62.
- Calvey, K., 2011. The Effects of Fire, in Visible and Ultraviolet Light on Cut-marked Juvenile Goat Boan and its Implications of Fire Use by Early Hominins.
- Carmody, R.N., Weintraub, G.S., Wrangham, R.W., 2011. Energetic consequences of thermal and nonthermal food processing. *Proceedings of the National Academy of Sciences* 1–5.
- Carmody, R.N., Wrangham, R.W., 2009. The energetic significance of cooking. *Journal of Human Evolution* 57, 379–391.
- Clark, J.D., Harris, J.W., 1985. Fire and its role in early hominid lifeways. *African Archaeological Review* 3, 3–27.
- Clark, J.D., Kurashina, H., 1979. Hominid occupations of the east-central highland of Ethiopia in the Plio-Pleistocene. *Nature* 282, 33–39.

CRAN, 2013. The Comprehensive R Archive Network [WWW Document]. URL

<http://cran.us.r-project.org/>

Goldberg, P., Dibble, H., Berna, F., Sandgathe, D., McPherron, S.J.P., Turq, A., 2010.

New evidence on Neandertal use of fire: Examples from Roc de Marsal and Pech de l’Azé IV. *Quaternary International* 247, 325–340.

Goren-Inbar, N., Alperson, N., Kislev, M.E., Simchoni, O., Melamed, Y., Ben-Nun, A.,

Werker, E., 2004. Evidence of hominin control of fire at Gesher Benot Ya’aqov, Israel. *Science (New York, N.Y.)* 304, 725–7.

Gowlett, J.A.J., Harris, J.W., Walton, D., Wood, B.A., 1981. Early Archaeological sites,

hominid remains, and traces of fire from Chesowanja, Kenya. *Comptes Rendes Palevol* 5, 299–310.

Hanson, M., Cain, C.R., 2007. Examining histology to identify burned bone. *Journal of Archaeological Science* 34, 1902–1913.

Harris, J.W.K., 1978. The Karari Industry: Its place in East African Prehistory.

Harris, J.W.K., 1997. FxJj 20, in: Isaac, G.L., Isaac, B. (Eds.), *Koobi Fora Research Project Volume 5*. Clarendon Press, Oxford, pp. 147–169.

James, S.R., 1989. Hominid Use of Fire in the Lower and Middle Pleistocene: A Review of the Evidence. *Current Anthropology* 30, 1–26.

- Koebnick, C., Strassner, C., Hoffmann, I., Leitzmann, C., 1999. Consequences of a long-term raw food diet on body weight and menstruation: results of a questionnaire survey. *Annals Nutrition and Metabolism* 43, 69–79.
- Ludwig, B., 2000. New evidence for the possible controlled use of fire from ESA sites in the Olduvai and Turkana basins. *Journal of Human Evolution* 38, A17.
- Mandeville, M.D., 1973. A consideration of the thermal pretreatment of chert. *Plains Anthropologist* 18, 177–202.
- Marshall, A.J., Wrangham, R.W., 2007. Evolutionary Consequences of Fallback Foods. *International Journal of Primatology* 28, 1219–1235.
- O'Connell, J., Hawkes, K., 1999. Grandmothering and the evolution of *Homo erectus*. *Journal of Human Evolution* 36, 461–485.
- Person, A., Mariotti, A., Bocherens, H., Renard, M., 1996. Diagenetic evolution and experimental heating of bone phosphate. *Palaeogeography, Palaeoclimatology, Palaeoecology* 126, 135–149.
- Purdy, B., Brooks, H., 1971. Thermal alteration of silica minerals: an archeological approach. *Science (New York, NY)* 173, 322–325.
- Roebroeks, W., Villa, P., 2011. On the earliest evidence for habitual use of fire in Europe. *Proceedings of the National Academy of Sciences of the United States of America* 108, 5209–14.

- Sandgathe, D.M., Dibble, H.L., Goldberg, P., McPherron, S.P., Turq, A., Niven, L., Hodgkins, J., 2011. Timing of the appearance of habitual fire use. *Proceedings of the National Academy of Sciences of the United States of America* 108, E298; author reply E299.
- Schick, K., 1987. Modeling the formation of Early Stone Age artifact concentrations. *Journal of Human Evolution* 16, 789–807.
- Stahl, A.B., Dunbar, R., Homewood, K., Ikawa-Smith, F., Kortlandt, A., McGrew, W., Milton, K., Paterson, J., Poirier, F., Sugardjito, J., others, 1984. Hominid dietary selection before fire [and Comments and Reply]. *Current Anthropology* 25, 151–168.
- Thieme, H., 2000. Lower Palaeolithic hunting weapons from Schöningen, Germany: the oldest spears in the world. *Acta Anthropol. Sinica* 19 (Supp), 140–147.
- Wrangham, R., Carmody, R., 2010. Human Adaptation to the Control of Fire 199, 187–199.
- Wrangham, R.W., 2009. *Catching Fire: How Cooking Made Us Human*. Basic Books, New York.
- Wrangham, R.W., Jones, J.H., Laden, G., Pilbeam, D., Conklin-Brittain, N.L., 1999. The raw and the stolen: cooking and the ecology of human origins. *Current Anthropology* 40, 567–594.

Appendix 1: All Artifacts

Codes:

RecNo = record number

ID = catalog ID

North UTM = Northing in UTM coordinates

East UTM = Easting in UTM coordinates

Z = elevation

Micro = micro-artifact

Ang frag = angular fragment

RECNO	YEAR	UNIT	ID	SUFFIX	DESCRIPTION	NorthUTM	EastUTM	Z	class	type	subtype	term
2986	1973	GPF_Exc	4207	0	artifact	459523.4387	213149.2857	100.22	micro	ang frag		
2987	1973	GPF_Exc	4210	0	artifact	459522.9287	213149.4457	100.31	flake			
2988	1973	GPF_Exc	4211	0	artifact	459523.1287	213148.6757	100.20	micro	flake		
2989	1973	GPF_Exc	4212	0	artifact	459523.1087	213148.8457	100.22	micro	ang frag		
2990	1973	GPF_Exc	4213	0	artifact	459521.6287	213148.5757	100.21	flake			
2991	1973	GPF_Exc	4214	0	artifact	459521.9387	213149.3057	100.25	ang frag			
2992	1973	GPF_Exc	4216	0	artifact	459521.5787	213148.3557	100.18	ang frag			
2993	1973	GPF_Exc	4217	0	artifact	459521.6387	213148.4157	100.21	flake			
2994	1973	GPF_Exc	4218	0	artifact	459521.6387	213148.3757	100.2	ang frag			
2995	1973	GPF_Exc	4219	0	artifact	459521.6487	213148.3157	100.16	flake			
2996	1973	GPF_Exc	4220	0	artifact	459521.7787	213148.3157	100.16	flake			
2997	1973	GPF_Exc	4221	0	artifact	459521.8587	213148.3157	100.17	ang frag			
2998	1973	GPF_Exc	4222	0	artifact	459521.8787	213148.3757	100.2	flake			
2999	1973	GPF_Exc	4223	0	artifact	459521.9187	213148.2757	100.16	ang frag			
3000	1973	GPF_Exc	4224	0	artifact	459521.8987	213148.3157	100.17	ang frag			
3001	1973	GPF_Exc	4226	0	artifact	459521.9187	213148.2357	100.15	flake			
3002	1973	GPF_Exc	4227	0	artifact	459521.9587	213148.2957	100.18	ang frag			

3003	1973	GPF_Exc	4230	0	artifact	459521.9987	213148.2657	100.15	flake				
3004	1973	GPF_Exc	4232	0	artifact	459522.2587	213148.3657	100.21	flake				
3005	1973	GPF_Exc	4233	1	artifact	459522.4587	213148.9457	100.28	flake				
3006	1973	GPF_Exc	4233	2	artifact	459522.4587	213148.9357	100.28	flake				
3007	1973	GPF_Exc	4237	0	artifact	459519.7487	213148.8257	100.17	flake				
3008	1973	GPF_Exc	4238	0	artifact	459519.7887	213148.8257	100.18	flake				
3009	1973	GPF_Exc	4239	0	artifact	459519.7987	213148.8357	100.19	flake				
3010	1973	GPF_Exc	4240	0	artifact	459522.7287	213148.7657	100.8	ang frag				
3011	1973	GPF_Exc	4244	0	artifact	459522.4587	213148.9857	100.28	flake				
3012	1973	GPF_Exc	4245	0	artifact	459522.3887	213148.9757	100.26	flake				
3013	1973	GPF_Exc	4246	0	artifact	459522.2687	213149.1357	100.24	flake				
3014	1973	GPF_Exc	4247	0	artifact	459523.2087	213148.5257	100.17	ang frag				
3015	1973	GPF_Exc	4250	0	artifact	459523.4287	213150.2257	100.31	flake				
3016	1973	GPF_Exc	4252	0	artifact	459522.9487	213149.7057	100.40	ang frag				
3017	1973	GPF_Exc	4276	0	artifact	459522.0687	213150.9057	100.41	flake				
3018	1973	GPF_Exc	4280	0	artifact	459520.6987	213149.5957	100.36	flake				
3019	1973	GPF_Exc	4281	0	artifact	459523.3487	213150.6557	100.43	flake				
3020	1973	GPF_Exc	4282	0	artifact	459523.0587	213150.9257	100.38	flake				
3021	1973	GPF_Exc	4295	0	artifact	459523.1687	213149.6757	100.32	flake				
3022	1973	GPF_Exc	4296	0	artifact	459523.3287	213150.1757	100.31	ang frag				
3023	1973	GPF_Exc	4298	0	artifact	459521.7587	213149.9357	100.32	flake				
3024	1973	GPF_Exc	4299	0	artifact	459522.0687	213150.4057	100.39	ang frag				
3025	1973	GPF_Exc	4305	0	artifact	459522.5187	213150.0857	100.31	flake				
3026	1973	GPF_Exc	4307	0	artifact	459520.2087	213149.8157	100.38	ang frag				
3027	1973	GPF_Exc	4309	0	artifact	459522.7087	213148.8457	100.2	flake				
3028	1973	GPF_Exc	4310	0	artifact	459521.5787	213148.5357	100.21	micro	split/snap flake			
3029	1973	GPF_Exc	4311	0	artifact	459521.6187	213148.5257	100.22	ang frag				
3030	1973	GPF_Exc	4312	0	artifact	459522.1587	213149.1857	100.21	flake				

3031	1973	GPF_Exc	4313	0	artifact	459520.2787	213149.0357	100.18	ang frag			
3032	1973	GPF_Exc	4314	0	artifact	459521.4587	213148.4257	100.16	ang frag			
3033	1973	GPF_Exc	4327	0	artifact	459522.5187	213151.2157		cobble			
3034	1973	GPF_Exc	4330	0	artifact	459520.6487	213150.6657	100.41	splitflake			
3035	1973	GPF_Exc	4330	0	artifact	459520.6487	213150.6657		ang frag			
3036	1973	GPF_Exc	4340	0	artifact	459522.6287	213149.6857	100.34	flake			
3037	1973	GPF_Exc	4340	0	artifact	459522.6287	213149.6857		ang frag			
3038	1973	GPF_Exc	4341	0	artifact	459523.3187	213150.4057	100.25	flake			
3039	1973	GPF_Exc	4341	0	artifact	459523.3187	213150.4057		flake			
3040	1973	GPF_Exc	4342	0	artifact	459521.7087	213150.5957	100.19	micro	split flake		
3041	1973	GPF_Exc	4342	0	artifact	459521.7087	213150.5957	100.32	flake			
3042	1973	GPF_Exc	4343	0	artifact	459522.3087	213150.4657	100.39	flake			
3043	1973	GPF_Exc	4344	0	artifact	459522.2387	213150.7257		core			
3044	1973	GPF_Exc	4345	0	artifact	459522.1587	213150.7857		core			
3045	1973	GPF_Exc	4346	0	artifact	459521.5987	213151.0757		core			
3046	1973	GPF_Exc	4347	0	artifact	459521.5687	213151.2057	100.32	ang frag			
3047	1973	GPF_Exc	4361	0	artifact	459521.8087	213149.5557		cobble			
3048	1973	GPF_Exc	4364	0	artifact	459522.0987	213150.3657	100.21	flake			
3049	1973	GPF_Exc	4365	0	artifact	459519.8787	213149.5757	100.20	pebble			
3050	1973	GPF_Exc	4366	0	artifact	459520.1987	213149.8957		pebble			
3051	1973	GPF_Exc	4369	0	artifact	459521.8887	213148.8657	100.21	flake			
3052	1973	GPF_Exc	4370	0	artifact	459520.8487	213149.9057	100.21	ang frag			
3053	1973	GPF_Exc	4372	0	artifact	459520.5887	213150.2657	100.24	micro	pebble		
3054	1973	GPF_Exc	4373	0	artifact	459521.3387	213150.3557	100.21	micro	pebble		
3055	1973	GPF_Exc	4376	0	artifact	459522.1387	213150.6857	100.19	flake			
3056	1973	GPF_Exc	4377	0	artifact	459521.9687	213150.7057	100.19	flake			
3057	1973	GPF_Exc	4379	0	artifact	459522.3087	213150.7557	100.19	flake			
3058	1973	GPF_Exc	4380	0	artifact	459522.3087	213150.7557	100.19	flake			

3059	1973	GPF_Exc	4381	0	artifact	459522.0687	213150.8857	100.19	flake			
3060	1973	GPF_Exc	4382	0	artifact	459522.0187	213151.0157	100.2	flake			
3061	1973	GPF_Exc	4384	0	artifact	459521.9287	213151.1257	100.2	flake			
3062	1973	GPF_Exc	4385	0	artifact	459521.8287	213151.1857	100.22	flake			
3063	1973	GPF_Exc	4386	0	artifact	459521.7687	213151.1857	100.23	flake			
3064	1973	GPF_Exc	4387	0	artifact	459521.8687	213151.2757	100.21	ang frag			
3065	1973	GPF_Exc	4388	0	artifact	459521.5887	213150.7357	100.2	core			
3066	1973	GPF_Exc	4389	0	artifact	459521.6087	213150.7557	100.2	flake			
3067	1973	GPF_Exc	4394	0	artifact	459523.4887	213150.5457	100.2	flake			
3068	1973	GPF_Exc	4396	0	artifact	459523.4687	213150.6057	100.22	ang frag			
3069	1973	GPF_Exc	4397	0	artifact	459523.3887	213150.5857	100.22	ang frag			
3070	1973	GPF_Exc	4398	0	artifact	459523.4487	213150.6957	100.22	flake			
3071	1973	GPF_Exc	4400	0	artifact	459523.3887	213150.7157	100.23	flake			
3072	1973	GPF_Exc	4405	0	artifact	459523.2687	213149.6657	100.2	flake			
3073	1973	GPF_Exc	4406	0	artifact	459522.9187	213150.0757	100.2	ang frag			
3074	1973	GPF_Exc	4407	0	artifact	459522.8287	213145.6957	100.19	ang frag			
3075	1973	GPF_Exc	4408	0	artifact	459523.0087	213150.6957	100.19	flake			
3076	1973	GPF_Exc	4409	0	artifact	459523.1887	213150.6257	100.22	flake			
3077	1973	GPF_Exc	4410	0	artifact	459523.2487	213150.6657	100.20	ang frag			
3078	1973	GPF_Exc	4413	0	artifact	459523.3587	213150.6457	100.2	flake			
3079	1973	GPF_Exc	4414	0	artifact	459523.3987	213150.6557	100.2	micro	snap flake		
3080	1973	GPF_Exc	4416	0	artifact	459523.4587	213150.7557	100.23	flake			
3081	1973	GPF_Exc	4417	0	artifact	459523.4587	213150.6157	100.21	micro	flake		
3082	1973	GPF_Exc	4419	0	artifact	459523.4687	213150.8157	100.21	flake			
3083	1973	GPF_Exc	4420	0	artifact	459521.6687	213150.8957	100.21	flake			
3084	1973	GPF_Exc	4421	0	artifact	459521.6087	213150.8657	100.21	ang frag			
3085	1973	GPF_Exc	4422	0	artifact	459521.5687	213150.9357	100.21	flake			
3086	1973	GPF_Exc	4423	0	artifact	459521.5487	213150.9557	100.21	micro	snap flake		

3087	1973	GPF_Exc	4424	0	artifact	459521.5387	213150.9857	100.21	flake			
3088	1973	GPF_Exc	4425	0	artifact	459521.6787	213150.9157	100.20	ang frag			
3089	1973	GPF_Exc	4426	0	artifact	459521.7087	213150.9357	100.2	flake			
3090	1973	GPF_Exc	4427	0	artifact	459521.6687	213150.9557	100.2	flake			
3091	1973	GPF_Exc	4430	0	artifact	459521.5587	213151.1757	100.2	flake			
3092	1973	GPF_Exc	4432	0	artifact	459521.5987	213151.3557	100.2	ang frag			
3093	1973	GPF_Exc	4433	0	artifact	459521.6287	213151.3557	100.20	micro	ang frag		
3094	1973	GPF_Exc	4434	0	artifact	459521.5687	213151.4157	100.21	flake			
3095	1973	GPF_Exc	4435	0	artifact	459521.5887	213151.4157	100.21	ang frag			
3096	1973	GPF_Exc	4436	0	artifact	459521.6687	213151.3857	100.21	ang frag			
3097	1973	GPF_Exc	4437	0	artifact	459521.7087	213151.3657	100.22	flake			
3098	1973	GPF_Exc	4438	0	artifact	459521.6587	213151.2457	100.2	ang frag			
3099	1973	GPF_Exc	4439	0	artifact	459521.8187	213151.3057	100.2	pebble			
3100	1973	GPF_Exc	4441	0	artifact	459521.8287	213151.2857	100.2	flake			
3101	1973	GPF_Exc	4442	0	artifact	459521.8287	213151.4057	100.2	flake			
3102	1973	GPF_Exc	4443	0	artifact	459521.8287	213151.3557	100.2	flake			
3103	1973	GPF_Exc	4445	0	artifact	459522.1887	213151.4257	100.2	flake			
3104	1973	GPF_Exc	4453	0	artifact	459523.1287	213150.7957	100.21	flake			
3105	1973	GPF_Exc	4454	0	artifact	459523.1487	213150.7857	100.21	flake			
3106	1973	GPF_Exc	4455	0	artifact	459523.1487	213150.8257	100.22	flake			
3107	1973	GPF_Exc	4457	0	artifact	459523.2987	213150.8557	100.20	micro	split flake		
3108	1973	GPF_Exc	4458	0	artifact	459523.3287	213150.8357	100.21	flake			
3109	1973	GPF_Exc	4460	0	artifact	459523.4187	213150.8757	100.21	flake			
3110	1973	GPF_Exc	4461	0	artifact	459523.4287	213150.9257	100.21	ang frag			
3111	1973	GPF_Exc	4464	0	artifact	459523.4087	213150.9657	100.21	flake			
3112	1973	GPF_Exc	4465	0	artifact	459523.3887	213150.9857	100.22	flake			
3113	1973	GPF_Exc	4481	0	artifact	459523.4687	213151.1857	100.23	flake			
3114	1973	GPF_Exc	4483	0	artifact	459523.4587	213151.2557	100.22	ang frag			

3115	1973	GPF_Exc	4484	0	artifact	459523.3687	213151.2057	100.32	flake			
3116	1973	GPF_Exc	4487	0	artifact	459523.3487	213151.2557	100.23	flake			
3117	1973	GPF_Exc	4489	0	artifact	459523.2587	213151.0857	100.22	ang frag			
3118	1973	GPF_Exc	4490	0	artifact	459523.2587	213151.0257	100.19	core			
3119	1973	GPF_Exc	4491	0	artifact	459523.3187	213150.9657	100.22	flake			
3120	1973	GPF_Exc	4492	0	artifact	459523.2887	213150.9357	100.22	flake			
3121	1973	GPF_Exc	4493	0	artifact	459523.2087	213150.9157	100.22	ang frag			
3122	1973	GPF_Exc	4494	0	artifact	459523.2187	213150.9357	100.22	ang frag			
3123	1973	GPF_Exc	4495	0	artifact	459523.1687	213150.8857	100.2	flake			
3124	1973	GPF_Exc	4498	0	artifact	459523.1387	213150.9057	100.20	flake			
3125	1973	GPF_Exc	4499	0	artifact	459523.1387	213150.9657	100.23	flake			
3126	1973	GPF_Exc	4500	0	artifact	459523.1487	213150.9857	100.23	flake			
3127	1973	GPF_Exc	4501	0	artifact	459523.1187	213151.0057	100.23	micro	flake		
3128	1973	GPF_Exc	4502	0	artifact	459523.0887	213150.9257	100.23	flake			
3129	1973	GPF_Exc	4504	0	artifact	459523.0187	213150.9557	100.23	flake			
3130	1973	GPF_Exc	4505	0	artifact	459523.0387	213150.9957	100.23	flake			
3131	1973	GPF_Exc	4506	0	artifact	459523.0187	213151.0357	100.23	flake			
3132	1973	GPF_Exc	4508	0	artifact	459523.0487	213151.0857	100.23	ang frag			
3133	1973	GPF_Exc	4509	0	artifact	459523.0087	213151.0857	100.23	flake			
3134	1973	GPF_Exc	4510	0	artifact	459523.1187	213151.0457	100.23	micro	split flake		
3135	1973	GPF_Exc	4511	0	artifact	459523.1487	213151.0857	100.23	flake			
3136	1973	GPF_Exc	4512	0	artifact	459523.1887	213151.0657	100.23	micro	ang frag		
3137	1973	GPF_Exc	4514	0	artifact	459523.2487	213151.1557	100.20	flake			
3138	1973	GPF_Exc	4515	0	artifact	459523.2587	213151.2357	100.20	ang frag			
3139	1973	GPF_Exc	4516	0	artifact	459523.1587	213151.2057	100.24	flake			
3140	1973	GPF_Exc	4517	0	artifact	459523.1787	213151.1357	100.24	flake			
3141	1973	GPF_Exc	4519	0	artifact	459523.0887	213151.1857	100.23	flake			
3142	1973	GPF_Exc	4520	0	artifact	459523.0487	213151.1957	100.23	ang frag			

3143	1973	GPF_Exc	4523	0	artifact	459523.0587	213151.1957	100.21	micro	ang frag		
3144	1973	GPF_Exc	4523	0	artifact	459523.0587	213151.1957	100.21	flake			
3145	1973	GPF_Exc	4524	0	artifact	459523.4387	213151.4257	100.21	ang frag			
3146	1973	GPF_Exc	4526	0	artifact	459523.2687	213151.3957	100.21	ang frag			
3147	1973	GPF_Exc	4527	0	artifact	459523.1487	213151.4157	100.21	flake			
3148	1973	GPF_Exc	4528	0	artifact	459523.0587	213151.3057	100.19	core			
3149	1973	GPF_Exc	4531	0	artifact	459522.5587	213151.2157	100.2	flake			
3150	1973	GPF_Exc	4532	0	artifact	459522.8587	213150.9857	100.20	flake			
3151	1973	GPF_Exc	4533	0	artifact	459522.8887	213151.1057	100.2	flake			
3152	1973	GPF_Exc	4534	0	artifact	459522.8487	213151.1657	100.2	flake			
3153	1973	GPF_Exc	4535	0	artifact	459522.9787	213151.0057	100.2	flake			
3154	1973	GPF_Exc	4536	0	artifact	459522.9887	213150.8857	100.2	flake			
3155	1973	GPF_Exc	4537	0	artifact	459523.1487	213151.1157	100.23	flake			
3156	1973	GPF_Exc	4538	0	artifact	459520.7487	213151.3557	100.19	ang frag			
3157	1973	GPF_Exc	4539	0	artifact	459521.1987	213150.5457	100.25	flake			
3158	1973	GPF_Exc	4543	0	artifact	459521.1387	213149.3857	100.19	flake			
3159	1973	GPF_Exc	4544	0	artifact	459521.2787	213149.4057	100.17	flake			
3160	1973	GPF_Exc	4546	0	artifact	459523.1187	213150.9757	100.21	ang frag			
3161	1973	GPF_Exc	4547	0	artifact	459520.8387	213149.1157	100.19	flake			
3162	1973	GPF_Exc	4548	0	artifact	459519.8487	213149.3357	100.21	flake			
3163	1973	GPF_Exc	4549	0	artifact	459522.4187	213148.9957	100.19	flake			
3164	1973	GPF_Exc	4550	0	artifact	459522.3987	213148.8757	100.19	ang frag			
3165	1973	GPF_Exc	4551	0	artifact	459522.3987	213148.8057	100.19	flake			
3166	1973	GPF_Exc	4552	0	artifact	459522.2887	213148.7457	100.17	ang frag			
3167	1973	GPF_Exc	4553	0	artifact	459522.2187	213149.1657	100.17	flake			
3168	1973	GPF_Exc	4554	0	artifact	459522.2987	213149.2857	100.17	flake			
3169	1973	GPF_Exc	4556	0	artifact	459522.0487	213149.0757	100.16	flake			
3170	1973	GPF_Exc	4557	0	artifact	459522.1787	213148.9557	100.16	flake			

3171	1973	GPF_Exc	4558	0	artifact	459521.8787	213149.1557	100.16	ang frag				
3172	1973	GPF_Exc	4560	0	artifact	459519.8187	213149.0157	100.16	flake				
3173	1973	GPF_Exc	4561	0	artifact	459521.7987	213148.9757	100.17	micro	split flake			
3174	1973	GPF_Exc	4562	0	artifact	459521.9287	213148.9457	100.16	flake				
3175	1973	GPF_Exc	4563	0	artifact	459521.6887	213148.8257	100.17	flake				
3176	1973	GPF_Exc	4564	0	artifact	459521.7187	213148.7557	100.17	flake				
3177	1973	GPF_Exc	4565	0	artifact	459521.8687	213148.7957	100.20	ang frag				
3178	1973	GPF_Exc	4566	0	artifact	459521.7087	213148.5257	100.17	flake				
3179	1973	GPF_Exc	4568	0	artifact	459521.7487	213148.5257	100.17	flake				
3180	1973	GPF_Exc	4569	0	artifact	459521.7687	213148.6057	100.17	flake				
3181	1973	GPF_Exc	4570	0	artifact	459521.8187	213148.7657	100.20	flake				
3182	1973	GPF_Exc	4571	0	artifact	459521.8587	213148.7057	100.2	ang frag				
3183	1973	GPF_Exc	4572	0	artifact	459521.9087	213148.7557	100.19	micro	snap flake			
3184	1973	GPF_Exc	4572	0	artifact	459521.9387	213148.6657	100.2	flake				
3185	1973	GPF_Exc	4573	0	artifact	459521.9187	213148.7057	100.18	flake				
3186	1973	GPF_Exc	4575	0	artifact	459521.9387	213148.5957	100.18	flake				
3187	1973	GPF_Exc	4576	0	artifact	459521.9587	213148.7757	100.18	ang frag				
3188	1973	GPF_Exc	4577	0	artifact	459521.9487	213148.7357	100.18	micro	ang frag			
3189	1973	GPF_Exc	4578	0	artifact	459521.9787	213148.6957	100.19	flake				
3190	1973	GPF_Exc	4579	0	artifact	459522.0087	213148.7257	100.18	flake				
3191	1973	GPF_Exc	4580	0	artifact	459521.9987	213148.6857	100.18	ang frag				
3192	1973	GPF_Exc	4581	0	artifact	459522.9787	213151.1157	100.20	ang frag				
3193	1973	GPF_Exc	4588	0	artifact	459523.2387	213149.2157	100.17	flake				
3194	1973	GPF_Exc	4589	0	artifact	459523.1987	213149.1657	100.18	ang frag				
3195	1973	GPF_Exc	4590	0	artifact	459523.1987	213149.1557	100.18	flake				
3196	1973	GPF_Exc	4591	0	artifact	459523.0087	213149.0657	100.18	flake				
3197	1973	GPF_Exc	4592	0	artifact	459523.0287	213149.0157	100.18	flake				
3198	1973	GPF_Exc	4593	0	artifact	459522.9987	213149.0557	100.18	flake				

3199	1973	GPF_Exc	4594	0	artifact	459522.9087	213149.0857	100.18	ang frag			
3200	1973	GPF_Exc	4596	0	artifact	459522.6987	213149.2057	100.17	ang frag			
3201	1973	GPF_Exc	4598	0	artifact	459522.7287	213149.1257	100.17	flake			
3202	1973	GPF_Exc	4599	0	artifact	459522.6987	213149.2057	100.17	ang frag			
3203	1973	GPF_Exc	4601	0	artifact	459522.5387	213149.3157	100.16	ang frag			
3204	1973	GPF_Exc	4604	0	artifact	459522.7687	213148.8357	100.18	flake			
3205	1973	GPF_Exc	4605	0	artifact	459522.7187	213148.8557	100.19	ang frag			
3206	1973	GPF_Exc	4606	0	artifact	459522.7687	213148.8357	100.19	flake			
3207	1973	GPF_Exc	4607	0	artifact	459522.7887	213149.0557	100.17	flake			
3208	1973	GPF_Exc	4608	0	artifact	459522.8287	213149.0357	100.18	flake			
3209	1973	GPF_Exc	4609	0	artifact	459522.8587	213148.9157	100.18	ang frag			
3210	1973	GPF_Exc	4610	0	artifact	459522.8887	213148.9557	100.18	flake			
3211	1973	GPF_Exc	4611	0	artifact	459522.9687	213149.0057	100.18	micro	split/snap flake		
3212	1973	GPF_Exc	4612	0	artifact	459522.9887	213148.9857	100.18	flake			
3213	1973	GPF_Exc	4613	0	artifact	459522.9287	213149.0657	100.18	flake			
3214	1973	GPF_Exc	4614	0	artifact	459522.9987	213148.9057	100.17	hammerstone			
3215	1973	GPF_Exc	4615	0	artifact	459522.9987	213148.8957	100.17	micro	ang frag		
3216	1973	GPF_Exc	4616	0	artifact	459522.9287	213148.9957	100.18	ang frag			
3217	1973	GPF_Exc	4617	0	artifact	459522.9187	213148.8657	100.18	ang frag			
3218	1973	GPF_Exc	4619	0	artifact	459522.9387	213148.7457	100.18	ang frag			
3219	1973	GPF_Exc	4620	0	artifact	459522.9187	213148.7257	100.18	flake			
3220	1973	GPF_Exc	4622	0	artifact	459523.1687	213148.6557	100.60	core			
3221	1973	GPF_Exc	4623	0	artifact	459523.1487	213148.6157	100.16	flake			
3222	1973	GPF_Exc	4626	0	artifact	459523.1687	213148.9457	100.17	ang frag			
3223	1973	GPF_Exc	4627	0	artifact	459523.2187	213148.9957	100.17	flake			
3224	1973	GPF_Exc	4628	0	artifact	459523.2387	213149.0057	100.17	flake			
3225	1973	GPF_Exc	4629	0	artifact	459521.6387	213148.9657	100.17	flake			
3226	1973	GPF_Exc	4630	0	artifact	459519.6887	213148.7757	100.17	splitflake			

3227	1973	GPF_Exc	4631	0	artifact	459519.6287	213148.8357	100.17	core			
3228	1973	GPF_Exc	4632	0	artifact	459519.6387	213148.9757	100.18	ang frag			
3229	1973	GPF_Exc	4633	0	artifact	459519.7687	213149.4157	100.16	flake			
3230	1973	GPF_Exc	4634	0	artifact	459519.9687	213148.9757	100.17	ang frag			
3231	1973	GPF_Exc	4637	0	artifact	459521.4887	213149.5957	100.18	ang frag			
3232	1973	GPF_Exc	4638	0	artifact	459521.2087	213149.4857	100.16	flake			
3233	1973	GPF_Exc	4640	0	artifact	459521.2687	213149.5657	100.16	micro	ang frag		
3234	1973	GPF_Exc	4641	0	artifact	459521.2287	213149.6657	100.15	micro	split flake		
3235	1973	GPF_Exc	4642	0	artifact	459521.2187	213149.7157	100.15	flake			
3236	1973	GPF_Exc	4643	0	artifact	459521.3487	213149.7657	100.19	ang frag			
3237	1973	GPF_Exc	4644	0	artifact	459521.3387	213149.8857	100.18	flake			
3238	1973	GPF_Exc	4645	0	artifact	459521.3287	213149.9157	100.18	flake			
3239	1973	GPF_Exc	4646	0	artifact	459519.5087	213149.8757	100.17	flake			
3240	1973	GPF_Exc	4647	0	artifact	459520.9487	213149.4557	100.16	flake			
3241	1973	GPF_Exc	4648	0	artifact	459521.3387	213149.5657	100.15	micro	ang frag		
3242	1973	GPF_Exc	4648	0	artifact	459521.3387	213149.5657	100.15	flake			
3243	1973	GPF_Exc	4649	0	artifact	459519.5887	213150.0657	100.70	flake			
3244	1973	GPF_Exc	4650	0	artifact	459519.7087	213149.9057	100.18	green ignanbrite			
3245	1973	GPF_Exc	4651	0	artifact	459519.8887	213149.8757	100.17	green welded tuff			
3246	1973	GPF_Exc	4652	0	artifact	459519.7587	213149.9157	100.18	green welded tuff			
3247	1973	GPF_Exc	4653	0	artifact	459520.0887	213150.3357	100.18	flake			
3248	1973	GPF_Exc	4654	0	artifact	459519.7987	213150.2857	100.15	flake			
3249	1973	GPF_Exc	4656	0	artifact	459520.6387	213149.7657	100.16	micro	snap flake		
3250	1973	GPF_Exc	4657	0	artifact	459521.2887	213149.8357	100.15	flake			
3251	1973	GPF_Exc	4658	0	artifact	459521.4087	213150.1357	100.15	flake			
3252	1973	GPF_Exc	4659	0	artifact	459521.4487	213150.2957	100.15	flake			
3253	1973	GPF_Exc	4660	0	artifact	459521.4587	213150.1357	100.15	micro	ang frag		
3254	1973	GPF_Exc	4661	0	artifact	459521.4787	213149.9457	100.15	ang frag			

3255	1973	GPF_Exc	4665	0	artifact	459519.5987	213150.3057	100.15	ang frag			
3256	1973	GPF_Exc	4666	0	artifact	459519.5687	213149.8057	100.15	flake			
3257	1973	GPF_Exc	4667	0	artifact	459519.9287	213149.7257	100.15	ang frag			
3258	1973	GPF_Exc	4668	0	artifact	459521.6887	213148.3757	100.20	flake			
3259	1973	GPF_Exc	4678	0	artifact	459521.7587	213148.4157	100.20	cobble			
3260	1973	GPF_Exc	4679	0	artifact	459521.8687	213148.9157	100.16	micro	ang frag		
3261	1973	GPF_Exc	4680	0	artifact	459521.9287	213148.7857	100.16	flake			
3262	1973	GPF_Exc	4682	0	artifact	459521.7887	213148.4657	100.17	micro	split/snap flake		
3263	1973	GPF_Exc	4683	0	artifact	459522.4487	213149.9657	100.17	green welded tuff			
3264	1973	GPF_Exc	4685	0	artifact	459522.2187	213150.2657	100.16	micro	ang frag		
3265	1973	GPF_Exc	4686	0	artifact	459521.7087	213150.3157	100.16	snapped flake			
3266	1973	GPF_Exc	4687	0	artifact	459521.9987	213150.3457	100.15	micro	ang frag		
3267	1973	GPF_Exc	4688	0	artifact	459521.6187	213150.2457	100.16	core			
3268	1973	GPF_Exc	4689	0	artifact	459521.6787	213150.3157	100.16	flake			
3269	1973	GPF_Exc	4690	0	artifact	459521.5987	213150.3557	100.16	flake			
3270	1973	GPF_Exc	4691	0	artifact	459521.5987	213150.4157	100.16	flake			
3271	1973	GPF_Exc	4692	0	artifact	459521.6387	213150.3457	100.16	ang frag			
3272	1973	GPF_Exc	4693	0	artifact	459521.6487	213150.4057	100.16	flake			
3273	1973	GPF_Exc	4695	0	artifact	459523.2987	213150.2857	100.15	cobble			
3274	1973	GPF_Exc	4696	0	artifact	459523.3487	213150.2657	100.15	micro	snap flake		
3275	1973	GPF_Exc	4697	0	artifact	459523.2187	213150.2957	100.15	flake			
3276	1973	GPF_Exc	4698	0	artifact	459523.2087	213150.3557	100.15	ang frag			
3277	1973	GPF_Exc	4699	0	artifact	459523.1987	213150.3457	100.16	micro	ang frag		
3278	1973	GPF_Exc	4700	0	artifact	459523.1387	213150.3157	100.16	flake			
3279	1973	GPF_Exc	4701	0	artifact	459523.1287	213150.3957	100.17	ang frag			
3280	1973	GPF_Exc	4702	0	artifact	459523.1387	213150.2457	100.16	flake			
3281	1973	GPF_Exc	4703	0	artifact	459523.1087	213150.2857	100.17	micro	split/snap flake		
3282	1973	GPF_Exc	4704	0	artifact	459523.0787	213150.3357	100.17	ang frag			

3283	1973	GPF_Exc	4705	0	artifact	459523.0987	213150.2957	100.17	micro	flake		
3284	1973	GPF_Exc	4706	0	artifact	459523.0887	213150.3457	100.17	micro	flake		
3285	1973	GPF_Exc	4707	0	artifact	459523.0887	213150.4157	100.17	ang frag			
3286	1973	GPF_Exc	4708	0	artifact	459523.0787	213150.3557	100.17	micro	ang frag		
3287	1973	GPF_Exc	4712	0	artifact	459522.9787	213150.3557	100.17	ang frag			
3288	1973	GPF_Exc	4714	0	artifact	459522.9187	213150.3557	100.17	flake			
3289	1973	GPF_Exc	4715	0	artifact	459522.6587	213150.1757	100.15	flake			
3290	1973	GPF_Exc	4716	0	artifact	459522.6487	213150.1057	100.15	flake			
3291	1973	GPF_Exc	4717	0	artifact	459522.7787	213149.9957	100.16	snapped flake			
3292	1973	GPF_Exc	4718	0	artifact	459522.5387	213149.6857	100.19	ang frag			
3293	1973	GPF_Exc	4720	0	artifact	459523.2587	213149.8957	100.15	ang frag			
3294	1973	GPF_Exc	4721	0	artifact	459523.2087	213149.9957	100.15	micro	ang frag		
3295	1973	GPF_Exc	4722	0	artifact	459523.3687	213150.0457	100.17	ang frag			
3296	1973	GPF_Exc	4723	0	artifact	459523.3887	213150.0057	100.17	flake			
3297	1973	GPF_Exc	4724	0	artifact	459523.3887	213149.9357	100.17	ang frag			
3298	1973	GPF_Exc	4725	0	artifact	459523.4187	213149.7357	100.17	flake			
3299	1973	GPF_Exc	4727	0	artifact	459521.5287	213149.8457	100.15	flake			
3300	1973	GPF_Exc	4728	0	artifact	459521.8187	213150.0557	100.15	flake			
3301	1973	GPF_Exc	4729	0	artifact	459522.0087	213150.2957	100.15	flake			
3302	1973	GPF_Exc	4730	0	artifact	459522.0187	213150.2057	100.15	micro	ang frag		
3303	1973	GPF_Exc	4742	0	artifact	459523.4287	213150.6857	100.22	flake			
3304	1973	GPF_Exc	4744	0	artifact	459523.1487	213150.8357	100.21	ang frag			
3305	1973	GPF_Exc	4745	0	artifact	459523.2087	213150.8657	100.20	ang frag			
3306	1973	GPF_Exc	4746	0	artifact	459523.0187	213150.9757	100.21	ang frag			
3307	1973	GPF_Exc	4747	0	artifact	459523.2587	213150.7357	100.20	flake			
3308	1973	GPF_Exc	4748	0	artifact	459523.4187	213150.7257	100.22	cobble frag			
3309	1973	GPF_Exc	4749	0	artifact	459523.4687	213150.7657	100.22	flake			
3310	1973	GPF_Exc	4750	0	artifact	459521.5087	213150.7557	100.21	micro	ang frag		

3311	1973	GPF_Exc	4751	0	artifact	459521.5487	213150.8657	100.21	micro	ang frag		
3312	1973	GPF_Exc	4752	0	artifact	459521.5387	213150.8257	100.21	flake			
3313	1973	GPF_Exc	4753	0	artifact	459521.5087	213150.8657	100.21	scraper			
3314	1973	GPF_Exc	4754	0	artifact	459521.5087	213150.8957	100.21	flake			
3315	1973	GPF_Exc	4755	0	artifact	459521.6387	213150.8857	100.19	ang frag			
3316	1973	GPF_Exc	4756	0	artifact	459521.5987	213150.8057	100.19	core			
3317	1973	GPF_Exc	4757	0	artifact	459523.3787	213150.9657	100.21	scraper			
3318	1973	GPF_Exc	4758	0	artifact	459523.3987	213150.6157	100.19	ang frag			
3319	1973	GPF_Exc	4759	0	artifact	459523.2787	213150.6357	100.19	ang frag			
3320	1973	GPF_Exc	4760	0	artifact	459523.2587	213150.7357	100.20	ang frag			
3321	1973	GPF_Exc	4761	0	artifact	459523.2087	213150.4757	100.17	ang frag			
3322	1973	GPF_Exc	4762	0	artifact	459523.1587	213150.5157	100.17	flake			
3323	1973	GPF_Exc	4763	0	artifact	459523.0387	213150.5857	100.18	flake			
3324	1973	GPF_Exc	4764	0	artifact	459523.0587	213150.5557	100.18	flake			
3325	1973	GPF_Exc	4765	0	artifact	459523.0187	213150.5657	100.18	core			
3326	1973	GPF_Exc	4766	0	artifact	459523.0087	213150.5257	100.18	ang frag			
3327	1973	GPF_Exc	4767	0	artifact	459522.9687	213150.5357	100.17	flake			
3328	1973	GPF_Exc	4769	0	artifact	459523.0687	213150.4457	100.17	ang frag			
3329	1973	GPF_Exc	4770	0	artifact	459523.1987	213150.4957	100.17	ang frag			
3330	1973	GPF_Exc	4771	0	artifact	459522.8987	213150.5157	100.16	flake			
3331	1973	GPF_Exc	4772	0	artifact	459522.7787	213150.6657	100.16	flake			
3332	1973	GPF_Exc	4773	0	artifact	459519.5887	213150.7357	100.13	scraper			
3333	1973	GPF_Exc	4774	0	artifact	459519.5987	213151.0357	100.14	ang frag			
3334	1973	GPF_Exc	4780	0	artifact	459521.2787	213150.6557	100.14	flake			
3335	1973	GPF_Exc	4781	0	artifact	459521.2687	213150.5457	100.14	scraper			
3336	1973	GPF_Exc	4782	0	artifact	459521.0487	213150.7357	100.15	ang frag			
3337	1973	GPF_Exc	4784	0	artifact	459520.9787	213150.9557	100.14	cobble			
3338	1973	GPF_Exc	4785	0	artifact	459520.8987	213150.6057	100.16	flake			

3339	1973	GPF_Exc	4786	0	artifact	459520.8187	213150.8657	100.14	flake			
3340	1973	GPF_Exc	4787	0	artifact	459521.1087	213150.9857	100.14	flake			
3341	1973	GPF_Exc	4789	0	artifact	459520.9587	213151.1157	100.14	core			
3342	1973	GPF_Exc	4790	0	artifact	459520.9587	213151.1557	100.15	core			
3343	1973	GPF_Exc	4791	0	artifact	459520.9587	213151.2957	100.15	flake			
3344	1973	GPF_Exc	4792	0	artifact	459520.8287	213151.3257	100.15	ang frag			
3345	1973	GPF_Exc	4793	0	artifact	459521.5787	213149.9457	100.15	flake			
3346	1973	GPF_Exc	4794	0	artifact	459523.0087	213149.9357	100.15	flake			
3347	1973	GPF_Exc	4795	0	artifact	459522.8287	213150.9157	100.20	flake			
3348	1973	GPF_Exc	4796	0	artifact	459523.3987	213151.0257	100.18	ang frag			
3349	1973	GPF_Exc	4797	0	artifact	459523.1987	213151.1157	100.18	ang frag			
3350	1973	GPF_Exc	4798	0	artifact	459523.3387	213151.1357	100.18	flake			
3351	1973	GPF_Exc	4799	0	artifact	459523.2687	213150.9157	100.20	ang frag			
3352	1973	GPF_Exc	4800	0	artifact	459523.3687	213150.7257	100.20	flake			
3353	1973	GPF_Exc	4801	0	artifact	459523.4087	213150.7057	100.20	snapped flake			
3354	1973	GPF_Exc	4802	0	artifact	459523.4587	213150.7257	100.20	ang frag			
3355	1973	GPF_Exc	4803	0	artifact	459523.4587	213150.8457	100.20	micro	split flake		
3356	1973	GPF_Exc	4805	0	artifact	459523.4687	213150.8757	100.20	flake			
3357	1973	GPF_Exc	4806	0	artifact	459523.4887	213150.8757	100.20	ang frag			
3358	1973	GPF_Exc	4807	0	artifact	459523.4687	213150.7357	100.20	micro	ang frag		
3359	1973	GPF_Exc	4808	0	artifact	459523.4887	213150.7757	100.20	flake			
3360	1973	GPF_Exc	4809	0	artifact	459523.4487	213150.6957	100.19	flake			
3361	1973	GPF_Exc	4810	0	artifact	459523.4787	213150.6757	100.19	flake			
3362	1973	GPF_Exc	4811	0	artifact	459523.4587	213150.6557	100.19	micro	ang frag		
3363	1973	GPF_Exc	4812	0	artifact	459523.4487	213150.4757	100.14	flake			
3364	1973	GPF_Exc	4813	0	artifact	459523.4787	213150.4357	100.14	ang frag			
3365	1973	GPF_Exc	4815	0	artifact	459521.5387	213150.5757	100.21	micro	snap flake		
3366	1973	GPF_Exc	4816	0	artifact	459521.5187	213150.5457	100.21	flake			

3367	1973	GPF_Exc	4817	0	artifact	459521.6087	213150.4757	100.18	flake			
3368	1973	GPF_Exc	4818	0	artifact	459521.6187	213150.5157	100.18	scraper			
3369	1973	GPF_Exc	4819	0	artifact	459521.5887	213150.5657	100.21	flake			
3370	1973	GPF_Exc	4820	0	artifact	459521.5987	213150.5357	100.21	flake			
3371	1973	GPF_Exc	4821	0	artifact	459521.6387	213150.5457	100.21	core			
3372	1973	GPF_Exc	4822	0	artifact	459521.6587	213150.4457	100.16	micro	ang frag		
3373	1973	GPF_Exc	4823	0	artifact	459521.6487	213150.4957	100.16	flake			
3374	1973	GPF_Exc	4826	0	artifact	459521.6287	213150.6257	100.18	flake			
3375	1973	GPF_Exc	4827	0	artifact	459521.5387	213150.6057	100.18	flake			
3376	1973	GPF_Exc	4828	0	artifact	459517.5587	213150.6657	100.18	micro	ang frag		
3377	1973	GPF_Exc	4830	0	artifact	459521.5787	213150.7357	100.18	splitflake			
3378	1973	GPF_Exc	4831	0	artifact	459521.6187	213150.7257	100.18	ang frag			
3379	1973	GPF_Exc	4832	0	artifact	459521.6087	213150.7457	100.18	ang frag			
3380	1973	GPF_Exc	4833	0	artifact	459521.6387	213150.7557	100.18	micro	split flake		
3381	1973	GPF_Exc	4834	0	artifact	459521.6587	213150.7457	100.18	micro	ang frag		
3382	1973	GPF_Exc	4836	0	artifact	459521.7387	213150.7957	101.17	ang frag			
3383	1973	GPF_Exc	4837	0	artifact	459521.5887	213150.7857	100.17	flake			
3384	1973	GPF_Exc	4838	0	artifact	459521.6787	213150.8257	100.19	flake			
3385	1973	GPF_Exc	4839	0	artifact	459521.5387	213150.7757	100.19	micro	ang frag		
3386	1973	GPF_Exc	4841	0	artifact	459521.5387	213150.8157	100.19	ang frag			
3387	1973	GPF_Exc	4842	0	artifact	459521.5787	213150.8257	100.19	micro	ang frag		
3388	1973	GPF_Exc	4843	0	artifact	459521.5987	213150.8357	100.19	micro	flake		
3389	1973	GPF_Exc	4844	0	artifact	459521.6387	213150.8557	100.19	micro	ang frag		
3390	1973	GPF_Exc	4846	0	artifact	459521.6487	213150.8357	100.19	flake			
3391	1973	GPF_Exc	4847	0	artifact	459521.6687	213150.8457	100.17	micro	snap flake		
3392	1973	GPF_Exc	4848	0	artifact	459523.4387	213151.2257	100.18	flake			
3393	1973	GPF_Exc	4849	0	artifact	459521.6387	213150.8657	100.19	flake			
3394	1973	GPF_Exc	4850	0	artifact	459521.6687	213150.8657	100.16	ang frag			

3395	1973	GPF_Exc	4851	0	artifact	459521.5887	213150.8757	100.19	flake				
3396	1973	GPF_Exc	4852	0	artifact	459521.5387	213150.8757	100.19	flake				
3397	1973	GPF_Exc	4853	0	artifact	459521.5387	213150.8957	100.19	micro	split flake			
3398	1973	GPF_Exc	4854	0	artifact	459521.5087	213150.8957	100.19	flake				
3399	1973	GPF_Exc	4855	0	artifact	459521.5687	213150.9357	100.17	cobble				
3400	1973	GPF_Exc	4856	0	artifact	459521.6287	213150.9157	100.18	flake				
3401	1973	GPF_Exc	4857	0	artifact	459523.3387	213151.2357	100.19	flake				
3402	1973	GPF_Exc	4859	0	artifact	459521.5687	213150.9557	100.19	micro	ang frag			
3403	1973	GPF_Exc	4860	0	artifact	459521.6687	213150.9057	100.16	flake				
3404	1973	GPF_Exc	4861	0	artifact	459521.7087	213150.9657	100.17	ang frag				
3405	1973	GPF_Exc	4863	0	artifact	459521.7387	213151.0057	100.16	flake				
3406	1973	GPF_Exc	4864	0	artifact	459521.7387	213150.8557	100.15	ang frag				
3407	1973	GPF_Exc	4866	0	artifact	459521.7687	213150.7857	100.17	ang frag				
3408	1973	GPF_Exc	4867	0	artifact	459521.8187	213150.8257	100.16	flake				
3409	1973	GPF_Exc	4869	0	artifact	459521.8487	213150.7357	100.16	flake				
3410	1973	GPF_Exc	4870	0	artifact	459521.8387	213150.6957	100.14	flake				
3411	1973	GPF_Exc	4871	0	artifact	459521.8387	213150.6357	100.14	flake				
3412	1973	GPF_Exc	4872	0	artifact	459521.9287	213150.8257	100.17	flake				
3413	1973	GPF_Exc	4873	0	artifact	459521.8887	213150.9457	100.15	flake				
3414	1973	GPF_Exc	4875	0	artifact	459521.9587	213150.6357	100.17	ang frag				
3415	1973	GPF_Exc	4876	0	artifact	459522.0087	213150.9457	100.17	ang frag				
3416	1973	GPF_Exc	4877	0	artifact	459522.2487	213150.9457	100.14	flake				
3417	1973	GPF_Exc	4878	0	artifact	459521.8487	213151.0557	100.15	flake				
3418	1973	GPF_Exc	4879	0	artifact	459521.8487	213151.0557	100.15	flake				
3419	1973	GPF_Exc	4880	0	artifact	459521.9087	213151.0557	100.15	hammerstone				
3420	1973	GPF_Exc	4884	0	artifact	459521.7387	213152.0857	100.17	flake				
3421	1973	GPF_Exc	4885	0	artifact	459521.7987	213151.0857	100.17	flake				
3422	1973	GPF_Exc	4885	0	artifact	459521.7987	213151.0857	100.17	flake				

3423	1973	GPF_Exc	4886	0	artifact	459521.8987	213151.2657	100.17	ang frag			
3424	1973	GPF_Exc	4887	0	artifact	459521.9487	213151.2957	100.17	ang frag			
3425	1973	GPF_Exc	4888	0	artifact	459521.8087	213151.4057	100.19	ang frag			
3426	1973	GPF_Exc	4889	0	artifact	459521.6887	213151.3857	100.19	flake			
3427	1973	GPF_Exc	4890	0	artifact	459521.6587	213151.3857	100.19	flake			
3428	1973	GPF_Exc	4891	0	artifact	459521.6587	213151.3657	100.19	ang frag			
3429	1973	GPF_Exc	4892	0	artifact	459521.6287	213151.3557	100.19	ang frag			
3430	1973	GPF_Exc	4893	0	artifact	459521.5987	213151.3857	100.19	ang frag			
3431	1973	GPF_Exc	4898	0	artifact	459520.7087	213149.0957	100.14	ang frag			
3432	1973	GPF_Exc	4899	0	artifact	459521.0187	213148.9757	100.14	ang frag			
3433	1973	GPF_Exc	4900	0	artifact	459520.8587	213149.3057	100.12	ang frag			
3434	1973	GPF_Exc	4901	0	artifact	459521.3087	213148.5457	100.13	flake			
3435	1973	GPF_Exc	4902	0	artifact	459522.3287	213149.2157	100.12	flake			
3436	1973	GPF_Exc	4905	0	artifact	459522.3087	213149.2857	100.13	flake			
3437	1973	GPF_Exc	4907	0	artifact	459522.1287	213149.2157	100.13	flake			
3438	1973	GPF_Exc	4908	0	artifact	459522.0787	213149.1457	100.13	ang frag			
3439	1973	GPF_Exc	4909	0	artifact	459522.0487	213149.1457	100.13	flake			
3440	1973	GPF_Exc	4910	0	artifact	459522.0387	213149.1657	100.11	flake			
3441	1973	GPF_Exc	4911	0	artifact	459522.0487	213149.1757	100.11	micro	flake		
3442	1973	GPF_Exc	4912	0	artifact	459522.0487	213149.1057	100.13	flake			
3443	1973	GPF_Exc	4913	0	artifact	459522.0087	213149.1257	100.11	micro	flake		
3444	1973	GPF_Exc	4914	0	artifact	459522.0187	213149.1057	100.13	ang frag			
3445	1973	GPF_Exc	4915	0	artifact	459521.9987	213149.1357	100.11	flake			
3446	1973	GPF_Exc	4916	0	artifact	459522.0087	213149.1157	100.11	flake			
3447	1973	GPF_Exc	4917	0	artifact	459521.9687	213149.1557	100.11	flake			
3448	1973	GPF_Exc	4918	0	artifact	459521.9687	213149.1357	100.11	micro	flake		
3449	1973	GPF_Exc	4919	0	artifact	459521.9887	213149.0857	100.11	flake			
3450	1973	GPF_Exc	4920	0	artifact	459521.9787	213149.0657	100.12	flake			

3451	1973	GPF_Exc	4921	0	artifact	459521.9587	213149.0457	100.11	micro	flake		
3452	1973	GPF_Exc	4922	0	artifact	459521.9287	213149.0457	100.11	ang frag			
3453	1973	GPF_Exc	4923	0	artifact	459521.8987	213149.0557	100.12	micro	split flake		
3454	1973	GPF_Exc	4924	0	artifact	459521.8087	213149.0057	100.12	flake			
3455	1973	GPF_Exc	4925	0	artifact	459521.8287	213148.9857	100.12	flake			
3456	1973	GPF_Exc	4926	0	artifact	459521.8787	213148.8157	100.15	micro	ang frag		
3457	1973	GPF_Exc	4927	0	artifact	459522.9287	213148.7857	100.14	ang frag			
3458	1973	GPF_Exc	4928	0	artifact	459521.9187	213148.7757	100.17	flake			
3459	1973	GPF_Exc	4929	0	artifact	459521.8787	213148.7457	100.16	flake			
3460	1973	GPF_Exc	4930	0	artifact	459521.9187	213148.6557	100.15	flake			
3461	1973	GPF_Exc	4931	0	artifact	459521.6987	213148.5857	100.15	micro	ang frag		
3462	1973	GPF_Exc	4932	0	artifact	459521.7287	213148.6057	100.15	ang frag			
3463	1973	GPF_Exc	4933	0	artifact	459521.7187	213148.5557	100.15	flake			
3464	1973	GPF_Exc	4934	0	artifact	459521.6787	213148.5557	100.13	ang frag			
3465	1973	GPF_Exc	4935	0	artifact	459521.6587	213148.5857	100.13	micro	ang frag		
3466	1973	GPF_Exc	4936	0	artifact	459521.8687	213148.5057	100.12	ang frag			
3467	1973	GPF_Exc	4937	0	artifact	459522.1087	213148.4657	100.12	cobble			
3468	1973	GPF_Exc	4938	0	artifact	459521.7887	213148.4657	100.15	ang frag			
3469	1973	GPF_Exc	4939	0	artifact	459521.6987	213148.4757	100.14	cobble			
3470	1973	GPF_Exc	4940	0	artifact	459521.6587	213148.5857	100.13	micro	ang frag		
3471	1973	GPF_Exc	4941	0	artifact	459521.6287	213148.5057	100.14	ang frag			
3472	1973	GPF_Exc	4944	0	artifact	459519.8287	213148.8557	100.16	flake			
3473	1973	GPF_Exc	4945	0	artifact	459519.9087	213148.9057	100.14	flake			
3474	1973	GPF_Exc	4946	0	artifact	459519.8987	213148.8057	100.14	flake			
3475	1973	GPF_Exc	4948	0	artifact	459519.9687	213148.8157	100.13	micro	ang frag		
3476	1973	GPF_Exc	4949	0	artifact	459519.7987	213148.7557	100.16	core frag			
3477	1973	GPF_Exc	4952	0	artifact	459519.7187	213148.8257	100.16	cobble			
3478	1973	GPF_Exc	4953	0	artifact	459519.7287	213148.8757	100.13	flake			

3479	1973	GPF_Exc	4954	0	artifact	459519.6587	213148.9257	100.15	pebble			
3480	1973	GPF_Exc	4955	0	artifact	459519.7287	213148.8957	100.13	micro	ang frag		
3481	1973	GPF_Exc	4956	0	artifact	459519.7087	213148.9857	100.12	flake			
3482	1973	GPF_Exc	4957	0	artifact	459519.7387	213149.0157	100.12	flake			
3483	1973	GPF_Exc	4958	0	artifact	459519.7487	213152.0057	100.12	flake			
3484	1973	GPF_Exc	4959	0	artifact	459519.6387	213148.9957	100.12	flake			
3485	1973	GPF_Exc	4960	0	artifact	459519.6187	213148.9357	100.16	flake			
3486	1973	GPF_Exc	4961	0	artifact	459519.5787	213148.9257	100.12	flake			
3487	1973	GPF_Exc	4962	0	artifact	459519.5587	213148.8557	100.14	flake			
3488	1973	GPF_Exc	4965	0	artifact	459519.6187	213148.6457	100.16	flake			
3489	1973	GPF_Exc	4966	0	artifact	459519.6987	213148.7257	100.16	micro	ang frag		
3490	1973	GPF_Exc	4967	0	artifact	459519.7087	213148.6357	100.16	ang frag			
3491	1973	GPF_Exc	4968	0	artifact	459519.7087	213148.7057	100.16	ang frag			
3492	1973	GPF_Exc	4969	0	artifact	459519.7287	213148.7057	100.16	flake			
3493	1973	GPF_Exc	4970	0	artifact	459519.7387	213148.6857	100.16	cobble			
3494	1973	GPF_Exc	4971	0	artifact	459519.7387	213148.6557	100.16	micro	snap flake		
3495	1973	GPF_Exc	4972	0	artifact	459519.7387	213148.6057	100.15	micro	ang frag		
3496	1973	GPF_Exc	4974	0	artifact	459519.5687	213148.5157	100.12	ang frag			
3497	1973	GPF_Exc	4975	0	artifact	459519.5387	213148.5057	100.13	ang frag			
3498	1973	GPF_Exc	4976	0	artifact	459521.4687	213148.4957	100.14	flake			
3499	1973	GPF_Exc	4977	0	artifact	459519.6187	213148.5257	100.13	ang frag			
3500	1973	GPF_Exc	4978	0	artifact	459521.4687	213148.4957	100.14	ang frag			
3501	1973	GPF_Exc	4979	0	artifact	459519.6887	213148.4957	100.15	flake			
3502	1973	GPF_Exc	4980	0	artifact	459519.6587	213148.4657	100.15	flake			
3503	1973	GPF_Exc	4984	0	artifact	459519.7587	213148.5557	100.16	micro	ang frag		
3504	1973	GPF_Exc	4985	0	artifact	459519.7587	213148.6457	100.16	micro	ang frag		
3505	1973	GPF_Exc	4988	0	artifact	459519.7987	213148.6957	100.16	ang frag			
3506	1973	GPF_Exc	4989	0	artifact	459519.8387	213148.8057	100.15	ang frag			

3507	1973	GPF_Exc	4990	0	artifact	459519.6887	213148.8057	100.16	micro	ang frag		
3508	1973	GPF_Exc	4991	0	artifact	459519.6087	213148.8257	100.12	micro	ang frag		
3509	1973	GPF_Exc	4992	0	artifact	459519.9687	213149.0357	100.14	ang frag			
3510	1973	GPF_Exc	4993	0	artifact	459519.9987	213149.1357	100.14	flake			
3511	1973	GPF_Exc	4994	0	artifact	459520.0287	213149.1257	100.14	flake			
3512	1973	GPF_Exc	4995	0	artifact	459520.1787	213149.3157	100.12	ang frag			
3513	1973	GPF_Exc	4996	0	artifact	459520.0187	213149.3457	100.12	ang frag			
3514	1973	GPF_Exc	4997	0	artifact	459523.4687	213148.4657	100.15	flake			
3515	1973	GPF_Exc	4998	0	artifact	459523.4587	213148.4757	100.15	flake			
3516	1973	GPF_Exc	4999	0	artifact	459523.2787	213148.5057	100.16	flake			
3517	1973	GPF_Exc	5002	0	artifact	459522.9387	213148.8257	100.13	ang frag			
3518	1973	GPF_Exc	5003	0	artifact	459522.9187	213148.8457	100.13	flake			
3519	1973	GPF_Exc	5004	0	artifact	459522.9887	213148.8957	100.13	ang frag			
3520	1973	GPF_Exc	5005	0	artifact	459523.0487	213148.9457	100.17	flake			
3521	1973	GPF_Exc	5006	0	artifact	459523.0287	213148.9657	100.17	flake			
3522	1973	GPF_Exc	5007	0	artifact	459523.1087	213148.9057	100.16	flake			
3523	1973	GPF_Exc	5010	0	artifact	459522.8487	213149.1857	100.16	flake			
3524	1973	GPF_Exc	5011	0	artifact	459522.7887	213149.2157	100.14	ang frag			
3525	1973	GPF_Exc	5012	0	artifact	459522.7887	213148.8457	100.18	flake			
3526	1973	GPF_Exc	5013	0	artifact	459522.7887	213148.8257	100.18	ang frag			
3527	1973	GPF_Exc	5014	0	artifact	459522.7687	213148.8657	100.17	micro	ang frag		
3528	1973	GPF_Exc	5015	0	artifact	459522.6187	213148.8257	100.17	flake			
3529	1973	GPF_Exc	5016	0	artifact	459522.6887	213148.5957	100.1	flake			
3530	1973	GPF_Exc	5018	0	artifact	459523.4387	213150.2357	100.14	flake			
3531	1973	GPF_Exc	5020	0	artifact	459523.3687	213150.1857	100.14	ang frag			
3532	1973	GPF_Exc	5021	0	artifact	459523.3787	213150.1157	100.13	flake			
3533	1973	GPF_Exc	5022	0	artifact	459523.3687	213150.1557	100.14	flake			
3534	1973	GPF_Exc	5047	0	artifact	459522.9287	213150.3857	100.16	ang frag			

3535	1973	GPF_Exc	5048	0	artifact	459522.9587	213150.4157	100.16	flake			
3536	1973	GPF_Exc	5050	0	artifact	459523.0487	213150.4157	100.16	flake			
3537	1973	GPF_Exc	5052	0	artifact	459523.0787	213150.4457	100.17	ang frag			
3538	1973	GPF_Exc	5053	0	artifact	459523.0887	213150.4257	100.15	micro	ang frag		
3539	1973	GPF_Exc	5054	0	artifact	459523.0987	213150.3957	100.13	ang frag			
3540	1973	GPF_Exc	5055	0	artifact	459523.0687	213150.3957	100.14	flake			
3541	1973	GPF_Exc	5056	0	artifact	459523.0987	213150.3757	100.16	ang frag			
3542	1973	GPF_Exc	5057	0	artifact	459523.0787	213150.4157	100.16	flake			
3543	1973	GPF_Exc	5058	0	artifact	459523.0987	213150.3457	100.16	ang frag			
3544	1973	GPF_Exc	5059	0	artifact	459523.0887	213150.3257	100.16	flake			
3545	1973	GPF_Exc	5060	0	artifact	459523.0687	213150.2857	100.09	micro	ang frag		
3546	1973	GPF_Exc	5060	0	artifact	459519.8487	213149.1457	100.15	ang frag			
3547	1973	GPF_Exc	5061	0	artifact	459523.0987	213150.3057	100.16	micro	ang frag		
3548	1973	GPF_Exc	5062	0	artifact	459523.1087	213150.3757	100.13	micro	ang frag		
3549	1973	GPF_Exc	5063	0	artifact	459523.1787	213150.3757	100.14	flake			
3550	1973	GPF_Exc	5066	0	artifact	459523.2587	213150.3857	100.15	ang frag			
3551	1973	GPF_Exc	5067	0	artifact	459523.2187	213150.4957	100.16	flake			
3552	1973	GPF_Exc	5069	0	artifact	459523.3087	213150.4157	100.14	micro	split/snap flake		
3553	1973	GPF_Exc	5071	0	artifact	459523.2587	213150.3657	100.15	flake			
3554	1973	GPF_Exc	5072	0	artifact	459523.2687	213150.3057	100.14	flake			
3555	1973	GPF_Exc	5073	0	artifact	459523.4387	213150.3557	100.14	flake			
3556	1973	GPF_Exc	5074	0	artifact	459523.4087	213150.4057	100.15	flake			
3557	1973	GPF_Exc	5075	0	artifact	459523.4687	213150.4057	100.14	flake			
3558	1973	GPF_Exc	5076	0	artifact	459521.5287	213150.3957	100.12	micro	split flake		
3559	1973	GPF_Exc	5077	0	artifact	459521.5587	213150.3857	100.12	micro	ang frag		
3560	1973	GPF_Exc	5078	0	artifact	459521.5787	213150.4157	100.15	ang frag			
3561	1973	GPF_Exc	5079	0	artifact	459521.6087	213150.4057	100.15	flake			
3562	1973	GPF_Exc	5081	0	artifact	459521.6187	213150.3557	100.15	micro	ang frag		

3563	1973	GPF_Exc	5082	0	artifact	459521.6687	213150.4157	100.13	ang frag			
3564	1973	GPF_Exc	5083	0	artifact	459521.7087	213150.3557	100.13	ang frag			
3565	1973	GPF_Exc	5084	0	artifact	459521.7087	213150.3657	100.15	flake			
3566	1973	GPF_Exc	5085	0	artifact	459521.7687	213150.3857	100.13	flake			
3567	1973	GPF_Exc	5086	0	artifact	459521.7387	213150.3857	100.12	ang frag			
3568	1973	GPF_Exc	5087	0	artifact	459521.7587	213150.4057	100.12	flake			
3569	1973	GPF_Exc	5088	0	artifact	459521.7887	213150.3757	100.12	flake			
3570	1973	GPF_Exc	5089	0	artifact	459522.7987	213150.3557	100.12	ang frag			
3571	1973	GPF_Exc	5090	0	artifact	459521.8787	213150.3857	100.16	micro	flake		
3572	1973	GPF_Exc	5091	0	artifact	459521.9387	213150.3557	100.12	flake			
3573	1973	GPF_Exc	5092	0	artifact	459521.9587	213150.2857	100.11	micro	ang frag		
3574	1973	GPF_Exc	5094	0	artifact	459521.9487	213150.2157	100.13	flake			
3575	1973	GPF_Exc	5095	0	artifact	459522.0387	213150.0457	100.14	core			
3576	1973	GPF_Exc	5096	0	artifact	459522.1287	213149.8257	100.09	flake			
3577	1973	GPF_Exc	5097	0	artifact	459520.5487	213149.9457	100.12	flake			
3578	1973	GPF_Exc	5099	0	artifact	459522.1387	213149.4757	100.09	ang frag			
3579	1973	GPF_Exc	5100	0	artifact	459522.1487	213149.5157	100.10	flake			
3580	1973	GPF_Exc	5101	0	artifact	459522.1787	213149.4857	100.12	ang frag			
3581	1973	GPF_Exc	5102	0	artifact	459522.2187	213149.4757	100.12	flake			
3582	1973	GPF_Exc	5103	0	artifact	459522.2787	213149.5557	100.12	flake			
3583	1973	GPF_Exc	5104	0	artifact	459522.3087	213149.6157	100.13	flake			
3584	1973	GPF_Exc	5105	0	artifact	459522.3287	213149.5857	100.12	flake			
3585	1973	GPF_Exc	5106	0	artifact	459522.9987	213150.3157	100.13	flake			
3586	1973	GPF_Exc	5107	0	artifact	459523.0287	213150.2857	100.12	flake			
3587	1973	GPF_Exc	5108	0	artifact	459523.0887	213150.2457	100.11	flake			
3588	1973	GPF_Exc	5109	0	artifact	459523.0887	213150.2757	100.13	flake			
3589	1973	GPF_Exc	5110	0	artifact	459523.0787	213150.2757	100.13	micro	split flake		
3590	1973	GPF_Exc	5112	0	artifact	459523.1187	213150.3057	100.14	ang frag			

3591	1973	GPF_Exc	5113	0	artifact	459523.3687	213150.2257	100.14	ang frag			
3592	1973	GPF_Exc	5114	0	artifact	459523.1087	213150.1657	100.12	micro	split flake		
3593	1973	GPF_Exc	5115	0	artifact	459523.1287	213150.1657	100.09	flake			
3594	1973	GPF_Exc	5117	0	artifact	459523.2687	213150.1857	100.12	flake			
3595	1973	GPF_Exc	5118	0	artifact	459523.2487	213150.1457	100.12	ang frag			
3596	1973	GPF_Exc	5119	0	artifact	459523.2587	213150.1257	100.11	flake			
3597	1973	GPF_Exc	5120	0	artifact	459523.3187	213150.1957	100.12	flake			
3598	1973	GPF_Exc	5121	0	artifact	459523.4887	213150.1357	100.14	flake			
3599	1973	GPF_Exc	5122	0	artifact	459523.4987	213150.1257	100.14	micro	ang frag		
3600	1973	GPF_Exc	5126	0	artifact	459522.3387	213150.2557	100.12	micro	flake		
3601	1973	GPF_Exc	5128	0	artifact	459521.0187	213150.4257	100.12	flake			
3602	1973	GPF_Exc	5129	0	artifact	459521.0987	213150.3557	100.09	flake			
3603	1973	GPF_Exc	5130	0	artifact	459520.9587	213150.1957	100.09	ang frag			
3604	1973	GPF_Exc	5131	0	artifact	459520.9387	213150.1857	100.09	ang frag			
3605	1973	GPF_Exc	5132	0	artifact	459521.1587	213150.1557	100.10	ang frag			
3606	1973	GPF_Exc	5133	0	artifact	459520.9587	213150.2657	100.09	flake			
3607	1973	GPF_Exc	5134	0	artifact	459521.1987	213150.3157	100.10	flake			
3608	1973	GPF_Exc	5135	0	artifact	459521.2487	213150.2457	100.12	ang frag			
3609	1973	GPF_Exc	5136	0	artifact	459520.8687	213150.4157	100.1	flake			
3610	1973	GPF_Exc	5137	0	artifact	459522.3987	213150.3057	100.13	flake			
3611	1973	GPF_Exc	5138	0	artifact	459521.4187	213150.2657	100.12	flake			
3612	1973	GPF_Exc	5139	0	artifact	459521.3787	213150.3057	100.12	ang frag			
3613	1973	GPF_Exc	5140	0	artifact	459521.3787	213150.2357	100.11	flake			
3614	1973	GPF_Exc	5141	0	artifact	459521.3787	213150.2057	100.11	ang frag			
3615	1973	GPF_Exc	5142	0	artifact	459521.3887	213150.1557	100.11	ang frag			
3616	1973	GPF_Exc	5143	0	artifact	459521.4087	213150.1757	100.12	flake			
3617	1973	GPF_Exc	5144	0	artifact	459521.4087	213150.0957	100.1	ang frag			
3618	1973	GPF_Exc	5145	0	artifact	459521.3287	213150.3857	100.11	flake			

3619	1973	GPF_Exc	5146	0	artifact	459521.3087	213150.3757	100.11	flake			
3620	1973	GPF_Exc	5148	0	artifact	459521.4587	213150.4057	100.09	ang frag			
3621	1973	GPF_Exc	5149	0	artifact	459519.5087	213150.3657	100.11	ang frag			
3622	1973	GPF_Exc	5150	0	artifact	459521.3587	213150.4057	100.12	flake			
3623	1973	GPF_Exc	5151	0	artifact	459521.0687	213150.2057	100.12	micro	ang frag		
3624	1973	GPF_Exc	5152	0	artifact	459521.4387	213150.0057	100.10	ang frag			
3625	1973	GPF_Exc	5153	0	artifact	459521.3787	213150.1457	100.09	ang frag			
3626	1973	GPF_Exc	5154	0	artifact	459521.3787	213150.0057	100.11	flake			
3627	1973	GPF_Exc	5155	0	artifact	459521.3287	213150.0157	100.08	ang frag			
3628	1973	GPF_Exc	5156	0	artifact	459521.3487	213150.1757	100.11	micro	ang frag		
3629	1973	GPF_Exc	5157	0	artifact	459521.4187	213149.8457	100.09	flake			
3630	1973	GPF_Exc	5160	0	artifact	459521.4487	213149.8657	100.09	micro	cobble		
3631	1973	GPF_Exc	5161	0	artifact	459521.4787	213149.6957	100.12	flake			
3632	1973	GPF_Exc	5163	0	artifact	459521.2687	213149.5357	100.1	flake			
3633	1973	GPF_Exc	5165	0	artifact	459521.1887	213149.5157	100.11	flake			
3634	1973	GPF_Exc	5166	0	artifact	459521.3487	213149.4757	100.1	flake			
3635	1973	GPF_Exc	5167	0	artifact	459521.3987	213149.5057	100.10	micro	ang frag		
3636	1973	GPF_Exc	5174	0	artifact	459522.6587	213151.0357	100.18	flake			
3637	1973	GPF_Exc	5175	0	artifact	459522.6587	213151.0357	100.18	ang frag			
3638	1973	GPF_Exc	5176	0	artifact	459522.7787	213150.9857	100.17	ang frag			
3639	1973	GPF_Exc	5177	0	artifact	459522.8487	213151.0257	100.18	flake			
3640	1973	GPF_Exc	5178	0	artifact	459522.8987	213151.3057	100.18	flake			
3641	1973	GPF_Exc	5179	0	artifact	459522.9087	213151.3457	100.18	flake			
3642	1973	GPF_Exc	5182	0	artifact	459522.9687	213151.3257	100.18	ang frag			
3643	1973	GPF_Exc	5183	0	artifact	459522.9887	213151.3157	100.18	flake			
3644	1973	GPF_Exc	5184	0	artifact	459522.9587	213151.2457	100.17	flake			
3645	1973	GPF_Exc	5185	0	artifact	459522.8487	213151.0257	100.18	flake			
3646	1973	GPF_Exc	5186	0	artifact	459522.9487	213151.1657	100.18	flake			

3647	1973	GPF_Exc	5187	0	artifact	459522.9687	213151.1257	100.18	flake			
3648	1973	GPF_Exc	5188	0	artifact	459522.9587	213151.1157	100.18	micro	flake		
3649	1973	GPF_Exc	5189	0	artifact	459523.0187	213150.8957	100.17	flake			
3650	1973	GPF_Exc	5192	0	artifact	459523.0887	213151.1457	100.22	ang frag			
3651	1973	GPF_Exc	5193	0	artifact	459523.0387	213151.1357	100.22	flake			
3652	1973	GPF_Exc	5194	0	artifact	459523.1487	213151.0757	100.18	flake			
3653	1973	GPF_Exc	5194	0	artifact	459523.2187	213151.1457	100.19	micro	ang frag		
3654	1973	GPF_Exc	5196	0	artifact	459523.1387	213150.9757	100.19	flake			
3655	1973	GPF_Exc	5197	0	artifact	459523.0987	213150.9457	100.17	micro	ang frag		
3656	1973	GPF_Exc	5198	0	artifact	459523.2387	213151.1457	100.18	ang frag			
3657	1973	GPF_Exc	5199	0	artifact	459523.2787	213151.1657	100.18	flake			
3658	1973	GPF_Exc	5200	0	artifact	459523.3687	213151.1657	100.18	ang frag			
3659	1973	GPF_Exc	5201	0	artifact	459523.4087	213151.1857	100.18	micro	ang frag		
3660	1973	GPF_Exc	5202	0	artifact	459523.0987	213151.4157	100.2	micro	snap flake		
3661	1973	GPF_Exc	5203	0	artifact	459523.3587	213151.3957	100.19	ang frag			
3662	1973	GPF_Exc	5204	0	artifact	459523.4587	213151.3857	100.19	flake			
3663	1973	GPF_Exc	5205	0	artifact	459523.4587	213151.2757	100.18	flake			
3664	1973	GPF_Exc	5206	0	artifact	459523.4287	213151.1657	100.2	ang frag			
3665	1973	GPF_Exc	5207	0	artifact	459521.5887	213151.3557	100.17	flake			
3666	1973	GPF_Exc	5208	0	artifact	459521.6087	213150.7557	100.18	ang frag			
3667	1973	GPF_Exc	5209	0	artifact	459521.6287	213151.0457	100.18	flake			
3668	1973	GPF_Exc	5210	0	artifact	459522.5987	213151.2057	100.16	flake			
3669	1973	GPF_Exc	5211	0	artifact	459522.5387	213151.1857	100.17	flake			
3670	1973	GPF_Exc	5212	0	artifact	459522.7387	213151.1557	100.17	ang frag			
3671	1973	GPF_Exc	5213	0	artifact	459522.7387	213151.2357	100.16	core			
3672	1973	GPF_Exc	5214	0	artifact	459522.7787	213151.1157	100.17	micro	flake		
3673	1973	GPF_Exc	5216	0	artifact	459522.8487	213151.1657	100.09	flake			
3674	1973	GPF_Exc	5216	0	artifact	459519.9887	213150.2657	100.17	flake			

3675	1973	GPF_Exc	5217	0	artifact	459522.8687	213151.1157	100.17	flake				
3676	1973	GPF_Exc	5218	0	artifact	459522.8887	213151.1057	100.17	flake				
3677	1973	GPF_Exc	5219	0	artifact	459522.8587	213151.0657	100.17	flake				
3678	1973	GPF_Exc	5220	0	artifact	459522.8587	213151.0557	100.17	flake				
3679	1973	GPF_Exc	5221	0	artifact	459522.9187	213151.0657	100.12	micro	split flake			
3680	1973	GPF_Exc	5222	0	artifact	459522.8387	213151.0457	100.18	ang frag				
3681	1973	GPF_Exc	5224	0	artifact	459518.9287	213150.9957	100.18	flake				
3682	1973	GPF_Exc	5225	0	artifact	459522.9387	213151.0457	100.18	micro	ang frag			
3683	1973	GPF_Exc	5226	0	artifact	459522.9087	213151.0357	100.18	flake				
3684	1973	GPF_Exc	5228	0	artifact	459522.8687	213151.2757	100.18	flake				
3685	1973	GPF_Exc	5229	0	artifact	459522.8887	213151.2157	100.18	flake				
3686	1973	GPF_Exc	5231	0	artifact	459522.9287	213151.1957	100.18	micro	ang frag			
3687	1973	GPF_Exc	5234	0	artifact	459520.2587	213149.6957	100.10	ang frag				
3688	1973	GPF_Exc	5235	0	artifact	459520.3387	213149.4157	100.10	ang frag				
3689	1973	GPF_Exc	5237	0	artifact	459520.2287	213150.1157	100.09	cobble				
3690	1973	GPF_Exc	5238	0	artifact	459520.3187	213149.9057	100.10	ang frag				
3691	1973	GPF_Exc	5241	0	artifact	459519.9987	213150.0457	100.12	ang frag				
3692	1973	GPF_Exc	5242	0	artifact	459519.6187	213149.7057	100.12	flake				
3693	1973	GPF_Exc	5243	0	artifact	459519.6087	213149.6157	100.12	flake				
3694	1973	GPF_Exc	5244	0	artifact	459519.8487	213149.7557	100.13	ang frag				
3695	1973	GPF_Exc	5245	0	artifact	459519.8187	213149.8457	100.11	flake				
3696	1973	GPF_Exc	5246	0	artifact	459519.8187	213149.8657	100.13	flake				
3697	1973	GPF_Exc	5247	0	artifact	459519.7287	213149.7557	100.12	micro	split/snap flake			
3698	1973	GPF_Exc	5248	0	artifact	459520.3487	213149.8057	100.13	flake				
3699	1973	GPF_Exc	5249	0	artifact	459519.7587	213149.9857	100.12	flake				
3700	1973	GPF_Exc	5250	0	artifact	459519.7587	213149.9857	100.12	flake				
3701	1973	GPF_Exc	5251	0	artifact	459519.8487	213149.9557	100.12	ang frag				
3702	1973	GPF_Exc	5254	0	artifact	459519.7187	213150.1457	100.11	ang frag				

3703	1973	GPF_Exc	5255	0	artifact	459519.5887	213150.1957	100.11	flake			
3704	1973	GPF_Exc	5256	0	artifact	459519.5387	213150.2057	100.1	flake			
3705	1973	GPF_Exc	5257	0	artifact	459519.5887	213150.0757	100.1	flake			
3706	1973	GPF_Exc	5258	0	artifact	459519.5387	213150.0257	100.11	ang frag			
3707	1973	GPF_Exc	5259	0	artifact	459519.5387	213150.0557	100.11	ang frag			
3708	1973	GPF_Exc	5260	0	artifact	459519.5987	213150.3757	100.09	flake			
3709	1973	GPF_Exc	5262	0	artifact	459519.9987	213150.3257	100.09	cobble			
3710	1973	GPF_Exc	5263	0	artifact	459520.2087	213150.4257	100.08	flake			
3711	1973	GPF_Exc	5264	0	artifact	459520.4387	213150.4057	100.1	flake			
3712	1973	GPF_Exc	5267	0	artifact	459519.9387	213149.9057	100.10	ang frag			
3713	1973	GPF_Exc	5268	0	artifact	459520.3587	213150.5157	100.08	flake			
3714	1973	GPF_Exc	5269	0	artifact	459519.7087	213150.4757	100.09	micro	split flake		
3715	1973	GPF_Exc	5270	0	artifact	459519.7187	213150.5457	100.09	micro	ang frag		
3716	1973	GPF_Exc	5272	0	artifact	459519.6087	213151.0557	100.1	flake			
3717	1973	GPF_Exc	5273	0	artifact	459519.8187	213150.5057	100.09	ang frag			
3718	1973	GPF_Exc	5274	0	artifact	459520.2987	213150.9657	100.09	micro	flake		
3719	1973	GPF_Exc	5275	0	artifact	459521.4987	213150.7157	100.11	flake			
3720	1973	GPF_Exc	5276	0	artifact	459521.3087	213150.7057	100.14	flake			
3721	1973	GPF_Exc	5279	0	artifact	459521.2587	213150.7757	100.12	flake			
3722	1973	GPF_Exc	5280	0	artifact	459521.3387	213150.8057	100.12	ang frag			
3723	1973	GPF_Exc	5281	0	artifact	459521.0687	213151.2057	100.11	micro	ang frag		
3724	1973	GPF_Exc	5282	0	artifact	459520.8787	213150.8757	100.13	ang frag			
3725	1973	GPF_Exc	5283	0	artifact	459520.9187	213150.8257	100.13	flake			
3726	1973	GPF_Exc	5285	0	artifact	459521.2987	213151.0157	100.10	micro	ang frag		
3727	1973	GPF_Exc	5293	0	artifact	459521.8387	213150.6057	100.13	flake			
3728	1973	GPF_Exc	5294	0	artifact	459521.7587	213150.5057	100.11	flake			
3729	1973	GPF_Exc	5295	0	artifact	459521.7687	213150.5457	100.11	ang frag			
3730	1973	GPF_Exc	5297	0	artifact	459521.6987	213150.5857	100.14	ang frag			

3731	1973	GPF_Exc	5298	0	artifact	459521.7087	213150.5057	100.11	ang frag			
3732	1973	GPF_Exc	5298	0	artifact	459521.7287	213150.5557	100.13	ang frag			
3733	1973	GPF_Exc	5299	0	artifact	459521.6987	213150.5257	100.13	flake			
3734	1973	GPF_Exc	5300	0	artifact	459521.6687	213150.5057	100.13	ang frag			
3735	1973	GPF_Exc	5301	0	artifact	459521.6687	213150.5357	100.14	ang frag			
3736	1973	GPF_Exc	5302	0	artifact	459521.6687	213150.5657	100.14	micro	ang frag		
3737	1973	GPF_Exc	5303	0	artifact	459521.6987	213150.5657	100.14	ang frag			
3738	1973	GPF_Exc	5304	0	artifact	459521.6887	213150.5357	100.14	micro	split flake		
3739	1973	GPF_Exc	5305	0	artifact	459521.8287	213150.8857	100.13	flake			
3740	1973	GPF_Exc	5306	0	artifact	459521.8387	213150.9857	100.13	flake			
3741	1973	GPF_Exc	5307	0	artifact	459521.7687	213150.9957	100.15	flake			
3742	1973	GPF_Exc	5308	0	artifact	459521.6787	213150.9057	100.15	ang frag			
3743	1973	GPF_Exc	5309	0	artifact	459521.5387	213150.8057	100.14	micro	flake		
3744	1973	GPF_Exc	5311	0	artifact	459521.5187	213150.6857	100.14	micro	split flake		
3745	1973	GPF_Exc	5312	0	artifact	459521.5387	213150.6457	100.14	flake			
3746	1973	GPF_Exc	5316	0	artifact	459520.4387	213149.9957	100.10	flake			
3747	1973	GPF_Exc	5317	0	artifact	459520.3487	213150.0057	100.09	flake			
3748	1973	GPF_Exc	5319	0	artifact	459523.4187	213150.7257	100.20	flake			
3749	1973	GPF_Exc	5320	0	artifact	459523.4187	213150.7257	100.20	micro	ang frag		
3750	1973	GPF_Exc	5321	0	artifact	459523.4287	213150.7657	100.19	flake			
3751	1973	GPF_Exc	5322	0	artifact	459523.4687	213150.7457	100.19	ang frag			
3752	1973	GPF_Exc	5323	0	artifact	459523.4887	213150.7957	100.19	micro	ang frag		
3753	1973	GPF_Exc	5324	0	artifact	459523.4887	213150.8557	100.19	ang frag			
3754	1973	GPF_Exc	5325	0	artifact	459523.3787	213150.7057	100.2	ang frag			
3755	1973	GPF_Exc	5326	0	artifact	459523.3787	213150.7257	100.20	ang frag			
3756	1973	GPF_Exc	5327	0	artifact	459523.3787	213150.6557	100.18	flake			
3757	1973	GPF_Exc	5328	0	artifact	459523.4087	213150.6257	100.18	ang frag			
3758	1973	GPF_Exc	5329	0	artifact	459523.4287	213150.5557	100.17	flake			

3759	1973	GPF_Exc	5330	0	artifact	459523.4487	213150.5057	100.16	ang frag			
3760	1973	GPF_Exc	5331	0	artifact	459523.4687	213150.4657	100.16	micro	snap flake		
3761	1973	GPF_Exc	5332	0	artifact	459523.4587	213150.5457	100.15	ang frag			
3762	1973	GPF_Exc	5333	0	artifact	459523.4687	213150.7757	100.19	micro	ang frag		
3763	1973	GPF_Exc	5334	0	artifact	459523.3987	213150.7157	100.19	micro	ang frag		
3764	1973	GPF_Exc	5335	0	artifact	459523.2787	213150.8857	100.19	flake			
3765	1973	GPF_Exc	5336	0	artifact	459523.2387	213150.9757	100.18	flake			
3766	1973	GPF_Exc	5337	0	artifact	459523.2387	213150.9657	100.18	ang frag			
3767	1973	GPF_Exc	5338	0	artifact	459523.2487	213150.9557	100.18	flake			
3768	1973	GPF_Exc	5339	0	artifact	459523.2187	213151.0357	100.18	micro	split flake		
3769	1973	GPF_Exc	5340	0	artifact	459523.4787	213150.9157	100.16	flake			
3770	1973	GPF_Exc	5341	0	artifact	459523.4787	213150.9157	100.16	micro	ang frag		
3771	1973	GPF_Exc	5342	0	artifact	459523.4687	213150.8857	100.16	micro	ang frag		
3772	1973	GPF_Exc	5343	0	artifact	459523.2487	213151.0557	100.13	flake			
3773	1973	GPF_Exc	5349	0	artifact	459523.2487	213150.4857	100.13	flake			
3774	1973	GPF_Exc	5350	0	artifact	459523.1687	213150.7257	100.14	flake			
3775	1973	GPF_Exc	5351	0	artifact	459523.0587	213150.5257	100.17	flake			
3776	1973	GPF_Exc	5352	0	artifact	459523.1387	213150.5157	100.17	ang frag			
3777	1973	GPF_Exc	5353	0	artifact	459523.1087	213150.4457	100.17	ang frag			
3778	1973	GPF_Exc	5354	0	artifact	459523.0787	213150.4957	100.17	micro	snap flake		
3779	1973	GPF_Exc	5355	0	artifact	459523.0787	213150.4857	100.17	ang frag			
3780	1973	GPF_Exc	5356	0	artifact	459523.0987	213150.4857	100.17	micro	ang frag		
3781	1973	GPF_Exc	5357	0	artifact	459523.1187	213150.4757	100.17	ang frag			
3782	1973	GPF_Exc	5358	0	artifact	459522.8987	213150.4757	100.16	flake			
3783	1973	GPF_Exc	5359	0	artifact	459522.8687	213150.5657	100.16	flake			
3784	1973	GPF_Exc	5360	0	artifact	459522.8787	213150.4257	100.16	ang frag			
3785	1973	GPF_Exc	5361	0	artifact	459522.8587	213150.5157	100.16	ang frag			
3786	1973	GPF_Exc	5362	0	artifact	459522.7687	213150.4957	100.16	ang frag			

3787	1973	GPF_Exc	5363	0	artifact	459522.7187	213150.6257	100.16	ang frag			
3788	1973	GPF_Exc	5364	0	artifact	459522.6687	213150.5657	100.13	flake			
3789	1973	GPF_Exc	5365	0	artifact	459522.7787	213150.6357	100.16	micro	flake		
3790	1973	GPF_Exc	5366	0	artifact	459522.7087	213150.5657	100.13	micro	ang frag		
3791	1973	GPF_Exc	5367	0	artifact	459522.6587	213150.6057	100.13	micro	ang frag		
3792	1973	GPF_Exc	5368	0	artifact	459522.5487	213150.6657	100.13	flake			
3793	1973	GPF_Exc	5369	0	artifact	459522.5987	213150.5457	100.13	micro	ang frag		
3794	1973	GPF_Exc	5370	0	artifact	459522.5187	213150.5357	100.13	flake			
3795	1973	GPF_Exc	5371	0	artifact	459522.6087	213150.6957	100.13	micro	flake		
3796	1973	GPF_Exc	5372	0	artifact	459522.6787	213150.7457	100.15	flake			
3797	1973	GPF_Exc	5373	0	artifact	459522.6087	213151.0757	100.14	flake			
3798	1973	GPF_Exc	5374	0	artifact	459522.5887	213150.7957	100.14	flake			
3799	1973	GPF_Exc	5375	0	artifact	459522.5987	213150.8357	100.14	ang frag			
3800	1973	GPF_Exc	5389	0	artifact	459523.3287	213151.4257	100.19	flake			
3801	1973	GPF_Exc	5390	0	artifact	459523.3887	213151.4257	100.19	flake			
3802	1973	GPF_Exc	5391	0	artifact	459523.4887	213151.2657	100.17	flake			
3803	1973	GPF_Exc	5392	0	artifact	459523.4687	213151.2657	100.17	ang frag			
3804	1973	GPF_Exc	5393	0	artifact	459521.6187	213151.3057	100.12	ang frag			
3805	1973	GPF_Exc	5394	0	artifact	459523.1787	213151.3857	100.2	flake			
3806	1973	GPF_Exc	5395	0	artifact	459523.2487	213151.4157	100.18	micro	snap flake		
3807	1973	GPF_Exc	5396	0	artifact	459523.2287	213151.4257	100.18	ang frag			
3808	1973	GPF_Exc	5397	0	artifact	459523.1287	213151.2457	100.18	micro	flake		
3809	1973	GPF_Exc	5398	0	artifact	459523.0987	213151.2057	100.15	flake			
3810	1973	GPF_Exc	5399	0	artifact	459523.0687	213151.1357	100.22	flake			
3811	1973	GPF_Exc	5400	0	artifact	459523.4287	213151.3557	100.11	flake			
3812	1973	GPF_Exc	5401	0	artifact	459523.0287	213151.0357	100.18	flake			
3813	1973	GPF_Exc	5402	0	artifact	459522.9487	213151.1157	100.18	micro	snap flake		
3814	1973	GPF_Exc	5403	0	artifact	459522.9987	213151.2957	100.17	flake			

3815	1973	GPF_Exc	5404	0	artifact	459522.9987	213151.4257	100.20	flake				
3816	1973	GPF_Exc	5405	0	artifact	459523.0087	213151.2557	100.17	micro	split flake			
3817	1973	GPF_Exc	5406	0	artifact	459523.0287	213151.2657	100.17	micro	split flake			
3818	1973	GPF_Exc	5408	0	artifact	459522.7287	213150.9857	100.11	ang frag				
3819	1973	GPF_Exc	5417	0	artifact	459522.8987	213151.1157	100.17	flake				
3820	1973	GPF_Exc	5418	0	artifact	459522.7587	213151.1757	100.15	ang frag				
3821	1973	GPF_Exc	5419	0	artifact	459522.7887	213151.1857	100.15	ang frag				
3822	1973	GPF_Exc	5420	0	artifact	459522.8287	213151.2757	100.15	flake				
3823	1973	GPF_Exc	5421	0	artifact	459522.8587	213151.2557	100.15	flake				
3824	1973	GPF_Exc	5422	0	artifact	459522.8687	213151.1457	100.16	ang frag				
3825	1973	GPF_Exc	5423	0	artifact	459522.7687	213151.2157	100.15	micro	snap flake			
3826	1973	GPF_Exc	5424	0	artifact	459522.6787	213151.3257	100.1	micro	ang frag			
3827	1973	GPF_Exc	5424	0	artifact	459519.5887	213149.9657	100.12	flake				
3828	1973	GPF_Exc	5425	0	artifact	459522.7987	213151.3557	100.14	flake				
3829	1973	GPF_Exc	5426	0	artifact	459522.9087	213151.1457	100.16	micro	ang frag			
3830	1973	GPF_Exc	5427	0	artifact	459522.9687	213151.2057	100.17	ang frag				
3831	1973	GPF_Exc	5428	0	artifact	459522.9387	213151.2257	100.17	flake				
3832	1973	GPF_Exc	5429	0	artifact	459522.6687	213151.3557	100.12	flake				
3833	1973	GPF_Exc	5430	0	artifact	459522.6187	213151.3357	100.12	flake				
3834	1973	GPF_Exc	5431	0	artifact	459522.5687	213151.3657	100.12	ang frag				
3835	1973	GPF_Exc	5432	0	artifact	459522.5587	213150.8557	100.14	flake				
3836	1973	GPF_Exc	5433	0	artifact	459522.5687	213150.8257	100.14	micro	ang frag			
3837	1973	GPF_Exc	5434	0	artifact	459522.5587	213150.7857	100.14	ang frag				
3838	1973	GPF_Exc	5435	0	artifact	459522.6487	213150.6357	100.13	flake				
3839	1973	GPF_Exc	5436	0	artifact	459522.7587	213150.5357	100.12	micro	ang frag			
3840	1973	GPF_Exc	5437	0	artifact	459522.7987	213150.4957	100.12	micro	flake			
3841	1973	GPF_Exc	5439	0	artifact	459522.7687	213150.4857	100.12	ang frag				
3842	1973	GPF_Exc	5440	0	artifact	459522.7687	213150.6957	100.12	ang frag				

3843	1973	GPF_Exc	5441	0	artifact	459522.7287	213150.6657	100.12	flake			
3844	1973	GPF_Exc	5442	0	artifact	459522.8187	213150.5957	100.12	micro	flake		
3845	1973	GPF_Exc	5443	0	artifact	459522.8887	213150.3857	100.15	micro	ang frag		
3846	1973	GPF_Exc	5444	0	artifact	459522.7987	213150.6357	100.16	flake			
3847	1973	GPF_Exc	5445	0	artifact	459522.5587	213150.6457	100.13	flake			
3848	1973	GPF_Exc	5446	0	artifact	459522.6387	213150.7957	100.14	flake			
3849	1973	GPF_Exc	5447	0	artifact	459522.5787	213150.8857	100.14	flake			
3850	1973	GPF_Exc	5448	0	artifact	459522.5687	213151.2857	100.13	flake			
3851	1973	GPF_Exc	5449	0	artifact	459523.1587	213151.2457	100.18	micro	ang frag		
3852	1973	GPF_Exc	5450	0	artifact	459521.5787	213151.3157	100.11	ang frag			
3853	1973	GPF_Exc	5452	0	artifact	459523.1287	213151.3657	100.14	micro	ang frag		
3854	1973	GPF_Exc	5452	0	artifact	459523.1287	213151.3657	100.14	flake			
3855	1973	GPF_Exc	5453	0	artifact	459520.8887	213149.4357	100.09	flake			
3856	1973	GPF_Exc	5454	0	artifact	459520.9387	213149.3357	100.09	flake			
3857	1973	GPF_Exc	5455	0	artifact	459523.3087	213150.3757	100.15	flake			
3858	1973	GPF_Exc	5456	0	artifact	459521.0387	213149.3357	100.07	micro	ang frag		
3859	1973	GPF_Exc	5457	0	artifact	459521.1187	213149.2657	100.09	flake			
3860	1973	GPF_Exc	5458	0	artifact	459522.7987	213150.4657	100.1	ang frag			
3861	1973	GPF_Exc	5458	0	artifact	459521.1887	213149.4357	100.12	flake			
3862	1973	GPF_Exc	5459	0	artifact	459521.2287	213149.4257	100.1	core			
3863	1973	GPF_Exc	5460	0	artifact	459521.4387	213149.4057	100.1	flake			
3864	1973	GPF_Exc	5461	0	artifact	459521.4487	213149.4257	100.10	ang frag			
3865	1973	GPF_Exc	5462	0	artifact	459521.4587	213149.3257	100.10	ang frag			
3866	1973	GPF_Exc	5463	0	artifact	459519.3587	213148.9157	100.13	ang frag			
3867	1973	GPF_Exc	5464	0	artifact	459521.3087	213148.8157	100.09	micro	split flake		
3868	1973	GPF_Exc	5467	0	artifact	459519.6487	213148.6057	100.15	micro	ang frag		
3869	1973	GPF_Exc	5469	0	artifact	459523.0387	213148.7957	100.12	flake			
3870	1973	GPF_Exc	5470	0	artifact	459523.0887	213148.9357	100.16	micro	split flake		

3871	1973	GPF_Exc	5471	0	artifact	459523.0487	213148.9857	100.17	micro	flake		
3872	1973	GPF_Exc	5472	0	artifact	459522.7687	213151.0057	100.17	micro	ang frag		
3873	1973	GPF_Exc	5473	0	artifact	459522.8187	213151.0357	100.17	flake			
3874	1973	GPF_Exc	5474	0	artifact	459522.9487	213151.0057	100.13	ang frag			
3875	1973	GPF_Exc	5475	0	artifact	459523.0587	213150.9557	100.15	micro	ang frag		
3876	1973	GPF_Exc	5476	0	artifact	459522.8487	213151.1757	100.17	flake			
3877	1973	GPF_Exc	5478	0	artifact	459523.0687	213150.3857	100.15	flake			
3878	1973	GPF_Exc	5479	0	artifact	459523.1887	213150.4157	100.15	ang frag			
3879	1973	GPF_Exc	5480	0	artifact	459523.1787	213150.2457	100.15	flake			
3880	1973	GPF_Exc	5481	0	artifact	459523.4387	213150.1857	100.13	ang frag			
3881	1973	GPF_Exc	5482	0	artifact	459522.4087	213149.1657	100.1	flake			
3882	1973	GPF_Exc	5483	0	artifact	459520.3887	213149.0857	100.12	flake			
3883	1973	GPF_Exc	5484	0	artifact	459520.1387	213149.9857	100.08	micro	ang frag		
3884	1973	GPF_Exc	5485	0	artifact	459520.0687	213150.0257	100.08	micro	ang frag		
3885	1973	GPF_Exc	5494	0	artifact	459522.9387	213151.2657	100.18	ang frag			
3886	1973	GPF_Exc	5496	0	artifact	459523.0787	213151.4157	100.18	micro	ang frag		
3887	1973	GPF_Exc	5497	0	artifact	459523.2487	213151.2457	100.15	flake			
3888	1973	GPF_Exc	5498	0	artifact	459523.1987	213150.9857	100.19	micro	ang frag		
3889	1973	GPF_Exc	5499	0	artifact	459523.3887	213150.8857	100.20	flake			
3890	1973	GPF_Exc	5762	0	artifact	459521.3187	213149.5457	100.09	flake			
3891	1973	GPF_Exc	5900	0	artifact	459523.4487	213150.7657	100.18	flake			
3892	1973	GPF_Exc	5901	0	artifact	459522.8887	213150.7457	100.21	flake			
3893	1973	GPF_Exc	5902	0	artifact	459523.3787	213150.7157	100.19	micro	flake		
3894	1973	GPF_Exc	5903	0	artifact	459523.3987	213150.6957	100.19	micro	split flake		
3895	1973	GPF_Exc	5904	0	artifact	459521.5287	213150.7257	100.19	flake			
3896	1973	GPF_Exc	5905	0	artifact	459522.5487	213150.6957	100.16	micro	ang frag		
3897	1973	GPF_Exc	5906	0	artifact	459523.3287	213150.6157	100.11	ang frag			
3898	1973	GPF_Exc	5907	0	artifact	459523.4687	213150.8957	100.18	ang frag			

3899	1973	GPF_Exc	5908	0	artifact	459523.4887	213150.9057	100.17	ang frag			
3900	1973	GPF_Exc	5910	0	artifact	459521.5587	213150.0157	100.11	flake			
3901	1973	GPF_Exc	5912	0	artifact	459520.7187	213150.2957	100.11	flake			
3902	1973	GPF_Exc	5913	0	artifact	459520.6887	213150.0057	100.11	micro	ang frag		
3903	1973	GPF_Exc	5914	0	artifact	459521.2587	213150.7157	100.11	ang frag			
3904	1973	GPF_Exc	5916	0	artifact	459521.3187	213150.2357	100.1	ang frag			
3905	1973	GPF_Exc	5917	0	artifact	459521.4187	213150.1357	100.1	flake			
3906	1973	GPF_Exc	5919	0	artifact	459521.3987	213150.0857	100.1	ang frag			
3907	1973	GPF_Exc	5920	0	artifact	459521.1287	213150.0757	100.1	flake			
3908	1973	GPF_Exc	5921	0	artifact	459521.0887	213150.0657	100.1	flake			
3909	1973	GPF_Exc	5922	0	artifact	459521.4687	213149.8957	100.1	ang frag			
3910	1973	GPF_Exc	5923	0	artifact	459519.5887	213147.9957	100.1	ang frag			
3911	1973	GPF_Exc	5925	0	artifact	459519.6187	213149.8357	100.1	flake			
3912	1973	GPF_Exc	5926	0	artifact	459519.6287	213149.8057	100.1	flake			
3913	1973	GPF_Exc	5927	0	artifact	459521.4887	213149.6257	100.1	micro	ang frag		
3914	1973	GPF_Exc	5928	0	artifact	459519.8487	213149.7157	100.11	ang frag			
3915	1973	GPF_Exc	5931	0	artifact	459520.2887	213149.3757	100.08	ang frag			
3916	1973	GPF_Exc	5932	0	artifact	459520.0587	213149.3157	100.1	flake			
3917	1973	GPF_Exc	5933	0	artifact	459519.9887	213149.4157	100.09	ang frag			
3918	1973	GPF_Exc	5934	0	artifact	459520.0887	213149.2457	100.1	ang frag			
3919	1973	GPF_Exc	5938	0	artifact	459520.2387	213148.9657	100.11	ang frag			
3920	1973	GPF_Exc	5939	0	artifact	459520.1787	213148.9457	100.11	ang frag			
3921	1973	GPF_Exc	5941	0	artifact	459520.3587	213149.0357	100.1	flake			
3922	1973	GPF_Exc	5943	0	artifact	459519.8887	213148.8657	100.11	ang frag			
3923	1973	GPF_Exc	5944	0	artifact	459519.9087	213148.9157	100.11	ang frag			
3924	1973	GPF_Exc	5945	0	artifact	459519.8687	213148.7357	100.14	ang frag			
3925	1973	GPF_Exc	5947	0	artifact	459519.8287	213148.6657	100.14	flake			
3926	1973	GPF_Exc	5948	0	artifact	459519.7687	213148.7457	100.14	flake			

3927	1973	GPF_Exc	5950	0	artifact	459519.6987	213148.6257	100.15	flake				
3928	1973	GPF_Exc	5951	0	artifact	459519.6387	213149.4257	100.11	flake				
3929	1973	GPF_Exc	5952	0	artifact	459519.6187	213148.7957	100.15	micro	snap flake			
3930	1973	GPF_Exc	5953	0	artifact	459522.6787	213148.8757	100.09	flake				
3931	1973	GPF_Exc	5953	0	artifact	459520.4787	213149.1857	100.15	micro	split/snap flake			
3932	1973	GPF_Exc	5955	0	artifact	459519.7887	213148.8757	100.12	ang frag				
3933	1973	GPF_Exc	5956	0	artifact	459519.7787	213148.9457	100.12	flake				
3934	1973	GPF_Exc	5957	0	artifact	459519.7987	213149.0257	100.07	micro	ang frag			
3935	1973	GPF_Exc	5958	0	artifact	459519.6087	213149.0457	100.13	flake				
3936	1973	GPF_Exc	5959	0	artifact	459519.7287	213149.0957	100.1	flake				
3937	1973	GPF_Exc	5961	0	artifact	459519.9487	213149.1357	100.09	flake				
3938	1973	GPF_Exc	5962	0	artifact	459519.8587	213149.3157	100.1	ang frag				
3939	1973	GPF_Exc	5963	0	artifact	459519.7187	213149.3457	100.09	ang frag				
3940	1973	GPF_Exc	5964	0	artifact	459519.5787	213149.3657	100.09	micro	snap flake			
3941	1973	GPF_Exc	5965	0	artifact	459519.7787	213149.3557	100.08	flake				
3942	1973	GPF_Exc	5967	0	artifact	459523.0287	213148.9357	100.14	ang frag				
3943	1973	GPF_Exc	5968	0	artifact	459523.0487	213148.9457	100.16	ang frag				
3944	1973	GPF_Exc	5969	0	artifact	459523.0487	213148.9357	100.16	micro	flake			
3945	1973	GPF_Exc	5970	0	artifact	459523.0087	213149.0157	100.11	flake				
3946	1973	GPF_Exc	5971	0	artifact	459523.0187	213148.7257	100.12	flake				
3947	1973	GPF_Exc	5973	0	artifact	459523.2587	213148.4857	100.15	flake				
3948	1973	GPF_Exc	5974	0	artifact	459523.4087	213148.8457	100.11	micro	split flake			
3949	1973	GPF_Exc	5975	0	artifact	459523.3087	213150.3557	100.14	flake				
3950	1973	GPF_Exc	5976	0	artifact	459523.2887	213150.4157	100.15	ang frag				
3951	1973	GPF_Exc	5977	0	artifact	459523.2187	213150.4357	100.14	flake				
3952	1973	GPF_Exc	5978	0	artifact	459523.1287	213150.3257	100.12	ang frag				
3953	1973	GPF_Exc	5979	0	artifact	459523.0387	213150.4357	100.17	flake				
3954	1973	GPF_Exc	5980	0	artifact	459523.0887	213150.3357	100.17	flake				

3955	1973	GPF_Exc	5981	0	artifact	459523.0487	213150.3357	100.14	ang frag			
3956	1973	GPF_Exc	5982	0	artifact	459523.0387	213150.3257	100.12	flake			
3957	1973	GPF_Exc	5983	0	artifact	459523.0587	213150.2957	100.12	flake			
3958	1973	GPF_Exc	5984	0	artifact	459523.0487	213150.2857	100.1	flake			
3959	1973	GPF_Exc	5985	0	artifact	459522.9887	213150.2857	100.12	flake			
3960	1973	GPF_Exc	5986	0	artifact	459523.0087	213150.3157	100.12	flake			
3961	1973	GPF_Exc	5987	0	artifact	459522.9387	213150.3557	100.11	flake			
3962	1973	GPF_Exc	5988	0	artifact	459522.9187	213150.3557	100.11	ang frag			
3963	1973	GPF_Exc	5989	0	artifact	459522.8987	213150.4257	100.11	micro	ang frag		
3964	1973	GPF_Exc	5990	0	artifact	459522.8987	213150.4357	100.13	flake			
3965	1973	GPF_Exc	5991	0	artifact	459522.8987	213150.4557	100.13	ang frag			
3966	1973	GPF_Exc	5992	0	artifact	459522.8687	213150.4557	100.13	ang frag			
3967	1973	GPF_Exc	5993	0	artifact	459522.8887	213150.4857	100.13	micro	ang frag		
3968	1973	GPF_Exc	5994	0	artifact	459522.8387	213150.4757	100.12	micro	ang frag		
3969	1973	GPF_Exc	5995	0	artifact	459522.8287	213150.4657	100.12	flake			
3970	1973	GPF_Exc	5997	0	artifact	459522.7587	213150.6057	100.13	flake			
3971	1973	GPF_Exc	5998	0	artifact	459522.7487	213150.5857	100.11	flake			
3972	1973	GPF_Exc	5999	0	artifact	459522.6987	213150.5857	100.11	ang frag			
3973	1973	GPF_Exc	6000	0	artifact	459522.6287	213150.6557	100.13	flake			
3974	1973	GPF_Exc	6001	0	artifact	459522.6187	213150.6857	100.13	flake			
3975	1973	GPF_Exc	6002	0	artifact	459522.6387	213150.6957	100.13	micro	ang frag		
3976	1973	GPF_Exc	6003	0	artifact	459522.6487	213150.6657	100.13	flake			
3977	1973	GPF_Exc	6004	0	artifact	459522.6587	213150.6857	100.13	flake			
3978	1973	GPF_Exc	6005	0	artifact	459522.6887	213150.6857	100.1	flake			
3979	1973	GPF_Exc	6006	0	artifact	459522.6587	213150.7357	100.1	flake			
3980	1973	GPF_Exc	6007	0	artifact	459522.7087	213150.7157	100.09	flake			
3981	1973	GPF_Exc	6008	0	artifact	459522.6787	213150.6557	100.12	flake			
3982	1973	GPF_Exc	6009	0	artifact	459522.6087	213150.7257	100.11	micro	ang frag		

3983	1973	GPF_Exc	6010	0	artifact	459522.5587	213150.7657	100.13	flake			
3984	1973	GPF_Exc	6011	0	artifact	459522.5787	213150.7357	100.13	micro	flake		
3985	1973	GPF_Exc	6012	0	artifact	459522.5387	213150.7557	100.13	flake			
3986	1973	GPF_Exc	6013	0	artifact	459522.6087	213150.7357	100.11	micro	snap flake		
3987	1973	GPF_Exc	6014	0	artifact	459522.5887	213150.7757	100.11	flake			
3988	1973	GPF_Exc	6017	0	artifact	459522.8887	213151.4057	100.15	flake			
3989	1973	GPF_Exc	6018	0	artifact	459522.9487	213151.4157	100.11	flake			
3990	1973	GPF_Exc	6019	0	artifact	459522.9087	213151.3857	100.12	flake			
3991	1973	GPF_Exc	6020	0	artifact	459522.8487	213151.3757	100.11	ang frag			
3992	1973	GPF_Exc	6021	0	artifact	459522.8287	213151.3657	100.11	flake			
3993	1973	GPF_Exc	6022	0	artifact	459522.8087	213151.3957	100.1	ang frag			
3994	1973	GPF_Exc	6024	0	artifact	459522.7787	213151.3657	100.1	ang frag			
3995	1973	GPF_Exc	6025	0	artifact	459522.7487	213151.3957	100.11	ang frag			
3996	1973	GPF_Exc	6026	0	artifact	459522.6887	213151.4057	100.1	flake			
3997	1973	GPF_Exc	6027	0	artifact	459522.5287	213151.3457	100.16	flake			
3998	1973	GPF_Exc	6028	0	artifact	459522.5187	213151.4357	100.18	ang frag			
3999	1973	GPF_Exc	6029	0	artifact	459522.5187	213151.4357	100.18	micro	flake		
4000	1973	GPF_Exc	6032	0	artifact	459520.1587	213148.6457	100.06	flake			
4001	1973	GPF_Exc	6033	0	artifact	459520.4487	213149.3257	100.08	flake			
4002	1973	GPF_Exc	6034	0	artifact	459520.4387	213149.2957	100.08	flake			
4003	1973	GPF_Exc	6036	0	artifact	459520.0987	213149.3557	100.07	ang frag			
4004	1973	GPF_Exc	6037	0	artifact	459520.1887	213149.1857	100.06	micro	ang frag		
4005	1973	GPF_Exc	6038	0	artifact	459520.0087	213149.1857	100.07	flake			
4006	1973	GPF_Exc	6039	0	artifact	459520.0387	213149.1057	100.08	ang frag			
4007	1973	GPF_Exc	6041	0	artifact	459519.8587	213149.2157	100.08	ang frag			
4008	1973	GPF_Exc	6042	0	artifact	459519.8287	213149.1557	100.09	ang frag			
4009	1973	GPF_Exc	6043	0	artifact	459519.8087	213148.9957	100.07	flake			
4010	1973	GPF_Exc	6044	0	artifact	459519.7587	213148.9357	100.11	ang frag			

4011	1973	GPF_Exc	6045	0	artifact	459519.7687	213148.8557	100.12	flake			
4012	1973	GPF_Exc	6046	0	artifact	459519.8087	213148.8657	100.11	micro	ang frag		
4013	1973	GPF_Exc	6047	0	artifact	459519.7787	213148.9057	100.11	flake			
4014	1973	GPF_Exc	6048	0	artifact	459519.7687	213148.8757	100.11	ang frag			
4015	1973	GPF_Exc	6049	0	artifact	459519.7487	213148.6257	100.13	flake			
4016	1973	GPF_Exc	6050	0	artifact	459519.7387	213148.5957	100.11	ang frag			
4017	1973	GPF_Exc	6053	0	artifact	459519.6787	213148.4657	100.1	flake			
4018	1973	GPF_Exc	6055	0	artifact	459519.5687	213148.4957	100.09	ang frag			
4019	1973	GPF_Exc	6056	0	artifact	459519.5787	213148.5757	100.13	flake			
4020	1973	GPF_Exc	6057	0	artifact	459519.6987	213149.2357	100.06	ang frag			
4021	1973	GPF_Exc	6058	0	artifact	459519.7487	213149.3357	100.07	micro	split flake		
4022	1973	GPF_Exc	6059	0	artifact	459519.7287	213149.3757	100.08	flake			
4023	1973	GPF_Exc	6060	0	artifact	459519.6887	213149.3157	100.05	flake			
4024	1973	GPF_Exc	6061	0	artifact	459519.7887	213149.3357	100.06	micro	split flake		
4025	1973	GPF_Exc	6062	0	artifact	459519.8087	213149.2157	100.05	flake			
4026	1973	GPF_Exc	6063	0	artifact	459519.8887	213149.1457	100.07	flake			
4027	1973	GPF_Exc	6065	0	artifact	459519.8687	213148.9057	100.09	ang frag			
4028	1973	GPF_Exc	6066	0	artifact	459519.5987	213149.2157	100.06	ang frag			
4029	1973	GPF_Exc	6067	0	artifact	459521.2987	213149.2857	100.05	ang frag			
4030	1973	GPF_Exc	6068	0	artifact	459521.2187	213149.2557	100.05	ang frag			
4031	1973	GPF_Exc	6069	0	artifact	459521.0387	213148.5357	100.06	flake			
4032	1973	GPF_Exc	6070	0	artifact	459520.7987	213148.4657	100.1	ang frag			
4033	1973	GPF_Exc	6072	0	artifact	459520.7887	213149.2657	100.05	flake			
4034	1973	GPF_Exc	6073	0	artifact	459520.6287	213149.4157	100.06	flake			
4035	1973	GPF_Exc	6074	0	artifact	459522.3487	213149.0857	100.1	flake			
4036	1973	GPF_Exc	6075	0	artifact	459522.3187	213149.0857	100.09	flake			
4037	1973	GPF_Exc	6076	0	artifact	459522.2987	213149.0557	100.09	flake			
4038	1973	GPF_Exc	6077	0	artifact	459522.2387	213149.2857	100.08	ang frag			

4039	1973	GPF_Exc	6078	0	artifact	459522.2287	213149.3157	100.08	ang frag			
4040	1973	GPF_Exc	6079	0	artifact	459522.2087	213149.2957	100.08	flake			
4041	1973	GPF_Exc	6081	0	artifact	459522.8787	213148.6457	100.05	ang frag			
4042	1973	GPF_Exc	6082	0	artifact	459523.4387	213150.0757	100.1	ang frag			
4043	1973	GPF_Exc	6083	0	artifact	459523.0687	213150.2457	100.1	flake			
4044	1973	GPF_Exc	6084	0	artifact	459522.8187	213150.3757	100.06	flake			
4045	1973	GPF_Exc	6085	0	artifact	459522.8587	213150.5157	100.1	flake			
4046	1973	GPF_Exc	6086	0	artifact	459521.6287	213149.9757	100.06	flake			
4047	1973	GPF_Exc	6087	0	artifact	459522.1287	213149.6857	100.07	flake			
4048	1973	GPF_Exc	6088	0	artifact	459522.1287	213149.7157	100.07	flake			
4049	1973	GPF_Exc	6089	0	artifact	459522.1487	213149.7257	100.09	flake			
4050	1973	GPF_Exc	6090	0	artifact	459522.1787	213149.7057	100.09	micro	ang frag		
4051	1973	GPF_Exc	6091	0	artifact	459522.1587	213149.7557	100.09	ang frag			
4052	1973	GPF_Exc	6092	0	artifact	459522.4587	213149.7257	100.05	ang frag			
4053	1973	GPF_Exc	6093	0	artifact	459522.4787	213149.6857	100.05	flake			
4054	1973	GPF_Exc	6094	0	artifact	459522.4587	213149.9757	100.05	ang frag			
4055	1973	GPF_Exc	6095	0	artifact	459522.4287	213150.0457	100.05	flake			
4056	1973	GPF_Exc	6096	0	artifact	459522.4387	213150.4057	100.05	ang frag			
4057	1973	GPF_Exc	6099	0	artifact	459523.4587	213151.4357	100.19	flake			
4058	1973	GPF_Exc	6141	0	artifact	459521.5787	213148.3857	100.18	flake			
4059	1973	GPF_Exc	6142	0	artifact	459521.6687	213148.3657	100.15	ang frag			
4060	1973	GPF_Exc	6143	0	artifact	459521.6687	213148.3157	100.15	flake			
4061	1973	GPF_Exc	6145	0	artifact	459521.8887	213148.4257	100.15	flake			
4062	1973	GPF_Exc	6146	0	artifact	459521.7687	213148.4057	100.16	core			
4063	1973	GPF_Exc	6147	0	artifact	459521.7887	213148.3457	100.18	flake			
4064	1973	GPF_Exc	6148	0	artifact	459521.7687	213148.3157	100.18	flake			
4065	1973	GPF_Exc	6149	0	artifact	459521.7887	213148.2657	100.16	core			
4066	1973	GPF_Exc	6150	0	artifact	459521.8187	213148.3057	100.16	flake			

4067	1973	GPF_Exc	6151	0	artifact	459521.8687	213148.3257	100.16	flake			
4068	1973	GPF_Exc	6152	0	artifact	459521.8387	213148.2657	100.14	flake			
4069	1973	GPF_Exc	6153	0	artifact	459521.9687	213148.2857	100.16	flake			
4070	1973	GPF_Exc	6154	0	artifact	459522.0287	213148.3157	100.16	flake			
4071	1973	GPF_Exc	6155	0	artifact	459522.0587	213148.2657	100.14	flake			
4072	1973	GPF_Exc	6156	0	artifact	459522.1087	213148.2957	100.14	flake			
4073	1973	GPF_Exc	6157	0	artifact	459522.1787	213148.3457	100.16	flake			
4074	1973	GPF_Exc	6159	0	artifact	459522.3587	213148.2957	100.17	flake			
4075	1973	GPF_Exc	6160	0	artifact	459523.3987	213148.4257	100.11	flake			
4076	1973	GPF_Exc	6162	0	artifact	459523.4287	213148.2957	100.14	ang frag			
4077	1973	GPF_Exc	6163	0	artifact	459523.2987	213148.3357	100.13	flake			
4078	1973	GPF_Exc	6164	0	artifact	459523.1687	213148.3457	100.11	flake			
4079	1973	GPF_Exc	6165	0	artifact	459520.5287	213149.9957	100.05	flake			
4080	1973	GPF_Exc	6166	0	artifact	459520.6087	213150.0757	100.07	flake			
4081	1973	GPF_Exc	6167	0	artifact	459520.9587	213150.0357	100.07	flake			
4082	1973	GPF_Exc	6169	0	artifact	459519.6687	213149.9657	100.08	ang frag			
4083	1973	GPF_Exc	6170	0	artifact	459519.6687	213149.9357	100.08	flake			
4084	1973	GPF_Exc	6173	0	artifact	459519.8587	213150.2857	100.07	flake			
4085	1973	GPF_Exc	6174	0	artifact	459519.8987	213150.3357	100.07	ang frag			
4086	1973	GPF_Exc	6175	0	artifact	459519.9887	213150.1957	100.06	ang frag			
4087	1973	GPF_Exc	6176	0	artifact	459519.9887	213150.2057	100.06	ang frag			
4088	1973	GPF_Exc	6177	0	artifact	459519.7687	213150.1357	100.06	flake			
4089	1973	GPF_Exc	6178	0	artifact	459520.1887	213150.1357	100.08	flake			
4090	1973	GPF_Exc	6179	0	artifact	459520.1987	213150.1357	100.08	flake			
4091	1973	GPF_Exc	6180	0	artifact	459520.2187	213150.1257	100.08	flake			
4092	1973	GPF_Exc	6181	0	artifact	459520.3587	213149.6957	100.06	ang frag			
4093	1973	GPF_Exc	6182	0	artifact	459520.3987	213149.7957	100.09	flake			
4094	1973	GPF_Exc	6184	0	artifact	459520.0587	213149.5257	100.07	flake			

4095	1973	GPF_Exc	6185	0	artifact	459520.1187	213149.5357	100.08	ang frag			
4096	1973	GPF_Exc	6186	0	artifact	459520.1587	213149.4857	100.08	flake			
4097	1973	GPF_Exc	6187	0	artifact	459520.4087	213150.3157	100.07	ang frag			
4098	1973	GPF_Exc	6188	0	artifact	459520.3987	213150.3657	100.07	ang frag			
4099	1973	GPF_Exc	6189	0	artifact	459520.4487	213150.3257	100.06	flake			
4100	1973	GPF_Exc	6190	0	artifact	459520.4887	213150.3257	100.06	ang frag			
4101	1973	GPF_Exc	6191	0	artifact	459520.4887	213150.2857	100.06	flake			
4102	1973	GPF_Exc	6192	0	artifact	459520.4487	213150.2457	100.08	core			
4103	1973	GPF_Exc	6193	0	artifact	459520.4787	213150.1657	100.95	ang frag			
4104	1973	GPF_Exc	6194	0	artifact	459520.1087	213150.6257	100.06	core			
4105	1973	GPF_Exc	6195	0	artifact	459520.3687	213150.5257	100.04	flake			
4106	1973	GPF_Exc	6197	0	artifact	459520.3887	213151.1757	100.05	ang frag			
4107	1973	GPF_Exc	6199	0	artifact	459519.8587	213150.7957	100.05	flake			
4108	1973	GPF_Exc	6202	0	artifact	459519.5787	213148.4757	100.08	ang frag			
4109	1973	GPF_Exc	6203	0	artifact	459519.6287	213148.4957	100.08	flake			
4110	1973	GPF_Exc	6204	0	artifact	459519.6287	213148.5257	100.09	ang frag			
4111	1973	GPF_Exc	6206	0	artifact	459521.9087	213148.3457	100.17	flake			
4112	1973	GPF_Exc	6207	0	artifact	459521.9587	213148.3357	100.16	flake			
4113	1973	GPF_Exc	6208	0	artifact	459521.9387	213148.3957	100.14	flake			
4114	1973	GPF_Exc	6209	0	artifact	459521.9087	213148.4057	100.14	flake			
4115	1973	GPF_Exc	6211	0	artifact	459521.8587	213148.2957	100.13	flake			
4116	1973	GPF_Exc	6212	0	artifact	459521.9587	213148.3857	100.14	flake			
4117	1973	GPF_Exc	6215	0	artifact	459523.0787	213148.8157	100.08	flake			
4118	1973	GPF_Exc	6229	0	artifact	459520.1487	213151.2657	100.02	flake			
4119	1973	GPF_Exc	6230	0	artifact	459520.4987	213150.4957	100.02	core			
4120	1973	GPF_Exc	6233	0	artifact	459520.3787	213150.0957	100.01	flake			
4121	1973	GPF_Exc	6234	0	artifact	459519.5587	213149.3457	100.04	flake			
4122	1973	GPF_Exc	6235	0	artifact	459522.6387	213151.1057	100	flake			

4123	1973	GPF_Exc	6630	0	artifact	459523.0587	213149.0057	100.11	ang frag			
1236	2010	GPF_Exc	10001	0	artifact	459517.7884	213148.803	99.7272	flake			
1237	2010	GPF_Exc	10002	0	artifact	459517.7715	213149.2332	99.8441	flake			
1238	2010	GPF_Exc	10003	0	artifact	459517.4130	213148.9473	99.6622	core			
1239	2010	GPF_Exc	10007	0	artifact	459517.7688	213149.4839	99.9678	core			
1240	2010	GPF_Exc	10009	0	artifact	459518.3512	213149.2265	99.9430	flake			
1241	2010	GPF_Exc	10013	0	artifact	459518.6785	213148.996	99.9750	core			
1242	2010	GPF_Exc	10014	0	artifact	459518.6604	213148.9826	99.9720	flake			
1243	2010	GPF_Exc	10017	0	artifact	459519.0928	213148.8485	100.0248	ang frag			
1244	2010	GPF_Exc	10018	0	artifact	459519.0947	213149.3266	100.0868	flake			
1245	2010	GPF_Exc	10024	0	artifact	459518.7607	213149.6718	100.1358	core			
1246	2010	GPF_Exc	10025	0	artifact	459518.6838	213149.8712	100.2185	ang frag			
1247	2010	GPF_Exc	10026	0	artifact	459518.9388	213150.0328	100.2612	core			
1248	2010	GPF_Exc	10027	0	artifact	459518.7627	213150.0443	100.2616	core			
1249	2010	GPF_Exc	10028	0	artifact	459519.1627	213150.294	100.3380	core			
1250	2010	GPF_Exc	10029	0	artifact	459519.1666	213150.2922	100.3340	micro	ang frag		
1251	2010	GPF_Exc	10031	0	artifact	459519.9268	213149.053	100.0105	ang frag			
1252	2010	GPF_Exc	10032	0	artifact	459519.9683	213149.1258	100.0190	micro	ang frag		
1253	2010	GPF_Exc	10033	0	artifact	459520.0829	213149.1453	100.0091	micro	ang frag		
1254	2010	GPF_Exc	10034	0	artifact	459520.1414	213149.1189	99.9927	ang frag			
1255	2010	GPF_Exc	10035	0	artifact	459520.2385	213149.0488	99.9780	ang frag			
1256	2010	GPF_Exc	10036	0	artifact	459518.1520	213147.1214	99.4813	flake			
1257	2010	GPF_Exc	10037	0	artifact	459518.4445	213147.7526	99.6297	ang frag			
1258	2010	GPF_Exc	10038	0	artifact	459519.4884	213146.1157	99.2996	ang frag			
1259	2010	GPF_Exc	10040	0	artifact	459519.4240	213145.1256	99.0974	flake			
1260	2010	GPF_Exc	10043	0	artifact	459518.4069	213144.6754	98.9648	ang frag			
1261	2010	GPF_Exc	10044	0	artifact	459518.1494	213144.9645	99.0304	flake			
1262	2010	GPF_Exc	10046	0	artifact	459521.3015	213143.1673	98.7446	ang frag			

1263	2010	GPF_Exc	10047	0	artifact	459523.5440	213146.2396	99.4010	flake			
1264	2010	GPF_Exc	10048	0	artifact	459526.3325	213148.6461	99.5229	micro	flake		
1265	2010	GPF_Exc	10049	0	artifact	459525.7192	213148.5095	99.5790	flake			
1266	2010	GPF_Exc	10050	0	artifact	459526.4932	213146.8171	99.2708	ang frag			
1267	2010	GPF_Exc	10051	0	artifact	459526.9133	213147.0307	99.2402	ang frag			
1268	2010	GPF_Exc	10052	0	artifact	459527.5818	213147.5789	99.2885	flake			
1269	2010	GPF_Exc	10053	0	artifact	459527.6526	213147.8164	99.3062	ang frag			
1270	2010	GPF_Exc	10055	0	artifact	459525.7273	213148.6976	99.5952	core			
1271	2010	GPF_Exc	10056	0	artifact	459526.3214	213149.3149	99.6057	flake			
1272	2010	GPF_Exc	10057	0	artifact	459527.5148	213149.1557	99.4547	core			
1273	2010	GPF_Exc	10058	0	artifact	459527.2891	213151.3492	99.7482	ang frag			
1274	2010	GPF_Exc	10059	0	artifact	459527.2926	213151.6559	99.7709	ang frag			
1275	2010	GPF_Exc	10060	0	artifact	459527.1985	213151.687	99.7872	core			
1276	2010	GPF_Exc	10062	0	artifact	459527.1982	213150.4755	99.6748	core			
1277	2010	GPF_Exc	10063	0	artifact	459527.4754	213150.544	99.6454	core			
1278	2010	GPF_Exc	10064	0	artifact	459527.4318	213150.6513	99.6680	ang frag			
1279	2010	GPF_Exc	10065	0	artifact	459527.4472	213150.9383	99.6898	ang frag			
1280	2010	GPF_Exc	10066	0	artifact	459527.2820	213150.8257	99.6966	ang frag			
1281	2010	GPF_Exc	10067	0	artifact	459527.8464	213150.7405	99.6181	ang frag			
1282	2010	GPF_Exc	10068	0	artifact	459527.9782	213150.7317	99.6008	core			
1283	2010	GPF_Exc	10069	0	artifact	459527.7931	213151.2427	99.6722	flake			
1284	2010	GPF_Exc	10070	0	artifact	459527.6708	213151.628	99.7208	ang frag			
1285	2010	GPF_Exc	10071	0	artifact	459527.7249	213152.0544	99.7426	core			
1286	2010	GPF_Exc	10072	0	artifact	459528.1456	213152.3654	99.7037	ang frag			
1287	2010	GPF_Exc	10073	0	artifact	459527.7727	213152.7194	99.8182	ang frag			
1288	2010	GPF_Exc	10074	0	artifact	459527.9160	213151.1091	99.6479	core			
1289	2010	GPF_Exc	10075	0	artifact	459526.4743	213152.1609	99.8982	flake			
1290	2010	GPF_Exc	10077	0	artifact	459525.0474	213149.7731	99.8505	ang frag			

1291	2010	GPF_Exc	10078	0	artifact	459524.9640	213149.673	99.8341	flake				
1292	2010	GPF_Exc	10079	0	artifact	459524.5686	213150.132	100.0328	micro	flake			
1293	2010	GPF_Exc	10080	0	artifact	459525.1785	213149.0901	99.7337	ang frag				
1294	2010	GPF_Exc	10081	0	artifact	459525.4102	213149.0332	99.6898	micro	split flake			
1295	2010	GPF_Exc	10082	0	artifact	459525.2995	213148.856	99.6909	micro	ang frag			
1296	2010	GPF_Exc	10083	0	artifact	459525.7438	213148.4454	99.5612	hammerstone				
1297	2010	GPF_Exc	10084	0	artifact	459525.1197	213148.2762	99.6747	micro	pebble			
1298	2010	GPF_Exc	10085	0	artifact	459524.9270	213148.2051	99.7093	ang frag				
1299	2010	GPF_Exc	10087	0	artifact	459525.0567	213147.5552	99.5977	ang frag				
1300	2010	GPF_Exc	10088	0	artifact	459524.8988	213147.4935	99.5939	ang frag				
1301	2010	GPF_Exc	10090	0	artifact	459525.0862	213147.4625	99.5800	flake				
1302	2010	GPF_Exc	10091	0	artifact	459525.1881	213147.4424	99.5278	core				
1303	2010	GPF_Exc	10092	0	artifact	459525.0311	213147.3559	99.5665	flake				
1304	2010	GPF_Exc	10093	0	artifact	459525.4238	213147.3393	99.4789	ang frag				
1305	2010	GPF_Exc	10094	0	artifact	459524.4484	213147.0341	99.5956	ang frag				
1306	2010	GPF_Exc	10095	0	artifact	459524.4263	213147.2046	99.6162	flake				
1307	2010	GPF_Exc	10096	0	artifact	459524.5565	213147.0173	99.5758	ang frag				
1308	2010	GPF_Exc	10097	0	artifact	459524.8591	213153.3819	100.3201	core				
1309	2010	GPF_Exc	10098	0	artifact	459527.1765	213152.3202	99.8181	hammerstone				
1310	2010	GPF_Exc	10099	0	artifact	459527.2035	213152.2726	99.8095	flake				
1311	2010	GPF_Exc	10100	0	artifact	459526.7308	213151.9114	99.8457	ang frag				
1312	2010	GPF_Exc	10101	0	artifact	459527.1670	213151.9478	99.8184	micro	flake			
1313	2010	GPF_Exc	10102	0	artifact	459526.6713	213152.1581	99.8875	micro	ang frag			
1314	2010	GPF_Exc	10103	0	artifact	459524.1958	213153.2857	100.4609	ang frag				
1315	2010	GPF_Exc	10104	0	artifact	459524.2338	213153.4557	100.4580	ang frag				
1316	2010	GPF_Exc	10105	0	artifact	459524.1197	213153.502	100.4626	flake				
1317	2010	GPF_Exc	10106	0	artifact	459523.8336	213153.6768	100.4819	flake				
1318	2010	GPF_Exc	10107	0	artifact	459526.1647	213153.6281	100.1509	flake				

1319	2010	GPF_Exc	10108	0	artifact	459525.9006	213152.4422	100.0346	hammerstone		
1320	2010	GPF_Exc	10109	0	artifact	459525.8541	213152.6009	100.0837	ang frag		
1321	2010	GPF_Exc	10111	0	artifact	459524.5695	213149.4547	99.8968	ang frag		
1322	2010	GPF_Exc	10112	0	artifact	459524.3295	213149.2666	99.9575	flake		
1323	2010	GPF_Exc	10113	0	artifact	459523.8376	213149.8145	100.1699	ang frag		
1324	2010	GPF_Exc	10114	0	artifact	459524.2631	213150.2238	100.1814	flake		
1325	2010	GPF_Exc	10115	0	artifact	459524.1512	213150.2147	100.2241	core		
1326	2010	GPF_Exc	10116	0	artifact	459524.3303	213150.4216	100.1961	core		
1327	2010	GPF_Exc	10117	0	artifact	459524.1934	213150.4574	100.2826	micro	ang frag	
1328	2010	GPF_Exc	10118	0	artifact	459523.7369	213150.0574	100.1924	ang frag		
1329	2010	GPF_Exc	10119	0	artifact	459525.3529	213149.9064	99.7946	ang frag		
1330	2010	GPF_Exc	10120	0	artifact	459524.4349	213151.5081	100.3130	micro	ang frag	
1331	2010	GPF_Exc	10123	0	artifact	459518.9252	213146.8632	99.4826	ang frag		
1332	2010	GPF_Exc	10124	0	artifact	459518.6003	213147.1353	99.5203	ang frag		
1333	2010	GPF_Exc	10127	0	artifact	459518.8209	213147.4261	99.5771	flake		
1334	2010	GPF_Exc	10128	0	artifact	459519.3731	213146.7614	99.4633	flake		
1335	2010	GPF_Exc	10129	0	artifact	459519.5049	213147.1033	99.5309	core		
1336	2010	GPF_Exc	10130	0	artifact	459519.5569	213147.0649	99.5329	ang frag		
1337	2010	GPF_Exc	10132	0	artifact	459520.0504	213146.4052	99.3598	micro	ang frag	
1338	2010	GPF_Exc	10133	0	artifact	459519.6814	213146.7284	99.4610	ang frag		
1339	2010	GPF_Exc	10136	0	artifact	459519.6813	213147.2793	99.5632	ang frag		
1340	2010	GPF_Exc	10137	0	artifact	459520.0520	213147.3624	99.6104	micro	flake	
1341	2010	GPF_Exc	10138	0	artifact	459519.9468	213147.4869	99.6160	ang frag		
1342	2010	GPF_Exc	10141	0	artifact	459517.3226	213143.6274	98.6721	ang frag		
1343	2010	GPF_Exc	10142	0	artifact	459517.4466	213143.3859	98.5998	hammerstone		
1344	2010	GPF_Exc	10147	0	artifact	459521.1013	213146.175	99.4089	core		
1345	2010	GPF_Exc	10148	0	artifact	459521.1092	213146.3279	99.4537	flake		
1346	2010	GPF_Exc	10150	0	artifact	459521.2600	213148.7068	100.0073	micro	ang frag	

1347	2010	GPF_Exc	10151	0	artifact	459521.0173	213149.2044	100.0140	micro	ang frag		
1348	2010	GPF_Exc	10152	0	artifact	459520.7963	213148.9569	99.9930	ang frag			
1349	2010	GPF_Exc	10153	0	artifact	459520.6361	213148.9427	99.9819	micro	snap flake		
1350	2010	GPF_Exc	10154	0	artifact	459521.7406	213148.0912	99.9139	micro	ang frag		
1351	2010	GPF_Exc	10155	0	artifact	459522.4765	213147.5799	99.5496	micro	ang frag		
1352	2010	GPF_Exc	10156	0	artifact	459521.7756	213146.8027	99.5882	flake			
1353	2010	GPF_Exc	10157	0	artifact	459522.8373	213148.4102	99.6417	micro	ang frag		
1354	2010	GPF_Exc	10158	0	artifact	459523.0117	213148.6405	99.6843	micro	ang frag		
1355	2010	GPF_Exc	10160	0	artifact	459524.7031	213146.7285	99.5188	micro	ang frag		
1356	2010	GPF_Exc	10161	0	artifact	459524.7500	213146.6826	99.5030	micro	ang frag		
1357	2010	GPF_Exc	10162	0	artifact	459525.0828	213146.7117	99.4578	micro	flake		
1358	2010	GPF_Exc	10163	0	artifact	459524.9283	213146.8146	99.4996	micro	ang frag		
1359	2010	GPF_Exc	10164	0	artifact	459524.8576	213146.9433	99.5322	micro	flake		
1360	2010	GPF_Exc	10166	0	artifact	459525.6199	213146.8035	99.3889	ang frag			
1361	2010	GPF_Exc	10167	0	artifact	459526.5576	213147.0683	99.2925	ang frag			
1362	2010	GPF_Exc	10168	0	artifact	459525.8710	213147.4573	99.4354	flake			
1363	2010	GPF_Exc	10169	0	artifact	459526.0636	213147.8608	99.4626	micro	ang frag		
1364	2010	GPF_Exc	10170	0	artifact	459526.1765	213147.9824	99.4567	flake			
1365	2010	GPF_Exc	10172	0	artifact	459524.4835	213152.8274	100.3841	ang frag			
1366	2010	GPF_Exc	10173	0	artifact	459522.3425	213152.7816	100.5094	hammerstone			
1367	2010	GPF_Exc	10174	0	artifact	459522.3311	213153.1126	100.4806	core			
1368	2010	GPF_Exc	10177	0	artifact	459523.8775	213153.5658	100.4249	flake			
1369	2010	GPF_Exc	10178	0	artifact	459524.0700	213153.4427	100.4216	flake			
1370	2010	GPF_Exc	10179	0	artifact	459524.0978	213153.4575	100.4053	core			
1371	2010	GPF_Exc	10180	0	artifact	459524.1227	213153.427	100.4259	micro	ang frag		
1372	2010	GPF_Exc	10181	0	artifact	459524.2937	213153.9879	100.4306	flake			
1373	2010	GPF_Exc	10184	0	artifact	459525.1249	213152.9986	100.3148	ang frag			
1374	2010	GPF_Exc	10185	0	artifact	459525.2106	213153.3068	100.3128	micro	ang frag		

1375	2010	GPF_Exc	10186	0	artifact	459525.4111	213152.8927	100.2206	flake			
1376	2010	GPF_Exc	10187	0	artifact	459524.0808	213151.6103	100.4596	ang frag			
1377	2010	GPF_Exc	10191	0	artifact	459523.5543	213153.5884	100.4770	pebble			
1378	2010	GPF_Exc	10192	0	artifact	459523.8896	213153.7205	100.4390	flake			
1379	2010	GPF_Exc	10195	0	artifact	459523.6561	213154.039	100.4724	core			
1380	2010	GPF_Exc	10197	0	artifact	459525.7796	213150.685	99.8247	ang frag			
1381	2010	GPF_Exc	10198	0	artifact	459524.5014	213150.7245	100.1588	ang frag			
1382	2010	GPF_Exc	10200	0	artifact	459518.3319	213146.6562	99.4042	hammerstone			
1383	2010	GPF_Exc	10201	0	artifact	459518.2469	213146.5971	99.3716	hammerstone			
1384	2010	GPF_Exc	10202	0	artifact	459518.4399	213148.0127	99.6843	core			
1385	2010	GPF_Exc	10203	0	artifact	459522.7074	213144.7356	99.1472	ang frag			
1386	2010	GPF_Exc	10204	0	artifact	459523.5605	213143.9809	99.1248	micro	ang frag		
1387	2010	GPF_Exc	10205	0	artifact	459523.6519	213143.621	99.0765	flake			
1388	2010	GPF_Exc	10206	0	artifact	459523.8847	213143.0225	98.9686	ang frag			
1389	2010	GPF_Exc	10208	0	artifact	459524.3041	213142.6417	98.9012	ang frag			
1390	2010	GPF_Exc	10209	0	artifact	459524.0872	213151.9424	99.1341	ang frag			
1391	2010	GPF_Exc	10211	0	artifact	459523.7709	213153.0893	99.1236	flake			
1392	2010	GPF_Exc	10212	0	artifact	459523.5934	213152.8333	99.1451	micro	pebble		
1393	2010	GPF_Exc	10215	0	artifact	459519.6777	213152.3548	100.5135	micro	ang frag		
2234	2010	GPF_Exc	10216	1	artifact	459520.2190	213150.4692	100.0440	ang frag			
2235	2010	GPF_Exc	10216	2	artifact	459520.2190	213150.4692	100.0440	micro	ang frag		
1394	2010	GPF_Exc	10217	0	artifact	459525.6099	213148.5791	99.5827	core			
1395	2010	GPF_Exc	10218	0	artifact	459526.5322	213148.8827	99.5316	micro	ang frag		
1396	2010	GPF_Exc	10219	0	artifact	459527.1973	213146.2475	99.1133	core			
1397	2010	GPF_Exc	10220	0	artifact	459524.2950	213153.6081	100.4129	flake			
1398	2010	GPF_Exc	10221	0	artifact	459523.9360	213153.8459	100.4425	ang frag			
1399	2010	GPF_Exc	10222	0	artifact	459523.9445	213153.8916	100.4436	ang frag			
1400	2010	GPF_Exc	10223	0	artifact	459523.8476	213154.0775	100.4276	ang frag			

1401	2010	GPF_Exc	10224	0	artifact	459523.8696	213154.0209	100.4462	flake				
1402	2010	GPF_Exc	10225	0	artifact	459523.7234	213154.0592	100.4651	ang frag				
1403	2010	GPF_Exc	10226	0	artifact	459523.6475	213154.3301	100.4604	ang frag				
1404	2010	GPF_Exc	10228	0	artifact	459523.6021	213153.8981	100.4698	micro	ang frag			
1405	2010	GPF_Exc	10230	0	artifact	459523.5901	213153.7411	100.4559	ang frag				
1406	2010	GPF_Exc	10233	0	artifact	459523.7989	213153.6606	100.4428	micro	ang frag			
1407	2010	GPF_Exc	10234	0	artifact	459523.8190	213153.6091	100.4039	ang frag				
1408	2010	GPF_Exc	10236	0	artifact	459523.9102	213153.5569	100.4249	micro	ang frag			
1409	2010	GPF_Exc	10237	0	artifact	459523.8487	213153.5757	100.4078	flake				
1410	2010	GPF_Exc	10238	0	artifact	459523.9451	213153.6667	100.4070	ang frag				
1411	2010	GPF_Exc	10245	0	artifact	459524.1187	213153.4471	100.4216	micro	ang frag			
1412	2010	GPF_Exc	10248	0	artifact	459524.2113	213154.3058	100.4610	flake				
1413	2010	GPF_Exc	10250	0	artifact	459523.8246	213153.5986	100.3975	micro	split/snap flake			
1414	2010	GPF_Exc	10254	0	artifact	459523.6070	213152.8137	100.4353	micro	ang frag			
1415	2010	GPF_Exc	10255	0	artifact	459522.9061	213153.5606	100.4891	micro	ang frag			
1416	2010	GPF_Exc	10256	0	artifact	459522.8235	213153.6074	100.4727	micro	ang frag			
1417	2010	GPF_Exc	10257	0	artifact	459522.8220	213153.8188	100.4903	micro	ang frag			
1418	2010	GPF_Exc	10258	0	artifact	459524.1093	213153.8448	100.4214	micro	ang frag			
1419	2010	GPF_Exc	10259	0	artifact	459524.0659	213153.8219	100.4217	micro	ang frag			
1420	2010	GPF_Exc	10260	0	artifact	459524.0134	213153.7297	100.4216	micro	ang frag			
1421	2010	GPF_Exc	10262	0	artifact	459523.9016	213153.8924	100.4169	micro	ang frag			
1422	2010	GPF_Exc	10264	0	artifact	459523.7697	213153.8047	100.4457	micro	ang frag			
1423	2010	GPF_Exc	10265	0	artifact	459523.6996	213153.8164	100.4338	ang frag				
1424	2010	GPF_Exc	10266	0	artifact	459523.6657	213153.8022	100.4373	flake				
1425	2010	GPF_Exc	10267	0	artifact	459523.6433	213153.8611	100.4401	ang frag				
1426	2010	GPF_Exc	10268	0	artifact	459523.6141	213153.7482	100.4353	ang frag				
1427	2010	GPF_Exc	10269	0	artifact	459523.6724	213153.4491	100.4488	ang frag				
1428	2010	GPF_Exc	10270	0	artifact	459523.5826	213153.8258	100.4414	micro	flake			

1429	2010	GPF_Exc	10271	0	artifact	459523.6502	213154.1116	100.4398	ang frag			
1430	2010	GPF_Exc	10272	0	artifact	459523.5961	213154.0086	100.4215	micro	ang frag		
1431	2010	GPF_Exc	10273	0	artifact	459523.6327	213154.2187	100.4362	micro	ang frag		
1432	2010	GPF_Exc	10274	0	artifact	459524.1822	213153.6734	100.4326	ang frag			
1433	2010	GPF_Exc	10278	0	artifact	459523.3762	213153.4912	100.4461	micro	ang frag		
1434	2010	GPF_Exc	10279	0	artifact	459523.3201	213153.4376	100.4471	ang frag			
1435	2010	GPF_Exc	10280	0	artifact	459523.1789	213153.5753	100.4408	micro	ang frag		
1436	2010	GPF_Exc	10281	0	artifact	459523.0258	213153.584	100.4775	micro	flake		
1437	2010	GPF_Exc	10282	0	artifact	459522.9487	213153.6427	100.4825	micro	ang frag		
1438	2010	GPF_Exc	10283	0	artifact	459522.8963	213153.6416	100.4747	micro	flake		
1439	2010	GPF_Exc	10284	0	artifact	459522.7491	213153.7782	100.4675	micro	ang frag		
1440	2010	GPF_Exc	10285	0	artifact	459522.6002	213154.0385	100.5249	flake			
1441	2010	GPF_Exc	10289	0	artifact	459524.2157	213153.7003	100.4123	flake			
1442	2010	GPF_Exc	10290	0	artifact	459524.2108	213153.6497	100.4116	flake			
1443	2010	GPF_Exc	10291	0	artifact	459524.1989	213153.6619	100.4199	flake			
1444	2010	GPF_Exc	10292	0	artifact	459524.1680	213153.6533	100.4293	micro	ang frag		
1445	2010	GPF_Exc	10293	0	artifact	459524.1484	213153.6583	100.4363	flake			
1446	2010	GPF_Exc	10294	0	artifact	459524.1292	213153.6773	100.4334	ang frag			
1447	2010	GPF_Exc	10295	0	artifact	459524.1333	213153.5887	100.4337	ang frag			
1448	2010	GPF_Exc	10296	0	artifact	459524.1224	213153.6321	100.4320	micro	split/snap flake		
1449	2010	GPF_Exc	10297	0	artifact	459524.0613	213153.591	100.4212	micro	ang frag		
1450	2010	GPF_Exc	10298	0	artifact	459524.1304	213153.7148	100.4337	ang frag			
1451	2010	GPF_Exc	10299	0	artifact	459524.0307	213153.6287	100.4164	ang frag			
1452	2010	GPF_Exc	10300	0	artifact	459524.0206	213153.7392	100.4147	micro	flake		
1453	2010	GPF_Exc	10304	0	artifact	459523.8792	213153.7456	100.4097	ang frag			
1454	2010	GPF_Exc	10306	0	artifact	459523.9233	213153.6304	100.4094	ang frag			
1455	2010	GPF_Exc	10307	0	artifact	459523.8583	213153.5003	100.4077	ang frag			
1456	2010	GPF_Exc	10308	0	artifact	459523.6936	213153.4922	100.4346	micro	flake		

1457	2010	GPF_Exc	10310	0	artifact	459523.5645	213153.7919	100.4367	micro	ang frag		
1458	2010	GPF_Exc	10311	0	artifact	459523.5408	213153.8864	100.4695	flake			
1459	2010	GPF_Exc	10312	0	artifact	459523.5729	213153.8511	100.4494	flake			
1460	2010	GPF_Exc	10313	0	artifact	459523.5251	213153.8582	100.4680	ang frag			
1461	2010	GPF_Exc	10315	0	artifact	459524.0427	213153.4308	100.4185	micro	snap flake		
1462	2010	GPF_Exc	10318	0	artifact	459524.0615	213153.2476	100.3976	micro	ang frag		
1463	2010	GPF_Exc	10321	0	artifact	459524.1932	213153.4286	100.4065	ang frag			
1464	2010	GPF_Exc	10322	0	artifact	459524.0378	213153.6147	100.4067	ang frag			
1465	2010	GPF_Exc	10323	0	artifact	459523.9124	213153.5775	100.4042	ang frag			
1466	2010	GPF_Exc	10324	0	artifact	459523.8548	213153.7316	100.4058	micro	ang frag		
1467	2010	GPF_Exc	10325	0	artifact	459523.8703	213153.803	100.4155	micro	ang frag		
1468	2010	GPF_Exc	10326	0	artifact	459524.1169	213153.6604	100.4010	flake			
1469	2010	GPF_Exc	10327	0	artifact	459523.6733	213153.6971	100.4142	ang frag			
1470	2010	GPF_Exc	10328	0	artifact	459523.5963	213153.628	100.4411	core			
1471	2010	GPF_Exc	10329	0	artifact	459523.5740	213153.4972	100.4387	micro	flake		
1472	2010	GPF_Exc	10330	0	artifact	459524.2187	213153.585	100.3935	micro	ang frag		
1473	2010	GPF_Exc	10333	0	artifact	459523.8663	213150.9531	100.3384	ang frag			
1474	2010	GPF_Exc	10349	0	artifact	459524.0019	213153.2901	100.3894	flake			
1475	2010	GPF_Exc	10351	0	artifact	459524.0888	213153.0245	100.4087	micro	ang frag		
1476	2010	GPF_Exc	10354	0	artifact	459523.5458	213153.2828	100.4580	ang frag			
1477	2010	GPF_Exc	10355	0	artifact	459523.6253	213153.0248	100.4496	ang frag			
1478	2010	GPF_Exc	10356	0	artifact	459523.6275	213153.0542	100.4315	ang frag			
1479	2010	GPF_Exc	10358	0	artifact	459523.3934	213153.5232	100.4405	ang frag			
1480	2010	GPF_Exc	10359	0	artifact	459523.4665	213153.5533	100.4528	ang frag			
1481	2010	GPF_Exc	10361	0	artifact	459523.4158	213153.6225	100.4540	ang frag			
1482	2010	GPF_Exc	10362	0	artifact	459523.3705	213153.6138	100.4469	micro	ang frag		
1483	2010	GPF_Exc	10363	0	artifact	459523.3150	213153.7026	100.4834	flake			
2236	2010	GPF_Exc	10364	1	artifact	459523.0824	213153.7318	100.4969	micro	ang frag		

2237	2010	GPF_Exc	10364	2	artifact	459523.0824	213153.7318	100.4969	micro	ang frag		
2238	2010	GPF_Exc	10364	3	artifact	459523.0824	213153.7318	100.4969	micro	ang frag		
2239	2010	GPF_Exc	10364	4	artifact	459523.0824	213153.7318	100.4969	micro	ang frag		
2240	2010	GPF_Exc	10364	5	artifact	459523.0824	213153.7318	100.4969	micro	ang frag		
2241	2010	GPF_Exc	10364	6	artifact	459523.0824	213153.7318	100.4969	micro	ang frag		
2242	2010	GPF_Exc	10364	7	artifact	459523.0824	213153.7318	100.4969	micro	ang frag		
1484	2010	GPF_Exc	10366	0	artifact	459523.1124	213154.1132	100.5260	micro	ang frag		
1485	2010	GPF_Exc	10367	0	artifact	459522.7454	213154.0953	100.5224	flake			
1486	2010	GPF_Exc	10368	0	artifact	459522.5382	213154.095	100.5216	micro	ang frag		
1487	2010	GPF_Exc	10369	0	artifact	459524.1362	213153.6602	100.4070	micro	split flake		
1488	2010	GPF_Exc	10370	0	artifact	459524.1229	213153.7089	100.4075	ang frag			
1489	2010	GPF_Exc	10371	0	artifact	459523.9104	213153.7893	100.4073	micro	flake		
1490	2010	GPF_Exc	10372	0	artifact	459523.9945	213153.6726	100.4084	ang frag			
1491	2010	GPF_Exc	10373	0	artifact	459523.9224	213153.5141	100.3985	ang frag			
1492	2010	GPF_Exc	10374	0	artifact	459523.9325	213153.4899	100.3975	micro	ang frag		
1493	2010	GPF_Exc	10375	0	artifact	459523.9444	213153.4658	100.4039	micro	ang frag		
1494	2010	GPF_Exc	10376	0	artifact	459523.8922	213153.8506	100.4088	micro	split flake		
1495	2010	GPF_Exc	10377	0	artifact	459523.9979	213153.4983	100.3819	ang frag			
1496	2010	GPF_Exc	10378	0	artifact	459524.0381	213153.4913	100.3859	core			
1497	2010	GPF_Exc	10379	0	artifact	459523.6210	213153.6155	100.4287	flake			
1498	2010	GPF_Exc	10380	0	artifact	459523.5345	213153.5158	100.4287	ang frag			
1499	2010	GPF_Exc	10382	0	artifact	459523.5077	213153.6796	100.4300	ang frag			
1500	2010	GPF_Exc	10383	0	artifact	459523.4244	213153.6877	100.4731	micro	split flake		
1501	2010	GPF_Exc	10384	0	artifact	459523.3599	213153.6621	100.4675	micro	flake		
2243	2010	GPF_Exc	10386	1	artifact	459523.3713	213153.7056	100.4793	ang frag			
2244	2010	GPF_Exc	10386	2	artifact	459523.3713	213153.7056	100.4793	micro	ang frag		
1502	2010	GPF_Exc	10387	0	artifact	459523.3351	213153.7615	100.4907	ang frag			
2245	2010	GPF_Exc	10388	1	artifact	459523.2956	213153.762	100.4905	micro	ang frag		

2246	2010	GPF_Exc	10388	2	artifact	459523.2956	213153.762	100.4905	micro	ang frag		
1503	2010	GPF_Exc	10389	0	artifact	459523.3204	213153.7343	100.4777	micro	ang frag		
1504	2010	GPF_Exc	10391	0	artifact	459523.2586	213153.7691	100.4744	ang frag			
1505	2010	GPF_Exc	10392	0	artifact	459523.2855	213153.7219	100.4696	flake			
1506	2010	GPF_Exc	10393	0	artifact	459523.2567	213153.7634	100.4741	micro	ang frag		
1507	2010	GPF_Exc	10396	0	artifact	459522.8250	213154.1055	100.4732	ang frag			
1508	2010	GPF_Exc	10398	0	artifact	459523.8269	213153.5887	100.4035	flake			
1509	2010	GPF_Exc	10399	0	artifact	459523.8484	213153.5661	100.3886	flake			
1510	2010	GPF_Exc	10400	0	artifact	459523.8065	213153.5126	100.4114	ang frag			
1511	2010	GPF_Exc	10401	0	artifact	459523.5346	213153.7057	100.4180	micro	ang frag		
1512	2010	GPF_Exc	10402	0	artifact	459523.5264	213153.4803	100.4172	flake			
1513	2010	GPF_Exc	10404	0	artifact	459523.5275	213153.4841	100.4158	micro	ang frag		
1514	2010	GPF_Exc	10409	0	artifact	459524.5099	213152.5654	100.3732	flake			
1515	2010	GPF_Exc	10410	0	artifact	459524.1518	213153.1106	100.4073	micro	ang frag		
1516	2010	GPF_Exc	10411	0	artifact	459523.6152	213153.0395	100.4197	micro	ang frag		
1517	2010	GPF_Exc	10413	0	artifact	459523.3313	213153.5129	100.4435	ang frag			
1518	2010	GPF_Exc	10416	0	artifact	459523.4145	213153.6592	100.4380	ang frag			
1519	2010	GPF_Exc	10418	0	artifact	459523.2478	213153.9565	100.4808	flake			
1520	2010	GPF_Exc	10420	0	artifact	459523.2779	213153.8087	100.4334	micro	ang frag		
1521	2010	GPF_Exc	10421	0	artifact	459523.2893	213153.8541	100.4354	micro	ang frag		
1522	2010	GPF_Exc	10422	0	artifact	459522.9131	213153.922	100.4407	micro	ang frag		
1523	2010	GPF_Exc	10423	0	artifact	459522.7818	213153.9937	100.4499	micro	ang frag		
1524	2010	GPF_Exc	10424	0	artifact	459522.7375	213153.9361	100.4429	micro	ang frag		
1525	2010	GPF_Exc	10426	0	artifact	459523.9158	213153.2971	100.3864	micro	ang frag		
1526	2010	GPF_Exc	10427	0	artifact	459523.7709	213153.8697	100.4058	flake			
1527	2010	GPF_Exc	10428	0	artifact	459523.5800	213153.7013	100.4028	micro	ang frag		
1528	2010	GPF_Exc	10429	0	artifact	459523.8660	213153.6888	100.3929	ang frag			
1529	2010	GPF_Exc	10430	0	artifact	459523.9724	213153.898	100.4125	core			

1530	2010	GPF_Exc	10431	0	artifact	459524.0713	213154.0463	100.4199	flake			
1531	2010	GPF_Exc	10432	0	artifact	459523.5477	213153.8876	100.4175	flake			
1532	2010	GPF_Exc	10433	0	artifact	459524.0409	213153.6823	100.3980	ang frag			
1533	2010	GPF_Exc	10439	0	artifact	459523.3639	213153.8268	100.4598	flake			
1534	2010	GPF_Exc	10441	0	artifact	459523.1945	213153.959	100.4300	ang frag			
1535	2010	GPF_Exc	10443	0	artifact	459523.2952	213154.0712	100.5167	micro	flake		
1536	2010	GPF_Exc	10444	0	artifact	459523.3521	213153.8869	100.4599	micro	ang frag		
1537	2010	GPF_Exc	10449	0	artifact	459523.3788	213153.9193	100.4382	core			
1538	2010	GPF_Exc	10450	0	artifact	459523.4671	213153.7993	100.4379	micro	ang frag		
1539	2010	GPF_Exc	10451	0	artifact	459523.4821	213153.9138	100.4695	flake			
1540	2010	GPF_Exc	10452	0	artifact	459523.4911	213153.7436	100.4262	ang frag			
1541	2010	GPF_Exc	10456	0	artifact	459523.7657	213153.7119	100.3833	micro	ang frag		
1542	2010	GPF_Exc	10457	0	artifact	459523.9885	213153.9239	100.4067	micro	ang frag		
1543	2010	GPF_Exc	10463	0	artifact	459524.2293	213153.826	100.3700	hammerstone			
1544	2010	GPF_Exc	10464	0	artifact	459524.1817	213153.7855	100.3896	core			
1545	2010	GPF_Exc	10465	0	artifact	459524.1729	213153.8296	100.4018	ang frag			
1546	2010	GPF_Exc	10467	0	artifact	459524.1186	213153.8683	100.3909	ang frag			
1547	2010	GPF_Exc	10472	0	artifact	459524.0289	213153.6207	100.3878	flake			
1548	2010	GPF_Exc	10475	0	artifact	459523.6997	213153.9343	100.3922	micro	ang frag		
1549	2010	GPF_Exc	10476	0	artifact	459523.7997	213154.0191	100.3824	micro	ang frag		
1550	2010	GPF_Exc	10477	0	artifact	459523.9587	213154.0944	100.3921	micro	snap flake		
1551	2010	GPF_Exc	10478	0	artifact	459524.0419	213154.0547	100.3969	micro	ang frag		
1552	2010	GPF_Exc	10479	0	artifact	459523.8957	213154.1417	100.3887	micro	ang frag		
1553	2010	GPF_Exc	10480	0	artifact	459524.2643	213153.9607	100.3790	micro	ang frag		
1554	2010	GPF_Exc	10481	0	artifact	459524.2465	213154.1702	100.3933	flake			
1555	2010	GPF_Exc	10482	0	artifact	459523.7366	213153.7502	100.3894	flake			
1556	2010	GPF_Exc	10483	0	artifact	459523.6898	213154.0946	100.3920	ang frag			
1557	2010	GPF_Exc	10484	0	artifact	459523.8252	213154.0978	100.3954	micro	flake		

1558	2010	GPF_Exc	10485	0	artifact	459523.5562	213154.2887	100.3985	ang frag			
1559	2010	GPF_Exc	10488	0	artifact	459523.3882	213153.849	100.4214	core			
1560	2010	GPF_Exc	10489	0	artifact	459523.3940	213154.0711	100.4691	micro	ang frag		
1561	2010	GPF_Exc	10490	0	artifact	459523.3162	213154.1334	100.4330	ang frag			
1562	2010	GPF_Exc	10491	0	artifact	459523.4480	213154.0158	100.4353	flake			
1563	2010	GPF_Exc	10492	0	artifact	459523.4591	213154.1269	100.4510	micro	flake		
1564	2010	GPF_Exc	10493	0	artifact	459523.3733	213154.1564	100.4322	flake			
1565	2010	GPF_Exc	10497	0	artifact	459524.3072	213152.8175	100.3992	micro	ang frag		
1566	2010	GPF_Exc	10498	0	artifact	459524.3334	213152.7877	100.3912	micro	ang frag		
1567	2010	GPF_Exc	10499	0	artifact	459524.0316	213152.8887	100.3891	micro	ang frag		
1568	2010	GPF_Exc	10500	0	artifact	459524.2330	213153.0907	100.3810	micro	ang frag		
1569	2010	GPF_Exc	10506	0	artifact	459524.0266	213152.9384	100.3967	micro	ang frag		
1570	2010	GPF_Exc	10508	0	artifact	459524.1467	213152.773	100.3650	ang frag			
1571	2010	GPF_Exc	10513	0	artifact	459522.1994	213153.295	100.4734	ang frag			
1572	2010	GPF_Exc	10514	0	artifact	459522.1947	213152.6352	100.4850	core			
1573	2010	GPF_Exc	10520	0	artifact	459522.1016	213153.0905	100.4686	ang frag			
1574	2010	GPF_Exc	10523	0	artifact	459522.4004	213152.9383	100.4744	flake			
1575	2010	GPF_Exc	10524	0	artifact	459522.1823	213153.0303	100.4730	ang frag			
1576	2010	GPF_Exc	10526	0	artifact	459524.4500	213154.0733	100.3753	ang frag			
1577	2010	GPF_Exc	10527	0	artifact	459524.5043	213154.026	100.3833	ang frag			
1578	2010	GPF_Exc	10528	0	artifact	459524.4985	213153.9884	100.3819	flake			
1579	2010	GPF_Exc	10532	0	artifact	459524.4334	213153.9799	100.3767	flake			
1580	2010	GPF_Exc	10533	0	artifact	459522.1319	213151.8362	100.3396	flake			
1581	2010	GPF_Exc	10536	0	artifact	459524.9298	213154.164	100.3638	flake			
1582	2010	GPF_Exc	10537	0	artifact	459524.7543	213153.8018	100.3583	flake			
1583	2010	GPF_Exc	10539	0	artifact	459522.3960	213153.1104	100.4567	micro	ang frag		
1584	2010	GPF_Exc	10544	0	artifact	459523.3630	213153.9011	100.3998	ang frag			
1585	2010	GPF_Exc	10547	0	artifact	459523.0790	213153.8923	100.4135	micro	ang frag		

1586	2010	GPF_Exc	10549	0	artifact	459522.8324	213153.8816	100.4296	flake			
1587	2010	GPF_Exc	10550	0	artifact	459522.8244	213153.8329	100.4251	micro			
1588	2010	GPF_Exc	10551	0	artifact	459522.8161	213153.8364	100.4197	micro	ang frag		
1589	2010	GPF_Exc	10552	0	artifact	459523.0211	213154.0507	100.4001	micro	ang frag		
1590	2010	GPF_Exc	10553	0	artifact	459523.3482	213153.8467	100.4117	micro	ang frag		
1591	2010	GPF_Exc	10555	0	artifact	459522.7210	213153.9301	100.4342	micro	ang frag		
1592	2010	GPF_Exc	10557	0	artifact	459523.2532	213153.6285	100.4016	micro	ang frag		
1593	2010	GPF_Exc	10558	0	artifact	459523.2810	213153.6124	100.4011	micro	ang frag		
1594	2010	GPF_Exc	10559	0	artifact	459523.4213	213153.8232	100.4187	flake			
1595	2010	GPF_Exc	10560	0	artifact	459523.4979	213153.8177	100.4040	flake			
1596	2010	GPF_Exc	10561	0	artifact	459523.4336	213153.9302	100.4189	ang frag			
1597	2010	GPF_Exc	10562	0	artifact	459523.3889	213153.93	100.4014	ang frag			
1598	2010	GPF_Exc	10563	0	artifact	459523.3316	213153.5357	100.4021	micro	ang frag		
1599	2010	GPF_Exc	10564	0	artifact	459523.3317	213153.5395	100.4009	micro	ang frag		
1600	2010	GPF_Exc	10565	0	artifact	459523.2834	213153.5225	100.4143	micro	ang frag		
1601	2010	GPF_Exc	10566	0	artifact	459523.4622	213153.9853	100.3804	ang frag			
1602	2010	GPF_Exc	10567	0	artifact	459523.3070	213153.7249	100.4136	micro	ang frag		
1603	2010	GPF_Exc	10568	0	artifact	459522.8818	213153.5263	100.4208	flake			
1604	2010	GPF_Exc	10574	0	artifact	459523.9904	213153.3468	100.3772	micro	ang frag		
1605	2010	GPF_Exc	10578	0	artifact	459524.3556	213153.2343	100.3778	micro	ang frag		
1606	2010	GPF_Exc	10584	0	artifact	459523.8917	213153.1108	100.4005	micro	ang frag		
1607	2010	GPF_Exc	10585	0	artifact	459523.7650	213153.0637	100.3848	micro	pebble		
1608	2010	GPF_Exc	10587	0	artifact	459523.9674	213153.2363	100.3930	micro	ang frag		
1609	2010	GPF_Exc	10588	0	artifact	459523.6736	213151.3071	100.2464	flake			
1610	2010	GPF_Exc	10589	0	artifact	459524.6698	213153.5848	100.3416	micro	flake		
1611	2010	GPF_Exc	10590	0	artifact	459524.6781	213153.6548	100.3576	micro	ang frag		
1612	2010	GPF_Exc	10591	0	artifact	459524.5946	213153.6853	100.3656	micro	ang frag		
1613	2010	GPF_Exc	10592	0	artifact	459525.0734	213154.1789	100.3456	ang frag			

1614	2010	GPF_Exc	10594	0	artifact	459521.7723	213152.828	100.4356	micro	ang frag		
1615	2010	GPF_Exc	10595	0	artifact	459522.4049	213152.9212	100.4354	core			
1616	2010	GPF_Exc	10604	0	artifact	459523.3973	213153.7027	100.3784	micro	ang frag		
1617	2010	GPF_Exc	10605	0	artifact	459523.4776	213153.813	100.4032	flake			
1618	2010	GPF_Exc	10606	0	artifact	459523.4749	213153.8065	100.3838	flake			
1619	2010	GPF_Exc	10607	0	artifact	459523.4996	213153.8437	100.4090	ang frag			
1620	2010	GPF_Exc	10608	0	artifact	459523.4888	213153.8372	100.3835	ang frag			
1621	2010	GPF_Exc	10609	0	artifact	459523.4640	213153.835	100.3921	micro	flake		
1622	2010	GPF_Exc	10610	0	artifact	459523.1314	213153.9396	100.3756	micro	ang frag		
1623	2010	GPF_Exc	10611	0	artifact	459522.7443	213153.9381	100.4248	micro	ang frag		
1624	2010	GPF_Exc	10612	0	artifact	459523.4663	213153.8622	100.3770	ang frag			
1625	2010	GPF_Exc	10613	0	artifact	459524.6136	213153.6295	100.3580	flake			
1626	2010	GPF_Exc	10614	0	artifact	459525.0867	213153.6654	100.3024	core			
1627	2010	GPF_Exc	10616	0	artifact	459524.0073	213153.1413	100.3803	flake			
1628	2010	GPF_Exc	10617	0	artifact	459524.3724	213153.3354	100.3707	flake			
1629	2010	GPF_Exc	10619	0	artifact	459523.6953	213151.4896	100.3027	micro	ang frag		
1630	2010	GPF_Exc	10620	0	artifact	459524.1544	213151.9866	100.3282	micro	ang frag		
1631	2010	GPF_Exc	10621	0	artifact	459524.1487	213152.3812	100.3362	micro	ang frag		
1632	2010	GPF_Exc	10624	0	artifact	459522.2750	213153.071	100.4565	micro	ang frag		
1633	2010	GPF_Exc	10625	0	artifact	459524.7722	213154.1007	100.3294	flake			
1634	2010	GPF_Exc	10633	0	artifact	459525.0546	213153.5888	100.2966	flake			
1635	2010	GPF_Exc	10634	0	artifact	459524.8773	213153.6144	100.3033	micro	ang frag		
1636	2010	GPF_Exc	10635	0	artifact	459524.5316	213153.5344	100.3282	flake			
1637	2010	GPF_Exc	10636	0	artifact	459524.5301	213153.8979	100.3198	micro	ang frag		
1638	2010	GPF_Exc	10637	0	artifact	459524.6061	213153.7086	100.3189	core			
1639	2010	GPF_Exc	10643	0	artifact	459523.4525	213154.0211	100.3531	flake			
1640	2010	GPF_Exc	10644	0	artifact	459523.4432	213153.5764	100.3754	ang frag			
1641	2010	GPF_Exc	10645	0	artifact	459523.0996	213153.702	100.3504	micro	ang frag		

1642	2010	GPF_Exc	10646	0	artifact	459523.1002	213153.7032	100.3469	micro	ang frag		
1643	2010	GPF_Exc	10647	0	artifact	459523.1822	213153.4879	100.3919	flake			
1644	2010	GPF_Exc	10648	0	artifact	459523.2052	213153.5002	100.3797	flake			
1645	2010	GPF_Exc	10649	0	artifact	459523.4169	213153.9543	100.3539	micro	ang frag		
1646	2010	GPF_Exc	10650	0	artifact	459524.7221	213153.167	100.3297	ang frag			
1647	2010	GPF_Exc	10651	0	artifact	459524.8745	213152.9943	100.2961	core			
1648	2010	GPF_Exc	10652	0	artifact	459523.3544	213153.7011	100.3442	micro	flake		
1649	2010	GPF_Exc	10653	0	artifact	459523.2784	213153.7107	100.3424	flake			
1650	2010	GPF_Exc	10654	0	artifact	459523.2579	213153.7149	100.3428	micro	ang frag		
1651	2010	GPF_Exc	10655	0	artifact	459523.2123	213153.7179	100.3424	micro	ang frag		
1652	2010	GPF_Exc	10659	0	artifact	459524.9537	213153.8015	100.2862	ang frag			
1653	2010	GPF_Exc	10660	0	artifact	459524.5259	213154.3453	100.3394	micro	ang frag		
1654	2010	GPF_Exc	10666	0	artifact	459523.3901	213153.8384	100.3461	flake			
1655	2010	GPF_Exc	10671	0	artifact	459524.6911	213154.3719	100.2931	flake			
1656	2010	GPF_Exc	10672	0	artifact	459524.9654	213153.0524	100.3032	ang frag			
1657	2010	GPF_Exc	10677	0	artifact	459523.5482	213153.7838	100.3486	micro	ang frag		
1658	2010	GPF_Exc	10678	0	artifact	459524.5283	213153.4272	100.3585	micro	ang frag		
1659	2010	GPF_Exc	10680	0	artifact	459524.2219	213151.6557	100.2819	micro	ang frag		
1660	2010	GPF_Exc	10683	0	artifact	459524.7908	213153.5431	100.2191	flake			
1661	2010	GPF_Exc	10684	0	artifact	459524.8304	213154.3693	100.2865	ang frag			
1662	2010	GPF_Exc	10685	0	artifact	459525.1521	213153.8902	100.2282	ang frag			
1663	2010	GPF_Exc	10688	0	artifact	459524.4533	213151.8422	100.3043	flake			
1664	2010	GPF_Exc	10694	0	artifact	459524.7756	213153.6868	100.2025	micro	flake		
1665	2010	GPF_Exc	10695	0	artifact	459525.3606	213154.2043	100.1824	micro	ang frag		
1666	2010	GPF_Exc	10700	0	artifact	459524.6968	213152.5821	100.3050	micro	ang frag		
1667	2010	GPF_Exc	10701	0	artifact	459524.8248	213152.5445	100.3056	ang frag			
1668	2010	GPF_Exc	10702	0	artifact	459524.8469	213152.6521	100.3117	flake			
1669	2010	GPF_Exc	10703	0	artifact	459524.8862	213152.5096	100.2846	ang frag			

1670	2010	GPF_Exc	10704	0	artifact	459524.9768	213152.4824	100.2684	micro	ang frag		
1671	2010	GPF_Exc	10711	0	artifact	459524.1579	213151.6463	100.2855	micro	ang frag		
1672	2010	GPF_Exc	10713	0	artifact	459524.1799	213151.9073	100.2943	ang frag			
1673	2010	GPF_Exc	10716	0	artifact	459524.3291	213154.2198	100.3657	flake			
1674	2010	GPF_Exc	10717	0	artifact	459524.1039	213154.0682	100.3733	micro	ang frag		
1675	2010	GPF_Exc	10718	0	artifact	459524.4060	213154.0156	100.3631	micro	ang frag		
1676	2010	GPF_Exc	10719	0	artifact	459524.3748	213153.8043	100.3568	micro	flake		
1677	2010	GPF_Exc	10723	0	artifact	459524.9315	213152.6856	100.2735	micro	ang frag		
1678	2010	GPF_Exc	10724	0	artifact	459524.2193	213152.3094	100.3085	micro	ang frag		
1679	2010	GPF_Exc	10725	0	artifact	459524.1905	213152.3817	100.3138	flake			
1680	2010	GPF_Exc	10730	0	artifact	459524.1314	213153.6179	100.3878	micro	snap flake		
1681	2010	GPF_Exc	10731	0	artifact	459524.1029	213153.7139	100.4010	micro	split/snap flake		
1682	2010	GPF_Exc	10732	0	artifact	459524.1393	213153.6912	100.3927	flake			
1683	2010	GPF_Exc	10734	0	artifact	459524.1834	213153.819	100.3600	micro	ang frag		
1684	2010	GPF_Exc	10735	0	artifact	459523.2690	213152.5284	100.4178	ang frag			
1685	2010	GPF_Exc	10738	0	artifact	459524.9454	213153.3997	100.3024	micro	snap flake		
1686	2010	GPF_Exc	10741	0	artifact	459525.0646	213153.2341	100.2892	flake			
1687	2010	GPF_Exc	10755	0	artifact	459523.8483	213154.2101	100.3144	ang frag			
1688	2010	GPF_Exc	10757	0	artifact	459523.6425	213153.9691	100.3664	micro	snap flake		
1689	2010	GPF_Exc	10758	0	artifact	459523.6313	213153.8957	100.3513	flake			
1690	2010	GPF_Exc	10760	0	artifact	459523.7016	213153.8079	100.3430	flake			
1691	2010	GPF_Exc	10762	0	artifact	459523.6178	213153.7237	100.3420	micro	ang frag		
1692	2010	GPF_Exc	10763	0	artifact	459523.6580	213153.7039	100.3406	micro	flake		
1693	2010	GPF_Exc	10764	0	artifact	459523.6125	213153.6687	100.3547	ang frag			
1694	2010	GPF_Exc	10765	0	artifact	459523.6898	213153.6262	100.3601	flake			
1695	2010	GPF_Exc	10766	0	artifact	459524.0544	213153.7195	100.3723	ang frag			
1696	2010	GPF_Exc	10770	0	artifact	459524.0498	213153.3915	100.3787	micro	ang frag		
1697	2010	GPF_Exc	10771	0	artifact	459524.0427	213153.4337	100.3748	flake			

1698	2010	GPF_Exc	10777	0	artifact	459524.2065	213151.9838	100.2584	flake			
1699	2010	GPF_Exc	10778	0	artifact	459524.4134	213152.3785	100.2779	flake			
1700	2010	GPF_Exc	10779	0	artifact	459523.6866	213154.1232	100.3151	ang frag			
1701	2010	GPF_Exc	10781	0	artifact	459523.7315	213153.7546	100.3394	micro	flake		
1702	2010	GPF_Exc	10782	0	artifact	459523.6923	213153.6871	100.3436	micro	ang frag		
1703	2010	GPF_Exc	10783	0	artifact	459523.8967	213153.7074	100.3805	flake			
1704	2010	GPF_Exc	10784	0	artifact	459524.0743	213153.7199	100.3692	flake			
1705	2010	GPF_Exc	10785	0	artifact	459523.9406	213153.9277	100.3194	micro	ang frag		
2247	2010	GPF_Exc	10786	1	artifact	459524.1813	213153.6443	100.3433	micro	ang frag		
2248	2010	GPF_Exc	10786	2	artifact	459524.1813	213153.6443	100.3433	micro	ang frag		
1706	2010	GPF_Exc	10788	0	artifact	459521.9571	213153.7409	100.3741	flake			
1707	2010	GPF_Exc	10789	0	artifact	459523.7924	213153.6733	100.3370	flake			
1708	2010	GPF_Exc	10790	0	artifact	459523.9244	213153.6279	100.3376	flake			
1709	2010	GPF_Exc	10791	0	artifact	459524.0176	213153.6745	100.3227	ang frag			
1710	2010	GPF_Exc	10792	0	artifact	459524.0675	213153.6441	100.3317	micro	flake		
1711	2010	GPF_Exc	10793	0	artifact	459523.9859	213153.5558	100.3348	ang frag			
1712	2010	GPF_Exc	10794	0	artifact	459524.2292	213153.563	100.3325	ang frag			
1713	2010	GPF_Exc	10795	0	artifact	459523.9071	213153.7018	100.3347	ang frag			
1714	2010	GPF_Exc	10798	0	artifact	459524.4839	213153.4423	100.3640	micro	ang frag		
1715	2010	GPF_Exc	10799	0	artifact	459524.4632	213153.4182	100.3599	flake			
1716	2010	GPF_Exc	10802	0	artifact	459524.1408	213153.432	100.3783	micro	flake		
1717	2010	GPF_Exc	10806	0	artifact	459522.7939	213151.7904	100.3256	ang frag			
1718	2010	GPF_Exc	10807	0	artifact	459522.6783	213151.7747	100.3319	micro	flake		
1719	2010	GPF_Exc	10808	0	artifact	459523.8856	213153.573	100.3189	micro	ang frag		
1720	2010	GPF_Exc	10809	0	artifact	459523.9036	213153.6201	100.3077	micro	ang frag		
1721	2010	GPF_Exc	10810	0	artifact	459523.9227	213153.6074	100.3111	ang frag			
1722	2010	GPF_Exc	10811	0	artifact	459523.9570	213153.6535	100.3172	micro	ang frag		
1723	2010	GPF_Exc	10812	0	artifact	459523.9766	213153.5869	100.3137	micro	ang frag		

1724	2010	GPF_Exc	10814	0	artifact	459523.9813	213153.5896	100.3100	micro	split/snap flake		
1725	2010	GPF_Exc	10816	0	artifact	459524.3547	213153.6033	100.3082	flake			
1726	2010	GPF_Exc	10817	0	artifact	459524.9901	213153.358	100.2940	core			
1727	2010	GPF_Exc	10818	0	artifact	459525.0092	213153.1422	100.2616	flake			
1728	2010	GPF_Exc	10819	0	artifact	459525.0843	213153.1844	100.2715	ang frag			
2249	2010	GPF_Exc	10824	1	artifact	459524.3078	213153.5703	100.3084	ang frag			
2250	2010	GPF_Exc	10824	2	artifact	459524.3078	213153.5703	100.3084	micro	ang frag		
1729	2010	GPF_Exc	10825	0	artifact	459524.1321	213153.9041	100.3182	micro	ang frag		
1730	2010	GPF_Exc	10829	0	artifact	459523.2844	213153.3489	100.4140	micro	ang frag		
1731	2010	GPF_Exc	10832	0	artifact	459524.3888	213151.5046	100.2444	ang frag			
1732	2010	GPF_Exc	10833	0	artifact	459524.6232	213151.6368	100.2576	ang frag			
1733	2010	GPF_Exc	10834	0	artifact	459524.7328	213152.0949	100.2437	flake			
1734	2010	GPF_Exc	10839	0	artifact	459523.1308	213152.135	100.3177	micro	pebble		
1735	2010	GPF_Exc	10840	0	artifact	459522.6430	213152.9844	100.4177	ang frag			
1736	2010	GPF_Exc	10841	0	artifact	459522.5401	213152.9452	100.4228	flake			
1737	2010	GPF_Exc	10842	0	artifact	459523.0061	213153.3436	100.3985	flake			
1738	2010	GPF_Exc	10843	0	artifact	459522.9574	213153.3662	100.4118	micro	ang frag		
1739	2010	GPF_Exc	10844	0	artifact	459522.9268	213153.34	100.4065	micro	ang frag		
1740	2010	GPF_Exc	10848	0	artifact	459523.8471	213151.7406	100.2287	micro	split/snap flake		
1741	2010	GPF_Exc	10855	0	artifact	459523.8319	213153.4335	100.3713	micro	ang frag		
1742	2010	GPF_Exc	10856	0	artifact	459523.8025	213153.38	100.3657	micro	ang frag		
1743	2010	GPF_Exc	10859	0	artifact	459523.6601	213153.3652	100.3983	ang frag			
1744	2010	GPF_Exc	10860	0	artifact	459523.6818	213153.3487	100.3889	micro	flake		
1745	2010	GPF_Exc	10861	0	artifact	459524.6487	213152.0423	100.1548	core			
1746	2010	GPF_Exc	10862	0	artifact	459523.9800	213151.8749	100.2818	ang frag			
1747	2010	GPF_Exc	10866	0	artifact	459525.0911	213152.2686	100.1921	flake			
1748	2010	GPF_Exc	10868	0	artifact	459523.9417	213150.3979	100.2737	flake			
1749	2010	GPF_Exc	10869	0	artifact	459524.9034	213153.0987	100.2488	flake			

1750	2010	GPF_Exc	10870	0	artifact	459524.8508	213153.0785	100.2521	flake				
1751	2010	GPF_Exc	10871	0	artifact	459524.8380	213153.2354	100.2389	micro	flake			
1752	2010	GPF_Exc	10872	0	artifact	459524.6114	213153.0555	100.2556	micro	flake			
1753	2010	GPF_Exc	10873	0	artifact	459523.7401	213149.8413	100.1574	micro	split flake			
1754	2010	GPF_Exc	10874	0	artifact	459523.8594	213150.2195	100.2371	micro	split flake			
1755	2010	GPF_Exc	10875	0	artifact	459524.0341	213150.2574	100.2280	flake				
1756	2010	GPF_Exc	10877	0	artifact	459523.7637	213150.3721	100.2363	flake				
1757	2010	GPF_Exc	10878	0	artifact	459524.2670	213150.4346	100.2398	flake				
1758	2010	GPF_Exc	10879	0	artifact	459524.2981	213150.3771	100.2224	flake				
1759	2010	GPF_Exc	10880	0	artifact	459524.2800	213151.3592	100.2632	flake				
1760	2010	GPF_Exc	10884	0	artifact	459523.1397	213152.6898	100.4201	micro	ang frag			
1761	2010	GPF_Exc	10885	0	artifact	459522.5439	213153.0083	100.4188	micro	ang frag			
1762	2010	GPF_Exc	10887	0	artifact	459523.8593	213153.2933	100.3647	micro	ang frag			
1763	2010	GPF_Exc	10888	0	artifact	459523.8020	213153.2703	100.3670	micro	ang frag			
1764	2010	GPF_Exc	10889	0	artifact	459523.8895	213153.1519	100.3677	micro	ang frag			
1765	2010	GPF_Exc	10890	0	artifact	459523.9249	213153.0537	100.3671	micro	ang frag			
1766	2010	GPF_Exc	10892	0	artifact	459524.1476	213153.0637	100.3606	micro	ang frag			
1767	2010	GPF_Exc	10893	0	artifact	459524.2692	213153.3207	100.3602	flake				
1768	2010	GPF_Exc	10898	0	artifact	459523.8750	213150.0504	100.1897	flake				
1769	2010	GPF_Exc	10899	0	artifact	459524.4893	213148.9488	99.7918	flake				
1770	2010	GPF_Exc	10900	0	artifact	459524.4804	213148.888	99.7864	flake				
1771	2010	GPF_Exc	10901	0	artifact	459525.1505	213149.2166	99.7588	ang frag				
1772	2010	GPF_Exc	10902	0	artifact	459525.4570	213152.9691	100.2112	flake				
1773	2010	GPF_Exc	10903	0	artifact	459525.5051	213152.9728	100.1965	flake				
1774	2010	GPF_Exc	10904	0	artifact	459525.4757	213153.0065	100.2021	flake				
1775	2010	GPF_Exc	10905	0	artifact	459525.4593	213152.9396	100.1830	flake				
1776	2010	GPF_Exc	10907	0	artifact	459524.3103	213150.6007	100.2294	flake				
1777	2010	GPF_Exc	10908	0	artifact	459524.2872	213150.4847	100.2199	micro	ang frag			

1778	2010	GPF_Exc	10914	0	artifact	459523.7987	213151.2725	100.2387	ang frag			
1779	2010	GPF_Exc	10916	0	artifact	459523.9252	213150.5551	100.2499	micro	snap flake		
1780	2010	GPF_Exc	10918	0	artifact	459523.7037	213153.451	100.3735	micro	ang frag		
1781	2010	GPF_Exc	10944	0	artifact	459523.9299	213151.322	100.2527	micro	ang frag		
1782	2010	GPF_Exc	10945	0	artifact	459523.7956	213151.2841	100.2335	ang frag			
1783	2010	GPF_Exc	10946	0	artifact	459523.6662	213151.0984	100.2448	ang frag			
1784	2010	GPF_Exc	10947	0	artifact	459523.7970	213150.8954	100.2360	flake			
1785	2010	GPF_Exc	10948	0	artifact	459523.7709	213150.7429	100.2461	ang frag			
1786	2010	GPF_Exc	10949	0	artifact	459523.7207	213150.5068	100.2366	ang frag			
1787	2010	GPF_Exc	10951	0	artifact	459524.2947	213150.2987	100.1487	micro	ang frag		
1788	2010	GPF_Exc	10952	0	artifact	459524.1428	213150.1887	100.1437	micro	ang frag		
1789	2010	GPF_Exc	10953	0	artifact	459524.0451	213150.4058	100.2054	flake			
1790	2010	GPF_Exc	10954	0	artifact	459523.7195	213150.2691	100.1979	micro	ang frag		
1791	2010	GPF_Exc	10955	0	artifact	459523.6748	213150.3282	100.1928	micro	ang frag		
1792	2010	GPF_Exc	10956	0	artifact	459523.8648	213151.2851	100.2328	flake			
1793	2010	GPF_Exc	10957	0	artifact	459524.1276	213153.8345	100.2994	micro	ang frag		
1794	2010	GPF_Exc	10958	0	artifact	459524.1317	213153.947	100.2839	flake			
1795	2010	GPF_Exc	10959	0	artifact	459524.2079	213153.7181	100.2984	ang frag			
1796	2010	GPF_Exc	10960	0	artifact	459524.2863	213153.832	100.3001	micro	flake		
1797	2010	GPF_Exc	10961	0	artifact	459524.4464	213153.7304	100.2757	micro	ang frag		
1798	2010	GPF_Exc	10962	0	artifact	459522.6702	213153.114	100.3684	micro	ang frag		
1799	2010	GPF_Exc	10963	0	artifact	459522.6701	213153.0822	100.3791	micro	ang frag		
1800	2010	GPF_Exc	10964	0	artifact	459522.7106	213153.0948	100.3759	micro	ang frag		
1801	2010	GPF_Exc	10965	0	artifact	459522.6500	213152.9176	100.3773	micro	flake		
1802	2010	GPF_Exc	10966	0	artifact	459522.6318	213152.8789	100.3738	flake			
1803	2010	GPF_Exc	10969	0	artifact	459522.8880	213152.8604	100.3937	micro	flake		
1804	2010	GPF_Exc	10970	0	artifact	459522.6444	213152.9455	100.3816	micro	ang frag		
1805	2010	GPF_Exc	10971	0	artifact	459523.9284	213150.0999	100.1678	micro	ang frag		

1806	2010	GPF_Exc	10972	0	artifact	459523.9574	213150.1288	100.1593	micro	ang frag		
1807	2010	GPF_Exc	10973	0	artifact	459524.0380	213150.2657	100.1710	micro	ang frag		
1808	2010	GPF_Exc	10974	0	artifact	459524.1265	213150.96	100.2309	micro	ang frag		
1809	2010	GPF_Exc	10975	0	artifact	459523.7024	213150.9964	100.2236	ang frag			
1810	2010	GPF_Exc	10976	0	artifact	459523.6626	213151.2403	100.2188	ang frag			
1811	2010	GPF_Exc	10987	0	artifact	459522.3440	213152.0691	100.2960	ang frag			
1812	2010	GPF_Exc	10988	0	artifact	459522.2730	213152.1348	100.2853	flake			
1813	2010	GPF_Exc	10989	0	artifact	459522.1458	213151.9799	100.2681	flake			
1814	2010	GPF_Exc	10991	0	artifact	459523.7214	213150.8556	100.2070	ang frag			
1815	2010	GPF_Exc	10996	0	artifact	459523.6859	213154.056	100.2462	micro	ang frag		
1816	2010	GPF_Exc	10997	0	artifact	459523.6058	213153.9824	100.2500	ang frag			
1817	2010	GPF_Exc	10998	0	artifact	459523.8644	213153.7923	100.2727	ang frag			
1818	2010	GPF_Exc	11000	0	artifact	459522.6498	213153.0445	100.3500	micro	ang frag		
1819	2010	GPF_Exc	11002	0	artifact	459523.2924	213151.8421	100.3423	flake			
1820	2010	GPF_Exc	11004	0	artifact	459522.3284	213151.6438	100.2884	core			
1821	2010	GPF_Exc	11006	0	artifact	459523.3379	213151.9431	100.3554	micro	ang frag		
1822	2010	GPF_Exc	11007	0	artifact	459523.3493	213151.8345	100.3280	flake			
1823	2010	GPF_Exc	11008	0	artifact	459522.5602	213153.0285	100.3749	ang frag			
1824	2010	GPF_Exc	11009	0	artifact	459522.6299	213152.9481	100.3465	ang frag			
1825	2010	GPF_Exc	11010	0	artifact	459522.7648	213152.8967	100.3383	micro	ang frag		
1826	2010	GPF_Exc	11011	0	artifact	459522.8698	213152.9341	100.3515	ang frag			
1827	2010	GPF_Exc	11013	0	artifact	459523.5717	213153.7696	100.2398	micro	ang frag		
1828	2010	GPF_Exc	11014	0	artifact	459523.8161	213153.6035	100.2358	micro	ang frag		
1829	2010	GPF_Exc	11017	0	artifact	459523.6258	213152.7244	100.3564	micro	ang frag		
1830	2010	GPF_Exc	11018	0	artifact	459523.8069	213153.3573	100.3519	micro	ang frag		
1831	2010	GPF_Exc	11021	0	artifact	459523.8606	213151.1036	100.2092	micro	flake		
1832	2010	GPF_Exc	11023	0	artifact	459523.8544	213151.1633	100.2039	ang frag			
1833	2010	GPF_Exc	11024	0	artifact	459523.7998	213151.2209	100.2116	micro	flake		

1834	2010	GPF_Exc	11025	0	artifact	459523.8289	213151.2429	100.2062	flake				
1835	2010	GPF_Exc	11026	0	artifact	459523.8030	213151.3913	100.2260	flake				
1836	2010	GPF_Exc	11027	0	artifact	459523.7453	213151.0094	100.2136	ang frag				
1837	2010	GPF_Exc	11028	0	artifact	459523.9222	213150.8356	100.2168	micro	flake			
1838	2010	GPF_Exc	11029	0	artifact	459523.6511	213151.0064	100.2102	flake				
1839	2010	GPF_Exc	11030	0	artifact	459523.7061	213151.0368	100.2116	flake				
1840	2010	GPF_Exc	11037	0	artifact	459524.1452	213152.717	100.3433	flake				
1841	2010	GPF_Exc	11038	0	artifact	459524.1681	213153.1646	100.3226	flake				
1842	2010	GPF_Exc	11040	0	artifact	459522.8702	213152.7164	100.3238	core				
1843	2010	GPF_Exc	11046	0	artifact	459523.5974	213153.7681	100.2064	flake				
1844	2010	GPF_Exc	11047	0	artifact	459523.6248	213154.016	100.1980	micro	split flake			
1845	2010	GPF_Exc	11048	0	artifact	459523.8930	213154.1087	100.2241	flake				
1846	2010	GPF_Exc	11049	0	artifact	459523.6565	213154.2533	100.2241	micro	snap flake			
1847	2010	GPF_Exc	11051	0	artifact	459523.8002	213151.1016	100.2122	flake				
1848	2010	GPF_Exc	11052	0	artifact	459523.8084	213151.0126	100.2109	core				
1849	2010	GPF_Exc	11053	0	artifact	459523.8590	213151.0325	100.1974	core				
1850	2010	GPF_Exc	11054	0	artifact	459524.3635	213150.95	100.1895	micro	ang frag			
1851	2010	GPF_Exc	11056	0	artifact	459524.5009	213150.6304	100.1581	micro	ang frag			
1852	2010	GPF_Exc	11058	0	artifact	459523.8787	213153.1281	100.3561	micro	ang frag			
1853	2010	GPF_Exc	11075	0	artifact	459524.4880	213150.7816	100.1849	flake				
1854	2010	GPF_Exc	11076	0	artifact	459524.3558	213150.6994	100.1816	core				
1855	2010	GPF_Exc	11080	0	artifact	459523.7425	213150.8804	100.1979	micro	ang frag			
1856	2010	GPF_Exc	11081	0	artifact	459523.7262	213150.8474	100.1938	micro	ang frag			
1857	2010	GPF_Exc	11082	0	artifact	459523.7145	213150.8504	100.1918	micro	ang frag			
1858	2010	GPF_Exc	11083	0	artifact	459523.7202	213150.816	100.1830	micro	ang frag			
1859	2010	GPF_Exc	11084	0	artifact	459523.7538	213150.8172	100.1851	micro	ang frag			
1860	2010	GPF_Exc	11085	0	artifact	459523.7173	213150.9023	100.1981	micro	ang frag			
1861	2010	GPF_Exc	11086	0	artifact	459523.7080	213150.8977	100.1920	micro	ang frag			

1862	2010	GPF_Exc	11087	0	artifact	459523.6929	213150.9278	100.2013	micro	ang frag		
1863	2010	GPF_Exc	11088	0	artifact	459523.6964	213150.952	100.2067	micro	ang frag		
1864	2010	GPF_Exc	11089	0	artifact	459523.6534	213150.9392	100.1841	micro	ang frag		
1865	2010	GPF_Exc	11090	0	artifact	459523.6328	213150.8925	100.1893	micro	ang frag		
1866	2010	GPF_Exc	11091	0	artifact	459523.6630	213150.9133	100.1825	micro	ang frag		
1867	2010	GPF_Exc	11092	0	artifact	459523.6599	213150.9189	100.1877	micro	ang frag		
1868	2010	GPF_Exc	11093	0	artifact	459523.6536	213150.8924	100.1778	ang frag			
1869	2010	GPF_Exc	11094	0	artifact	459523.6724	213150.8599	100.1901	micro	ang frag		
1870	2010	GPF_Exc	11095	0	artifact	459523.6858	213150.8626	100.1821	micro	ang frag		
1871	2010	GPF_Exc	11096	0	artifact	459523.6479	213150.8502	100.1991	micro	ang frag		
1872	2010	GPF_Exc	11097	0	artifact	459523.6504	213150.8305	100.1961	micro	ang frag		
1873	2010	GPF_Exc	11098	0	artifact	459523.6656	213150.8096	100.1878	micro	ang frag		
1874	2010	GPF_Exc	11099	0	artifact	459523.7207	213150.8867	100.1970	micro	ang frag		
1875	2010	GPF_Exc	11100	0	artifact	459523.7547	213150.8964	100.1929	flake			
1876	2010	GPF_Exc	11101	0	artifact	459523.7636	213150.9574	100.1905	flake			
1877	2010	GPF_Exc	11102	0	artifact	459523.7322	213150.9711	100.1943	flake			
1878	2010	GPF_Exc	11103	0	artifact	459523.7266	213150.9265	100.1944	flake			
1879	2010	GPF_Exc	11104	0	artifact	459523.7169	213150.9457	100.1981	micro	ang frag		
1880	2010	GPF_Exc	11105	0	artifact	459523.7297	213150.9279	100.1927	micro	ang frag		
1881	2010	GPF_Exc	11106	0	artifact	459523.6975	213150.831	100.1877	flake			
1882	2010	GPF_Exc	11107	0	artifact	459523.6795	213150.7823	100.1830	flake			
1883	2010	GPF_Exc	11108	0	artifact	459523.6960	213150.8442	100.1867	flake			
1884	2010	GPF_Exc	11109	0	artifact	459523.6574	213150.8347	100.1928	flake			
1885	2010	GPF_Exc	11110	0	artifact	459523.6246	213150.8299	100.2013	flake			
1886	2010	GPF_Exc	11111	0	artifact	459523.6485	213150.7902	100.2010	flake			
1887	2010	GPF_Exc	11114	0	artifact	459523.3312	213151.8676	100.3205	ang frag			
1888	2010	GPF_Exc	11115	0	artifact	459523.3195	213151.6573	100.3190	core			
1889	2010	GPF_Exc	11116	0	artifact	459523.2578	213151.666	100.3178	core			

1890	2010	GPF_Exc	11118	0	artifact	459522.6642	213152.1941	100.3723	micro	flake		
1891	2010	GPF_Exc	11127	0	artifact	459523.7108	213153.3692	100.3355	ang frag			
1892	2010	GPF_Exc	11128	0	artifact	459523.9670	213153.4061	100.3273	flake			
1893	2010	GPF_Exc	11129	0	artifact	459523.9763	213153.3251	100.3287	ang frag			
1894	2010	GPF_Exc	11130	0	artifact	459523.9707	213153.2474	100.3462	flake			
1895	2010	GPF_Exc	11131	0	artifact	459524.0198	213153.2444	100.3569	flake			
1896	2010	GPF_Exc	11132	0	artifact	459524.0281	213153.2186	100.3634	micro	split flake		
1897	2010	GPF_Exc	11134	0	artifact	459524.3054	213153.3859	100.3115	micro	ang frag		
1898	2010	GPF_Exc	11136	0	artifact	459524.5382	213153.1225	100.3210	flake			
1899	2010	GPF_Exc	11137	0	artifact	459524.4976	213153.0999	100.3167	flake			
1900	2010	GPF_Exc	11138	0	artifact	459524.4812	213152.9143	100.3087	ang frag			
1901	2010	GPF_Exc	11141	0	artifact	459524.1814	213152.7676	100.3045	micro	ang frag		
1902	2010	GPF_Exc	11142	0	artifact	459524.0951	213152.6257	100.3310	flake			
1903	2010	GPF_Exc	11143	0	artifact	459523.9953	213152.8685	100.3136	flake			
1904	2010	GPF_Exc	11144	0	artifact	459523.8683	213152.8788	100.3068	micro	ang frag		
1905	2010	GPF_Exc	11145	0	artifact	459523.9621	213152.9587	100.3371	micro	ang frag		
1906	2010	GPF_Exc	11146	0	artifact	459523.8509	213153.0203	100.3323	micro	ang frag		
1907	2010	GPF_Exc	11148	0	artifact	459522.9958	213152.0715	100.3288	ang frag			
1908	2010	GPF_Exc	11149	0	artifact	459522.7571	213152.0859	100.3353	flake			
1909	2010	GPF_Exc	11160	0	artifact	459525.4668	213149.137	99.7134	flake			
1910	2010	GPF_Exc	11163	0	artifact	459520.7159	213144.1681	98.9953	ang frag			
1911	2010	GPF_Exc	11164	0	artifact	459522.5765	213151.8673	100.3131	micro	ang frag		
1912	2010	GPF_Exc	11166	0	artifact	459523.3522	213152.6837	100.3822	micro	ang frag		
1913	2010	GPF_Exc	11167	0	artifact	459522.6821	213152.7551	100.3593	micro	flake		
1914	2010	GPF_Exc	11168	0	artifact	459522.7282	213152.6777	100.3573	micro	ang frag		
1915	2010	GPF_Exc	11171	0	artifact	459523.8550	213153.3424	100.3202	ang frag			
1916	2010	GPF_Exc	11172	0	artifact	459523.6422	213153.4078	100.3125	micro	ang frag		
1917	2010	GPF_Exc	11174	0	artifact	459523.7639	213153.4576	100.3097	flake			

1918	2010	GPF_Exc	11175	0	artifact	459523.7384	213153.4085	100.3086	flake			
1919	2010	GPF_Exc	11176	0	artifact	459523.7103	213153.3941	100.3096	micro	ang frag		
1920	2010	GPF_Exc	11177	0	artifact	459524.0030	213152.6681	100.3448	micro	flake		
1921	2010	GPF_Exc	11180	0	artifact	459521.0261	213152.9081	100.4827	pebble			
1922	2010	GPF_Exc	11182	0	artifact	459520.6373	213152.9059	100.4805	ang frag			
1923	2010	GPF_Exc	11183	0	artifact	459524.4579	213153.3213	100.2309	ang frag			
1924	2010	GPF_Exc	11184	0	artifact	459524.3657	213153.3397	100.3122	micro	ang frag		
1925	2010	GPF_Exc	11188	0	artifact	459524.2741	213152.8184	100.2905	flake			
1926	2010	GPF_Exc	11192	0	artifact	459523.9319	213153.4445	100.2979	flake			
1927	2010	GPF_Exc	11193	0	artifact	459523.9951	213153.452	100.2780	flake			
1928	2010	GPF_Exc	11194	0	artifact	459524.0781	213153.4633	100.2611	micro	flake		
1929	2010	GPF_Exc	11196	0	artifact	459524.1997	213153.5069	100.2277	micro	ang frag		
1930	2010	GPF_Exc	11198	0	artifact	459524.0801	213153.5217	100.2390	micro	ang frag		
1931	2010	GPF_Exc	11200	0	artifact	459524.2154	213153.2866	100.2798	ang frag			
1932	2010	GPF_Exc	11201	0	artifact	459524.2272	213153.2976	100.2624	ang frag			
1933	2010	GPF_Exc	11202	0	artifact	459523.4229	213151.7113	100.2758	micro	ang frag		
1934	2010	GPF_Exc	11205	0	artifact	459523.0129	213151.9378	100.3061	ang frag			
1935	2010	GPF_Exc	11206	0	artifact	459523.1237	213152.2005	100.3080	micro	ang frag		
1936	2010	GPF_Exc	11216	0	artifact	459522.7715	213152.2752	100.3170	micro	ang frag		
1937	2010	GPF_Exc	11217	0	artifact	459522.5781	213152.2546	100.3232	micro	ang frag		
1938	2010	GPF_Exc	11226	0	artifact	459524.0629	213150.7583	100.1359	micro	ang frag		
1939	2010	GPF_Exc	11227	0	artifact	459523.7372	213150.9836	100.1622	ang frag			
1940	2010	GPF_Exc	11228	0	artifact	459523.6932	213150.9653	100.1737	ang frag			
2251	2010	GPF_Exc	11229	1	artifact	459523.6551	213151.0018	100.1788	ang frag			
2252	2010	GPF_Exc	11229	2	artifact	459523.6551	213151.0018	100.1788	micro	ang frag		
1941	2010	GPF_Exc	11230	0	artifact	459523.6528	213150.9221	100.1756	flake			
1942	2010	GPF_Exc	11231	0	artifact	459523.7049	213150.8994	100.1648	micro	ang frag		
1943	2010	GPF_Exc	11232	0	artifact	459523.5860	213151.3044	100.1937	micro	ang frag		

1944	2010	GPF_Exc	11233	0	artifact	459523.5946	213151.2774	100.1952	ang frag			
1945	2010	GPF_Exc	11234	0	artifact	459523.6729	213151.3782	100.1897	ang frag			
1946	2010	GPF_Exc	11235	0	artifact	459523.6441	213151.0664	100.1818	ang frag			
1947	2010	GPF_Exc	11236	0	artifact	459524.0472	213151.6421	100.2481	flake			
1948	2010	GPF_Exc	11237	0	artifact	459524.0117	213151.67	100.2555	flake			
1949	2010	GPF_Exc	11240	0	artifact	459523.8862	213152.2275	100.2802	flake			
1950	2010	GPF_Exc	11241	0	artifact	459523.8606	213152.1847	100.2862	ang frag			
1951	2010	GPF_Exc	11246	0	artifact	459522.6006	213151.745	100.2902	micro	ang frag		
1952	2010	GPF_Exc	11250	0	artifact	459522.2221	213151.6246	100.2249	ang frag			
1953	2010	GPF_Exc	11251	0	artifact	459522.1872	213151.6558	100.2428	ang frag			
1954	2010	GPF_Exc	11252	0	artifact	459523.5969	213153.4456	100.2673	micro	ang frag		
1955	2010	GPF_Exc	11253	0	artifact	459523.7095	213153.4482	100.2675	flake			
1956	2010	GPF_Exc	11254	0	artifact	459523.7308	213153.4764	100.2622	flake			
1957	2010	GPF_Exc	11255	0	artifact	459523.8666	213153.4557	100.2971	micro	ang frag		
1958	2010	GPF_Exc	11256	0	artifact	459523.9058	213153.4223	100.2720	micro	ang frag		
1959	2010	GPF_Exc	11257	0	artifact	459524.0939	213153.3716	100.2611	ang frag			
1960	2010	GPF_Exc	11258	0	artifact	459524.0396	213152.671	100.3260	micro	ang frag		
1961	2010	GPF_Exc	11259	0	artifact	459524.1177	213152.7539	100.2879	flake			
1962	2010	GPF_Exc	11264	0	artifact	459523.3522	213151.5453	100.2080	micro	ang frag		
1963	2010	GPF_Exc	11265	0	artifact	459523.3604	213151.5598	100.2066	ang frag			
1964	2010	GPF_Exc	11266	0	artifact	459523.3844	213151.5694	100.2253	micro	flake		
1965	2010	GPF_Exc	11267	0	artifact	459523.4095	213151.6495	100.2518	micro	ang frag		
1966	2010	GPF_Exc	11268	0	artifact	459523.3368	213151.6339	100.2464	ang frag			
1967	2010	GPF_Exc	11269	0	artifact	459523.3563	213151.6368	100.2499	ang frag			
1968	2010	GPF_Exc	11270	0	artifact	459523.3454	213151.639	100.2461	ang frag			
1969	2010	GPF_Exc	11271	0	artifact	459523.3410	213151.6465	100.2471	ang frag			
1970	2010	GPF_Exc	11272	0	artifact	459523.3314	213151.6521	100.2499	ang frag			
1971	2010	GPF_Exc	11273	0	artifact	459523.2855	213151.6569	100.2505	micro	ang frag		

1972	2010	GPF_Exc	11275	0	artifact	459523.1864	213151.659	100.2520	micro	ang frag		
1973	2010	GPF_Exc	11276	0	artifact	459523.1533	213151.6702	100.2442	flake			
1974	2010	GPF_Exc	11277	0	artifact	459523.3170	213151.742	100.2632	micro	ang frag		
1975	2010	GPF_Exc	11278	0	artifact	459523.2991	213151.7549	100.2608	flake			
1976	2010	GPF_Exc	11279	0	artifact	459523.3251	213151.7931	100.2630	ang frag			
1977	2010	GPF_Exc	11280	0	artifact	459523.2583	213151.7748	100.2611	micro	ang frag		
1978	2010	GPF_Exc	11281	0	artifact	459523.1974	213151.7462	100.2576	micro	ang frag		
1979	2010	GPF_Exc	11282	0	artifact	459523.1734	213151.8039	100.2605	ang frag			
1980	2010	GPF_Exc	11285	0	artifact	459522.9881	213151.6506	100.2496	micro	ang frag		
1981	2010	GPF_Exc	11286	0	artifact	459523.1180	213151.7051	100.2531	micro	ang frag		
1982	2010	GPF_Exc	11287	0	artifact	459523.1312	213151.7486	100.2592	micro	ang frag		
1983	2010	GPF_Exc	11294	0	artifact	459522.5574	213151.6859	100.2653	micro	ang frag		
1984	2010	GPF_Exc	11295	0	artifact	459522.6431	213151.6474	100.2504	flake			
1985	2010	GPF_Exc	11296	0	artifact	459522.5893	213151.6563	100.2463	flake			
2253	2010	GPF_Exc	11298	1	artifact	459523.2422	213152.026	100.2906	micro	ang frag		
2254	2010	GPF_Exc	11298	2	artifact	459523.2422	213152.026	100.2906	micro	ang frag		
2255	2010	GPF_Exc	11298	3	artifact	459523.2422	213152.026	100.2906	micro	ang frag		
2256	2010	GPF_Exc	11298	4	artifact	459523.2422	213152.026	100.2906	micro	ang frag		
2257	2010	GPF_Exc	11298	5	artifact	459523.2422	213152.026	100.2906	micro	ang frag		
1986	2010	GPF_Exc	11300	0	artifact	459523.2394	213152.2836	100.2921	micro	ang frag		
1987	2010	GPF_Exc	11304	0	artifact	459522.5452	213151.9958	100.3158	micro	ang frag		
1988	2010	GPF_Exc	11313	0	artifact	459522.4688	213151.666	100.2484	micro	flake		
1989	2010	GPF_Exc	11315	0	artifact	459522.4523	213151.6629	100.2398	micro	flake		
1990	2010	GPF_Exc	11316	0	artifact	459522.4527	213151.6315	100.2391	micro	ang frag		
1991	2010	GPF_Exc	11318	0	artifact	459522.4311	213151.7213	100.2505	ang frag			
1992	2010	GPF_Exc	11319	0	artifact	459522.4230	213151.6866	100.2359	ang frag			
1993	2010	GPF_Exc	11320	0	artifact	459522.2211	213151.6622	100.2462	ang frag			
1994	2010	GPF_Exc	11321	0	artifact	459522.2533	213151.6311	100.2326	micro	ang frag		

1995	2010	GPF_Exc	11326	0	artifact	459522.1485	213152.0514	100.2552	flake			
1996	2010	GPF_Exc	11330	0	artifact	459521.7574	213152.5163	100.4489	flake			
1997	2010	GPF_Exc	11336	0	artifact	459523.6985	213151.5628	100.2451	flake			
1998	2010	GPF_Exc	11337	0	artifact	459523.6500	213151.5787	100.2436	flake			
1999	2010	GPF_Exc	11338	0	artifact	459523.6471	213151.5447	100.2379	flake			
2000	2010	GPF_Exc	11340	0	artifact	459523.9963	213151.5285	100.2175	micro	flake		
2001	2010	GPF_Exc	11341	0	artifact	459523.7465	213151.6148	100.2414	ang frag			
2002	2010	GPF_Exc	11342	0	artifact	459523.7379	213151.5827	100.2429	ang frag			
2003	2010	GPF_Exc	11343	0	artifact	459523.7779	213151.5796	100.2460	micro	ang frag		
2004	2010	GPF_Exc	11344	0	artifact	459523.8036	213151.5655	100.2470	flake			
2005	2010	GPF_Exc	11345	0	artifact	459523.7561	213151.5894	100.2389	micro	ang frag		
2006	2010	GPF_Exc	11346	0	artifact	459523.7685	213151.5921	100.2474	micro	ang frag		
2007	2010	GPF_Exc	11347	0	artifact	459523.7650	213151.5953	100.2410	micro	ang frag		
2008	2010	GPF_Exc	11348	0	artifact	459523.7511	213151.6045	100.2416	micro	ang frag		
2009	2010	GPF_Exc	11349	0	artifact	459523.7512	213151.5939	100.2393	micro	ang frag		
2010	2010	GPF_Exc	11350	0	artifact	459523.7760	213151.6035	100.2413	micro	flake		
2011	2010	GPF_Exc	11351	0	artifact	459523.9952	213151.5705	100.2254	micro	ang frag		
2012	2010	GPF_Exc	11352	0	artifact	459524.0199	213151.5536	100.2176	micro	ang frag		
2013	2010	GPF_Exc	11353	0	artifact	459523.9954	213151.5675	100.2269	micro	ang frag		
2014	2010	GPF_Exc	11354	0	artifact	459524.1518	213151.5267	100.2138	micro	ang frag		
2015	2010	GPF_Exc	11355	0	artifact	459524.0043	213151.6055	100.2235	micro	ang frag		
2258	2010	GPF_Exc	11358	1	artifact	459524.1593	213151.7773	100.2371	micro	ang frag		
2016	2010	GPF_Exc	11360	0	artifact	459524.1883	213151.7849	100.2193	micro	ang frag		
2017	2010	GPF_Exc	11361	0	artifact	459524.1570	213151.6365	100.2173	micro	flake		
2018	2010	GPF_Exc	11363	0	artifact	459524.3493	213151.8369	100.2027	micro	ang frag		
2259	2010	GPF_Exc	11364	1	artifact	459524.1514	213151.8926	100.2226	micro	flake		
2260	2010	GPF_Exc	11364	2	artifact	459524.1514	213151.8926	100.2226	micro	ang frag		
2019	2010	GPF_Exc	11365	0	artifact	459524.1919	213152.0391	100.2281	ang frag			

2020	2010	GPF_Exc	11366	0	artifact	459524.1351	213151.656	100.2078	micro	ang frag		
2021	2010	GPF_Exc	11367	0	artifact	459523.9937	213152.0147	100.2582	micro	ang frag		
2261	2010	GPF_Exc	11369	1	artifact	459523.6622	213152.2472	100.2686	micro	ang frag		
2262	2010	GPF_Exc	11369	2	artifact	459523.6622	213152.2472	100.2686	micro	ang frag		
2022	2010	GPF_Exc	11373	0	artifact	459524.1817	213152.0433	100.2192	micro	snap flake		
2023	2010	GPF_Exc	11375	0	artifact	459524.1618	213152.8503	100.2513	micro	flake		
2024	2010	GPF_Exc	11376	0	artifact	459523.7382	213152.7989	100.3281	micro	ang frag		
2025	2010	GPF_Exc	11377	0	artifact	459523.7590	213152.8848	100.2943	flake			
2026	2010	GPF_Exc	11378	0	artifact	459523.8113	213152.8161	100.2927	ang frag			
2027	2010	GPF_Exc	11379	0	artifact	459523.5977	213153.2003	100.2724	ang frag			
2028	2010	GPF_Exc	11381	0	artifact	459523.7492	213153.4389	100.2472	ang frag			
2029	2010	GPF_Exc	11382	0	artifact	459523.7168	213153.4526	100.2552	micro	ang frag		
2030	2010	GPF_Exc	11383	0	artifact	459524.0882	213153.0629	100.2543	micro	ang frag		
2031	2010	GPF_Exc	11410	0	artifact	459524.9071	213153.1099	100.1867	micro	ang frag		
2032	2010	GPF_Exc	11411	0	artifact	459524.8537	213153.3019	100.1547	flake			
2033	2010	GPF_Exc	11412	0	artifact	459525.3710	213153.3159	100.1651	micro	ang frag		
2034	2010	GPF_Exc	11413	0	artifact	459525.4951	213153.0724	100.1745	flake			
2035	2010	GPF_Exc	11414	0	artifact	459525.4675	213153.0484	100.1526	flake			
2036	2010	GPF_Exc	11415	0	artifact	459525.5291	213152.6343	100.1653	flake			
2037	2010	GPF_Exc	11416	0	artifact	459525.4969	213152.6314	100.1489	flake			
2038	2010	GPF_Exc	11418	0	artifact	459524.8205	213151.1037	100.0722	micro	ang frag		
2039	2010	GPF_Exc	11419	0	artifact	459524.5151	213150.8322	100.1673	micro	ang frag		
2040	2010	GPF_Exc	11420	0	artifact	459523.7501	213150.8203	100.1503	micro	ang frag		
2041	2010	GPF_Exc	11421	0	artifact	459521.3534	213152.0301	100.4016	ang frag			
2042	2010	GPF_Exc	11422	0	artifact	459521.0130	213152.3424	100.4005	ang frag			
2043	2010	GPF_Exc	11424	0	artifact	459522.3210	213151.74	100.2236	micro	ang frag		
2044	2010	GPF_Exc	11425	0	artifact	459522.3991	213151.6878	100.2338	micro	ang frag		
2045	2010	GPF_Exc	11427	0	artifact	459523.5403	213151.9185	100.2527	micro	snap flake		

2046	2010	GPF_Exc	11428	0	artifact	459523.3693	213151.7143	100.2460	micro	ang frag		
2047	2010	GPF_Exc	11430	0	artifact	459523.3464	213151.6582	100.2427	micro	ang frag		
2048	2010	GPF_Exc	11431	0	artifact	459523.2804	213151.8994	100.2547	micro	ang frag		
2049	2010	GPF_Exc	11432	0	artifact	459523.3122	213151.8181	100.2653	micro	ang frag		
2050	2010	GPF_Exc	11433	0	artifact	459523.3096	213151.7972	100.2620	micro	ang frag		
2051	2010	GPF_Exc	11437	0	artifact	459523.1546	213151.8396	100.2596	flake			
2052	2010	GPF_Exc	11438	0	artifact	459523.1220	213151.87	100.2588	flake			
2053	2010	GPF_Exc	11439	0	artifact	459522.9170	213151.775	100.2649	micro	flake		
2263	2010	GPF_Exc	11441	1	artifact	459522.8259	213151.6921	100.2550	micro	ang frag		
2264	2010	GPF_Exc	11441	2	artifact	459522.8259	213151.6921	100.2550	micro	ang frag		
2054	2010	GPF_Exc	11444	0	artifact	459522.9658	213152.0261	100.2719	flake			
2055	2010	GPF_Exc	11445	0	artifact	459522.9384	213152.0057	100.2734	flake			
2056	2010	GPF_Exc	11446	0	artifact	459522.7443	213151.9316	100.3056	flake			
2057	2010	GPF_Exc	11447	0	artifact	459522.7662	213151.9508	100.3002	flake			
2058	2010	GPF_Exc	11449	0	artifact	459522.7767	213151.7039	100.2513	micro	ang frag		
2059	2010	GPF_Exc	11451	0	artifact	459522.5488	213151.7659	100.2724	micro	ang frag		
2060	2010	GPF_Exc	11457	0	artifact	459522.3074	213151.6544	100.2166	micro	ang frag		
2061	2010	GPF_Exc	11458	0	artifact	459522.3605	213151.6783	100.2156	ang frag			
2062	2010	GPF_Exc	11460	0	artifact	459522.3505	213151.6852	100.2205	micro	ang frag		
2063	2010	GPF_Exc	11462	0	artifact	459523.6689	213152.1613	100.2304	micro	ang frag		
2064	2010	GPF_Exc	11463	0	artifact	459524.3364	213151.3491	100.1098	flake			
2065	2010	GPF_Exc	11464	0	artifact	459524.3651	213151.3099	100.1001	flake			
2066	2010	GPF_Exc	11465	0	artifact	459524.4541	213150.7527	100.1831	flake			
2067	2010	GPF_Exc	11466	0	artifact	459524.4228	213150.7805	100.1729	flake			
2068	2010	GPF_Exc	11467	0	artifact	459524.4183	213150.9943	100.0476	flake			
2069	2010	GPF_Exc	11469	0	artifact	459523.4768	213151.6234	100.2428	flake			
2070	2010	GPF_Exc	11470	0	artifact	459523.5930	213151.5724	100.2289	ang frag			
2071	2010	GPF_Exc	11471	0	artifact	459524.7352	213151.62	100.1502	micro	ang frag		

2072	2010	GPF_Exc	11473	0	artifact	459523.4847	213151.5915	100.2433	flake			
2073	2010	GPF_Exc	11474	0	artifact	459523.5188	213151.5903	100.2377	flake			
2074	2010	GPF_Exc	11475	0	artifact	459523.4241	213151.6022	100.2399	flake			
2075	2010	GPF_Exc	11476	0	artifact	459524.7852	213152.3574	100.1719	ang frag			
2076	2010	GPF_Exc	11477	0	artifact	459525.0516	213152.1932	100.1419	micro	ang frag		
2077	2010	GPF_Exc	11479	0	artifact	459523.3487	213151.6818	100.2267	micro	ang frag		
2078	2010	GPF_Exc	11480	0	artifact	459523.3677	213151.6722	100.2380	micro	ang frag		
2079	2010	GPF_Exc	11481	0	artifact	459523.2486	213151.6358	100.2343	micro	ang frag		
2080	2010	GPF_Exc	11483	0	artifact	459523.1942	213151.6307	100.2385	micro	ang frag		
2081	2010	GPF_Exc	11484	0	artifact	459523.2069	213151.6483	100.2331	micro	ang frag		
2082	2010	GPF_Exc	11485	0	artifact	459522.7214	213151.8681	100.2463	ang frag			
2083	2010	GPF_Exc	11486	0	artifact	459522.7208	213151.8451	100.2494	ang frag			
2084	2010	GPF_Exc	11487	0	artifact	459522.4937	213151.7972	100.2580	micro	ang frag		
2085	2010	GPF_Exc	11489	0	artifact	459523.2512	213151.7146	100.2347	flake			
2086	2010	GPF_Exc	11490	0	artifact	459523.2304	213151.6874	100.2297	flake			
2087	2010	GPF_Exc	11491	0	artifact	459523.2926	213151.7214	100.2387	ang frag			
2088	2010	GPF_Exc	11492	0	artifact	459523.2623	213151.722	100.2360	ang frag			
2089	2010	GPF_Exc	11494	0	artifact	459522.5632	213151.8616	100.2565	micro	ang frag		
2090	2010	GPF_Exc	11495	0	artifact	459523.1369	213151.6355	100.2398	micro	flake		
2091	2010	GPF_Exc	11496	0	artifact	459523.1517	213151.6919	100.2488	ang frag			
2092	2010	GPF_Exc	11497	0	artifact	459523.1773	213151.6835	100.2382	ang frag			
2093	2010	GPF_Exc	11499	0	artifact	459523.1898	213151.7041	100.2372	micro	ang frag		
2094	2010	GPF_Exc	11500	0	artifact	459523.1855	213151.6956	100.2275	micro	ang frag		
2095	2010	GPF_Exc	11501	0	artifact	459523.1926	213151.744	100.2470	micro	ang frag		
2096	2010	GPF_Exc	11502	0	artifact	459523.1938	213151.7528	100.2446	micro	ang frag		
2097	2010	GPF_Exc	11504	0	artifact	459524.2211	213153.9248	100.1740	micro	ang frag		
2098	2010	GPF_Exc	11505	0	artifact	459524.4226	213154.1502	100.1767	micro	ang frag		
2099	2010	GPF_Exc	11506	0	artifact	459523.7121	213153.9433	100.1874	micro	ang frag		

2100	2010	GPF_Exc	11510	0	artifact	459523.2956	213153.6147	100.3022	micro	flake		
2101	2010	GPF_Exc	11511	0	artifact	459523.7475	213153.5025	100.1820	ang frag			
2102	2010	GPF_Exc	11512	0	artifact	459523.1131	213153.9491	100.2987	micro	ang frag		
2103	2010	GPF_Exc	11513	0	artifact	459522.6226	213153.6339	100.3044	micro	ang frag		
2104	2010	GPF_Exc	11514	0	artifact	459523.5000	213151.6808	100.2306	flake			
2105	2010	GPF_Exc	11515	0	artifact	459523.4811	213151.6457	100.2284	flake			
2106	2010	GPF_Exc	11516	0	artifact	459523.4450	213151.6718	100.2303	flake			
2107	2010	GPF_Exc	11517	0	artifact	459523.4207	213151.6716	100.2403	flake			
2108	2010	GPF_Exc	11518	0	artifact	459523.3290	213151.6587	100.2243	micro	ang frag		
2109	2010	GPF_Exc	11519	0	artifact	459523.3113	213151.6872	100.2189	micro	ang frag		
2110	2010	GPF_Exc	11520	0	artifact	459523.3188	213151.7636	100.2537	ang frag			
2111	2010	GPF_Exc	11521	0	artifact	459523.3406	213151.7361	100.2397	ang frag			
2112	2010	GPF_Exc	11522	0	artifact	459523.3344	213151.7197	100.2355	micro	ang frag		
2113	2010	GPF_Exc	11523	0	artifact	459523.2395	213151.6789	100.2199	micro	ang frag		
2114	2010	GPF_Exc	11526	0	artifact	459523.1293	213151.5935	100.2311	micro	ang frag		
2115	2010	GPF_Exc	11528	0	artifact	459523.0747	213151.6223	100.2371	micro	ang frag		
2116	2010	GPF_Exc	11529	0	artifact	459522.7522	213151.6422	100.2548	ang frag			
2117	2010	GPF_Exc	11530	0	artifact	459522.7848	213151.6316	100.2464	ang frag			
2118	2010	GPF_Exc	11531	0	artifact	459522.5239	213151.8776	100.2592	flake			
2119	2010	GPF_Exc	11532	0	artifact	459522.5295	213151.847	100.2553	flake			
2120	2010	GPF_Exc	11533	0	artifact	459523.4095	213151.7838	100.2518	flake			
2121	2010	GPF_Exc	11534	0	artifact	459523.4184	213151.7554	100.2416	flake			
2122	2010	GPF_Exc	11535	0	artifact	459522.7846	213151.9511	100.2755	flake			
2123	2010	GPF_Exc	11536	0	artifact	459522.1488	213151.9898	100.2018	hammerstone			
2124	2010	GPF_Exc	11539	0	artifact	459522.3336	213151.9544	100.2397	micro	ang frag		
2125	2010	GPF_Exc	11541	0	artifact	459521.7328	213151.7208	100.2251	micro	ang frag		
2126	2010	GPF_Exc	11543	0	artifact	459521.8127	213151.9624	100.2190	flake			
2127	2010	GPF_Exc	11544	0	artifact	459521.5617	213151.9776	100.2291	pebble			

2128	2010	GPF_Exc	11546	0	artifact	459522.1275	213152.2985	100.2364	flake			
2129	2010	GPF_Exc	11548	0	artifact	459521.5463	213152.2442	100.2995	ang frag			
2130	2010	GPF_Exc	11549	0	artifact	459522.0991	213152.3437	100.2971	flake			
2131	2010	GPF_Exc	11550	0	artifact	459523.2603	213151.8194	100.2384	ang frag			
2132	2010	GPF_Exc	11551	0	artifact	459523.2054	213151.8028	100.2318	ang frag			
2133	2010	GPF_Exc	11552	0	artifact	459523.1317	213151.753	100.2422	flake			
2134	2010	GPF_Exc	11553	0	artifact	459523.0849	213151.7578	100.2425	flake			
2135	2010	GPF_Exc	11554	0	artifact	459523.0745	213151.7236	100.2359	ang frag			
2136	2010	GPF_Exc	11555	0	artifact	459523.0595	213151.7538	100.2449	ang frag			
2137	2010	GPF_Exc	11556	0	artifact	459522.6643	213151.6884	100.2325	ang frag			
2138	2010	GPF_Exc	11557	0	artifact	459522.6381	213151.6968	100.2416	ang frag			
2139	2010	GPF_Exc	11558	0	artifact	459523.5191	213151.8469	100.2271	micro	ang frag		
2140	2010	GPF_Exc	11559	0	artifact	459523.4148	213152.1044	100.2445	micro	ang frag		
2141	2010	GPF_Exc	11560	0	artifact	459523.4020	213152.1189	100.2434	micro	ang frag		
2142	2010	GPF_Exc	11561	0	artifact	459523.4691	213151.8203	100.2349	micro	ang frag		
2143	2010	GPF_Exc	11562	0	artifact	459523.4052	213151.7878	100.2219	micro	ang frag		
2144	2010	GPF_Exc	11563	0	artifact	459523.3522	213151.8774	100.2255	micro	ang frag		
2145	2010	GPF_Exc	11564	0	artifact	459523.2751	213151.7916	100.2125	micro	ang frag		
2146	2010	GPF_Exc	11565	0	artifact	459523.2378	213151.805	100.2334	micro	ang frag		
2147	2010	GPF_Exc	11566	0	artifact	459523.2603	213151.749	100.2145	micro	ang frag		
2148	2010	GPF_Exc	11567	0	artifact	459523.4116	213151.6429	100.2016	micro	ang frag		
2149	2010	GPF_Exc	11568	0	artifact	459523.2474	213151.5879	100.2077	micro	ang frag		
2150	2010	GPF_Exc	11569	0	artifact	459523.2726	213151.6054	100.2129	micro	snap flake		
2151	2010	GPF_Exc	11570	0	artifact	459523.1923	213151.6336	100.2134	micro	ang frag		
2152	2010	GPF_Exc	11571	0	artifact	459523.2165	213151.6568	100.2137	ang frag			
2153	2010	GPF_Exc	11572	0	artifact	459523.1808	213151.6581	100.2172	ang frag			
2154	2010	GPF_Exc	11573	0	artifact	459523.1498	213151.9859	100.2360	ang frag			
2155	2010	GPF_Exc	11574	0	artifact	459523.1517	213151.9569	100.2349	ang frag			

2156	2010	GPF_Exc	11575	0	artifact	459523.0307	213151.6086	100.2201	micro	ang frag		
2157	2010	GPF_Exc	11576	0	artifact	459523.0055	213151.6849	100.2295	micro	ang frag		
2158	2010	GPF_Exc	11577	0	artifact	459522.8982	213151.7016	100.2081	micro	ang frag		
2159	2010	GPF_Exc	11578	0	artifact	459522.8854	213151.6595	100.2102	micro	ang frag		
2160	2010	GPF_Exc	11579	0	artifact	459522.7989	213151.8047	100.2378	ang frag			
2161	2010	GPF_Exc	11580	0	artifact	459522.8011	213151.773	100.2440	ang frag			
2162	2010	GPF_Exc	11581	0	artifact	459522.7419	213151.8487	100.2432	micro	split/snap flake		
2163	2010	GPF_Exc	11582	0	artifact	459522.7291	213151.987	100.2628	micro	ang frag		
2164	2010	GPF_Exc	11583	0	artifact	459522.5974	213151.8086	100.2402	micro	ang frag		
2165	2010	GPF_Exc	11584	0	artifact	459522.4842	213151.8969	100.2558	micro	ang frag		
2166	2010	GPF_Exc	11585	0	artifact	459522.4811	213151.8761	100.2599	micro	ang frag		
2167	2010	GPF_Exc	11586	0	artifact	459522.4986	213151.8344	100.2548	micro	ang frag		
2168	2010	GPF_Exc	11587	0	artifact	459522.6076	213151.75	100.2394	micro	ang frag		
2169	2010	GPF_Exc	11588	0	artifact	459522.6658	213151.7588	100.2388	micro	ang frag		
2170	2010	GPF_Exc	11589	0	artifact	459522.5401	213151.6611	100.2155	micro	ang frag		
2171	2010	GPF_Exc	11590	0	artifact	459522.6035	213151.6632	100.2260	flake			
2172	2010	GPF_Exc	11591	0	artifact	459522.6027	213151.6002	100.2243	flake			
2173	2010	GPF_Exc	11592	0	artifact	459522.6988	213151.6336	100.2328	micro	ang frag		
2174	2010	GPF_Exc	11593	0	artifact	459522.7204	213151.7032	100.2220	micro	ang frag		
2175	2010	GPF_Exc	11594	0	artifact	459522.7591	213151.7797	100.2510	micro	ang frag		
2176	2010	GPF_Exc	11595	0	artifact	459522.6866	213151.7097	100.2346	micro	ang frag		
2177	2010	GPF_Exc	11596	0	artifact	459522.7866	213151.7494	100.2284	micro	ang frag		
2178	2010	GPF_Exc	11597	0	artifact	459522.7840	213151.7394	100.2277	micro	ang frag		
2179	2010	GPF_Exc	11598	0	artifact	459522.8102	213151.6029	100.2010	micro	ang frag		
2180	2010	GPF_Exc	11599	0	artifact	459522.8205	213151.6208	100.2154	flake			
2181	2010	GPF_Exc	11600	0	artifact	459522.8529	213151.6444	100.2215	flake			
2182	2010	GPF_Exc	11601	0	artifact	459522.7044	213151.6268	100.2056	flake			
2183	2010	GPF_Exc	11602	0	artifact	459522.6656	213151.6595	100.2135	flake			

2184	2010	GPF_Exc	11603	0	artifact	459522.4624	213151.993	100.2538	micro	ang frag		
2185	2010	GPF_Exc	11604	0	artifact	459522.6913	213152.2323	100.2702	micro	ang frag		
2186	2010	GPF_Exc	11605	0	artifact	459522.5240	213152.2396	100.2969	micro	ang frag		
2187	2010	GPF_Exc	11607	0	artifact	459522.7667	213152.1823	100.2545	flake			
2188	2010	GPF_Exc	11608	0	artifact	459522.7949	213152.2014	100.2562	flake			
2189	2010	GPF_Exc	11609	0	artifact	459522.3781	213151.783	100.2086	micro	split flake		
2190	2010	GPF_Exc	11610	0	artifact	459522.3363	213151.7819	100.2085	micro	ang frag		
2191	2010	GPF_Exc	11614	0	artifact	459522.6760	213151.6723	100.2196	micro	ang frag		
2192	2010	GPF_Exc	11627	0	artifact	459522.3115	213151.9423	100.2099	micro	ang frag		
2193	2010	GPF_Exc	11628	0	artifact	459522.2512	213151.8602	100.1983	micro	ang frag		
2194	2010	GPF_Exc	11629	0	artifact	459522.2944	213152.2679	100.2436	micro	ang frag		
2195	2010	GPF_Exc	11631	0	artifact	459522.0360	213152.1276	100.2023	micro	ang frag		
2196	2010	GPF_Exc	11635	0	artifact	459521.7219	213152.2001	100.2261	ang frag			
2197	2010	GPF_Exc	11636	0	artifact	459521.7090	213152.2191	100.2304	micro	ang frag		
2198	2010	GPF_Exc	11638	0	artifact	459523.5647	213151.4916	100.2484	micro	ang frag		
2199	2010	GPF_Exc	11639	0	artifact	459523.5816	213151.4502	100.2380	micro	ang frag		
2200	2010	GPF_Exc	11640	0	artifact	459523.6705	213151.5141	100.2346	micro	ang frag		
2201	2010	GPF_Exc	11645	0	artifact	459523.7430	213151.5786	100.2314	flake			
2202	2010	GPF_Exc	11646	0	artifact	459523.7187	213151.5747	100.2332	flake			
2203	2010	GPF_Exc	11647	0	artifact	459523.7950	213151.4987	100.2317	micro	ang frag		
2204	2010	GPF_Exc	11650	0	artifact	459524.0251	213151.8172	100.2211	micro	ang frag		
2205	2010	GPF_Exc	11651	0	artifact	459523.9677	213151.8431	100.2172	micro	ang frag		
2206	2010	GPF_Exc	11652	0	artifact	459524.1825	213151.8516	100.1991	micro	ang frag		
2207	2010	GPF_Exc	11653	0	artifact	459524.0397	213152.0824	100.2122	micro	ang frag		
2208	2010	GPF_Exc	11654	0	artifact	459524.0947	213152.023	100.2065	micro	ang frag		
2209	2010	GPF_Exc	11656	0	artifact	459524.4819	213152.1484	100.1676	hammerstone			
2210	2010	GPF_Exc	11657	0	artifact	459524.4196	213152.1656	100.1705	hammerstone			
2211	2010	GPF_Exc	11658	0	artifact	459524.1160	213152.3564	100.2265	micro	ang frag		

2212	2010	GPF_Exc	11660	0	artifact	459525.0604	213151.8818	100.1016	flake			
2213	2010	GPF_Exc	11661	0	artifact	459525.0143	213151.8616	100.1349	flake			
2214	2010	GPF_Exc	11663	0	artifact	459525.4350	213151.8977	100.0823	micro	ang frag		
2215	2010	GPF_Exc	11666	0	artifact	459524.6751	213151.0287	100.0542	micro	ang frag		
2216	2010	GPF_Exc	11667	0	artifact	459524.6690	213151.1125	100.0615	micro	ang frag		
2217	2010	GPF_Exc	11668	0	artifact	459525.2233	213151.3498	100.0525	micro	ang frag		
2218	2010	GPF_Exc	11675	0	artifact	459523.7497	213153.4993	100.1459	micro	ang frag		
2219	2010	GPF_Exc	11677	0	artifact	459523.6277	213153.7011	100.1442	micro	ang frag		
2220	2010	GPF_Exc	11683	0	artifact	459523.5007	213153.4937	100.2820	flake			
2221	2010	GPF_Exc	11684	0	artifact	459523.5364	213153.4499	100.2779	flake			
2222	2010	GPF_Exc	11685	0	artifact	459523.8970	213154.1245	100.1876	ang frag			
2223	2010	GPF_Exc	11686	0	artifact	459523.8824	213154.081	100.1769	ang frag			
2224	2010	GPF_Exc	11689	0	artifact	459523.4516	213154.0237	100.2484	micro	ang frag		
2225	2010	GPF_Exc	11690	0	artifact	459523.3220	213154.0228	100.2292	ang frag			
2226	2010	GPF_Exc	11691	0	artifact	459523.2815	213154.0297	100.2284	ang frag			
2227	2010	GPF_Exc	11692	0	artifact	459523.3688	213153.7059	100.2557	flake			
2228	2010	GPF_Exc	11693	0	artifact	459523.3601	213153.7509	100.2664	flake			
2229	2010	GPF_Exc	11694	0	artifact	459523.3823	213153.6778	100.2454	micro	ang frag	micro	
2230	2010	GPF_Exc	11697	0	artifact	459523.0116	213153.5352	100.2198	ang frag		macro	
2231	2010	GPF_Exc	11698	0	artifact	459522.9717	213153.5297	100.2285	ang frag		macro	
2232	2010	GPF_Exc	11699	0	artifact	459522.8192	213153.5566	100.2554	micro	ang frag	micro	
2233	2010	GPF_Exc	11700	0	artifact	459522.8272	213153.6973	100.3217	micro	ang frag	micro	

RecNo = record number

ID = catalog ID

Max-L = maximum length

Max-W = maximum width

Max-B = maximum breadth

Tech-L = technological length

Tech-W = technological width

Tech-B = technological breadth

Material = raw material

Photo: 1 = photo taken

RECNO	ID	Max-L (mm)	Max-W (mm)	Max-B (mm)	Tech-L (mm)	Tech-W (mm)	Tech-B (mm)	Material	notes	Photo
2986	4207	15	13	3				BA	shatter/debitage	
2987	4210	55	31	17				BA	split flake	
2988	4211	12.00	8.00	4.00	10.00	12.00	3.00	IG		
2989	4212	18.00	17.00	6.00				BA	with cortex	
2990	4213	49	34	13				BA	cortical flake	
2991	4214	38.00	18.00	13.00				BA		
2992	4216	31.00	22.00	6.00				BA		
2993	4217	46	23	6	23	33	6	BA		
2994	4218	32	19	9				BA	irregular, poss potli	1
2995	4219	40	25	12				BA	split flake	
2996	4220	43	19	12	41	18	11	BA		
2997	4221	26.00	13.50	7.00				BA		
2998	4222	51	38	15	49	44	14	BA		
2999	4223	48	29	11				BA	marked flake, no id'd features	

3000	4224	49	34	18				BA	marked flake; poss potlid	1
3001	4226	41	31	12	40	31	5	BA	cortical flake	
3002	4227	28.00	19.00	6.00				BA		
3003	4230	52	19	15	32	22	8	BA		
3004	4232	43	28	9	28	27	7	BA		
3005	4233	32.00	31.00	8.00	28.00	22.00	6.00	BA	with cortex	
3006	4233	30	14	8	28	14	6	BA		
3007	4237	54	38	21	49	29	21	BA		
3008	4238	30	30	7	28	27	7	BA	hinge termination	
3009	4239	42	29	15	23	33	12.5	BA		
3010	4240	48	22	11				BA	cortical fragment	
3011	4244	24.00	12.00	6.00	21.00	10.00	6.00	BA		
3012	4245	20.00	10.00	5.00				BA	split	
3013	4246	20.00	12.00	4.00				BA	distal end snapped flake	
3014	4247	34.00	19.00	14.00				BA		
3015	4250	32	27	10				CT	red and black banded chert, split and snapped	1
3016	4252	41.00	17.00	11.50				BA		
3017	4276	31	19	8	24	17	6.5	CT	red chert, does not appear fired -	1
3018	4280	44	30	11	40	28	8	BA		
3019	4281	24.00	17.00	7.00				BA	distal end snapped flake	
3020	4282	28	20	8	15	21	4	BA		
3021	4295	44.00	22.00	8.50				BA	split	

3044	4345									
3045	4346									
3046	4347	40.00	38.00	23.00				BA	core fragment	
3047	4361									
3048	4364	25.00	16.00	6.00	24.00	16.00	5.00	BA		
3049	4365	48.00	32.00	20.00				BA	reddened, but no other obvious signs of alteration	1
3050	4366									
3051	4369	33.5	17	5	33	1	4	BA		
3052	4370	27.00	20.00	7.00				BA	with cortex	
3053	4372	19	15	9				BA		
3054	4373	17	17	16				BA		
3055	4376	46	33	8	31	38	10	BA		
3056	4377	48	25	14				BA	split flake	
3057	4379	33.00	20.00	11.50				BA	split	
3058	4380	26.00	20.00	6.00				BA	split	
3059	4381	39	35	10				BA	snapped flake	
3060	4382	31	24	12	28	23	11	QT	reddened.	1
3061	4384	30	17	4	16	23	2	BA		
3062	4385	45	33	11	28.5	27	10	BA		
3063	4386	35.5	28	12	34	27	9	BA	cortical flake	
3064	4387	36.00	21.00	8.00				BA		
3065	4388	47	42	23				BA		
3066	4389	38	21	12				BA	split	
3067	4394	33	25	8				BA	snapped flake	
3068	4396	27.00	20.00	8.00				BA		
3069	4397	31.00	17.00	8.00				BA		

3070	4398	24	23	6	17	18	3	BA		
3071	4400	37	34	13	29	33	12	BA		
3072	4405	40	25	11				BA	split	
3073	4406	35	27	8				BA	marked flake, no id'd features	
3074	4407	36	20	12				BA		
3075	4408	50	30	20				BA	split	
3076	4409	38	24	15				BA	split and snapped	
3077	4410	33.00	28.00	10.00				BA	with cortex	
3078	4413	23	19	8	18.5	20	5.5	BA		
3079	4414	17	14	4				BA	snapped flake	
3080	4416	45	34	14	40	34	11	BA		
3081	4417	17.00	14.00	6.00	13.00	11.00	6.00	BA		
3082	4419	42	26	17				BA	distal end snapped flak	
3083	4420	24	15	8	14	21	7	BA		
3084	4421	47	22	16				BA	measurements estimated, piece broken and glued	
3085	4422	21	20	6				BA	snapped flake	
3086	4423	15	15	5				BA	snapped flake	
3087	4424	35	23	9				BA	split	
3088	4425	26.00	18.00	6.00				BA		
3089	4426	34	23	9	28	23	4	BA		
3090	4427	50	38	12	44	40	9	BA		
3091	4430	33	30	7	31	29	6	BA	cortex on platform	
3092	4432	41	30	12				BA	marked flake, no id'd features	

3093	4433	16.00	10.00	6.00				CT			
3094	4434	21.00	8.00	6.00				BA	split and snapped		
3095	4435	48	25	17				BA	labeled flake, no features id'd		
3096	4436	40	30	14				BA	cortical fragment		
3097	4437	44.00	38.00	13.00				BA	split and snapped		
3098	4438	26	23	9				BA	labeled flake, no features id'd		
3099	4439	57	37	19				CH	unmodified		
3100	4441	30	16	9	30	17	8	BA			
3101	4442	34	23	8				BA	split		
3102	4443	29	20	8	27	20	4	BA			
3103	4445	29	18	10	17	24	6	BA			
3104	4453	41	27	10	38	26	9	BA	cortical flake		
3105	4454	29	16	6	15	25	4	BA			
3106	4455	33	24	10	24	32	9	BA			
3107	4457	18.00	1.00	5.00				BA	split		
3108	4458	23	23	10	21	17	6	BA			
3109	4460	26	25	4				CT	split flake		
3110	4461	61	43	21				BA	very irregular, potlid?	1	
3111	4464	37	18	10	17	34	8	BA	cortical flake		
3112	4465	31	31	9	29	22	6	BA			
3113	4481	52	49	24	37	41	12	BA			
3114	4483	31.00	22.00	11.00				BA	with cortex		
3115	4484	42	41	10	37	24	8	BA			
3116	4487	48	36	9	43	35	7	BA			
3117	4489	30	22	10				BA			
3118	4490	52	41	19				BA	fragment with cortex		

3119	4491	41	25	9				BA	split flake	
3120	4492	50	33	9	47	28	6	BA		
3121	4493	27.00	20.00	7.00				BA	with cortex	
3122	4494	31	28	19				BA	with cortex	
3123	4495	37	28	10	28	26	9	BA	cortical flake	
3124	4498	27.00	16.00	6.00				BA	snapped	
3125	4499	30	27	9	21	23	8	BA	reddened spots, weathered?	1
3126	4500	40	22	14	16	34	7	BA		
3127	4501	17.00	12.00	4.00	13.00	12.00	3.00	BA		
3128	4502	38	31	12	29	32	7	BA		
3129	4504	26	23	8	21	16	7	BA		
3130	4505	35	23	12	33	22.5	6	BA		
3131	4506	37	25	16				BA	split and snapped, with cortex	
3132	4508	25.00	19.00	7.00				BA		
3133	4509	50.00	33.00	8.00	30.00	49.00	6.00	BA	cortex on platform	
3134	4510	15.00	14.00	4.00				BA	split	
3135	4511	43	22	12				BA	split flake	
3136	4512	16.00	15.00	4.00				BA		
3137	4514	20.00	11.00	6.00				BA	snapped	
3138	4515	31.00	19.00	12.00				BA		
3139	4516	48.00	25.00	11.00	47.00	25.00	10.00	BA	with cortex	
3140	4517	39.00	34.00	12.00	25.00	24.00	9.00	BA		
3141	4519	48.5	33	23	45	38	23	BA	cortical flake	
3142	4520	24.00	16.00	8.00				BA		
3143	4523	18	8	3				BA	shatter/debitage	
3144	4523	29.00	19.00	8.00				BA	split, with cortex	

3145	4524	50	25	23				BA		
3146	4526	38.00	22.00	15.00				BA	core frag	
3147	4527	44	25	14	16	37	9	BA		
3148	4528	41	30	24				BA		
3149	4531	29	24	11	23	25	9	BA		
3150	4532	36.00	18.00	5.00				BA	split and snapped	
3151	4533	42	39	16	30	36	10	BA		
3152	4534	35	21	6				BA	split flake	
3153	4535	54	17	7				BA	split, with cortex	
3154	4536	30	19	6.5				BA	split flake	
3155	4537	25	12	4				BA	split and snapped	
3156	4538	38.00	27.00	14.00				BA	core fragment	
3157	4539	46	37	16	36	33	8	BA	cortical flake	
3158	4543	41	26	14	38	24	7	BA		
3159	4544	27	20	15				BA	split and snapped	
3160	4546	26.00	15.00	4.00				BA	irregular surface	1
3161	4547	25	16	6				BA	snapped flake	
3162	4548	24	22	8	20	21	6	BA		
3163	4549	31	24	10	30	22	6	BA		
3164	4550	26	20	8				BA		
3165	4551	50	32	18	40	43	11	BA	cortex on platform	
3166	4552	38	19	12				BA		
3167	4553	30	25	9	24	21	8	BA		
3168	4554	30	14	12				BA	split flake	
3169	4556	24.00	19.00	6.00				BA	split	
3170	4557	25.00	15.00	6.00	23.00	15.00	6.00	BA		
3171	4558	36	23	10				BA	with cortex	
3172	4560	28	22	9				IG	snapped flake	

3173	4561	19	14	8				BA	split flake	
3174	4562	50	29	11	28	36	6	BA		
3175	4563	44	40	10				BA	split and snapped	
3176	4564	29	26	9	24	26	5	BA	cortical flake	
3177	4565	29.00	18.00	9.00				BA		
3178	4566	32	29	11	24	25	8	BA	cortex on platform	
3179	4568	62	34	20				BA	split	
3180	4569	24	12	6	20	17	3	BA		
3181	4570	21.00	15.00	6.00				BA	split flake; hinge term	
3182	4571	42	34	19				BA	core fragment	
3183	4572	37	22	12	22	36	7	BA	cortex on platform	
3184	4572	19	5	5				BA	snapped flake	
3185	4573	23	15	8				BA	split flake	
3186	4575	21	19	6	19	18	4	BA		
3187	4576	26.00	15.00	4.00				BA		
3188	4577	19.00	11.00	7.00				BA		
3189	4578	44	32	16	40	27	12	BA		
3190	4579	20	17	4	17	18	3	BA		
3191	4580	33	20	11				BA		
3192	4581	34.00	28.00	12.00				BA		
3193	4588	30.00	22.00	8.00				BA	snapped	
3194	4589	45	32	21				BA	core frag, with cortex	
3195	4590	24.00	29.00	7.00				BA	split	
3196	4591	52	29	10	45	29	7	BA	retouch?	
3197	4592	49	36	14	48	28	12	BA		
3198	4593	42	30	8	39	29	5	BA		
3199	4594	23.00	18.00	11.00				BA		
3200	4596	36	20	8.5				BA	irregular, poss potli	1

3201	4598	25.00	2.00	8.00				BA	split with cortex	
3202	4599	40.00	35.00	15.00				BA	with cortex	
3203	4601	20	20	16				BA	core frag, with cortex	
3204	4604	28	18	8	18	27	8	BA		
3205	4605	21.00	12.00	6.00				BA		
3206	4606	39	32	14				BA	split flake	
3207	4607	23	17	7	16	21	5	BA		
3208	4608	21	11	5.5	20	11	4	BA		
3209	4609	31.00	19.00	8.00				BA	with cortex	
3210	4610	44	26	12	33	31	11	BA		
3211	4611	18.00	11.00	6.00				BA	split and snapped	
3212	4612	23.00	10.00	5.00				BA	distal end snapped flake	
3213	4613									
3214	4614	31.00	21.00	7.00	21.00	29.00	4.00	BA	cortex on platform	
3215	4615	18.00	12.00	6.00				BA		
3216	4616	28.00	15.00	10.00				BA		
3217	4617	31.00	18.00	15.00				BA		
3218	4619	28.00	14.00	8.00	15.00	28.00	4.00	BA		
3219	4620	25.00	12.00	4.00				BA	split	
3220	4622	50.00	47.00	24.00				BA	core fragment	
3221	4623	33.00	24.00	12.00	27.00	23.50	6.50	BA	step termination	
3222	4626	40.00	30.00	15.00				BA	core fragment	
3223	4627	24.00	14.00	2.00	13.00	21.00	1.50	BA		
3224	4628	25.00	14.00	4.50	15.00	25.00	3.00	BA		
3225	4629	36.00	24.00	11.00	35.00	24.00	8.50	BA		
3226	4630	51.00	25.00	9.00				BA	split flake	

3227	4631								fragment with inverse retouch	
3228	4632	36.50	21.00	15.00				BA		
3229	4633	53.00	40.00	14.00	38.50	47.00	11.00	BA		
3230	4634									
3231	4637									
3232	4638	30.00	21.00	6.00				BA	snapped flake	
3233	4640	15.00	11.00	5.00				BA		
3234	4641	19.00	16.00	5.00				BA	split	
3235	4642	20.00	15.00	5.00				BA	snapped, with cortex	
3236	4643	35.00	22.00	11.00				BA		
3237	4644	20.00	17.00	6.00	11.50	16.00	3.00	BA	cortex on platform	
3238	4645	35.00	25.00	7.00	27.00	27.00	6.00	BA	cortical flake	
3239	4646	22.00	9.00	8.00	8.00	18.00	3.50	BA		
3240	4647	25.00	21.00	7.00				BA	distal end snapped flake	
3241	4648	23.00	15.00	4.00				BA	distal end snapped flake	
3242	4648	13.00	11.00	4.00				BA		
3243	4649	22.00	21.00	4.00				BA	split and snapped	
3244	4650									
3245	4651									
3246	4652									
3247	4653	30.00	24.00	6.00	24.00	25.00	6.00	QT	cortical flake	
3248	4654	22.00	21.00	6.00	20.00	15.00	4.00	BA		
3249	4656	16.00	15.00	6.00				CT	distal end snapped flake	
3250	4657	37.00	13.00	5.00	36.00	12.00	3.00	BA		

3251	4658	39.00	27.00	9.00				BA	split flake	
3252	4659	25.00	15.00	7.00	24.00	14.00	6.00	BA		
3253	4660	17.00	16.00	3.50				BA		
3254	4661	25.00	11.00	4.00				BA		
3255	4665	21.00	17.00	4.00				BA		
3256	4666	32.00	16.00	6.00	31.00	14.00	4.00	BA	cortical flake	
3257	4667	31.00	17.00	7.00				BA	marked flake, no id'd features	
3258	4668	20.00	20.00	3.00	16.00	14.00	2.00	BA		
3259	4678									
3260	4679	19.00	13.00	4.00				BA		
3261	4680	23.00	20.00	8.00				BA	snapped	
3262	4682	14.00	10.00	4.00				BA	distal end split and snapped, with cortex	
3263	4683									
3264	4685	17.00	8.00	5.00				QT		
3265	4686									
3266	4687	18.00	12.00	7.00				BA		
3267	4688									
3268	4689	34.00	32.00	9.00	31.00	26.00	6.00	BA		
3269	4690	21.00	15.00	5.00				BA	snapped	
3270	4691	28.00	18.00	9.00				BA	snapped	
3271	4692	25.00	15.00	3.00				BA		
3272	4693	38.00	30.00	15.00				BA	distal end snapped flake	
3273	4695								small	
3274	4696	17.00	14.00	7.00				BA	distal end snapped	

3275	4697	33.00	18.00	5.00				BA	distal end snapped flake	
3276	4698									
3277	4699	12.50	9.00	3.00				BA		
3278	4700	28.00	16.00	6.00	15.00	23.00	3.50	BA		
3279	4701	31.00	25.00	16.00				BA	with cortex	
3280	4702	45.00	33.00	13.00				BA	split	
3281	4703	14.00	13.00	4.00				BA	split and snapped	
3282	4704	29.00	17.00	8.00				BA		
3283	4705	18.00	10.00	3.00	10.00	18.00	2.00	BA		
3284	4706	18.00	15.00	4.00	16.00	16.00	3.00	BA		
3285	4707	31.00	16.00	6.00				BA		
3286	4708	16.00	14.00	8.00				BA		
3287	4712									
3288	4714	44.00	29.00	14.00	42.00	21.00	10.00	BA	with cortex	
3289	4715	28.00	24.00	12.00				BA	distal end snapped flake, with cortex	
3290	4716	47.00	41.00	18.00				BA	snapped flake	
3291	4717									
3292	4718	22.00	20.00	8.00				BA		
3293	4720	31.00	13.00	7.00				BA		
3294	4721	17.00	12.00	4.00				CT		
3295	4722	36.00	30.00	21.00				BA	potlid?	1
3296	4723									
3297	4724	28.00	21.00	10.00				BA	with cortex	
3298	4725	24.00	19.00	9.00	19.00	12.00	6.00	BA		
3299	4727	32.00	19.00	8.00	28.00	15.00	6.00	BA		
3300	4728	30.00	22.00	5.00	23.00	19.00	3.00	BA		

3301	4729	39.00	26.00	17.00				BA	split flake	
3302	4730	16.00	10.00	4.00				BA		
3303	4742	34.00	27.00	8.00				BA	split	
3304	4744	25.00	25.00	12.00				BA		
3305	4745	36.00	24.00	13.00				BA		
3306	4746	31.00	24.00	5.00				BA		
3307	4747	28.00	21.00	7.00				BA	split	
3308	4748									
3309	4749	30.00	20.00	9.00				BA	split cortex on platform	
3310	4750	17.00	14.00	5.00				BA		
3311	4751	15.00	9.00	3.00				BA		
3312	4752	24.00	16.00	6.00				BA	split	
3313	4753									
3314	4754	47.00	33.00	10.00				BA	split	
3315	4755	56.00	25.00	10.00				BA		
3316	4756								utilized	
3317	4757									
3318	4758	26.00	22.00	11.00				BA	fragment	
3319	4759	30.00	23.00	9.00				BA		
3320	4760	36.00	21.00	10.00				BA		
3321	4761	23.00	15.00	9.00				BA		
3322	4762	20.00	12.00	7.00				BA	split	
3323	4763	24.00	18.00	9.00	19.00	23.00	8.00	BA		
3324	4764	31.00	24.00	9.00	30.00	23.50	7.00	BA		
3325	4765	28.00	23.00	15.00				BA	core frag	
3326	4766	23.00	23.00	8.00				BA		
3327	4767	38.00	35.00	6.00	29.00	34.00	4.00	BA	cortex on platform	

3328	4769	28.00	17.00	4.00				BA		
3329	4770	33.00	24.00	10.00				BA		
3330	4771									
3331	4772	36.00	20.00	11.00				BA	split flake	
3332	4773									
3333	4774	36.00	21.00	10.00				BA		
3334	4780									
3335	4781									
3336	4782	25.00	12.00	9.00				BA		
3337	4784									
3338	4785	27.00	15.00	8.00				BA	distal end snapped flake	
3339	4786	45.00	38.00	18.00				BA	snapped	
3340	4787	28.00	14.00	4.50	28.00	12.00	2.00	BA		
3341	4789	21.00	14.00	9.00				BA	fragment with cortex	
3342	4790								frag with retouch	
3343	4791	45.00	30.00	17.00	41.00	25.00	9.00	BA		
3344	4792	28.00	27.00	12.00				BA	with cortex	
3345	4793	54.00	36.00	18.00				CT	distal end snapped flake	
3346	4794	20.00	17.00	6.00				IG	distal end snapped flake	
3347	4795	21.00	13.00	9.00	15.00	14.00	5.00	CT		
3348	4796	27.00	13.00	7.00				BA		
3349	4797	32.00	23.00	14.00				BA		
3350	4798	31.00	20.00	15.00	20.00	23.00	9.00	BA		
3351	4799	31.00	27.00	5.00				BA		
3352	4800	25.00	11.00	6.00				BA	split	

3353	4801								
3354	4802	27.50	22.00	10.00				BA	
3355	4803	18.00	10.00	3.00				BA	split
3356	4805	26.50	20.00	5.00				BA	split
3357	4806	39.00	18.00	11.50				BA	
3358	4807	15.00	7.00	5.00				BA	
3359	4808	33.00	23.00	8.00				BA	split
3360	4809	34.00	12.00	7.00				BA	split
3361	4810	31.00	22.00	7.00	25.00	20.00	6.00	BA	
3362	4811	13.00	10.00	5.00				BA	
3363	4812	43.00	30.00	8.00	28.00	31.00	5.00	BA	
3364	4813								
3365	4815	18.00	9.00	4.00				BA	snapped
3366	4816	29.00	17.00	4.00	17.00	26.00	4.00	BA	
3367	4817	50.00	33.00	12.00	43.00	29.00	11.00	BA	
3368	4818								
3369	4819	43.00	27.00	13.00	25.00	40.00	10.00	BA	
3370	4820	22.00	17.00	7.50				BA	split
3371	4821								fragment with retouch
3372	4822	14.00	13.00	5.00				BA	with cortex
3373	4823	23.00	13.00	5.00				BA	split
3374	4826	29.00	28.00	9.00	27.00	25.00	5.00	BA	
									measurements estimated, piece broken and glued
3375	4827	62.00	54.00	17.00	50.00	38.00	16.00	BA	
3376	4828	1.00	8.00	4.00				BA	
3377	4830								
3378	4831	22.00	10.00	9.00				BA	

3379	4832	28.00	19.00	7.00				BA	with cortex	
3380	4833	12.50	7.00	4.00				BA	split	
3381	4834	17.00	15.00	4.00				BA		
3382	4836	35.00	23.00	8.00				BA	frag with cortex	
3383	4837	41.00	35.00	9.00	39.00	35.00	6.00	BA	cortex on platform	
3384	4838	25.00	17.50	6.00	24.00	17.00	4.00	BA		
3385	4839	15.00	14.00	4.00				BA	with cortex	
3386	4841	23.00	15.00	5.00				BA		
3387	4842	17.00	4.00	5.00				BA		
3388	4843	12.00	11.00	2.50	11.00	8.00	1.00	BA		
3389	4844	18.00	12.00	5.00				BA		
3390	4846	38.00	25.00	7.00				BA	split	
3391	4847	18.00	18.00	9.00				CT	distal end snapped flake	
3392	4848	28.00	16.00	5.00				BA	snapped	
3393	4849	32.00	18.00	9.00	18.00	25.00	6.00	BA		
3394	4850									
3395	4851	34.00	25.00	9.00	31.00	24.00	7.00	BA		
3396	4852									
3397	4853	19.00	15.00	4.00				BA	split	
3398	4854	24.00	13.00	7.00				BA	split flake	
3399	4855								fragment with retouch	
3400	4856	38.00	21.00	7.00	29.00	19.00	6.00	BA		
3401	4857									
3402	4859	15.00	9.00	3.00				BA	discolored, potlid?	1
3403	4860	30.00	26.00	9.00	23.00	19.00	9.00	BA	with cortex	
3404	4861	28.00	19.00	11.00				BA		

3405	4863	43.00	32.00	8.00				BA	split flake	
3406	4864	20.00	11.00	4.00				BA		
3407	4866	24.00	11.00	3.00				BA		
3408	4867	48.00	33.00	9.00				BA	split	
3409	4869	44.00	24.00	12.00				BA	split	
3410	4870	24.00	15.00	5.00				BA	split, with cortex	
3411	4871	26.00	23.00	4.00	11.00	21.00	4.00	BA		
3412	4872	35.00	24.00	13.00	23.00	30.00	6.00	BA		
3413	4873	21.00	17.00	9.00				BA	split andsnapped	
3414	4875									
3415	4876	25.00	13.00	4.00				BA		
3416	4877	29.00	17.00	7.00				BA	split	
3417	4878	34.00	20.00	5.00	33.00	20.00	4.00	BA		
3418	4879									
3419	4880									
3420	4884									
3421	4885	31.00	23.00	11.00				BA	split cortex on platform	
3422	4885	45.00	40.00	12.00	35.00	38.00	12.00	BA	step termination	
3423	4886	33.00	25.00	7.00				BA		
3424	4887	42.00	28.00	14.00				BA	with cortex	
3425	4888	42.00	14.00	9.00				BA	with cortex	
3426	4889	22.00	14.00	4.00	18.00	11.00	3.00	BA		
3427	4890	22.00	12.00	2.00				BA	snapped	
3428	4891	23.00	20.00	9.00				BA	with cortex	
3429	4892	28.00	22.00	10.00				BA	with cortex	
3430	4893	23.00	17.00	6.00				BA		
3431	4898	40.00	26.00	14.00				BA	with cortex	

3432	4899	30.00	14.00	7.50				BA		
3433	4900	25.00	13.00	4.00				BA		
3434	4901	38.00	33.00	12.00				BA	snapped	
3435	4902	28.00	22.00	10.00				BA	snapped, with cortex	
3436	4905	45.00	25.00	12.00	24.00	38.00	8.00	BA		
3437	4907	38.00	23.00	4.00	23.00	35.00	4.00	BA		
3438	4908	23.00	16.00	5.00				BA		
3439	4909	23.00	23.00	6.00				CH	split flake	
3440	4910	20.00	15.00	17.00				BA	distal end snapped flake	
3441	4911	12.00	10.00	4.00	11.00	7.00	1.00	IG		
3442	4912	27.00	16.00	4.00				BA	snapped	
3443	4913	18.00	11.00	4.00	11.50	10.00	2.50	BA	hinge term	
3444	4914	30.00	15.00	15.00				BA	core frag, with cortex	
3445	4915	20.00	13.00	6.00				BA	distal end snapped flake	
3446	4916	20.00	14.00	5.00				BA	split	
3447	4917	30.00	23.00	5.00	22.00	22.00	5.00	BA	hinge term	
3448	4918	10.00	9.00	4.00	10.00	6.00	3.00	BA		
3449	4919	25.00	21.00	5.00	19.00	25.00	4.00	BA		
3450	4920	32.00	30.00	7.00	29.00	28.00	7.00	BA	cortical flake	
3451	4921	18.00	13.00	6.00	17.00	12.00	2.00	BA		
3452	4922	20.00	11.00	11.00				BA		
3453	4923	19.00	14.00	8.00				BA	split	
3454	4924	22.00	14.00	4.00	21.00	11.00	3.00	BA		
3455	4925	27.00	17.00	7.00	17.00	27.00	4.00	BA		
3456	4926	18.50	10.00	4.00				CH		
3457	4927	23.00	15.00	8.00				BA		

3458	4928	26.00	23.00	5.50	24.00	11.00	4.00	BA		
3459	4929	54.00	39.00	11.00	40.00	32.00	10.00	BA	cortical flake	
3460	4930	23.00	11.00	5.00				BA	split	
3461	4931	18.00	11.50	4.00				BA		
3462	4932	28.00	22.00	8.00				BA		
3463	4933	28.00	12.00	5.00				BA	split flake	
3464	4934	22.50	8.00	7.00				BA		
3465	4935	16.00	12.00	7.00				BA		
3466	4936	20.00	18.00	10.00				BA		
3467	4937									
3468	4938	29.00	22.00	17.00				BA	cobble fragment	
3469	4939								split	
3470	4940	12.00	11.00	2.00				BA		
3471	4941	20.00	10.00	6.00				BA		
3472	4944	48.00	29.00	15.00	32.00	24.00	12.50	BA	hinge termination	
3473	4945	38.00	29.00	12.00				BA	split	
3474	4946	35.00	29.00	6.00	28.00	24.00	5.00	BA		
3475	4948	18.50	17.00	11.00				BA		
3476	4949									
3477	4952	39.00	34.00	17.00				BA	cobble frag, with cortex	
3478	4953	38.00	26.00	8.00				BA	split	
3479	4954	32.00	25.00	20.00				BA		
3480	4955	10.00	8.00	4.00				BA		
3481	4956	20.00	11.00	4.50	19.00	11.00	4.00	BA		
3482	4957	37.00	31.00	17.00				BA	split and snapped	
3483	4958	36.00	23.00	5.00				BA	split	
3484	4959	27.00	22.50	6.00	26.00	22.00	4.50	BA		

3485	4960	24.00	22.00	6.00				BA	split with cortex	
3486	4961	55.00	46.00	14.00				BA	split with cortex	
3487	4962	30.00	14.00	6.00				BA	snapped	
3488	4965	49.00	40.00	14.00	46.00	36.00	13.00	BA	cortical flake	
3489	4966	17.00	16.00	4.00				BA		
3490	4967	22.00	15.00	3.50				BA		
3491	4968	20.00	9.00	6.00				BA		
3492	4969	39.00	30.00	11.00	36.00	29.00	7.00	BA		
3493	4970	37.00	22.00	15.00				BA	cobble frag, with cortex	
3494	4971	17.00	12.50	3.00				IG	distal end snapped flake	
3495	4972	17.00	7.00	3.00				BA		
3496	4974									
3497	4975	26.00	11.00	9.00				BA		
3498	4976	28.00	20.00	4.00	18.00	16.00	2.50	BA		
3499	4977	30.00	17.00	5.00				BA	with cortex	
3500	4978	26.00	22.00	3.50				BA		
3501	4979	25.00	19.00	9.00				BA	split	
3502	4980	45.00	28.00	12.00				BA	snapped flake	
3503	4984	14.00	8.00	1.00				BA		
3504	4985	17.00	11.00	6.00				BA		
3505	4988	22.00	15.00	6.00				BA		
3506	4989									
3507	4990	15.00	8.00	3.00				BA		
3508	4991	14.00	8.00	4.00				BA		
3509	4992									
3510	4993	37	36	9				BA	split	

3511	4994	36	25	10	35	21	7	BA		
3512	4995	21.00	15.00	12.00				BA		
3513	4996	27.00	28.00	16.00				BA		
3514	4997	33	17	11				BA	split	
3515	4998	40	24	12				BA		
3516	4999	48	32	13				BA	split flake	
3517	5002	37.00	13.00	10.00				BA	with cortex	
3518	5003	51.00	20.00	12.00				BA	split	
3519	5004	59	49	18				BA		
3520	5005	55	26	12				BA	snapped, cortex on platform	
3521	5006	47	39	13	44	25	13	BA		
3522	5007	55	48	12				BA	split	
3523	5010	34	24	7	24	33	7	BA		
3524	5011	25.00	14.00	8.00				BA		
3525	5012	45	30	5				BA	snapped flake	
3526	5013	24.00	17.00	9.00				BA		
3527	5014	7.00	6.00	3.00				BA		
3528	5015	32	18	7				BA	split	
3529	5016	40	25	15	36	25	13	BA	hinge termination	
3530	5018	22	20	6				BA	split flake	
3531	5020	31.00	28.00	12.00				BA	with cortex	
3532	5021	38	20	7				BA	split flake, with cortex	
3533	5022	22.50	18.00	5.00				BA	snapped	
3534	5047	25.00	22.00	10.00				BA	with cortex	
3535	5048	32	22	8	20	28	5	BA		
3536	5050	36.00	19.00	7.50	30.00	19.00	5.00	BA	cortex on platform	

3537	5052	37.00	22.00	14.00				BA	with cortex		
3538	5053	17.00	10.00	9.50				BA	with cortex		
3539	5054	22.00	18.00	5.00				BA			
3540	5055	32	22	8	23	26	6	BA			
3541	5056	23.00	15.00	7.00				BA			
3542	5057	23	12	8				BA	snapped flake		
3543	5058	20.00	16.00	6.00				BA			
3544	5059	28.00	12.00	6.00				BA	split		
3545	5060	23	16.5	6.5				BA	labeled as flake, no features id'd		
3546	5060	16.00	10.00	3.00				BA	with cortex		
3547	5061	14.00	9.00	4.00				BA			
3548	5062	13.00	10.00	2.50				BA			
3549	5063	41.00	20.00	10.00	41.00	15.00	7.00	BA	cortex on platform		
3550	5066	24.00	14.00	14.00				BA	with cortex		
3551	5067	42	25	11	23	25	11	BA			
3552	5069	19.00	15.00	4.00				BA	split and snapped		
3553	5071	35.00	21.00	7.00				BA	split		
3554	5072	35	25	8	25	25	8	BA			
3555	5073	24.00	14.00	6.00				BA	split		
3556	5074	24.00	12.00	7.00	21.00	11.00	5.00	BA			
3557	5075	21.00	16.00	6.00				BA	split		
3558	5076	16.00	11.00	2.50				BA	split		
3559	5077	18.50	17.50	7.50				BA	with cortex		
3560	5078	38.00	19.00	6.50				BA			
3561	5079	20.00	16.00	7.00				BA	distal end snapped flake		
3562	5081	19.00	13.00	3.00				BA			

3563	5082	24.00	15.00	5.00				BA		
3564	5083	27.00	19.00	8.00				BA		
3565	5084	31	15	7	26	14	7	BA		
3566	5085	22	15	8				BA	split flake	
3567	5086	20.00	15.00	7.00				BA		
3568	5087	50	45	8				BA	split cortex on platform	
3569	5088	24	16	4				BA	split flake	
3570	5089	25.00	23.00	16.00				BA		
3571	5090	17.00	14.00	3.50	12.00	12.00	3.00	BA		
3572	5091	38.00	36.00	9.00	36.00	34.00	9.00	BA	cortical flake	
3573	5092	16.50	15.00	3.00				BA		
3574	5094	24.50	20.00	8.50				BA	snapped	
3575	5095	47	35	20				CT	core frag, with cortex	
3576	5096	27	17	7				BA	split with cortex	
3577	5097	30	21	7	26	21	7	BA		
3578	5099	25	16	9				BA		
3579	5100	22.00	15.00	4.50				BA		
3580	5101	50	36	15				BA		
3581	5102	40	22	6				BA	split	
3582	5103	31	15	9	28	8	14	BA		
3583	5104	40	30	9				BA	split flake	
3584	5105	28	19	10	17	22	5	BA		
3585	5106	39	28	13	26	35	8	BA		
3586	5107	22.00	19.00	10.00				BA	with cortex	
3587	5108	38	36	11	31	31	9	BA		
3588	5109	41	27	6				BA	Snapped	
3589	5110	18.00	16.00	4.00				BA	split	

3590	5112	23	21	5				BA	potlid? With cortex	1
3591	5113	28	25	13				BA		
3592	5114	18.00	13.00	5.00				BA	split	
3593	5115	20.00	13.00	6.00				BA	split	
3594	5117	25	17	8	22	14	5	BA	hinge termination	
3595	5118	23	23	10				BA		
3596	5119	27	22.5	6				BA	split and snapped	
3597	5120	34.00	24.00	6.00				BA	split	
3598	5121	21.00	13.00	5.00				BA	split	
3599	5122	15.00	10.00	3.00				BA		
3600	5126	14	11	3	12	10	2	BA		
3601	5128	44.00	32.00	12.00				BA	split	
3602	5129	37	22	10				BA	split with cortex	
3603	5130	31.00	21.00	16.00				BA		
3604	5131	23.00	15.00	17.00				BA	with cortex	
3605	5132	28.00	20.00	7.00				BA	with cortex	
3606	5133	28.00	23.00	7.00				BA	split	
3607	5134	40.00	34.00	13.00				BA	split, with cortex	
3608	5135	35.00	24.00	7.00				BA	with cortex	
3609	5136	63	40	13				BA	split cortex on platform	
3610	5137	34.00	28.00	7.00				BA	split andsnapped	
3611	5138	43	36	9	31	30	8	BA		
3612	5139	31	31	15				BA		
3613	5140	33	14	10				BA	split	
3614	5141	24.00	16.00	4.00				BA		
3615	5142	22.00	20.00	2.00				BA		
3616	5143	34	22	8	31	24	6	BA	with cortex	

3617	5144	30	20	12				BA	core fragment	
3618	5145	25	22	8	18	16	4	BA		
3619	5146	23	15	4	19	17	3	BA		
3620	5148	22.00	17.00	5.00				BA		
3621	5149	29.00	22.00	7.00				BA	with cortex	
3622	5150	31	19	9	21	19	5	BA		
3623	5151	18.50	15.00	7.00				BA		
3624	5152	20.00	15.00	4.00				BA		
3625	5153	27.50	15.00	9.00				CT		
3626	5154	45	25	8	44	25	6	BA		
3627	5155	40	25	20				BA	poss potlidded, with cortex	1
3628	5156	17.00	12.00	4.00				BA	with cortex	
3629	5157	25.00	19.00	4.00				BA	split and snapped	
3630	5160	3	23	23				BA	with cortex	
3631	5161	22	15	5				BA	snapped	
3632	5163	24	16	10				BA	split	
3633	5165	25	20	4	21	21	3.5	BA		
3634	5166	23	14	8	18	14	6	BA		
3635	5167	17.00	14.00	7.00				BA		
3636	5174	58	35	7	48	33	7	BA		
3637	5175	22.00	13.00	12.00				BA	with cortex	
3638	5176	28.00	14.00	10.00				BA	with cortex	
3639	5177	42	23	10	40	18.5	6	BA		
3640	5178	44	43	20	39	32	14	BA		
3641	5179	25	17	5				BA	snapped, with cortex	
3642	5182	22.00	18.00	8.50				BA		
3643	5183	30.00	12.00	4.00				BA	split	

3644	5184	24.5	16	4	14	24	3	BA		
3645	5185	23	20	9	19	22	5	BA		
3646	5186	21.00	17.00	7.00	18.00	14.00	4.00	BA		
3647	5187	30	19	5	22	21	4	BA		
3648	5188	18	11.5	5	10	14	4	BA	shatter/debitage	
3649	5189	41	23	8				BA	split	
3650	5192	22.00	10.00	6.00				BA		
3651	5193	22	18	4	15	18	4	BA	cortical flake	
3652	5194	15.00	12.00	1.50				BA		
3653	5194	55	36	11	38	50	8	BA		
3654	5196	48	28	18				BA	split cortex on platform	
3655	5197	19.00	15.00	7.00				BA		
3656	5198	28.00	15.00	7.00				BA	with cortex	
3657	5199	23	11	4	23	10	3	BA		
3658	5200	25.00	16.00	9.00				BA		
3659	5201	19.00	17.00	5.00				BA	with cortex	
3660	5202	19	16	4				BA	snapped	
3661	5203	28	20	7				BA		
3662	5204	39	32	11	33	26	7	BA	cortex on platform	
3663	5205	30	13	8	21	13.5	5	BA		
3664	5206	25	20	7				BA	marked flake, no id'd features	
3665	5207	30	20	6	20	16	4	BA		
3666	5208	28.00	19.00	10.00				BA		
3667	5209	31	27	9	24	17	6	BA		
3668	5210	35	26	10				BA	snapped flake	
3669	5211	38	28	8				BA	split	

3670	5212	26.50	22.00	8.00				BA		
3671	5213	34	31	15				BA		
3672	5214	17	15	4	15	14.5	3	BA		
3673	5216	38	25	9				BA	snapped flake	
3674	5216	28	29	9	25	23.5	8	BA		
3675	5217	28.00	19.00	6.00				BA	distal end snapped flake	
3676	5218	38	27	9	36.5	26.5	7	BA	cortex on platform	
3677	5219	26	14	8				BA	split	
3678	5220	63.00	41.00	17.00				BA	split	
3679	5221	14.00	10.00	4.00				BA	split	
3680	5222	22	17	10				BA	poss potlid	1
3681	5224	26.5	16	4	16	19	3	BA		
3682	5225	16.00	9.00	5.00				BA		
3683	5226	46	29	11				BA	split with cortex	
3684	5228	20	11	6	20	9.5	5.5	BA		
3685	5229	20	9	3				BA	split and snapped	
3686	5231	16.00	10.00	4.00				BA		
3687	5234	43.00	26.00	10.00				BA	with cortex	
3688	5235	33.00	22.00	9.00				BA		
3689	5237	45	29	11				BA	with cortex	
3690	5238	21.00	12.00	12.00				BA	with cortex	
3691	5241	25	18	8				BA	poss potlid, with cortex	1
3692	5242	32	18	8	19	33	5	BA	cortical flake	
3693	5243	24.00	18.00	6.00				BA	split	
3694	5244	28.00	17.00	12.00				IG		
3695	5245	45	33	14	38	33	14	BA	cortical flake	

3696	5246	30	27.5	7	24	30	4	BA		
3697	5247	17.00	11.00	6.00				BA	split and snapped	
3698	5248	26.00	14.00	6.00				BA		
3699	5249	32.00	20.00	8.00				BA	split and snapped, with cortex	
3700	5250	32.00	26.00	6.00				BA	split, with cortex	
3701	5251	27.00	19.00	11.00				BA		
3702	5254	23.00	23.00	11.00				BA	with cortex	
3703	5255	40.00	32.00	13.00				BA	split	
3704	5256	25	20	4				BA	snapped, with cortex	
3705	5257	21	11	4				BA	split	
3706	5258	31.00	21.00	6.00				BA	with cortex	
3707	5259	22.00	18.00	6.00				IG		
3708	5260	34.00	26.00	13.00	27.00	23.00	6.50	CT	step term	
3709	5262	53	37	30				BA	with cortex	
3710	5263	51.00	35.00	18.00	33.00	32.00	11.00	BA	with cortex	
3711	5264	38	34.5	14	34	29	11	BA		
3712	5267	38.00	18.00	12.00				BA	with cortex	
3713	5268	37.00	26.00	11.00				BA	distal end snapped flake	
3714	5269	15.00	13.00	4.00				BA	split	
3715	5270	18.00	17.00	9.00				BA		
3716	5272	25	20	6	17	20	5	BA	cortical flake	
3717	5273	27	21	1				BA		
3718	5274	14	13	5	13	14	3	BA		
3719	5275	33.00	25.00	10.00				BA	split	
3720	5276	29	25	9	20	26	7	BA		
3721	5279	34	30	7	32	34	5	BA		

3722	5280	34.00	33.00	4.00				BA		
3723	5281	18.00	17.00	3.50				CT		
3724	5282	27.00	21.00	9.00				CT		
3725	5283	25	17	9	20	24	4	CT		
3726	5285	17.00	9.00	4.00				BA	with cortex	
3727	5293	25.00	16.00	5.00	22.00	16.00	4.00	BA		
3728	5294	39.00	37.00	9.00	28.00	34.00	5.00	BA		
3729	5295	21.00	20.00	6.00				BA		
3730	5297	23.5	22	8				BA	with cortex	
3731	5298	22.00	12.00	6.00				BA		
3732	5298	21.50	20.00	2.00				BA		
3733	5299	31.00	22.00	8.00				BA	split, with cortex	
3734	5300	35.00	29.00	8.00				BA	with cortex	
3735	5301	24.00	22.00	6.00				BA		
3736	5302	12.00	5.00					BA		
3737	5303	22.00	16.50	6.00				BA	with cortex	
3738	5304	18.00	13.00	5.00				BA	split flake	
3739	5305	38	16	9				BA	split flake	
3740	5306	44	26	9				BA	snapped flake	
3741	5307	29.00	20.00	5.00				BA	split and snapped	
3742	5308	23	15	7				BA	with cortex	
3743	5309	17	15	6	13	14	3	BA		
3744	5311	17.00	14.00	7.00				BA	split flake	
3745	5312	33	15	7				BA	split	
3746	5316	26.00	17.00	4.00				BA	split	
3747	5317	27	20	8	23	19	7	BA		
3748	5319	30.00	22.00	10.00				BA	distal end snapped flake	

3749	5320	18.00	13.00	9.00				BA	with cortex		
3750	5321	57	45	17.5	39	53	17	BA	with cortex		
3751	5322	30.00	11.00	10.00				BA			
3752	5323	17.00	8.00	8.00				BA	with cortex		
3753	5324	24	20	7				BA	marked flake, no id'd features		
3754	5325	33	23	16				BA	with cortex		
3755	5326	24.00	16.00	8.00				BA			
3756	5327	21.00	18.00	3.00	15.00	16.00	2.00	BA	with cortex		
3757	5328	24.00	17.00	10.00				BA			
3758	5329	28.00	24.00	8.00	16.00	24.00	5.00	BA			
3759	5330	56	22	15				BA	poss potlid, with cortex	1	
3760	5331	18.00	18.00	7.00				BA			
3761	5332	33.5	21	7				BA	poss potlid, with cortex	1	
3762	5333	12.00	8.00	2.00				BA			
3763	5334	15.00	10.00	3.50				BA			
3764	5335	35	31	11	36	24	9	BA			
3765	5336	31	23	6	27	24	5	BA			
3766	5337	22.00	13.00	4.00				BA			
3767	5338	47	29	10	24	31	6	BA			
3768	5339	13.00	11.00	4.00				BA	split		
3769	5340	25	18	5				BA	split cortex on platform		
3770	5341	18.00	10.00	10.00				IG			
3771	5342	17.00	9.00	6.00				BA			
3772	5343	25.00	20.00	5.00				BA	with cortex		

3773	5349	28	23	7	20	24	4	BA		
3774	5350	24	14	7				BA	split flake	
3775	5351	28	18	3				BA	snapped	
3776	5352	22.00	20.00	7.00				BA	with cortex	
3777	5353	52.00	15.00	9.00				BA		
3778	5354	15.00	10.00	3.00				BA	distal end snapped flake	
3779	5355	23.00	17.00	7.00				BA		
3780	5356	10.00	6.00	4.00				BA		
3781	5357	28.00	22.00	12.00				IG		
3782	5358	25	20	5				BA	snapped	
3783	5359	31	21	4				BA	snapped	
3784	5360	32.00	13.00	8.00				BA		
3785	5361	21.50	12.00	7.00				BA		
3786	5362	23	17	16				BA	with cortex	
3787	5363	22	14	7				BA	poss potlid, with cortex	1
3788	5364	49	43	12	41	38	11	BA		
3789	5365	16.00	11.00	2.00	12.00	10.00	1.00	BA		
3790	5366	16.00	13.00	5.00				BA		
3791	5367	18.00	8.00	2.00				BA		
3792	5368	31	20	8				BA	snapped	
3793	5369	19.00	13.00	3.00				BA		
3794	5370	38	14	9	36	14	9	BA		
3795	5371	17	13	4	11	16	3	BA	hinge termination	
3796	5372	45	31	11				BA	split	
3797	5373	25.00	22.00	4.00				BA	snapped	
3798	5374	25	12	5	16	14	3.5	BA		

3799	5375	21.00	17.00	7.00				BA		
3800	5389	33.00	20.00	7.00				BA	split	
3801	5390	25	20	9	25	17	9	BA		
3802	5391	22	18	3	18	16	2.5	BA		
3803	5392	30.00	20.00	4.00				BA		
3804	5393	22.00	10.00	5.00				BA		
3805	5394	40	35	13	36	33	7.5	BA		
3806	5395	18.00	12.00	4.00				BA	snapped	
3807	5396	31.00	20.00	11.00				BA		
3808	5397	18	14	3	16	13	2	BA	shatter/debitage	
3809	5398	31.00	16.00	4.50				BA	split	
3810	5399	34	27	9				BA	snapped	
3811	5400	33	18	7	32	17	4	BA	hinge termination	
3812	5401	20	15	4				BA	split	
3813	5402	18.00	15.00	2.00				BA	distal end snapped flake	
3814	5403	25.00	19.00	12.00				BA	split, cortex on platform	
3815	5404	22.00	15.00	6.00				IG	split; fits with 5405	
3816	5405	19.00	13.00	9.00				IG	split; fits with 5404	
3817	5406	17.00	13.00	6.00				BA	split	
3818	5408	32.00	23.00	8.00				BA		
3819	5417	26	18	6	25	15	2	BA	measurements estimated, piece broken and glued	
3820	5418	20.00	13.00	4.00				BA	with cortex	
3821	5419	22.00	9.00	3.00				BA		
3822	5420	27.00	21.00	7.00	25.00	18.00	4.00	BA		

3823	5421	28	23	12.5				BA	distal end snapped flak	
3824	5422	20.00	12.00	1.50				BA		
3825	5423	16.00	15.00	6.00				BA	snapped	
3826	5424	17	15	4				BA		
3827	5424	28	25	5	25	27	3	BA	cortical flake	
3828	5425	30	23	11	21	19	8	BA	hinge termination	
3829	5426	15.00	14.00	4.00				BA		
3830	5427	35.00	16.00	7.00				BA		
3831	5428	23	19	6	18	22	4	BA	cortical flake	
3832	5429	21.00	17.00	7.00				BA	split	
3833	5430	20.00	12.00	4.00				BA	split	
3834	5431	27.00	5.00	9.00				BA		
3835	5432	23	20	7	19	13	1	BA		
3836	5433	19.00	16.00	6.00				BA		
3837	5434	20.00	13.00	8.00				BA		
3838	5435	22.00	15.00	4.00				BA	split hinge term	
3839	5436	18	14	6				BA	poss potlid, with cortex	1
3840	5437	17	13	4	17	11.5	2	BA		
3841	5439	23.00	12.00	6.00				BA		
3842	5440	31	11.5	8				BA	with cortex	
3843	5441	24	13	3	13	20	2	BA		
3844	5442	18	11	2	10	16	1	BA	shatter/debitage	
3845	5443	18.00	12.00	2.00				BA		
3846	5444	23.00	12.00	7.00				BA	snapped	
3847	5445	21.00	12.00	4.00				BA	distal end snapped flake	

3848	5446	38	14	7	14	38	6	BA	in two pieces	
3849	5447	25	20	7	22	20	4	BA		
3850	5448	23	20	7	17	17	4	BA		
3851	5449	19.00	11.00	4.00				BA		
3852	5450	20.00	10.00	4.00				BA		
3853	5452	25	15	4	17	17	2.5	BA		
3854	5452	19.00	17.00	3.00				BA		
3855	5453	35	23	6	32	21	3	BA	step termination	
3856	5454	50.00	33.00	16.00				BA	split	
3857	5455	26.00	15.00	6.00	17.00	15.00	5.00	BA		
3858	5456	15.50	14.00	2.00				BA		
3859	5457	22	17	7	17	17	6	BA		
3860	5458	37	20	10				BA	split with cortex	
3861	5458	22.00	14.00	6.00				BA		
3862	5459	41	39	18				BA		
3863	5460	24	22	7				BA	snapped	
3864	5461	27.00	12.00	5.00				BA		
3865	5462	31.00	22.00	9.00				BA		
3866	5463	21.00	20.00	9.00				BA		
3867	5464	16.00	12.00	5.00				BA	split	
3868	5467	14.00	10.00	5.00				BA		
3869	5469	21	13	5	13	20	4	BA		
3870	5470	17.00	16.00	3.00				BA	split	
3871	5471	18	10	2	16	11	2	BA	cortical flake	
3872	5472	13.00	12.00	7.00				BA		
3873	5473	21	14	2.5	13	16.5	1	BA		
3874	5474	30.00	23.00	6.00				BA		
3875	5475	19.00	18.00	8.00				BA		

3876	5476	29	23	3	24	24	3	BA		
3877	5478	33	15	9				BA	split	
3878	5479	22.50	16.00	5.00				BA		
3879	5480	23	17	8				BA	snapped	
3880	5481	26.00	20.00	8.00				BA		
3881	5482	24	1	7				BA	snapped	
3882	5483	30	18	6	22.5	14	3	BA		
3883	5484	17.00	11.00	5.00				BA		
3884	5485	19.00	12.00	3.00				BA		
3885	5494	22.00	14.00	8.00				BA		
3886	5496	17.00	11.00	10.00				BA		
3887	5497	25.00	17.00	4.00				BA	split	
3888	5498	19.00	14.00	3.00				BA		
3889	5499	24.00	19.00	5.00				BA		
3890	5762	20	17	4	16	17	2	CT		
3891	5900	27	14	10				BA	split; hinge term	
3892	5901	26	18	8				BA	split	
3893	5902	16	9	5	11	9	2	BA		
3894	5903	15	12	5				BA	split	
3895	5904	23	17	7				BA	split	
3896	5905	16	13	4				BA		
3897	5906	23	16	9				BA		
3898	5907	24	11	6				BA		
3899	5908	24	14	6				IG	marked flake, no id'd features	
3900	5910	40	25	12.5				BA	split with cortex	
3901	5912	26	20	5				BA	split and snapped, with cortex	

3902	5913	17	13	4				BA		
3903	5914	29	16	6				CT		
3904	5916	28	18	12				BA	labeled as flake, no featured	
3905	5917	22	16	5	21	15	4	BA	with cortex	
3906	5919	24	20	12				BA		
3907	5920	22	16	9				BA	split	
3908	5921	22	13	3				BA	split	
3909	5922	23	17	7				BA	with cortex	
3910	5923	22	10	6				BA		
3911	5925	25	19	7				BA	split	
3912	5926	27	16	5				BA	split and snapped	
3913	5927	18	12	8				BA		
3914	5928	27	19	13				BA	with cortex	
3915	5931	26	15	6				BA		
3916	5932	27	25	10	27	25	7	BA	cortical flake	
3917	5933	22	18	7				BA		
3918	5934	26	22	10				BA	with cortex	
3919	5938	36	24	8				BA		
3920	5939	25	21	14				BA	poss potlid with cortex	
3921	5941	25	20	7				BA	split	
3922	5943	23.5	16	10				BA		
3923	5944	31	25	6				BA		
3924	5945	35	22	15				BA		
3925	5947	47	38	17				BA	split	
3926	5948	24	13	4				BA		
3927	5950	24	10	5				BA	split	

3928	5951	26	16	6				BA	split	
3929	5952	18	12	5				BA	snapped	
3930	5953	29	18	8				BA	snapped	
3931	5953	16	16	4				BA	split and snapped	
3932	5955	34	23	10				BA	with cortex	
3933	5956	25	12	4.5				BA	split, cortex on platform	
3934	5957	12	14	2				BA		
3935	5958	27.5	17.5	5				BA	snapped flake	
3936	5959	20	14	6	17	13	3	BA		
3937	5961	27	20	10	19	26	7	BA		
3938	5962	22	12	8				BA		
3939	5963	28	28	15				BA	with cortex	
3940	5964	17	16	6				BA		
3941	5965	46	20	13	45	19	9	BA		
3942	5967	25	16	4				BA		
3943	5968	22	9	6				BA		
3944	5969	16	10	2.5	9	9	2	BA		
3945	5970	41	28	9				BA	split	
3946	5971	43	30	7	28	33	5	BA	cortex on platform	
3947	5973	52	40	14	42	40	8	BA	with cortex	
3948	5974	19	10	5				BA	split	
3949	5975	50	38	14	37	40	14	BA	with cortex	
3950	5976	25	17	7				BA		
3951	5977	22	20	7				BA	split	
3952	5978	27	24	11				BA		
3953	5979	42	35	12				BA	snapped	
3954	5980	34	19	10				BA	split and snapped	

3955	5981	22	9	6				BA	with cortex	
3956	5982	25	16	7	20	15	4	BA		
3957	5983	26	25	11				BA	cortex present; distal end snapped flake	
3958	5984	26	19	6	17	18	6	BA		
3959	5985	24	16	8				BA	split	
3960	5986	31	24	6	20	25	4	BA		
3961	5987	30	18	7				BA	split and snapped	
3962	5988	29	25	10				BA		
3963	5989	12	12	2.5				BA	with cortex	
3964	5990	24	18	5	19	21	3	BA		
3965	5991	22	16	7				BA		
3966	5992	20	18	3.5				BA		
3967	5993	18.5	14	3				BA		
3968	5994	18	16	4				BA	with cortex	
3969	5995	21	13.5	4	17.5	13	2	BA		
3970	5997	28	22	10				BA	split, with cortex	
3971	5998	23.5	17	4	20	16	2	BA		
3972	5999	26.5	18	4				BA		
3973	6000	28	14	6	27	14	5	BA		
3974	6001	24	23.5	4	21	19	3	BA		
3975	6002	18	15	3				BA		
3976	6003	23	14	6	21	12	4	BA		
3977	6004	25	14	9				BA	distal end snapped flake	
3978	6005	31	25	6	26	25	5	BA		
3979	6006	38	20	11				BA	split and snapped, with cortex	

3980	6007	25	19	8	18	24	8	BA		
3981	6008	22	13	5				BA	split	
3982	6009	18	13	12				BA		
3983	6010	40	28	10	36	25	8	BA		
3984	6011	18	13	5.5	16	11	3	BA		
3985	6012	36	23	7	35	18	4	BA		
3986	6013	17	14	4				BA	snapped	
3987	6014	21	17	3.5				BA	snapped	
3988	6017	36	27	9				BA	distal end snapped flake	
3989	6018	26	21	7				BA	split flake	
3990	6019	43	23	17	18	39	11	BA		
3991	6020	32	15	10				BA	marked flake, no id'd features	
3992	6021	38	30	10	34	26	7	BA		
3993	6022	22	11.5	6				BA		
3994	6024	43	28	15				BA		
3995	6025	26	20	15				BA	with cortex	
3996	6026	33	21	10	22	25	5	BA		
3997	6027	26	16	7	23	15	6	BA	with cortex	
3998	6028	33	28	12				BA	with cortex	
3999	6029	17	12	4	17	12	3	BA		
4000	6032	33	33	11	30	31	10	BA		
4001	6033	25	19	4	23	16	4	BA		
4002	6034	26	17	6				BA	snapped flake	
4003	6036	25	22	5				BA		
4004	6037	14	11	3				BA		
4005	6038	25	19	8	25	20	6	BA	with cortex	

4006	6039	30	17	14				BA		
4007	6041	26	11	4				BA		
4008	6042	22	14	12				BA	with cortex	
4009	6043	21	14	9				BA	distal end snapped flake	
4010	6044	23	19	5				BA		
4011	6045	24	15	6	17	13	4	BA		
4012	6046	13	12	4				BA		
4013	6047	22	14	6	14	17	3.5	BA		
4014	6048	24	15	13				BA		
4015	6049	21	20	6				BA	split flake	
4016	6050	27.5	10	6				BA		
4017	6053	58	47	16.5	53	46	12.5	BA	with cortex	
4018	6055	40	14	17				IG		
4019	6056	24	14	7	12	17	3.5	BA		
4020	6057	23	11.5	7				BA	with cortex	
4021	6058	19	14	5				BA	split, with cortex	
4022	6059	30	26	9	29	26	8	BA		
4023	6060	38	20	7				BA	split flake	
4024	6061	15	12.5	4				IG	split	
4025	6062	28	13	3				BA	split flake	
4026	6063	30	21	7				BA	split flake	
4027	6065	21	19	6				BA		
4028	6066	25	25	12				BA	with cortex	
4029	6067	45	33	14				BA	core frag, with cortex	
4030	6068	21	13	6				BA	with cortex	
4031	6069	24	21	6	22	21	6	BA	with cortex	
4032	6070	38	20	11				BA		

4033	6072	25	21	7				BA	snapped flake		
4034	6073	22	17	4	22	18	3	BA			
4035	6074	34	24	9				BA	cortex present; distal end snapped flake		
4036	6075	31	15	5				BA	distal end snapped flake		
4037	6076	24	17	6	17	21	5	BA			
4038	6077	24.5	18	6.5				BA			
4039	6078	26	12	6				BA	with cortex		
4040	6079	20	17	4.5	17	20	2	BA			
4041	6081	38	25	9				BA			
4042	6082	23.5	20	11				BA			
4043	6083	31	24	5	23	27	4	BA			
4044	6084	46	21	9				BA	snapped, cortex on platform		
4045	6085	24	12	8				BA	split and snapped, with cortex		
4046	6086	36	23	9	17.5	29	5	BA			
4047	6087	31	20	5	23	24	4	BA			
4048	6088	24	22	6				BA	split and snapped		
4049	6089	36	26	10				BA	split flake		
4050	6090	13	11	13				BA	with cortex		
4051	6091	22	20	5				BA	looks like potlid	1	
4052	6092	23	22	6				BA			
4053	6093	36	24	11	33	19	8	BA			
4054	6094	25	20	8				BA	with cortex		
4055	6095	44	36	8				BA	split flake		
4056	6096	30	14	7				BA			

4057	6099	33	24	9	23	29	8	BA		
4058	6141	56	35	19	26	46	16	BA		
4059	6142	36	18	6.5				BA		
4060	6143	28	24	7				BA	split and snapped	
4061	6145	50	36	17	42	31	10	BA		
4062	6146	36	26	17				BA	vesicular fragment	
4063	6147	45	30	15	37	27	9	BA		
4064	6148	51	44	16	43	36	15	BA		
4065	6149	35	27	15				BA	core frag	
4066	6150	44	39	12				BA	snapped, with cortex	
4067	6151	40	19	9	39	17	6	BA		
4068	6152	30	24	6	22	25	5	BA	with cortex	
4069	6153	25	17	11				BA	distal end snapped flake	
4070	6154	34	32	9				BA	split with cortex	
4071	6155	33	24	9	31	23	6	BA	with cortex	
4072	6156	40	25	8	32	23	7	BA		
4073	6157	36	28	5	27	33	4	BA		
4074	6159	25	22	7	18.5	22.5	4	BA		
4075	6160	25	24	6.5	20	21	4	BA		
4076	6162	36	28	19				BA	fragment with cortex	
4077	6163	34	18	8				BA	split	
4078	6164	28	19	8	18.5	22	4	BA	cortex on platform	
4079	6165	25	12	4	24	12	4	CT	step termination; red and black banded chert	1
4080	6166	27	26	7				IG	snapped	
4081	6167	34	27	8				BA	snapped	

4082	6169	32.5	17	9				BA			
4083	6170	25	21	6	22.5	16	4	CT	grey chert		
4084	6173	58	47	13	45	51	12	BA	with cortex		
4085	6174	44	40	19				BA	labeled as flake, no features identified, possibly core frag		
4086	6175	30	19	15				BA	fragment with cortex		
4087	6176	35	12	9				BA			
4088	6177	21	15	7	14	13	6	BA			
4089	6178	29	17	8	23	16.5	8	BA	with cortex		
4090	6179	25	17	7				BA	snapped		
4091	6180	21	12	6	21	10	3	BA			
4092	6181	37	28	12				BA			
4093	6182	77.5	48	23	63	46	12	BA	with cortex		
4094	6184	27	15	9				BA	split and snapped, with cortex		
4095	6185	29	15	8				BA			
4096	6186	38	21	12				BA	split and snapped; with cortex		
4097	6187	36	23	5				BA			
4098	6188	23	13	8				BA			
4099	6189	28	24.5	11.5				BA	snapped		
4100	6190	27	23	6				BA	fragment with cortex		
4101	6191	36	19	9				BA	snapped flake		
4102	6192	31	25	15				BA	poss potlid, fragment with cortex	1	
4103	6193	21.5	17.5	13				QT	with cortex		
4104	6194	32	23	6				BA	fragment with cortex		

4105	6195	25	18	5				BA	split with cortex	
4106	6197	23	13	8				BA		
4107	6199	25	19	9				BA	split	
4108	6202	41	23.5	13				BA		
4109	6203	21	20	6				BA	split	
4110	6204	26	14	9				BA		
4111	6206	52	28	12				BA	snapped, with cortex	
4112	6207	31	24	11.5				BA	split or snapped? No platform identified	
4113	6208	35	26	12				BA	snapped flake	
4114	6209	25	11	6				BA	split, with cortex	
4115	6211	45	35	16				BA	split with cortex	
4116	6212	34	25	9	31	21	6	BA	with cortex	
4117	6215	33	27	8.5	22.5	28	6	BA	with cortex	
4118	6229	55	39	17	45	38	11	BA		
4119	6230	43	31	19				BA	fragment with cortex	
4120	6233	40	38	11				BA	split with cortex	
4121	6234	43	30	9				BA	snapped	
4122	6235	63	55	23				BA	vesicular; split flake	
4123	6630	21	10	3				BA		
1236	10001	36	29	8	28	33	5	IG	cortical flake	
1237	10002	43	34	14	39	34	13.5	IG	cortical flake	
1238	10003	62	40	43				BA	core broken, no flake scars, but jagged edges, iron weathering, possibly broke on weak spots of material	

1239	10007	46	30	21				BA	core fragment	
1240	10009	34	25	6.5	25	26	6	BA	cortical flake	
1241	10013	26.5	17	11				BA	core fragment	
1242	10014	51	21	12				BA	split	
1243	10017	21	14	7				BA	cortical fragment	
1244	10018	21	11	4	11	14	3	BA	cortical flake	
1245	10024	31	23	16				IG	cortical fragment	
1246	10025	29	13	12				CH	cortical fragment	
1247	10026	21	15	14				IG	fits with 10024; cortical fragment	
1248	10027	24	15	14				IG	poss fit with 10024, 10026	
1249	10028	20	18	9				IG	poss fit with 10024, 10026	
1250	10029	15	12	6				IG	poss fit with 10024, 10026	
1251	10031	21	12	5				CT	banded chert	
1252	10032	15	10	4				BA	shatter/debitage	
1253	10033	18.5	10.5	3				BA	shatter/debitage	
1254	10034	28.5	16	8				BA		
1255	10035	31	19	6				BA		
1256	10036	28	20	4	19	23	3.5	BA	maybe step term, maybe snapped	
1257	10037	30	24	8				BA	cortical fragment	
1258	10038	30	20	8				BA	cortical fragment	
1259	10040	26	21	6	18	22.5	4	BA		
1260	10043	27	26	12				BA		

1261	10044	36	25	6				CH	possibly utilized flake. Very rounded	
1262	10046	52	33	10				BA		
1263	10047	47	41	15	42	38	11	BA		
1264	10048	14	13	2	11	12.5	2	BA	debitage	
1265	10049	46	29	8	25	39	7.5	BA		
1266	10050	39	16	6				BA	cortical fragment	
1267	10051	32	20	13				BA		
1268	10052	36	33	10	26	29	7	BA	cortical flake	
1269	10053	26	26	7				BA		
1270	10055	54	44	40				BA	cortical fragment	
1271	10056	47	28.5	8				BA	cortex on platform	
1272	10057	32	31	12.5				IG	poss fit with 10024, 10026	
1273	10058	31	10	7				BA		
1274	10059	36	17	10				BA	cortical fragment	
1275	10060	51	33	30				BA	scraper-like; cortical fragment	
1276	10062	52	44	29				BA	cortical fragment	
1277	10063	49	37	28				QT	very fine-grained. cortical fragment	
1278	10064	31	27	10				BA		
1279	10065	40	38	10				BA	possible worn flake, cortical fragment	
1280	10066	33	28	8				IG	brown ignimbrite	
1281	10067	27	24	7				BA	cortical fragment	
1282	10068	46	43	22				BA		

1283	10069	37	24	14				BA	distal end snapped flake	
1284	10070	33	30	11.5				UK	looks like sedimentary rock, poss ignimbrite, large crystal size	
1285	10071	34	31	10				CH	scraper-like; cortical fragment	
1286	10072	44	28.5	11				BA	cortical fragment	
1287	10073	42.5	37	15				BA	cortical fragment	
1288	10074	63	30	21				BA		
1289	10075	40	29	9.5	38	29	6	BA	cortical flake	
1290	10077	25	11.5	8				BA	cortical fragment	
1291	10078	22	14.5	4	14	18	5	BA	debitage	
1292	10079	19	10	3	7	11	1.5	BA	overshot termination? Debitage	
1293	10080	34	18.5	11				BA		
1294	10081	17	9	5				BA	split flake	
1295	10082	18	17	11				BA	blackened and reddened, weathered?	1
1296	10083	95	53	45				BA		
1297	10084	16	8	7				BA	very black basalt. shatter? Looks like pebble split open	1
1298	10085	24	13	8				BA		
1299	10087	29	13	9				BA		

1300	10088	38	28	10				BA		
1301	10090	36	30	7	30	28	6	BA		
1302	10091	42	33	23				JS	cortical fragment	
1303	10092	34	24	8.5	31	24	8	BA	split?	
1304	10093	27	17	8				BA		
1305	10094	53	33	18				BA		
1306	10095	33	21	11	30	21	4	BA	cortical flake	
1307	10096	42	30	10				BA	cortical fragment	
1308	10097	54	45	31				CT	banded chert	
1309	10098	80	64	61				BA	battered cobble, broken on one end'	
1310	10099	22	13	8	21	12	4.5	BA		
1311	10100	22	19	3				BA	very irregular, poss potlid	
1312	10101	16	12	2	10	11	2	BA	broken, either in trasport or at excavation, fresh break	
1313	10102	16	12	7				BA	shatter/debitage; cortical fragment	
1314	10103	29	18	3				BA		
1315	10104	28	28	8				BA		
1316	10105	28	16	5	16	21	3.5	BA		
1317	10106	32	25	8.5				BA	split flake	
1318	10107	23	21	5	20.5	22	3	BA		
1319	10108	72	71	52				BA		
1320	10109	24	16	8				BA		

1321	10111	22	15	4				BA	very irregular, poss potlid	
1322	10112	27	17	5				BA	proximal end snapped flake	
1323	10113	20	12	4				BA		
1324	10114	55	50	21	51	43	17	BA	cortical flake	
1325	10115	47.5	28	27				BA	cortical fragment	
1326	10116	70	53	39				BA	very irregular, poss potlid	1
1327	10117	19	11.5	3				BA	shatter/debitage	
1328	10118	24	16	6				BA		
1329	10119	28	14	4				BA		
1330	10120	13	9	3.5				BA	shatter	
1331	10123	38	31.5	10				BA	irregular surfaces, potlid?	
1332	10124	36	34	9				BA		
1333	10127	72	44	13	43	65	13	BA	cortex on platform	
1334	10128	23	11	5	11	22.5	4	UK	badly degraded basalt or ignimbrite, crystals of volcanic glass, but the matrix is very grainy	
1335	10129	51	51	38				BA	vesicular	
1336	10130	25	20	6				BA		
1337	10132	18	14	4				BA	very irregular, poss potlid	
1338	10133	32	21	8.5				BA		
1339	10136	40	37	10				BA	cortical fragment	

1340	10137	19	19	4.5	17	16	4	BA	cortical flake		
1341	10138	23	17	3.5				BA			
1342	10141	38	30	11				BA	possible core fragment		
1343	10142	68	54	53				BA			
1344	10147	29	22	18				BA			
1345	10148	29	21	5	19	19	4.5	BA			
1346	10150	12	11	4				CT?	shatter, looks darkened, possibly chert? Reddened bands running through, same as 6165 from original excavation	1	
1347	10151	12	8	3				BA	shatter		
1348	10152	22	9	4				BA	shatter		
1349	10153	16	9	3.5				BA	shatter or snapped flake		
1350	10154	12	8	5				IG	shatter		
1351	10155	18	14	3.5				BA	shatter/debitage		
1352	10156	22	17	4	14	17	3	BA	step term		
1353	10157	12	9.5	2				BA	shatter or distal end of snapped flake		
1354	10158	19	17	9				BA			
1355	10160	17	12	5				BA	shatter/debitage		
1356	10161	15	7	7				BA	cortical shatter/debitage		
1357	10162	15	11	2	14.5	10	2	BA			

1358	10163	11	10	3.5				BA	very black basalt. Shatter.	1
1359	10164	18	13	3	12	15	2	BA		
1360	10166	20	13	6				BA	shatter	
1361	10167	28	22	7				BA		
1362	10168	35	31.5	14	32.5	29	11	BA	vesicular	
1363	10169	7	5	1.5				BA	shatter	
1364	10170	43	29	12	28	41.5	9	BA		
1365	10172	28	17	10				BA		
1366	10173	48	35	30				BA		
1367	10174	59	51	38				BA	cortical fragment	
1368	10177	33	32	9	25	30	7	BA	cortical flake	
1369	10178	27	21.5	10	21	21	6	BA		
1370	10179	46	42	30				BA	cortical fragment	
1371	10180	12.5	10.5	2				IG	debitage. No flake features	
1372	10181	33	18	6	19	26	5	BA		
1373	10184	33	23	6				BA		
1374	10185	17	8	4.5				BA	angular shatter	
1375	10186	43	28	11.5	38.5	26	10	BA		
1376	10187	24.5	15	7				BA		
1377	10191	22.1	14	9				BA		
1378	10192	22	12	6	10	17	4.5	BA		
1379	10195	59	50	28				BA		
1380	10197	56	31	19				BA		
1381	10198	41.5	18	11				BA		

1382	10200	107	46	41				BA	taken with 10201 for dip and orientationvesicular	
1383	10201	107	46	41				BA	vesicular	
1384	10202	33	32	20				QT	reddened, same material as 4382 from original excavation	1
1385	10203	25	12	6				BA		
1386	10204	14	12	3.5				BA	shatter/debitage	
1387	10205	27	27	12	17	22	5.5	IG		
1388	10206	25	15	6				BA		
1389	10208	28	19	8				IG		
1390	10209	26	16	10				BA		
1391	10211	34	31	9	29	31	9	BA		
1392	10212	19	12	9				BA	pebble	
1393	10215	17	13	6				BA	shatter/debitage	
2234	10216	21.8000	12.5000	6.4000				bA	shatter/debitage	
2235	10216	18.4000	9.3000	2.5000						
1394	10217	50	41	25				BA	cortical piece, poss broken hammerstone	
1395	10218	17	10	4				BA	shatter/debitage	
1396	10219	24	20	8.5				IG		
1397	10220	43	33	13	35	33	13	BA		
1398	10221	38	19	12				BA	shot with 10222	
1399	10222	38	19	12				BA		
1400	10223	20	12	5				BA	cortical fragment	
1401	10224	38	18.5	6	19	25	4	BA	cortex on platform	
1402	10225	29	18	8				BA		

1403	10226	30	21	15				BA	cortical fragment	
1404	10228	12	12	3				BA	very black basalt. Shatter or debitage, no flake features, but could be snapped flake	
1405	10230	36	24	12				BA		
1406	10233	13	11	3				BA	shatter/debitage	
1407	10234	40	24	16				BA	cortical fragment	
1408	10236	10	8	2				BA	shatter/debitage	
1409	10237	24	12	8	15	17	6.5	BA		
1410	10238	35	32	15				BA		
1411	10245	9	5	1				IG	debitage	
1412	10248	25	16	5	11.5	15	4	BA	hinge termination	
1413	10250	19	17	3.5				BA	split and snapped	
1414	10254	6.5	5	1.5				BA	debitage	
1415	10255	11.5	11	12				BA	shatter/debitage	
1416	10256	12	9.5	2.5				BA	Debitage	
1417	10257	15	9	3.5				IG	Debitage	
1418	10258	16	11	5				BA	shatter/debitage	
1419	10259	13	7.5	2.5				BA	debitage	
1420	10260	19	12	5.5				BA	shatter/debitage	
1421	10262	14	11	2.5				BA	debitage, uneven surface on ventral? side, flake scars on dorsal	
1422	10264	11.5	8	5				BA	shatter	
1423	10265	40	22	10				BA	cortical fragment	

1424	10266	34	8.5	7	27	28	4	BA			
1425	10267	22	15	7				BA			
1426	10268	20.5	14	5				BA	cortical fragment		
1427	10269	27	22	5.5				CH			
1428	10270	16.5	11	2	10.5	15	1	BA	debitage flake		
1429	10271	24	12	4				BA			
1430	10272	18	13	8				BA	cortical shatter/debitage		
1431	10273	15	14	6				BA	shatter/debitage		
1432	10274	21	15	6				BA			
1433	10278	13	10	3				BA	debitage		
1434	10279	35	32	12				BA			
1435	10280	9.5	6.5	1				BA	debitage		
1436	10281	16	10	3	8	14	2	BA	cortical debitage flake		
1437	10282	16	11	2				BA	shatter/debitage		
1438	10283	19	17	6	14	14	5	BA	overshot termination? Debitage		
1439	10284	17	13	2.5				BA	debitage flake, broken at time of excavation. Refits		
1440	10285	24	17	4	18	20	4	BA			
1441	10289	27	23	5.5	24	19	2	BA			
1442	10290	27	18	6	17	20	6	BA			
1443	10291	30	24	5	23	29.5	3	BA			
1444	10292	18	17	6				BA	shatter/debitage		
1445	10293	30	26	8	22	23	8	BA			
1446	10294	20	16	7				BA			

1447	10295	23	18	8				BA	cortical shatter/debitage	
1448	10296	12	7	4				BA	split and snapped debitage flake	
1449	10297	19	9	3				BA	shatter/debitage	
1450	10298	31	24	16				BA	cortical fragment	
1451	10299	36	33	11				BA	cortical fragment	
1452	10300	14.5	10	2	14.5	7	1	BA	debitage flake. Possible bone crud adhering	
1453	10304	34	23	12				BA		
1454	10306	29	20	12				BA		
1455	10307	27	12	3				BA		
1456	10308	17	13	4	15	13	1	BA		
1457	10310	18.5	9	4				BA	shatter/debitage	
1458	10311	35	22	8	26	20	7	BA		
1459	10312	68	39	15	67	39	12	BA	possibly split	
1460	10313	38	24	16				BA		
1461	10315	12	10	3				BA	distal end snapped flake	
1462	10318	13	5	4				QZ	shatter, some reddening	
1463	10321	26	12	9				BA		
1464	10322	24	16	4				BA		
1465	10323	25	23	11				BA		
1466	10324	16	12	6				BA	shatter/debitage	
1467	10325	18	6.5	4				BA	shatter	
1468	10326	20	15	5	12	20	3.5	BA		

1469	10327	31	25	9				BA			
1470	10328	46	40	20				BA			
1471	10329	15	12.5	4	10	15	3	CT	reddened? Possibly jasper	1	
1472	10330	11	8	1.5				BA	shatter/debitage		
1473	10333	25	20	7				BA			
1474	10349	23	20	7	16.5	20	7	BA			
1475	10351	14	7	2				BA	shatter/debitage		
1476	10354	26	18	8				BA			
1477	10355	31	20	11				BA	shot with 10356		
1478	10356	31	20	11				BA	shot with 10355		
1479	10358	31	15	12				BA			
1480	10359	28	12	7				BA			
1481	10361	43	22	14				BA			
1482	10362	11	9.5	3				BA	shatter/debitage		
1483	10363	28	19	6	25	19	5	BA	cortical flake		
2236	10364	11	4.5	1.5				IG	shatter		
2237	10364	11	5.5	2				BA	shatter		
2238	10364	8	7	2				CT	dk grey, blocky shatter		
2239	10364	9	4	2				IG	angular shatter		
2240	10364	11	6	4				BA	angular shatter		
2241	10364	11	5	4				BA	angular shatter		
2242	10364	10	6	3				BA	angular shatter		
1484	10366	12	10.5	3				BA	debitage		
1485	10367	40	29	12	36	26	7	CT			
1486	10368	13	6.5	2				BA	debitage		
1487	10369	18	12	6				BA	split flake		

1488	10370	28	23	10				BA			
1489	10371	12	14	3	10.5	12.5	2	BA	debitage flake		
1490	10372	25	11.5	6				BA			
1491	10373	40	22	10				BA			
1492	10374	19	13.5	7				IG	angular shatter		
1493	10375	19	8.5	4.5				IG	angular shatter		
1494	10376	11	6.5	2				IG	split flake debitage		
1495	10377	29	27	11				BA			
1496	10378	40	32	15				BA	cortical fragment		
1497	10379	39	34	11	30	32	7	BA			
1498	10380	22	18	2				BA	cortical shatter/debitage		
1499	10382	31	28	5				BA			
1500	10383	13.5	9	4.5				BA	split flake? Shatter?		
1501	10384	10	12	3.5	8.5	12	2	BA	debitage		
2243	10386	38	35	19				BA			
2244	10386	10	9	4				BA	shatter/debitage		
1502	10387	20	15	8				BA			
2245	10388	10	8	3				BA	cortical shatter		
2246	10388	10	8	3				BA	shatter		
1503	10389	12	6.5	3				BA	shatter		
1504	10391	24	12	7				BA	very irregular surfaces		
1505	10392	20	16	4	14	19	1	BA	cortical flake		
1506	10393	18	8	5				BA	very dark basalt. Uneven surface,	1	
1507	10396	23	10	5				BA			
1508	10398	20	10	5	20	9	5	BA			
1509	10399	23	22.5	7	18	20	6	BA			

1510	10400	22	15	4				BA	poss potlid		
1511	10401	16	8.5	3				BA	shatter		
1512	10402	47	30	15	45	28	15	BA			
1513	10404	17	12	7				BA	shatter		
1514	10409	29	13	6				BA	split flake		
1515	10410	6	4.5	2				CT	dk grey/black chert shatter		
1516	10411	11	7	4.5				BA	shatter, rounded...		
1517	10413	28	16	5				BA			
1518	10416	30	30	9				BA			
1519	10418	44	34	18				BA	distal end snapped flake		
1520	10420	13	12	8				BA	cortical shatter/ debitage		
1521	10421	16.5	12.5	4				BA	shatter/debitage		
1522	10422	14	13	8				BA	shatter/debitage		
1523	10423	14	13	4				BA	shatter/debitage		
1524	10424	14	12	5				BA	shatter/debitage		
1525	10426	7.5	7	1.5				BA	shatter/debitage		
1526	10427	20	14	6				BA	proximal end snapped flake		
1527	10428	19	12	5				BA	shatter/debitage		
1528	10429	21	10	8				BA	shatter/debitage		
1529	10430	42	32	18				BA	exhausted core		
1530	10431	39	31	12	34	30	10	BA	cortical flake		
1531	10432	51	42	20	40	31	17	BA			
1532	10433	36	28	14				BA	cortical fragment		
1533	10439	25	18	9	25	18	6	BA			

1534	10441	20	15	9				BA	very irregular, poss potlid	
1535	10443	18	13	4	17	14	3	BA	hinge termination	
1536	10444	11	10.5	3				BA	shatter/debitage	
1537	10449	55	45	34				BA	cortical fragment	
1538	10450	13.5	12	1				BA	debitage	
1539	10451	23	16	2				BA	distal end snapped flake	
1540	10452	44.7000	34.6000	10.6000				BA		
1541	10456	16	13	2				BA	debitage	
1542	10457	18	8.5	4				BA	shatter/debitage	
1543	10463	44	26	23				BA		
1544	10464	30	26	15				BA		
1545	10465	23	9	10				BA		
1546	10467	27	17	10				BA		
1547	10472	30	10	3	20	10	3	BA		
1548	10475	17	11	7				BA	shatter/debitage	
1549	10476	14	9	4.5				BA	shatter/debitage	
1550	10477	18	11	3				BA	snapped flaked	
1551	10478	18	13.5	6				BA	shatter/debitage	
1552	10479	13	10	4				BA	shatter/microdebitage	
1553	10480	17	8	4.5				BA	shatter/microdebitage	
1554	10481	22	16	5	20	16	4	BA		
1555	10482	25	15	6.5	23	14	6	BA	hinge termination	
1556	10483	30	1	13				BA		
1557	10484	16	13.5	4	12.5	14	3	BA	debitage	

1558	10485	25	19	7				BA	very irregular, poss potlid	
1559	10488	52	31	28				BA		
1560	10489	13.5	9	4				IG	debitage	
1561	10490	20	16	5				BA	very irregular, poss potlid	
1562	10491	23	14	4				BA	distal end snapped flake	
1563	10492	13	12	2	12	11	1.5	BA	debitage	
1564	10493	47	33	10	45	29	9	BA		
1565	10497	14	8	5				BA	shatter/debitage	
1566	10498	10	8.5	3.5				BA	shatter/debitage	
1567	10499	12.5	4.5	3				BA	shatter/debitage	
1568	10500	17	11.5	5				BA	shatter/debitage	
1569	10506	16.5	9.5	3				BA	shatter/debitage	
1570	10508	31	17	9				BA		
1571	10513	57	26	13				BA	cortical fragment	
1572	10514	41	34	20				BA		
1573	10520	23	20	12				BA		
1574	10523	42	24	8	35	18	8	BA		
1575	10524	26	17	14				BA		
1576	10526	36	20	15				BA		
1577	10527	35	29	12				BA		
1578	10528	29	22	9	28	14	9	BA		
1579	10532	28	19	5	17	21	4	BA		
1580	10533	23	9	2				BA	split flake	
1581	10536	34	18	8	27	19	6	BA		
1582	10537	36.5	28	11	28	36	6	BA	cortex on platform	

1583	10539	19.5	11.5	6				BA	shatter/debitage		
1584	10544	40	28	16.5				BA			
1585	10547	16.5	9.5	3				BA	cortical shatter - potlid?		
1586	10549	23.5	18	5	18	22	5.5	BA			
1587	10550	21	10.5	5	20	10	4	BA	debitage		
1588	10551	19.5	10	3.5				BA	debitage		
1589	10552	16.5	13.5	5				BA	shatter/debitage		
1590	10553	18	11	3				BA	shatter/debitage		
1591	10555	17	8	5				BA	shatter/debitage		
1592	10557	17	12	7				BA	shatter/debitage		
1593	10558	15	8	4				BA	shatter/debitage		
1594	10559	31	21	11				BA	proximal end snapped flake		
1595	10560	30	21	8				BA	split flake		
1596	10561	20	12	7.5				BA	cortical fragment		
1597	10562	20	12	6				BA	irregular surfaces, potlid?		
1598	10563	18	14	10				BA	shatter/debitage		
1599	10564	11	7	3				BA	cortical shatter		
1600	10565	11	8.5	3				BA	shatter		
1601	10566	37	21	13				BA			
1602	10567	10	10	2				BA	shatter/debitage		
1603	10568	35	26	7	24	30	5.5	BA			
1604	10574	12	4	3.5				BA	cortical shatter/debitage		
1605	10578	9	5	3				BA	shatter/debitage		
1606	10584	17	17	9				BA	shatter/debitage		

1607	10585	16	10	7				BA	cracked/crazed pebble	
1608	10587	11.5	7	2.5				BA	shatter/debitage	
1609	10588	26	21	4.5	21	23	2.5	BA		
1610	10589	16	13	3	10	15	2	BA		
1611	10590	13	9	2.5				BA	dark grey/black, uneven ventral surface, possible potlid	1
1612	10591	12	10	3				BA	dark grey/black, uneven ventral surface, possible potlid	1
1613	10592	20	15	6				BA		
1614	10594	16	14	4				BA	shatter/debitage	
1615	10595	48	31	18				BA	cortical fragment	
1616	10604	13.5	8.5	2				BA	shatter/debitage, uneven surface	
1617	10605	25	21	7	24	20	3	BA		
1618	10606	25	21	7	24	20	3	BA		
1619	10607	32	20	12				BA		
1620	10608	32	20	12				BA		
1621	10609	12	8	2	7.5	9	1	BA	cortical debitage flake	
1622	10610	10	9	3				BA	cortical debitage flake	
1623	10611	12	10	4				BA	debitage	
1624	10612	36	25	14				BA		
1625	10613	28	14	8				BA	snapped flaked	
1626	10614	48.8000	39.2000	22.1000				QT		

1627	10616	34	21	6	21	31	5	BA			
1628	10617	43	21	7	31	21	6	BA			
1629	10619	19	16.5	3				BA	shatter/debitage		
1630	10620	17.2000	11.9000	4.0000				CT	shatter/debitage		
1631	10621	15	10	2.5				BA	two pieces,fresh break, refits		
1632	10624	15	13	8				BA	shatter/debitage		
1633	10625	22	16	3				BA	distal end snapped flake		
1634	10633	21	11	4	20	10	2	CH			
1635	10634	18.5	16	3				BA	shatter/debitage		
1636	10635	21	14	6	16	13	4	BA			
1637	10636	15	9.5	6				BA	shatter/debitage		
1638	10637	67.0000	45.0000	23.0000				BA	badly shattered core or large flake, glued in the field; fresh breaks during excavation, brittle material		
1639	10643	20	18	10				BA	distal end snapped flake		
1640	10644	29	13	9				BA			
1641	10645	17	9	3				BA	shatter/debitage		
1642	10646	10	7	2				BA	shatter/debitage		
1643	10647	22	13.5	5	12	20	2.5	BA			
1644	10648	22	13.5	5	12	20	2.5	BA			
1645	10649	15	7	4				BA	shatter/debitage		
1646	10650	33.5	19	8				BA			

1647	10651	24	14	14				JS	spent core	
1648	10652	16	15	5	15	12	3	BA		
1649	10653	20	9	4	20	9	3.5	BA		
1650	10654	11	7	3				BA	shatter/debitage	
1651	10655	14	10	4				BA	shatter/debitage	
1652	10659	34	33	11				BA		
1653	10660	18	17	4				BA	shatter/debitage	
1654	10666	21	12	5	12	21	3	BA		
1655	10671	20	17	6				BA	split flake	
1656	10672	57	33	22				BA	cortical fragment	
1657	10677	15	9	2				BA	shatter/debitage	
1658	10678	17	9	2				BA	shatter/debitage	
1659	10680	14	10	4				BA	shatter/debitage	
1660	10683	29.5000	27.5000	15.0000				CT	distal end snapped flake, red and brown banded chert	1
1661	10684	38	20	15				BA		
1662	10685	24	16	9				BA		
1663	10688	30	17	4				BA	split and snapped	
1664	10694	16	11	4	11	13	4	BA		
1665	10695	15.5	10	2.5				BA	two pieces, refits, fresh break	
1666	10700	17	13	6				BA	shatter/debitage	
1667	10701	25	17	6				BA		
1668	10702	31	20	6	20	23	4	BA	cortical flake	
1669	10703	23	19	6				BA		
1670	10704	13	11.5	2				BA	shatter/debitagr	
1671	10711	18	14	5				BA	shatter/debitage	

1672	10713	31	19	12				BA		
1673	10716	42	23	15	32	21	8	BA		
1674	10717	9	8	5				CH	shatter	
1675	10718	11	9	4				BA	shatter/debitage	
1676	10719	19	14	4	15	17	5	BA		
1677	10723	11	6	2.5				BA	shatter/debitage	
1678	10724	16	13	5				BA	shatter/debitage, irregular, maybe potlid	
1679	10725	28	21	9	17	19	6	BA		
1680	10730	15	7	4				BA	proximal end snapped flake	
1681	10731	19	14	6				BA	distal end snapped flake	
1682	10732	23	13	5				BA	distal end snapped flake	
1683	10734	12	8	4				BA	shatter/debitage	
1684	10735	22	15	8				BA		
1685	10738	19	11	9				BA	snapped flaked	
1686	10741	31	23	6	19	23	4	BA	step termination	
1687	10755	20	12	3				BA		
1688	10757	13	12.5	6				BA	distal end snapped flake	
1689	10758	23	19	5	18	22	4	BA		
1690	10760	26	23	4	17	19	3	BA		
1691	10762	14	14	5				BA	shatter/debitage	
1692	10763	14	14	3.5	13	11.5	3	BA		
1693	10764	22	18	9				BA		

1694	10765	23	14	3	22	12	2	BA			
1695	10766	29	20	10				QZ	cortical fragment		
1696	10770	15	13	6				BA	shatter/debitage		
1697	10771	30	26.5	12				BA	split and distal end snapped flake		
1698	10777	34	26	10				BA	snapped flake, cortex on platform		
1699	10778	20	16	4	16	11.5	3	BA			
1700	10779	34	16	8				BA			
1701	10781	13	11	2.5	10	10	1.5	BA	debitage flake		
1702	10782	19	10	6				BA	shatter/debitage		
1703	10783	31	23	6.5	29	22	4	BA			
1704	10784	24	7	4	23.5	5.5	4	BA			
1705	10785	19	8	3				BA	shatter/debitage		
2247	10786	13	10	3				BA	debitage		
2248	10786	14	13	3				BA	shatter/debitage		
1706	10788	22	20	6	19	16	2	BA	very irregular, flake potlidded after flaking?	1	
1707	10789	26.5	21	5	22	18	3.5	BA	cortical flake		
1708	10790	22	22	6				BA	split flake		
1709	10791	35	17	8				BA			
1710	10792	15	15	2.5	14	13	2	BA			
1711	10793	28	17	12				BA			
1712	10794	27	18	7.5				BA			
1713	10795	21	17.5	6.5				BA	potlid?		
1714	10798	18	18	4				BA	shatter/debitage		
1715	10799	22	6	3	22	5	2	BA			

1716	10802	16	14	3	11.5	15	2	BA		
1717	10806	25	15	8				BA		
1718	10807	8	7	2	7.5	6	1.5	BA		
1719	10808	2	18	7				BA		
1720	10809	14	8	4				IG	shatter/debitage	
1721	10810	31.5	20	6				BA	potlid?	
1722	10811	19	12	7				BA	shatter	
1723	10812	15	11	4				BA	shatter/debitage	
1724	10814	16.9000	9.4000	4.6000				CT	distal end snapped, double split flake	
1725	10816	22	14	17				BA	distal end snapped flake	
1726	10817	51	50	22				BA	cortical fragment	
1727	10818	22.5	20	8				BA	split flake	
1728	10819	33	18	14				BA		
2249	10824	20	19	5				BA		
2250	10824	10	4.5	2				BA	shatter/debitage	
1729	10825	14	7	3				BA	shatter/debitage	
1730	10829	11	9	2				BA	cortical shatter/debitage	
1731	10832	20	15	4				BA	potlid?	
1732	10833	47	35	10				BA		
1733	10834	24	20	7	20	12	6	BA	step termination	
1734	10839	14	9	9				BA	crazedpebble	
1735	10840	20	14	5				BA		
1736	10841	38	25	11				BA	split flake	
1737	10842	27	19	6				BA	split flake	
1738	10843	15	13	5				BA	shatter/debitage	

1739	10844	17	10.5	9				BA	shatter, 2 pieces, fresh break refit	
1740	10848	19	15	9				BA	split and distal end snapped flake	
1741	10855	18	14	4				BA	shatter/debitage	
1742	10856	10	7.5	4				BA	shatter/debitage	
1743	10859	27	18	7				BA		
1744	10860	17	13.5	3	12	14	2	BA		
1745	10861	105.7000	79.0000	33.4000				BA	cortical piece	
1746	10862	36	23.5	11				BA		
1747	10866	36	26	12	35	26	12	BA		
1748	10868	38	28	10.5	28	27	8	BA		
1749	10869	29	19	5.5				BA	distal end snapped flake	
1750	10870	20	19	2	17.5	18	1.5	BA		
1751	10871	16	11.5	5	15	11	5	BA		
1752	10872	19	13	4	16	11	4	BA		
1753	10873	14	8.5	2				BA	cortical debitage flake	
1754	10874	19	15	5				BA	split flake	
1755	10875	45	33	13	35	36.5	10	BA		
1756	10877	41	29	11	21	35	8.5	BA		
1757	10878	70	40	17				BA	snapped flake	
1758	10879	70	40	17				BA	snapped flake	
1759	10880	41	25	9				BA	distal end snapped flake	
1760	10884	10.5	5	3.5				BA	shatter	
1761	10885	16.5	11	4.5				BA	shatter, 2 pieces, fresh break refit	

1762	10887	17	14	6				BA	shatter/debitage	
1763	10888	14	8	2.5				BA	shatter/debitage	
1764	10889	14	7	2				BA	shatter/debitage	
1765	10890	9	9	3				BA	shatter/debitage	
1766	10892	13	7	3				BA	cortical shatter/debitage	
1767	10893	22	22	5	18.5	19	4	BA		
1768	10898	25	16	6	25	16	5.5	BA	cortical flake	
1769	10899	58	36.5	18	45	31	15	BA	cortical flake	
1770	10900	58	36.5	18	45	31	15	BA	cortical flake	
1771	10901	46	35	22				BA	cortical fragment	
1772	10902	50.2000	41.0000	10.0000	40.7000	48.3000	8.2000	bA	flake removed from 10904-5	
1773	10903	50.2000	41.0000	10.0000	40.7000	48.3000	8.2000	bA	flake removed from 10904-5	
1774	10904	67.3000	55.4000	19.4000				BA	flake with flake removed; removed flake is 10902-3	
1775	10905	67.3000	55.4000	19.4000				BA	flake with flake removed; removed flake is 10902-3	
1776	10907	28	20	8	20	28	5	BA		
1777	10908	16	13.5	1.5				BA	shatter/debitage	
1778	10914	34	22	13				BA	corrtical fragment	
1779	10916	18	10	4				QZ	snapped flake	
1780	10918	12	7	4.5				BA	shatter/debitage	
1781	10944	13	10	6				BA	shatter/debitage	
1782	10945	35	25	8				BA	cortical fragment	

1783	10946	51	28	14				BA	cortical fragment	
1784	10947	24	18	8				BA	distal end snapped flake	
1785	10948	26	23	8				BA		
1786	10949	27	25	9.5				QT		
1787	10951	15	12	4				BA	cortical shatter/debitage	
1788	10952	16	7	3				BA	shatter/debitage	
1789	10953	29	13	5.5				BA	split flake	
1790	10954	12	9	3				BA	shatter/debitage	
1791	10955	15	10	4				BA	shatter/debitage	
1792	10956	36	33	9	28	26	6	BA		
1793	10957	12	10	6				BA	shatter/debitage	
1794	10958	20	9	6.5				BA	split flake	
1795	10959	20	19	6				BA		
1796	10960	19	12	4	12	11	2.5	BA	flake	
1797	10961	17	16	6				BA	shatter/debitage	
1798	10962	19	15	11				BA	shatter/debitage	
1799	10963	11	7	2.5				BA	shatter/debitage	
1800	10964	13	10	2				BA	shatter/debitage	
1801	10965	16	10	5	12	9	3	BA		
1802	10966	46	20	12				BA	distal end snapped flake	
1803	10969	14	12	2	13	8	2	BA	flake	
1804	10970	9	6	4				BA	shatter/debitage	
1805	10971	13	11	4				BA	shatter/debitage	
1806	10972	11	8	3.5				BA	shatter/debitage	
1807	10973	13.5	10	3				BA	shatter/debitage	

1808	10974	19	10	5				BA	shatter/debitage	
1809	10975	23	16.5	6				BA		
1810	10976	28	13	10				QT		
1811	10987	33	22	8				BA		
1812	10988	25	21	6	22	12	4	BA		
1813	10989	36	23	10	35	20	8	BA		
1814	10991	20	12	6				BA		
1815	10996	14	12	2				BA	shatter/debitage	
1816	10997	48	21	20				BA	cortical fragment	
1817	10998	25	16	8				BA	broken pebble?	
1818	11000	16	7.5	3				BA	shatter/debitage	
1819	11002	26	20	9				QT	distal fragment snapped flake	
1820	11004	60	45	39				BA	with cortex	
1821	11006	13	9	4				BA	shatter/debitage	
1822	11007	29	19	3	25	20	2	BA		
1823	11008	20	8	6				BA	two pieces, refits, fresh break	
1824	11009	27.5	14	9				BA		
1825	11010	14	13	8				BA	shatter/debitage	
1826	11011	25	10	7				BA		
1827	11013	14.5	8	7				BA	shatter/debitage	
1828	11014	19	16	6				BA	shatter/debitage	
1829	11017	14	9	4				BA	shatter/debitage	
1830	11018	11	9	1.5				BA	shatter/debitage	
1831	11021	17	10	5	16	10	3	BA		
1832	11023	22	22	9				BA		
1833	11024	16	16	3	14	15	3	BA	flake	

1834	11025	34	28	14				BA	split flake	
1835	11026	28	22	7	25.5	22	7	BA	step termination	
1836	11027	32	15	9				BA		
1837	11028	18	17	5.5	15	17	4	BA		
1838	11029	61	38	14	55	30	10	BA		
1839	11030	61	38	14	55	30	10	BA		
1840	11037	22	20	4	19	18	4	BA		
1841	11038	20	15	6	12	19	3.5	BA		
1842	11040	94	67	31				BA	with cortex	
1843	11046	20	15	4	17	14.5	4	BA		
1844	11047	19	15	4				BA	split flake	
1845	11048	23	12	8				BA	distal end snapped flake	
1846	11049	15	13	3				BA	distal end snapped flake	
1847	11051	21	18	6				BA	distal end snapped flake	
1848	11052	49	33	17				BA	spent core	
1849	11053	49	33	17				BA	spent core	
1850	11054	17	12	2				BA	shatter/debitage	
1851	11056	17	12	4				BA	shatter/debitage	
1852	11058	14	8	4				BA		
1853	11075	24	20	3	20	23	2	BA		
1854	11076	57	48	36				BA		
1855	11080	12.5	12.5	2				BA	shatter/debitage	
1856	11081	13	7	4.5				BA	shatter/debitage	
1857	11082	14	7	4				BA	shatter/debitage	
1858	11083	15	7	4				BA	shatter/debitage	

1859	11084	15	10	4				BA	shatter/debitage	
1860	11085	9	7	1				BA	shatter/debitage	
1861	11086	12	9	3				BA	shatter/debitage	
1862	11087	7	5	2				BA	shatter/debitage	
1863	11088	10	6	2				BA	shatter/debitage	
1864	11089	18	15	4				BA	shatter/debitage	
1865	11090	16	10	4				BA	shatter/debitage	
1866	11091	12	9	3				BA	shatter/debitage	
1867	11092	11	6	3				BA	shatter/debitage	
1868	11093	30	18	7				BA		
1869	11094	12	11	2				BA	shatter/debitage	
1870	11095	9.5	7	2				BA	shatter/debitage	
1871	11096	9	7	3				BA	shatter/debitage	
1872	11097	10	8	4				BA	shatter/debitage	
1873	11098	15	9	4				BA	shatter/debitage	
1874	11099	6	4	1				BA	shatter/debitage	
1875	11100	64	18	18	59	17	16	BA	bladelike	
1876	11101	64	18	18	59	17	16	BA	bladelike	
1877	11102	44	29	16				BA	distal end snapped flake	
1878	11103	44	29	16				BA	distal end snapped flake	
1879	11104	7.5	5	2.5				BA	shatter/debitage	
1880	11105	8	6	3				BA	shatter/debitage	
1881	11106	44	30	7				BA	distal end snapped flake	
1882	11107	44	30	7				BA	distal end snapped flake	

1883	11108	34	14	8				BA	split flake	
1884	11109	34	14	8				BA	split flake	
1885	11110	39	33.5	10	37.5	32	10	BA	cortical flake	
1886	11111	39	33.5	10	37.5	32	10	BA	cortical flake	
1887	11114	32	18	17				BA	cortical fragment	
1888	11115	35	63	57				BA	with cortex	
1889	11116	35	63	57				BA	with cortex	
1890	11118	10	6	2	10	5	1	BA	debitage	
1891	11127	28	17	6				BA	very irregular	
1892	11128	28	24	9	20	20	7	BA	step termination	
1893	11129	23	23	15				BA		
1894	11130	45	44	12	43	41	8	bA		
1895	11131	45	44	12	43	41	8	bA		
1896	11132	11.5	6	3.5				BA	debitage/ splitflake	
1897	11134	10	10	4				BA	shatter/debitage	
1898	11136	40	31	13.5				BA	split and distal end snapped flake	
1899	11137	40	31	13.5				BA	split and distal end snapped flake	
1900	11138	26	15	5				BA	very irregular	
1901	11141	16	8.5	2				BA	shatter/debitage	
1902	11142	24	1	4				BA	split flake	
1903	11143	27	21.5	8	20	22	7	BA		
1904	11144	13	8	3				BA	cortical shatter/debitage	
1905	11145	18	17	5				BA	shatter/debitage	
1906	11146	12	7	3				BA	cortical shatter/debitage	

1907	11148	21	16	3				BA		
1908	11149	20	13	3	20	12	2.5	BA		
1909	11160	22	13	2	16	13.5	1.5	BA		
1910	11163	47	30	10				BA		
1911	11164	10	5	4				CT	grey banded chert, shatter	
1912	11166	8	8	1.5				BA	shatter/debitage	
1913	11167	14	9	3	8	14	2	BA	debitage	
1914	11168	14.5	7	3.5				BA	cortical shatter/debitage	
1915	11171	22.5	13	6				BA		
1916	11172	10	10	3				BA	shatter/debitage	
1917	11174	68	37	24	58	36	22	BA	cortex on platform	
1918	11175	68	37	24	58	36	22	BA	cortex on platform	
1919	11176	8	6	3				BA	shatter/debitage	
1920	11177	18	15	4	14	13	3	BA		
1921	11180	30	14	12				BA		
1922	11182	20	12	6				BA		
1923	11183	21	17	8				BA		
1924	11184	15	8	5				BA	shatter/debitage	
1925	11188	20	15	8.5				BA	distal end snapped flake	
1926	11192	31	15	7	31	14	5	BA		
1927	11193	20	18	4	19	16	4	BA		
1928	11194	17	12	3	10	10	3	BA		
1929	11196	19	9	7				BA	shatter/debitage	
1930	11198	16	8	4				BA	shatter/debitage	
1931	11200	23	22	15				BA	blocky shatter	

1932	11201	23	22	15				BA	blocky shatter	
1933	11202	6	4.5	2				BA	shatter/debitage	
1934	11205	23	18	5				BA		
1935	11206	8.5	6	1.5				BA	shatter/debitage	
1936	11216	8	4	2				BA	shatter/debitage	
1937	11217	14	11.5	3				BA	shatter/debitage	
1938	11226	14	9	4				BA	cortical shatter/debitage	
1939	11227	44	13	12.5				BA	cortical fragment	
1940	11228	44	13	12.5				BA	cortical fragment	
2251	11229	41.5	37	15				BA	cortical fragment	
2252	11229	14	10	2				BA	shatter/debitage	
1941	11230	29	20	9				BA	split flake	
1942	11231	13	7.5	2				BA	uneven surface, both sides; shatter/debitage, poss. Potlid	
1943	11232	19	13	4				BA	uneven surface. Poss potlid. One side with flake scare, but very rough surface, other side very irregular	1
1944	11233	23	20	5				BA		
1945	11234	50	26	14				BA		
1946	11235	26.5	20	12.5				BA		
1947	11236	48	38	13	45	33	12	BA		
1948	11237	48	38	13	45	33	12	BA		
1949	11240	23	10	5	11	12	3	BA		

1950	11241	27	25	12				BA		
1951	11246	6.5	5	2				BA	shatter/debitage	
1952	11250	44	26	22				BA	with cortex	
1953	11251	44	26	22				BA	with cortex	
1954	11252	14.5	12	4				BA	uneven surfaces, shatter, poss potlid	
1955	11253	38	29	13	29	28	12	BA		
1956	11254	28	16	3	15	20	2	BA		
1957	11255	9.5	6	2				BA	shatter/debitage	
1958	11256	11.5	10	4				BA	shatter/debitage	
1959	11257	28	21	10				BA		
1960	11258	12	8	5				BA	shatter/debitage	
1961	11259	27.5	17	4	16	14	2.5	BA		
1962	11264	9	8	2				BA	shatter/debitage	
1963	11265	20	16	5				BA	uneven surface, potlid?	1
1964	11266	18	17	4	17	15	2	BA	uneven surface, potlid? Differential coloring	1
1965	11267	9	6	1.5				BA	shatter/debitage	
1966	11268							BA	very fragile, blackened, broken in several spots during excavation and transport	1

1967	11269						BA	very fragile, blackened, broken in several spots during excavation and transport	1
1968	11270						BA	very fragile, blackened, broken in several spots during excavation and transport	1
1969	11271						BA	very fragile, blackened, broken in several spots during excavation and transport	1
1970	11272						BA	very fragile, blackened, broken in several spots during excavation and transport	1
1971	11273	12	9.5	4			BA	shatter/debitage	
1972	11275	10	6	3			QZ	shatter/debitage	
1973	11276	28	17	9	27.5	14	6	BA	
1974	11277	9	9	2			BA	shatter/debitage	
1975	11278	22	16	5	16	14	2	BA	hinge termination
1976	11279	27	14	8			BA	cortical fragment	
1977	11280	11	8	2			BA	potlid?	
1978	11281	14	11	6			BA	potlid?	

1979	11282	53	35	13.5				BA	found broken, fits together
1980	11285	6.5	5	1				BA	shatter/debitage
1981	11286	6	6	1.5				BA	shatter/debitage
1982	11287	12	6	6				BA	shatter/debitage, possibly potlid
1983	11294	6.5	4	1.5				QZ	shatter/debitage
1984	11295	53	38	11	51	33	6	ba	cortex on platform
1985	11296	53	38	11	51	33	6	ba	cortex on platform
2253	11298	7	4	1.5				BA	shatter/debitage
2254	11298	7	6	2				BA	shatter/debitage
2255	11298	6	5	1.5				BA	shatter/debitage
2256	11298	5	4	1.5				BA	shatter/debitage
2257	11298	7	4	2				BA	shatter/debitage
1986	11300	5.5	5	1				BA	shatter/debitage
1987	11304	7.5	5.5	2				BA	shatter/debitage
1988	11313	19	9	3	16	7	3	BA	shatter/debitage
1989	11315	17	11	3	13	8	2	BA	
1990	11316	11	9.5	4				CT	shatter/debitage
1991	11318	35	28	16.5				CT	
1992	11319	35	28	16.5				CT	
1993	11320	20	14	4.5				BA	
1994	11321	7	6.5	3				BA	shatter/debitage
1995	11326	30	19	9.5	29	19	9	BA	
1996	11330	31	20	6	23	19	6	CH	step termination
1997	11336	22	19	3	19	17	2	BA	
1998	11337	51	32	16	29.8	38	10	BA	
1999	11338	51	32	16	29.8	38	10	BA	

2000	11340	17	10	5	15.5	9	4	BA		
2001	11341	34	14	8				BA		
2002	11342	22	14	7				BA		
2003	11343	16.5	9	6				BA	cortical shatter/debitage	
2004	11344	22	16	8.5	15	16	5	BA		
2005	11345	7	4	1.5				BA	shatter/debitage	
2006	11346	7	4	3				BA	shatter/debitage	
2007	11347	5	4.5	4				BA	shatter/debitage	
2008	11348	4	3.5	1				BA	shatter/debitage	
2009	11349	5	3	1				BA	shatter/debitage	
2010	11350	12	10	3	8.5	11	1.5	BA		
2011	11351	8	7.5	3				BA	shatter/debitage	
2012	11352	9	8.5	1.5				BA	shatter/debitage	
2013	11353	4	3	1				BA	shatter/debitage	
2014	11354	9	6	3				BA	shatter/debitage	
2015	11355	13	9.5	4				BA	shatter/debitage	
2258	11358	11.5	6.5	3				BA	cortical shatter/debitage	
2016	11360	10.5	6.5	2				BA	shatter/debitage	
2017	11361	19	19	4	16	16	3	BA		
2018	11363	10	7	5				BA	shatter/debitage	
2259	11364	15	10	3.5	10	10	2	BA		
2260	11364	14	10	6				BA	very fragile, blackened, broken	
2019	11365	21.0000	12.0000	9.3000				CT	reddened toward cortex	
2020	11366	8	8	3				BA	shatter/debitage	

2021	11367	13	12	4				BA	shatter/debitage, possible potlid	
2261	11369	14	5	3				BA	shatter/debitage	
2262	11369	12	14	3				BA	shatter/debitage	
2022	11373	18	15	8				BA	distal end snapped flake	
2023	11375	18	18	7	17	14	4	BA		
2024	11376	16	12	3				BA	shatter/debitage	
2025	11377	25	19	7	23	18	6	BA		
2026	11378	42	25	12				BA		
2027	11379	24	12	10				BA		
2028	11381	23	20	10				BA		
2029	11382	12	8	5				BA	shatter/debitage	
2030	11383	10	9	2				BA	shatter/debitage	
2031	11410	17	11	3				BA	shatter/debitage	
2032	11411	24	10	5				BA		
2033	11412	12	8.5	2				BA	shatter/debitage	
2034	11413	45	37	11	41	36	9	BA		
2035	11414	45	37	11	41	36	9	BA		
2036	11415	33	25	8	20	32	4	BA		
2037	11416	33	25	8	20	32	4	BA		
2038	11418	15	10	4				BA	shatter/debitage	
2039	11419	17	11	3				BA	shatter/debitage	
2040	11420	14	9	3.5				BA	shatter/debitage	
2041	11421	27	18	6				BA		
2042	11422	31	12	7				BA	irregular	
2043	11424	5	5	3				BA	shatter/debitage	
2044	11425	6	5	2				BA	shatter/debitage	

2045	11427	16	22	8				CT	distal end snapped flake	
2046	11428	13	7	3				BA	cortical shatter/debitage	
2047	11430	11.5	7	6				BA	2 pieces, looks like potlid, slightly discolored, fragile	
2048	11431	11.5	6	2				BA	shatter/debitage	
2049	11432	9	8	2				BA	shatter/debitage	
2050	11433	10	7.5	2				BA	shatter/debitage	
2051	11437	38	26	11	29	32	6	BA	cotex on platform	
2052	11438	38	26	11	29	32	6	BA	cotex on platform	
2053	11439	14	10	2	14	10	1	BA		
2263	11441	8	3.5	2				BA	shatter/debitage	
2264	11441	10	7	2				BA	shatter/debitage	
2054	11444	27	23	7	23	20	4	BA		
2055	11445	27	23	7	23	20	4	BA		
2056	11446	22	16	6				BA	split flake	
2057	11447	22	16	6				BA	split flake	
2058	11449	15	10	3				BA	shatter/debitage	
2059	11451	18.5	9	5				CT	shatter/debitage	
2060	11457	5	2	2				BA	shatter/debitage	
2061	11458	21	13	10				BA		
2062	11460	16	11	6				BA	shatter/debitage	
2063	11462	9	5	4				BA	shatter/debitage	
2064	11463	46	30	10	40	20	7	BA		
2065	11464	46	30	10	40	20	7	BA		
2066	11465	40	24	10	25	28	9	bA		

2067	11466	40	24	10	25	28	9	bA		
2068	11467	24	20	6.5				IG	split flake	
2069	11469	24	20	6				bA	split flake	
2070	11470	20	13	8				bA		
2071	11471	19	15	7				BA	shatter/debitage	
2072	11473	31	16	6	29	16	6	bA		
2073	11474	31	16	6	29	16	6	bA		
2074	11475	21	19	4.5	20	18	3	bA		
2075	11476	26	10	3				bA		
2076	11477	11	5	2				QZ	shatter/debitage	
2077	11479	10	9	2				BA	cortical shatter/debitage	
2078	11480	18	8	3				BA	shatter/debitage	
2079	11481	9	9	3				BA	shatter/debitage	
2080	11483	17	10	2				BA	shatter/debitage	
2081	11484	7.5	6.5	1				BA	shatter/debitage	
2082	11485	31	23	10				BA	cortical fragment	
2083	11486	31	23	10				BA	cortical fragment	
2084	11487	13	13	2				bA	shatter/debitage	
2085	11489	27.5	17	6	14	23	3	bA		
2086	11490	27.5	17	6	14	23	3	bA		
2087	11491	25	17	8				bA	very fragile, blackened, broken	
2088	11492	25	17	8				bA	very fragile, blackened, broken	
2089	11494	15	7	3				BA	shatter/debitage	
2090	11495	12	9	2.5	10	7	1	BA	shatter/debitage	
2091	11496	24	9	8				bA		

2092	11497	24	9	8				bA		
2093	11499	13.5	9.5	5				BA	shatter/debitage	
2094	11500	17	7	5				BA	shatter/debitage	
2095	11501	9	9	2				BA	shatter/debitage	
2096	11502	9	7	3				BA	shatter/debitage	
2097	11504	14	9	3				BA	shatter/debitage	
2098	11505	16	16	6				BA	shatter/debitage	
2099	11506	12	7	2				BA	shatter/debitage	
2100	11510	16	13	3	12	15	1	bA		
2101	11511	20	11	6				ba	with cortex	
2102	11512	11	5	2				BA	shatter/debitage	
2103	11513	17	10	4				BA	shatter/debitage	
2104	11514	28	24	8	24	19	8	bA	step termination	
2105	11515	28	24	8	24	19	8	bA	step termination	
2106	11516	36	24	6	23.5	27.5	4	bA		
2107	11517	36	24	6	23.5	27.5	4	bA		
2108	11518	9	4	2				BA	shatter/debitage	
2109	11519	10	7	1				BA	shatter/debitage	
2110	11520	25	20	6				bA		
2111	11521	25	20	6				bA		
2112	11522	9	5	2				BA	shatter/debitage	
2113	11523	10	7	2.5				BA	shatter/debitage	
2114	11526	14	7	2.5				BA	shatter/debitage	
2115	11528	7	7	2				BA	shatter/debitage	
2116	11529	32	21	16				bA		
2117	11530	32	21	16				bA		
2118	11531	37	23	6				BA	split flake	
2119	11532	37	23	6				BA	split flake	

2120	11533	26	12.5	5				BA	split flake	
2121	11534	48	36	7	47	36	6	BA	fragile. Blackened. Broken during transport	
2122	11535	48	36	7	47	36	6	BA	fragile. Blackened. Broken during transport	
2123	11536	47.0000	43.0000	45.6000				BA	blackened, fractured, hammerstone or fire-cracked	
2124	11539	9	5.5	1.5				BA	shatter/debitage	
2125	11541	10	8	1.5				BA	shatter/debitage	
2126	11543	38	21	7				BA	twice split flake	
2127	11544							UK	fragile, small, pebbles? Unknown material	
2128	11546	24	20	7	23	19	6	BA	cortical flake	
2129	11548	26	22	9						
2130	11549	27	24	7				BA	width est. b/c of CaCO3; distal end snapped flake	
2131	11550	57	25	15				BA		
2132	11551	57	25	15				BA		
2133	11552	49	40	16	44	38	11	BA		
2134	11553	49	40	16	44	38	11	BA		
2135	11554	33	18	13				BA		
2136	11555	33	18	13				BA		
2137	11556	23	19	7				BA		

2138	11557	23	19	7				BA		
2139	11558	14	8	5				BA	shatter/debitage	
2140	11559	15	9	2.5				BA	shatter/debitage	
2141	11560	14	7	6				BA	shatter/debitage	
2142	11561	17	13	4				BA	shatter/debitage	
2143	11562	11	7	1.5				BA	shatter/debitage	
2144	11563	12	9	3.5				BA	shatter/debitage	
2145	11564	7	6	2				BA	shatter/debitage	
2146	11565	13	6	3				BA	shatter/debitage	
2147	11566	6.5	4.5	1.5				BA	shatter/debitage	
2148	11567	12	9	12				BA	shatter/debitage	
2149	11568	14	9	4				BA	shatter/debitage	
2150	11569	18	14	6				BA	distal end snapped flake	
2151	11570	19	12	9				BA	shatter/debitage	
2152	11571	25	13	5				BA	looks like potlid	1
2153	11572	25	13	5				BA	looks like potlid	
2154	11573	26	1	6				BA		
2155	11574	26	1	6				BA		
2156	11575	9	6.5	2				BA	shatter/debitage	
2157	11576	10	4	2				BA	shatter/debitage	
2158	11577	9	5	2				BA	cortical shatter/debitage	
2159	11578	9	5	2				BA	shatter/debitage	
2160	11579	26	25	11				BA	blackened, fragile,	
2161	11580	26	25	11				BA	blackened, fragile,	
2162	11581	16	14	7				BA	split and snapped	
2163	11582	10	8	2				BA	shatter/debitage	

2164	11583	18	7	4				BA	shatter/debitage		
2165	11584	12	6	4				BA	shatter/debitage		
2166	11585	13	8.5	2				QZ	shatter/debitage		
2167	11586	13	7	3				QZ	fits with 11585 shatter/debitage		
2168	11587	15	11	3				BA	cortical shatter/debitage		
2169	11588	10	6.5	3				BA	shatter/debitage		
2170	11589	10	8	2				BA	shatter/debitage		
2171	11590	57	45	15	47	45	9	BA			
2172	11591	57	45	15	47	45	9	BA			
2173	11592	11	7	4				BA	cortical shatter/debitage		
2174	11593	16	8	2				BA	shatter/debitage		
2175	11594	7	5	3				BA	shatter/debitage		
2176	11595	8	4	3				BA	shatter/debitage		
2177	11596	14.5	4	3				BA	shatter/debitage		
2178	11597	4.5	4	1				BA	shatter/debitage		
2179	11598	13	7.5	3				BA	shatter/debitage		
2180	11599	37	24.5	9	34	17	9	BA			
2181	11600	37	24.5	9	34	17	9	BA			
2182	11601	46	31	17	43	22	13	BA			
2183	11602	46	31	17	43	22	13	BA			
2184	11603	6	4	2				BA	shatter/debitage		
2185	11604	17	8	1				CH	shatter/debitage		
2186	11605	13	9	3				BA	shatter/debitage		
2187	11607	28	20	9				QT	split and distal end snapped flake		

2188	11608	28	20	9				QT	split and distal end snapped flake	
2189	11609	18	16	6				BA	split flake	
2190	11610	10	7	4				BA	shatter/debitage	
2191	11614	17	12	4				BA	shatter/debitage	
2192	11627	12	7	2				BA	shatter/debitage	
2193	11628	12	7	4				BA	shatter/debitage	
2194	11629	11	5	2.5				BA	shatter/debitage	
2195	11631	12	8	2				BA	shatter/debitage	
2196	11635	25	18	7				BA		
2197	11636	13.5	13	6				BA	darkened, fragile. Possibly potlidde	
2198	11638	4	3	1				BA	shatter/debitage	
2199	11639	4.5	2	1				BA	shatter/debitage	
2200	11640	10	6	2.5				BA	shatter/debitage	
2201	11645	22	10	3				BA	split flake	
2202	11646	22	10	3				BA	split flake	
2203	11647	17	10	4				BA	shatter/debitage	
2204	11650	16	9	5				BA	shatter/debitage	
2205	11651	17	13	5.5				BA	shatter/debitage	
2206	11652	10	4	2				BA	shatter/debitage	
2207	11653	14	13.5	2.5				BA	shatter/debitage	
2208	11654	11.5	5	3.5				BA	cortical shatter/debitage	
2209	11656	61	50	40				BA	broken on one end	
2210	11657	61	50	40				BA	broken on one end	
2211	11658	9	8	2.5				BA	shatter/debitage	
2212	11660	47	35	17	46	34	13	BA		

2213	11661	47	35	17	46	34	13	BA		
2214	11663	10	6	3.5				BA	shatter/debitage	
2215	11666	7	4	2				BA	shatter/debitage	
2216	11667	10	7	5.5				BA	pebble?shatter/debitage	
2217	11668	14	7	4.5				BA	shatter/debitage	
2218	11675	15	8	5				IG	shatter/debitage	
2219	11677	14	8.5	3				CH	shatter/debitage	
2220	11683	45	18	11	17	44	8	BA	step termination	
2221	11684	45	18	11	17	44	8	BA	step termination	
2222	11685	46	19	15				BA	cortical fragment	
2223	11686	46	19	15				BA	cortical fragment	
2224	11689	16	13	5				BA	shatter/debitage	
2225	11690	38	32	10				BA		
2226	11691	38	32	10				BA		
2227	11692	37.5	21	6.5	36	20	6	BA	with cortex	
2228	11693	37.5	21	6.5	36	20	6	BA	with cortex	
2229	11694	11.5	6	3				BA	shatter/debitage	
2230	11697	33	22	9				BA		
2231	11698	23	21	10				BA		
2232	11699	13	7.5	3				BA	shatter/debitage	
2233	11700	16	11	4				BA	shatter/debitage	

Appendix 2 – R script for ANOVA and Tukey’s HSD

```
#this line removes ALL variables from the workspace, this is really important
rm(list=ls(all=TRUE))

#load necessary functions for analysis

#load the agricolae package (install first, if necessary)
library(agricolae)

#sets directory to Sarah's office
setwd("C:/Users/Sarah/Dropbox/Sarah Hlubik")

#read the dataset into an R variable using the read.csv(file) function
dataPairwiseComparisons <- read.csv("dataset_anova_comparisonMethods.csv")

#display the data
#dataPairwiseComparisons

#use anova(object) to test the omnibus hypothesis
#Is there a significant difference amongst the cluster means?
anova(lm(Rank ~ Cluster, dataPairwiseComparisons))

#HSD method

#use TukeyHSD(x), in tandem with aov(formula, data), to test the pairwise comparisons
#between the treatment group means
TukeyHSD(aov(Rank ~ Cluster, dataPairwiseComparisons))
```

Appendix 3 – Methods for ArcGIS Analysis

Transform Excel spreadsheet from arbitrary datum to UTM coordinates

To ease the procedure for analysis in ArcGIS, I converted the grid from an arbitrary datum to one based on UTM, first the distance to the datum was calculated for each artifact for both northing and easting. The UTM coordinates for the datum were estimated using GoogleEarth imagery and known map points in the area. The UTM coordinates were then calculated from the difference between the datum and each point using Excel.

Import file to ArcGIS

The Excel spreadsheet is imported through the “Add Files” command. The appropriate spreadsheet is selected. Using the data tool, I import the x, y and z coordinates. The layer is then exported as a shapefile and added back into the program.

Generate Vector Grid

The Grid is generated using the “GenVectorGrid” function in Hawthorn Beyer’s Geospatial Modeling Environment (Beyer, 2012). Using grid minimum and maximums for both easting and northing the grid and an interval of one meter, a shapefile was generated replicating the site grid.

Layer generation

To enable analysis, separate layers were created for the following: All Lithics, Micro-artifacts, Macro-artifacts, Discolored earth. Using the selection tool, and selecting for attribute “class” = artifact for All lithics, “length” =<20.00 for micro-artifacts, “length” => 20.01 for macro-artifacts and “class” = discolored earth” for discolored earth. Each selection was saved as a layer file and exported as a shapefile.

Kernel Density analysis

Using the spatial data analysis package in ArcGIS, I generated kernel density maps. The input layer was whatever type was being analyzed (All lithics, Micro-artifacts, Macro-artifacts, Discolored Earth). Search radius was set to 0.05 meters, and the output cell size was set to 0.05 meters.