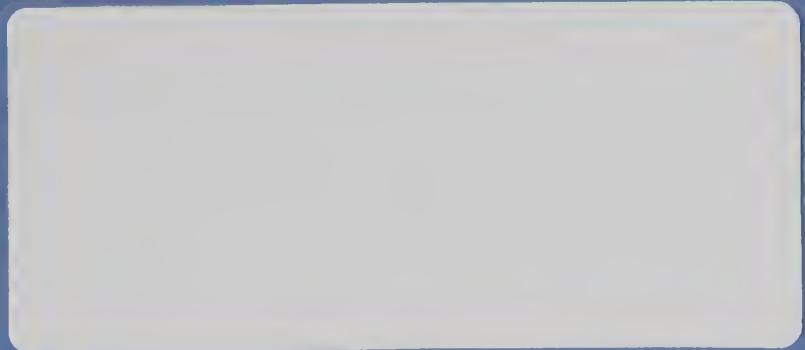


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AN
ARCHAEOLOGICAL SURVEY ASSESSMENT
FOR
RIO BLANCO OIL SHALE PROJECT
1975

FEDERAL ANTIQUITIES ACT
PERMIT NO. 75-CO-047
COLORADO STATE ANTIQUITIES ACT
PERMIT NO. 75-2

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CHAPTER I
DESCRIPTION OF PROJECT AND STUDY AREA

Gulf Oil Corporation and Standard Oil Company (Indiana) have proposed the development of Tract C-a for the purpose of oil extraction from the shale layer, which is overlain by 200 to 800 feet of overburden. The disposal of spent shale will involve adjacent areas.

Colorado Oil Shale Tract C-a is located in western Colorado approximately 57 miles southwest of the town of Meeker, Colorado. The tract, encompassing 5,090 acres, lies on the western flank of the Piceance Creek Basin, about five miles east of the Cathedral Bluffs. The topography of the tract includes a series of northeast trending canyons and ridges. The altitude of areas within the tract ranges from 6,600 feet in Corral Gulch near the northeast corner, to about 7,400 feet on the ridges near the southwestern portion of the tract. The principal drainages on and near the tract are Corral, Water, and Box Elder Gulches and Dry Fork. Southeast of the tract the principal drainage is Stake Springs Draw, and immediately north of the tract the principal drainage is Big Duck Creek. The general direction of flow of these drainages is to the northeast. The majority of these streams are intermittent, and generally flow only during the period of spring runoff and occasionally following local heavy rains. Yellow Creek, which receives all surface runoff from the tract, is intermittent near the tract but free-flowing near its confluence with the White River.

The annual precipitation in the vicinity of Tract C-a varies between 11.9 & 17.2 inches. Slightly less than half the precipitation occurs from December to April in the form of snow. Spring and Fall precipitation is slight. Locally, heavy thunderstorms occur during the summer with atten-

dant heavy runoff and occasional flooding. Summer temperatures can reach 100° and winter temperatures 40° below zero. The frost-free season varies from 123 days in the lower elevations, to 50 days in the upper elevations. The vegetative cover is mainly pinyon-juniper with large areas of sagebrush and other shrubs. Deciduous and grassy vegetation are minimal except in well-watered areas in the major drainages.

Tract C-a archaeological, historical and cultural foundations have not been studied intensively. While no sites of the size and complexity of Puebloan ruins in the Four Corners region may be expected, utilization of the region over an extensive period of time may be expected.

The archaeological resources of federally administered lands must be investigated prior to any physical disturbance of the land as stipulated by the Federal Antiquities Act of 1906 and other more recent legislation (Lipe and Lindsay, 1974). The permit (#75-CO-047) for archaeological investigations on Tract C-a and surrounding areas was granted by the National Park Service, Department of the Interior. Permits are granted for research on federal lands, and local administration of the permit and special stipulations are supervised, in this case, by the Bureau of Land Management.

CHAPTER II

HISTORY

Jennings (1974) conducted a survey and limited excavations in the Piceance Basin in 1973 and 1974. This investigation was supported by the Thorne Foundation of Boulder, Colorado and Colorado State University. The project was directed to obtain information on the impact of oil shale development on the archaeological resources of the Basin and adjacent areas. The survey was extensive, including portions of both Tracts C-a and C-b as well as a section of the Douglas Creek Drainage. A randomly selected sample of 48 land sections was intensively examined. Jennings stated that the region was occupied from perhaps as early as 6,000 B.C. to the historic period. Relationships with the Uncompahgre Complex to the south and with Dinosaur National Monument were noted. The comparisons were made primarily with stone artifacts and pottery.

Wenger (1956) investigated the Douglas Creek drainage and several sites in the Blue Mountain area north of Rangely, Colorado. These areas are noted for protected shelters and the amount of rock art, both painted on and pecked into the rock surfaces. This rock art is usually attributed to the Fremont culture period, although earlier peoples could have produced some of it. Natural protection is frequently sufficient to allow the preservation of organic material which disappears in sites exposed to the elements. Wenger stated that the artifacts found were related to the Fremont Culture and possibly the Ute. Artifacts included stone artifacts, wooden and bone tools, basketry, various items made from cordage such as snares for small mammals and pottery of several varieties.

The material recovered by the RBOSP survey can be compared with several adjacent areas within western Colorado and nearby portions of the Great

Basin. Surveys and excavations have been made by other institutions that have produced comparable material.

The Great Basin and its peripheral areas have received considerable archaeological attention. This region includes the plateaus, basins and ranges that lie between the western coastal ranges and the Rockies from Canada to Mexico. Dry caves and shelters occur in many portions of this area. The preservation of more material culture allows a greater possibility for the reconstruction of prehistoric culture patterns. Not only are more artifacts preserved, but materials important in the economic pattern, such as plant remains and faunal and avian bones, are preserved, all of which give indications of the adaptations or utilization of the environment.

J. Jennings proposed the term Desert Culture or Western Archaic (Jennings, 1957) for a particular adaptation to the central portion of the region described above, particularly centered in Utah. Several sites, including Danger Cave, Juke Box Cave and Raven Cave, provided material for his definition of this culture horizon. Of the three, Danger Cave was the most important. Similar Archaic material was reported from Hogup Cave (Aikens, 1965; Anderson, 1956; Fowler, 1968; Jameson, 1958). Hester (1973) postulated that the Great Basin had a relatively unchanging cultural continuum that lasted from approximately 10,000 B.C. until the time of European contact in some areas. The exploitative strategy was based on an omnivorous approach to the flora and fauna, utilizing what was seasonally available. Material culture items, light in weight and portable, were adapted to a migratory life style. A number of non-breakable containers, such as woven bags and hide bags and particularly basketry, were used for storage, gathering and processing plant materials. Basketry was used for water containers when covered with such materials as pitch. Pottery was not introduced until

late in the continuum. Other tools reflected hunting and gathering needs-- a large variety of projectile points, scrapers, and knives and grinding stones for vegetal material processing. Small groups of people and a low overall population density were also inferred. This period is generally accepted to have lasted in most areas until the early centuries of the Christian era.

The social unit for the Archaic culture was probably the extended family. Seasonal opportunities dictated the movement of the group, and any resource that produced edible food was exploited. A considerable knowledge of natural history, seasonal patterns of game movements and ripening times of various plants was needed. Material culture was geared to frequent changes in location. Clothing was minimal and housing was only constructed when a subsistence item was plentiful enough to support the group in one place for a period of time. Caves or overhangs were used when they occurred. Exploitation patterns indicate that, in addition to game and plants, fish, insects, waterfowl, rodents and reptiles were eaten. Artifacts from this sample that can be identified with the Archaic are primarily projectile points. Dating of this occupation could extend back several thousand years, 9,000 B.P.

The University of Colorado conducted excavations and survey in Dinosaur National Monument (Burg and Scoggin, 1948; Lister, 1951; Breternitz, 1970). Breternitz summarized an occupation that begins with either Plains or Western Archaic influences perhaps as early as 7,000 B.C. This tradition appears to last until the Fremont culture period around A.D. 1,000 and to continue on until historic times.

Between 1947 and 1952, the University of Colorado excavated several sites on the Uncompahgre Plateau in west-central Colorado (Wormington and Lister, 1956). These shelters produced a considerable amount of perishable material. From their analysis they defined the "Uncompahgre Complex", which was compared with the latter portion of the Western Archaic, ending in the late centuries prior to A.D. 1. Pottery was lacking and there is no evidence for plant cultivation. Comparisons of artifact types were made with material from Dinosaur National Monument. Distinctive artifact types found there included projectile points with indented bases and organic material that matches similar material found in the Great Basin.

Conclusions about the nature of the prehorse Ute groups and the territory they occupied is only speculative. The prehorse culture of the Ute is known only through a small amount of archaeological evidence. The Ute may have been a continuation of the Fremont, but there is no direct evidence of the origin of the Ute who moved into the Yampa and White River Areas.

Through Escalante's account and inference (Steward, 1974) the Ute originally must have resembled other foot Shoshoni groups. Their techniques of seed-gathering, fishing, root-digging, and of hunting deer, rabbits and antelope all represent adaptations to a semi-arid environment. Few localities afforded an abundance of food resources, and it was necessary for these people to move seasonally to the areas of seed plots or hunting grounds. The quest for food was carried out by individual families or by small groups of families. Cooperation between families only occurred in collective rabbit and antelope drives (Steward, 1974).

The Colorado Utes had horses by 1776, when Escalante travelled through the area. The economic base and socio-political organization was modified as

an adaptation to mobility (Steward, 1974). The increased mobility and transportational value of the horse led to closer association between villages and contributed to a loose band formation built upon personal allegiance to a leader. There was never any over-all Ute political organization. Individuals moved back and forth from one place to another staying with whatever leader offered the greatest hope.

By 1850, the Yampa Ute had displaced the Comanche and occupied the general area of the Grand, White and Yampa River drainages. Equestrian Yampa Utes roamed through Colorado, Wyoming and Utah, but wintered in South and Middle Parks in Colorado. These large intermountain valleys were excellent spots for hunting bison.

After the bison had disappeared from the parks in 1867, only small groups of Ute wandered through the region, partly because of the difficulty of procuring enough food to support a large population.

The treaty of 1868 established the northern boundary of the Confederate Ute at ca. 40°10' latitude, 107° longitude on the east and the Colorado Territory boundaries on the west and south. The Ute seemed to have wandered further in the quest for food after this Agency was established (Steward 1974).

In 1881, after the Meeker Massacre, the White River Utes were moved from Colorado to their present day location on the Uintah and Ouray Reservation in eastern Utah.

Six sites with Historic Ute structures and trade beads, No.'s 20, 46, 93, 140, 144 and 146 (See Appendix) were located during the survey. Figure 1-A, site 46, shows the remains of a Ute wickiup and a similar structure, 1-B near Cedaredge, Colorado. Figure 2 is a photo of a 1909 Ute wickiup

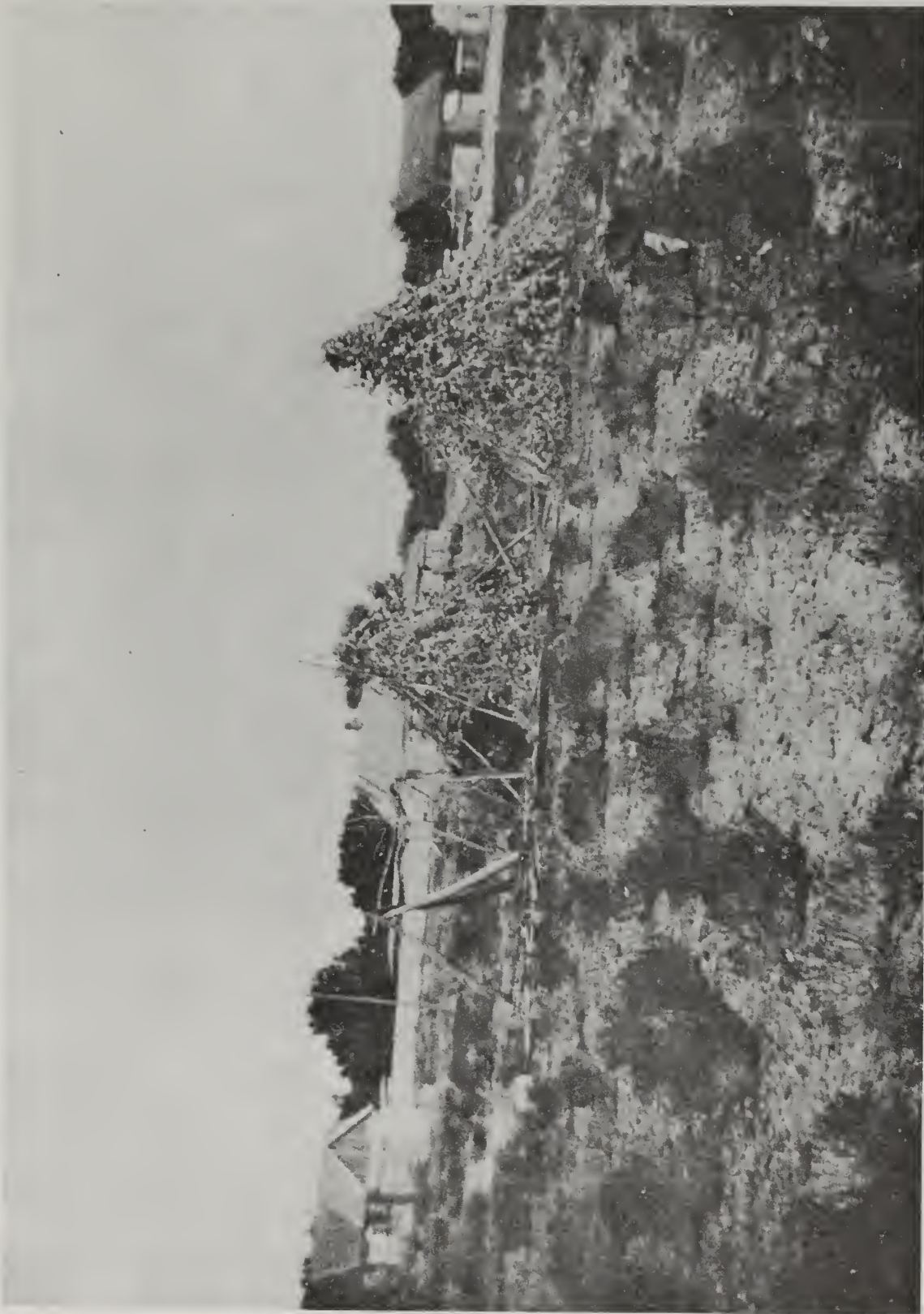


A. Remains of wickiup on site 46 south of Duck Creek.



B. Remains of similar Ute wickiup found near Cedaredge, Colorado.

Fig. 1



Historic Ute Wickiup Structure Near Whiterocks, Utah,
1909 (Smith: 1974)

Fig. 2

structure on the Uintah and Ouray Reservations (Smith, 1974).

In the recent historic period, the Piceance Basin has been used as rangeland for the grazing of sheep and cattle. Although quite seasonal, the area is intensively hunted during the October deer season. The Piceance drainage and Parachute Creek areas are known as some of the finest deer hunting areas in western Colorado.

Much of the historic material has been left by the deer hunters. However, the 84 Mesa ranch and a school are located near the study area. There is also a historic horse trap on 84 Mesa that has not been in use for some time. The majority of Anglo occupation is in the Ryan Gulch and Yellow Creek areas.

CHAPTER III

OBJECTIVES AND METHODS OF INVESTIGATION

OBJECTIVES

The purpose of the survey was to recover as much archaeological and historical material as possible, to establish which locations should be considered for more intensive archaeological investigation, and to determine if any sites are eligible for nomination to the National Register of Historic Places in compliance with criteria set forth in the Federal Register, 1966, and the E.O. 11593. The survey was designed to obtain information on the length and extent of occupation, cultural affiliations of people in the area, and the nature and degree of historic exploitation of the region.

FIELD SURVEY METHODS

Initial archaeological surveys were confined to drill pads, road sites, and instrumentation stations prior to disturbance during construction. No significant material was found in these localized areas, and the surveys were limited to surface examinations only.

Between June and October of 1975 an extensive, area-wide survey was conducted by two teams consisting of five to six people who systematically walked over the survey area. Areas that appeared to have a potential for occupation, such as benches adjacent to drainages, springs or streams, or upland areas possibly used for hunting and gathering, were intensively searched.

In relatively featureless terrain, such as 84 Mesa and other uplands, team members were spaced a short distance apart and linear traverses were made.

The survey was concentrated in the areas shown on the fold-out map. The map shows the expanded survey area to the northeast and locations of primary

and secondary sites found there. Site locations were mapped at the end of each field day and these locations were used to direct the investigation into areas where the possibility of finding additional sites appeared the greatest.

Material recovered in the field was processed in the base station laboratory. Artifacts were washed, given a field number that corresponded with the site location, identified, and catalogued.

Private collections and museum collections were inspected in Meeker and Dinosaur National Monument.

Douglas Creek, which has a topography completely different from Tract C-a, was visited. A number of caves and overhangs are located in this area which offer protection and may have been wintering areas for people who utilized the Piceance Basin. One of the most distinctive features of these shelters is the amount of rock art, which includes pictographs of humans, animals and other designs painted on the walls, as well as petroglyphs pecked into the rock face. Three other caves north of Rangely with a topography similar to Douglas Creek were also inspected. No artifacts were collected in either of these localities since they were outside our Federal permit area.

INITIAL LABORATORY METHODS

Initial laboratory analysis involved the separation of diagnostic material from non-diagnostic material. Each diagnostic artifact was then measured and described in terms of shape, method of manufacture (e.g., flaking) and material used. Location, topography, and areal extent of the site was

also recorded. This information was studied to determine cultural affiliations and approximate length and extent of utilization. To further develop the archaeological description of the area, comparisons of these artifacts were made to descriptions of artifacts previously dated and identified from adjacent areas.

DETAILED LABORATORY ANALYSIS

The detailed laboratory analysis included: 1) a refined qualitative method for determining site classifications; 2) a thorough search of the literature to classify and identify the projectile points; 3) site cluster establishment; and 4) a detailed lithic analysis.

CHAPTER IV

RESULTS

SITE CLASSIFICATION

A total of 197 archaeological locations produced material that was transported into the area or modified by man. See Appendix A for a complete list of locations, material recovered, and cultural affiliation, if known.

A quantitative system was designed to assign numerical point values to various tool types, structures and pottery. The total sum of points per site determined that site's classification in the three grades. Sites with more than 75 points were classified as Primary sites; those with 25 to 75 points, Secondary sites; and those with less than 25 points, Tertiary locations. Six sites with the remains of structures such as wickiups were automatically classified as Primary Sites. See fold-out map.

University of Denver site numbers have been assigned only to Primary and Secondary sites. Tertiary locations represent field locations of isolated artifacts or scatters of artifacts, too small to qualify as archaeological sites. The importance of Tertiary field locations is in their relationship to Primary and Secondary sites, as well as the site clusters. See Appendix A.

Classification	Tract C-a	84 Mesa	1-mile Perimeter	Off Tract*	Totals
Primary	0	11	2	9	22
Secondary	1	9	6	15	31

* Areas off tract other than 84 Mesa and the 1-mile Perimeter.

Primary sites had moderately large numbers of tools, moderate amounts

of wastage and/or wickiup structures. Twenty-two primary sites were found during the survey. Eleven were recorded on 84 Mesa, two within a 1-mile perimeter of the tract, nine off tract, and none were located on tract.

Secondary sites yielded less material and covered a smaller area than primary sites. A total of 31 secondary sites were described for the survey area. (Fold-out map).

Tertiary locations yielded the smallest amount of artifactual material. This material was usually limited to a few chips of toolstone, or one or two artifacts within a small area and are not considered sites. It is our opinion that excavation would not provide additional information (Fold-out map).

These site classifications indicate "importance for excavation" in the following order:

- * Primary sites: First priority for excavation in areas where disturbance will occur. Likely to yield additional material on excavation.
- * Secondary sites: Second order priority for excavation in areas to be disturbed. Could possibly yield additional information upon excavation.
- * Tertiary locations: Last in importance. Not recommended for excavation. Unlikely to yield additional material if excavated.

The first recommendation for archaeological preservation is to avoid the area whenever possible. However, in the event that disturbance cannot be avoided, excavations will be recommended on the basis of site classifications as indicated above.

CLUSTER ANALYSIS - Laboratory work included the relationship of clustered or grouped sites. All the sites were located on a basemap derived from the 7-1/2 Minute Series USGS Topographic maps. Primary and Secondary sites

were isolated and compared. In addition, the number of Tertiary locations in a given cluster was assessed to give additional information. This gave an initial indication of area use. Cultural affiliations, when known, were also plotted, although all sites did not provide this information.

The distributions of the various types of sites, their locations in relation to prominent topographic features, and types of artifacts recovered, and their cultural relationships were studied to determine cluster boundaries.

Four site clusters were established on the basis of concentrations of sites related to topographic features, and proximity to watercourses (Figure 3). Cluster I occurs on upper Stake Springs Draw encompassing approximately 583 ha (2.25 mi²). It contains two Primary and four Secondary sites, and five Tertiary locations. One Primary site is of Fremont and Ute affiliation, and the other Primary site appears to be associated with the Fremont culture. See Table 1 for description of sites in Cluster I.

Cluster II (Figure 3) occurs at the junction of Corral Gulch and Stake Springs Draw, and encompasses an area of approximately 2,000 ha (7.75 mi²). Nine Primary and two Secondary sites, and thirty-four Tertiary locations occur within this cluster. Archaic, Fremont, and Ute cultural affiliations occur within this cluster. See Table 2 for description of sites in Cluster II.

Cluster III is located (Figure 3) south of Duck Creek and covers about 980 ha (3.5 mi²). It contains five Primary and four Secondary sites, and ten Tertiary locations. Cultural affiliations include Fremont and Ute. See Table 3 for description of sites in Cluster III.

R 99 W

R 98 W

SITE CLUSTER IV

SITE CLUSTER III

84 MESA

TRACT C-a

SITE CLUSTER II

SITE CLUSTER I



ARCHAEOLOGICAL SITE CLUSTERS

LEGEND

- PRIMARY
- SECONDARY
- △ TERTIARY
- A - ARCHAIC
- F - FREMONT
- I - INDETERMINATE
- U - UTE

GULF-STANDARD INDIANA
RIO BLANCO OIL SHALE PROJECT
TRACT C-a

- COMPILED FROM USGS 7 1/2 QUADS
- 1 SAGEBRUSH HILL
 - 2 WOLFBRIDGE
 - 3 CALAMITY RIDGE
 - 4 BARCUS CREEK

Archaeological Site Clusters

Fig. 3

Cluster IV is located (Figure 3) at the confluence of Duck and Yellow Creeks, and encompasses about 1,360 ha (5.25 mi²). It contains six Primary and eight Secondary sites, and fourteen Tertiary locations. Ute and Fremont cultural affiliations occur within this cluster. See Table 4 for description of sites in Cluster IV.

In general, clusters appear to be located on uplands adjacent to water-courses, and probably represent areas of seasonal occupation. Lower-lying areas apparently were not used as camping areas, since artifact concentrations do not occur in these areas.

The importance of the site clusters comes to light when one looks at the temporal span of occupation beginning perhaps as early as 9,000 B.P. and extending to the present time of Anglo occupation as well as the apparent continuing utilization pattern. Site Clusters I, III and IV exhibit Fremont occupation, beginning possibly between 400 A.D. and 800 A.D.; Ute, who were removed from the area in 1880, and Anglo hunters and stockmen. Area II, from the projectile point analysis, may be of greater archaeological significance with a temporal span of possibly 9,000 B.P. through Fremont and Anglo.

ARTIFACT ANALYSIS

Projectile Point Description

During the RBOSP archaeological survey, a total of one hundred and forty-three (143) projectile points and fragments were found. Of these, fifty (50) were sufficiently complete to be classified. The classification is based on the obvious similarities and differences of the points available.

Table 1 Locations, numbers and descriptions of archaeological sites and materials found in Cluster I.

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation
				Point	Knife	Scraper	Flakes	Other		
51	T2S,R99W	S10,SE $\frac{1}{4}$ SE $\frac{1}{4}$				1f			T	-
20	T2S,R99W	S14,NW $\frac{1}{4}$ NW $\frac{1}{4}$	2-4f	2f	3-4f	94	Hammerstone, drill(f)	P	F(?)	-U
21	T2S,R99W	S15,SW $\frac{1}{4}$ NE $\frac{1}{4}$		1		13	Wickiups	T	-	
36	T2S,R99W	S11,NE $\frac{1}{4}$ SE $\frac{1}{4}$	1f	1	3f	20		S	I	
52	T2S,R99W	S15,SW $\frac{1}{4}$ NE $\frac{1}{4}$		1H		5		T	-	
55	T2S,R99W	S15,SE $\frac{1}{4}$ NE $\frac{1}{4}$	2f	1f		4	Toolstone	T	-	
64	T2S,R99W	S14,NW $\frac{1}{4}$ SE $\frac{1}{4}$	2f	2f	1		Mano, fossil bones, core	S	F(?)	
65	T2S,R99W	S14,NE $\frac{1}{4}$ NE $\frac{1}{4}$	1 3f	1	1f	107	Hammerstone Mano fragment	P	F	
66	T2S,R99W	S14,NE $\frac{1}{4}$ NW $\frac{1}{4}$	1f		3f	25		S	I	
67	T2S,R99W	S11,SW $\frac{1}{4}$ SE $\frac{1}{4}$			1f	10	Hammerstone	T	-	
19	T2S,R99W	S13,SW $\frac{1}{4}$ NW $\frac{1}{4}$	2f	1 1f	1f	18	Hammerstone	S		

f = Fragmentary tool, identifiable

H = Historic

P = Primary Site

S = Secondary Site

T = Tertiary Site

F = Fremont

I = Indeterminate

- = Cultural affiliation not attempted because of small number of artifacts

Table 2

Locations, numbers and descriptions of archaeological sites and materials found in Cluster II.

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation
				Point	Knife	Scraper	Flakes	Other		
111	T1S,R98W	S30,SE $\frac{1}{4}$ SW $\frac{1}{4}$	2			6	103	Drill & mano fragments	P	A
113	T1S,R98W	S30,SW $\frac{1}{4}$ SW $\frac{1}{4}$	1f	1	2		5	Mano (f)	T	-
1	T1S,R98W	S29,SE $\frac{1}{4}$ NW $\frac{1}{4}$		2f	1		7		T	-
					1f					
2	T1S,R99W	S25,SE $\frac{1}{4}$ NE $\frac{1}{4}$	1	1f			3	Basin Metate (#2)	T	-
23	T1S,R98W	S30,NW $\frac{1}{4}$ NE $\frac{1}{4}$	3	1						
			7f	6f	15	178		Hammerstone, drill, 3 choppers	P	F
24	T1S,R99W	S25,NW $\frac{1}{4}$ SE $\frac{1}{4}$	1f		4f	97		Mano fragments	P	F(?)
26	T1S,R98W	S20,NW $\frac{1}{4}$ SW $\frac{1}{4}$	1	2f	2f	1			T	-
27	T1S,R98W	S30,SE $\frac{1}{4}$ NE $\frac{1}{4}$	1				177	Potsherds, drill F, cores, blades, manos	P	A-F
			11f	9	16					
31	T1S,R98W	S30,SE $\frac{1}{4}$ NW $\frac{1}{4}$.2	1					T	-
48	T1S,R98W	S19,SE $\frac{1}{4}$ NW $\frac{1}{4}$	1				2		T	-
49	T1S,R98W	S19,NW $\frac{1}{4}$ SE $\frac{1}{4}$	1f				3		T	-
57	T1S,R98W	S19,NE $\frac{1}{4}$ SE $\frac{1}{4}$	2f	3	5	63		Drill (f), pottery	P	F
58	T1S,R98W	S20,SW $\frac{1}{4}$ NW $\frac{1}{4}$					3	1 potsherd	T	-
59	T1S,R98W	S20,SE $\frac{1}{4}$ NW $\frac{1}{4}$						Mano fragment	T	-
60	T1S,R98W	S19,NE $\frac{1}{4}$ SE $\frac{1}{4}$						Mano fragment	T	-
61	T1S,R98W	S19,NE $\frac{1}{4}$ SE $\frac{1}{4}$						Mano	T	-
62	T1S,R98W	S19,SE $\frac{1}{4}$ SE $\frac{1}{4}$			1f	2			T	-
63	T1S,R98W	S20,NE $\frac{1}{4}$ NW $\frac{1}{4}$				2			T	-
87	T1S,R98W	S30,NW $\frac{1}{4}$ NE $\frac{1}{4}$	1f				36	Toolstone	T	-
88	T1S,R98W	S30,NW $\frac{1}{4}$ NW $\frac{1}{4}$		1f	2			Mano	T	-
106	T1S,R98W	S29,SW $\frac{1}{4}$ NW $\frac{1}{4}$			1f	1			T	-

Table 2 (Continued)

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation
				Point	Knife	Scraper	Flakes	Other		
110	T1S,R99W	S25,NE $\frac{1}{4}$ SE $\frac{1}{4}$				1			T	-
112	T1S,R98W	S30,SW $\frac{1}{4}$ SE $\frac{1}{4}$					2		T	-
114	T1S,R98W	S20,SE $\frac{1}{4}$ SE $\frac{1}{4}$					6		T	-
115	T1S,R98W	S20,SE $\frac{1}{4}$ SE $\frac{1}{4}$	1f	1	6	135	Bone, mano tool-stone, pottery		P	F
116	T1S,R98W	S20,SW $\frac{1}{4}$ NE $\frac{1}{4}$	2		1	13	Mano, toolstone		S	A-F-U
117	T1S,R98W	S29,NE $\frac{1}{4}$ NW $\frac{1}{4}$		2	2	9	Mano fragment		T	-
125	T1S,R98W	S19,SW $\frac{1}{4}$ SE $\frac{1}{4}$			1	8			T	-
109	T1S,R99W	S36,NE $\frac{1}{4}$ NE $\frac{1}{4}$	1	1	2	82	Mano		S	F(?)
78	T1S,R98W	S21,NW $\frac{1}{4}$ NW $\frac{1}{4}$	1f		1f	5			T	-
79	T1S,R98W	S16,SE $\frac{1}{4}$ SW $\frac{1}{4}$			1f				T	-
129	T1S,R98W	S32,NW $\frac{1}{4}$ NE $\frac{1}{4}$	5f	1f	3f	88			P	A
135	T1S,R98W	S21,NE $\frac{1}{4}$ SW $\frac{1}{4}$				1			T	-
138	T1S,R98W	S21,SW $\frac{1}{4}$ SW $\frac{1}{4}$	1f	1f		2	Mano fragment		T	-
150	T1S,R98W	S32,NE $\frac{1}{4}$ SE $\frac{1}{4}$			1f	6			T	-
171	T1S,R98W	S29,NE $\frac{1}{4}$ NE $\frac{1}{4}$				3			T	-
172	T1S,R98W	S28,NW $\frac{1}{4}$ NW $\frac{1}{4}$				3			T	-
173	T2S,R98W	S 6,NW $\frac{1}{4}$ NW $\frac{1}{4}$			1,2f	5			T	-
174	T1S,R98W	S31,SW $\frac{1}{4}$				8			T	-
175	T1S,R98W	S31,NW $\frac{1}{4}$ NE $\frac{1}{4}$	3f	1f	2f	34	Mano, mano fragment, 5 tool fragments		P	
177	T1S,R98W	S32,NW $\frac{1}{4}$ NW $\frac{1}{4}$	4f	2f	2	74	Core tool		P	
178	T2S,R98W	S 6,NE $\frac{1}{4}$ NE $\frac{1}{4}$	1f		1				T	-
179	T1S,R98W	S32,NW $\frac{1}{4}$ SW $\frac{1}{4}$	1f			3	Tool fragment		T	-
180	T1S,R98W	S31,NW $\frac{1}{4}$ SE $\frac{1}{4}$	1f			2	Tool fragment		T	-
181	T1S,R98W	S32,SW $\frac{1}{4}$ NE $\frac{1}{4}$		2f		11	Tool fragment		T	-

Table 3 Locations, numbers and descriptions of archaeological sites and materials found in Cluster III.

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation
				Point	Knife	Scraper	Flakes	Other		
17	T1S,R98W	S18,SE $\frac{1}{4}$ SW $\frac{1}{4}$		1f	3f	3f	6		S	I
22	T1S,R98W	S18,SE $\frac{1}{4}$ SW $\frac{1}{4}$					9		T	-
46	T1S,R98W	S 8,SW $\frac{1}{4}$ SW $\frac{1}{4}$		1f	1f		15	1 historic knife, hammerstone, 5 mano fragments, chopper, core, trade beads, wickiup structure	P	U
68	T1S,R98W	S 8,SW $\frac{1}{4}$ SE $\frac{1}{4}$			1	2f	9		T	-
69	T1S,R98W	S17,NW $\frac{1}{4}$ NE $\frac{1}{4}$					1		T	-
73	T1S,R98W	S18,NE $\frac{1}{4}$ SE $\frac{1}{4}$		1f			2	Mano	T	-
74	T1S,R98W	S18,NE $\frac{1}{4}$ SE $\frac{1}{4}$		1f		3	7	2 mano fragments, chopper	S	I
75	T1S,R98W	S18,NE $\frac{1}{4}$ SE $\frac{1}{4}$					3		T	-
76	T1S,R98W	S17,NW $\frac{1}{4}$ SW $\frac{1}{4}$				1f			T	-
77	T1S,R98W	S18,SE $\frac{1}{4}$ SE $\frac{1}{4}$						Toolstone	T	-
80	T1S,R99W	S13,SW $\frac{1}{4}$ SE $\frac{1}{4}$		1f	1f	4	25	Mano fragment, toolstone	S	I
85	T1S,R99W	S13,SW $\frac{1}{4}$ SE $\frac{1}{4}$			3f	4f	99		P	I
86	T1S,R99W	S13,NE $\frac{1}{4}$ SE $\frac{1}{4}$		1f	3f 4	1 2f	71	Toolstone, pottery	P	F
92	T1S,R98W	S 8,NW $\frac{1}{4}$ SE $\frac{1}{4}$				1	2		T	-
93	T1S,R98W	S 7, SW $\frac{1}{4}$ SW $\frac{1}{4}$						Wickiup structure, toolstone	P	U
118	T1S,R98W	S 7,NE $\frac{1}{4}$ NE $\frac{1}{4}$			4f	1f	25	1 mano fragment	S	I
119	T1S,R99W	S13,SW $\frac{1}{4}$ NE $\frac{1}{4}$		1f			11	Toolstone	T	-
143	T1S,R98W	S18,NW $\frac{1}{4}$ SW $\frac{1}{4}$				1f	1		T	-
18	T1S,R98W	S18,SE $\frac{1}{4}$ SW $\frac{1}{4}$		1 2f	1f	1f	104	Chopper (f)	P	F(?)

Table 4. Locations, numbers and descriptions of archaeological sites and materials found in Cluster IV.

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation
				Point	Knife	Scraper	Flakes	Other		
96	T1S,R98W	S 9,NE $\frac{1}{4}$ SW $\frac{1}{4}$						Mano fragment	T	-
98	T1S,R98W	S 5,SE $\frac{1}{4}$ SE $\frac{1}{4}$					1	Maul	T	-
130	T1S,R98W	S 9,NE $\frac{1}{4}$ SE $\frac{1}{4}$						1 mano in two fragments	T	-
131	T1S,R98W	S 9,SE $\frac{1}{4}$ SE $\frac{1}{4}$						1 mano fragment	T	-
132	T1S,R98W	S 9,SE $\frac{1}{4}$ SE $\frac{1}{4}$			1f	1f	14		T	-
133	T1S,R98W	S10,SW $\frac{1}{4}$ SW $\frac{1}{4}$						Mano fragment	T	-
134	T1S,R98W	S 9,SE $\frac{1}{4}$ SW $\frac{1}{4}$					5		T	-
139	T1S,R98W	S10,SW $\frac{1}{4}$ SE $\frac{1}{4}$			1f	1	49		S	I
140	T1S,R98W	S 9,NE $\frac{1}{4}$ NW $\frac{1}{4}$		3f	3f	4				
						1f	90	Drill, 5 tool fragments, mano, 4 mano fragments, toolstone, wickiups	P	U-F
141	T1S,R98W	S 9,NW $\frac{1}{4}$ NE $\frac{1}{4}$		1f	1f	2	7		T	-
142	T1S,R98W	S10,NW $\frac{1}{4}$ NW $\frac{1}{4}$				1	1	3 potsherds, core, hammerstone, mano, 10 mano fragments	S	
144	T1S,R98W	S10,NW $\frac{1}{4}$ NE $\frac{1}{4}$		1f	1f	3f	28	Mano fragment, wickiup	P	U-F
145	T1S,R98W	S10,NW $\frac{1}{4}$ SW $\frac{1}{4}$		1f		5f	14		S	I
146	T1S,R98W	S10,SE $\frac{1}{4}$ NE $\frac{1}{4}$		1f	1f	1	35	Chopper, 3 mano fragments, 2 wickiups, 13 small blue trade beads, 2 small white trade beads, 1 blue bead	P	U
147	T1S,R98W	S10,SE $\frac{1}{4}$ NE $\frac{1}{4}$			1f	3				
						4f	22		S	

Table 4 (Continued)

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation
				Point	Knife	Scraper	Flakes	Other		
148	T1S,R98W	S11,NW $\frac{1}{4}$ NW $\frac{1}{4}$	2f	2f		52	1 gray sandstone bead	S		
152	T1S,R98W	S11,NW $\frac{1}{4}$ SE $\frac{1}{4}$	1		1	13	Mano, hammerstone, 1 hammerstone fragment	T	-	
153	T1S,R98W	S11,NE $\frac{1}{4}$ NE $\frac{1}{4}$	1f	4f	6	51	Mano fragment	P		
154	T1S,R98W	S 2,SW $\frac{1}{4}$ SW $\frac{1}{4}$	1 2f	1f	1 1f	89		S		
155	T1S,R98W	S 2,SW $\frac{1}{4}$ SW $\frac{1}{4}$				5		T	-	
156	T1S,R98W	S 2,SW $\frac{1}{4}$ SW $\frac{1}{4}$				3	Mano fragment petrified bone	T	-	
157	T1S,R98W	S 2,NE $\frac{1}{4}$ SW $\frac{1}{4}$				20	Petrified bone	T	-	
159	T1S,R98W	S11,NW $\frac{1}{4}$ NW $\frac{1}{4}$			4 2f	9	Hammerstone, 2 mano fragments	S		
160	T1S,R98W	S16,NE $\frac{1}{4}$ NE $\frac{1}{4}$	3f	4f	1f	43	1 potsherd, 3 mano fragments	P	F	
161	T1S,R98W	S16,SW $\frac{1}{4}$ NE $\frac{1}{4}$		1f		4		T	-	
164	T1S,R98W	S 8,NE $\frac{1}{4}$ NE $\frac{1}{4}$ S 9,NW $\frac{1}{4}$ NW $\frac{1}{4}$	2f	3f	1f	12	Hammerstone, 4 mano fragments, chopper	S		
166	T1S,R98W	S 1,SW $\frac{1}{4}$ NW $\frac{1}{4}$		1	1	10	Mano, hammerstone	T	-	
186	T1S,R98W	S 1,NW $\frac{1}{4}$ NE $\frac{1}{4}$	3f	1f	4f	40	Hammerstone, mano fragment, 3 tool fragments	P	F	

f = Fragmentary tool, identifiable
P = Primary Site
S = Secondary Site
T = Tertiary Site
F = Fremont

The letters (P), (S), and (T) following the site numbers indicate the classification of the site to be primary, secondary or tertiary.

Triangular, unnotched points

Group 1-a

Number of specimens - 6. See Figure 4

Material - Quartzite, Chalcedony

Measurements (cm)

Largest

Smallest

Length - 2.8

1.6

Width - 1.6

1.5

Thick. - .47

.27

Site number(s): 140 (P)¹; 190 (S)²; 109 (S); (T)³ 41, 141, 168

Description: Unnotched, triangular blade, straight base, straight to convex sides.

Comments: Similar to Cottonwood Triangular (Aikens, 1970 Hogup Cave). These are in the range noted by Aikens; our samples are in the small to medium range. The Cottonwood samples lie in Hogup Cave Unit III, A.D. 400-1350, association--Fremont.

Group 1-b

Number of specimens - 11. See Figure 4.

Material - petrified wood, chert

Measurements (cm)

Largest

Smallest

Length - 2.2

2.1

Width - 1.0

1.2

Thick. - .15

.2

¹ Recovered from a primary site.
² Recovered from a secondary site.
³ Recovered from a tertiary site.

Site number(s): 20 (P), 23 (P), 27 (P), 65 (P), 140 (P),
146 (P), 45 (S)

Description: Unnotched, triangular blade, concave base,
straight to convex sides, well made. Thin
flakes, plano-convex or lenticular cross-
sections.

Comments: Similar to Cottonwood Triangular, with
concave base. Some specimens are very thin
plano-convex, finely flaked. Similar specimens
discussed by Gunnerson (1957, p. 23, Figure 10,
p. 26) although they are larger. Gunnerson
(1957) calls them knife blades. Our (smaller)
specimens are undoubtedly projectile points.
Probably later in time. Shutler and Shutler
(1963) referred to them as "A widely distributed
late type in the West." Also see Taylor (1957,
Fig. 53, Central Utah).

Group 1-c

Number of specimens - 4. See Figure 4.

Material - Chert, Quartzite

Measurements (cm)

<u>Largest</u>	<u>Smallest</u>
Length - 3.5 - 3.8	2.9
Width - 1.8	1.8
Thick. - .45	.45

Site number(s): 15 (T), 45 (S), 65 (P), 165 (T) (Serrated)

Description: Unnotched, convex base, convex sides, basal
thinning.

Comments: This type is noted in John P. Marwitt (1968 Pharo Village), and is in his class B. Our points fall in the medium to small range in comparison with his. The Pharo Village site is described by Marwitt as "best classified as Sevier-Fremont", although he sees relationships in material culture with Eastern Fremont. His C-14 datings range from A.D. 1190₊₈₀ to probably A.D. 1260₊₉₀ for this site.

TYPE 2 Side-notched

Group 2-a Number of specimens - 10. See Figure 4.

Material - Quartzite, obsidian, chert, petrified wood

Measurements (cm)

<u>Largest</u>	<u>Smallest</u>
Length - 2.7	1.55
Width - 1.95	1.2
Thick. - .24	.37

Site number(s): 2 (T), 27 (P), 124 (S), 24 (P), 101 (T),
195 (T), 55 (T), 116 (S), 144 (P), 194 (S)

Description: Triangular blade, straight to convex sides with small side notches, notched or indented straight or concave base giving an "eared" effect. Two specimens are made on small plano-convex flakes, edge retouch on plane side and extensive retouch on the convex side. Base is the widest part of point.

Comments: These points fall in the Desert side-notched category which is widespread throughout the southwest, Texas, western Oklahoma, the Great Basin and California. Dates for these range between A.D. 400 and 1350 in the Hogup Cave stratum, and continue up to historic times in association with Shoshonean peoples. They are common in association with Fremont sites. (See Aikens, 1970; Fowler, 1968; Shutler and Shutler 1963).

Group 2-b

Number of specimens - 3. See Figure 4.

Material - Quartzite, Chert

Measurements (cm) (only one measureable)

Length - 2.2

Width - 1.2

Thick. - .3

Site number(s): 23 (P), 180 (T), 160 (T)

Description: Triangular blade, convex sides with side notching, concave base. Widest point is at base on one specimen, other is slightly wider above notches, well made.

Comments: The concavity of the base is the main distinguishing feature from the Type 2-a points. Taylor (1957) reports that they are common in Utah sites. Hunt (1953, Figure 17) sees these and Type 2-e as a Fremont or early Shoshonean trait (see Taylor, 1957; Sharrock 1966).

Group 2-c

Number of specimens - 1. See Figure 4.

Material - Chert

Measurements (cm)

Length - 2.14

Width - 1.75

Thick. - .3

Site number(s): 154 (S)

Description: Triangular, straight. Slightly convex sides with side notching, concave base dropping sharply at corners to form downraking tangs. Base is widest part of point. Well made.

Comments: This is at present unidentifiable. However, a similar type with the downraking tangs, but no side-notching, has been recorded in Fowler (1968; Plate 1).

Group 2-d

Number of specimens - 1. See Figure 4.

Material - Chert

Measurements (cm)

Length - 1.65

Width - 1.2

Thick. - .2

Site number(s): 23 (P)

Description: Small triangular blade, straight sides with side notching, straight base, plano-convex cross-section, both sides retouched carefully and extensively. Base is widest part of point.

Comments: Could be considered a Desert Side-notched point, the difference lying in the lack of basal notching. Rudy (1953) has a similar point, although broader, in Figure 32. The specimens in Shutler (1963) are a bit larger. Both of these examples are associated with Fremont sites (Rudy, 1953; Shutler, 1963).

Group 2-e

Number of specimens - 4. See Figure 4.

Material - (white translucent) chert, petrified wood

Measurements (cm)

Largest

Smallest

Length - 2.7 - 3.0

1.9

Width - 1.7

1.45

Thick. - .48

.2

Site number(s): 26 (T), 44 (T), 152 (T), 165 (T)

Description: Triangular blade, straight to convex sides with side-notching low on blade, straight base, base is widest part of point. Carefully flaked.

Comments: Another similarity to the Desert Side-notched point. Also considered late Fremont or early Shoshonean. (Taylor, 1957; Breternitz 1964-1965).

TYPE 3

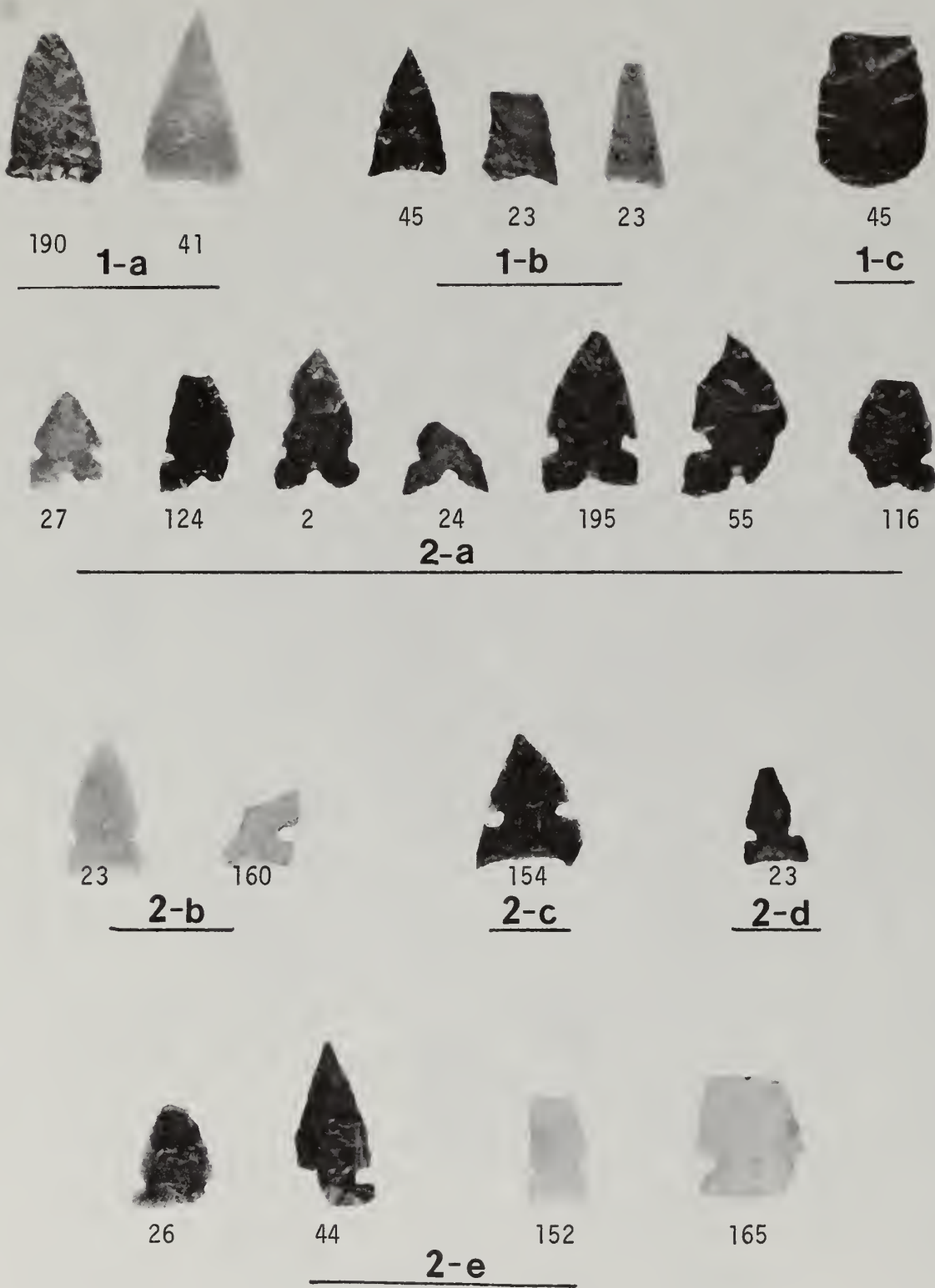
Corner Notched Points

Group 3-a

Number of specimens - 3, 2 Base Fragments. See Figure 5.

Material - Chert

Measurements (cm)



PROJECTILE POINTS (ACTUAL SIZE)

Fig. 4

Largest

Smallest

Length - 4.5 - 4.8

2.7 - 2.9

Width - 2.84

1.7

Thick. - .48

.38

Site number(s): 116 (S), 73 (T), 129 (P), 6 (T), 27 (P)

Description: Triangular blade, straight to convex sides, slightly expanding stem, indented base. Large specimen is plano-convex with very little retouch on plane side, and is flaked well on convex side.

Comments: This is an older type point considered to be a dart point. The deep indentation, or bifurcation, as well as the corner notching and size put this in the category of Elko Split-Stem (Aikens 1970). Dates for these, as recorded in Hogup Cave, range from the unit defined by Aikens as 6400 B.C. to 1250 B.C. and are found in most of the strata of this unit. Similar specimens were found in Danger Cave by J. Jennings, and are classified in the Wendover series as W20, W29, and W31 (Aikens 1970; J. Jennings, 1957).

TYPE 4

Corner notched

Group 4-a

Number of specimens - 2. See Figure 5.

Material - Chert, Quartzite

Measurements (cm)

<u>Largest</u>	<u>Smallest</u>
Length - 3.8 - 4.2	2.4 - 2.8
Width - 2.25	1.9
Thick. - .5	.43

Site number(s): 27 (P), 37 (T)

Description: Large points, convex sides. Low corner notching with one notch slightly higher than the other. Straight to slightly concave base. Large point is crudely flaked.

Comments: These fall into the category of Elko Corner-notched as defined by Aikens (1970). Similar specimens can be found in the Danger Cave data classified into the Wendover Series: W18, W19, W20, W21, W22, W23, W24. Dates range from the time they first appear, 6000 B.C. to A.D. 1350 at Hogup Cave, and are of considerable variety. Dart points. (Aikens, 1970; J. Jennings, 1957).

Group 4-b

Number of specimens - 2. See Figure 5.

Material - Petrified wood, Quartzite

Measurements (cm)

<u>Largest</u>	<u>Smallest</u>
Length - 2.6 - 2.7	2.28
Width - 2.1	1.75
Thick. - .42	.4

Site number(s): 20 (P), 151 (S)

Description: Triangular, straight to convex base. Both have one straight side and one concave side,

expanding stem with large, wide, corner notching. Crudely flaked.

Comments: These poorly formed and crudely flaked points are apparently rare in most sites. A similar specimen of the same type can be found in Gunnerson (1957; Figure 14, specimen ff), but is not identifiable as Fremont. These points, obviously not common in this area, have been classified only due to the fact that there were two, and in the future, more may be discovered with the need for comparison. (Gunnerson 1957).

Group 4-c

Number of specimens - 13. See Figure 5.

Material - Obsidian, Chert (transparent, white)

Measurements (cm)

Largest

Smallest

Length - 3.15

1.9 - 2.0

Width - 1.6

1.15

Thick. - .3

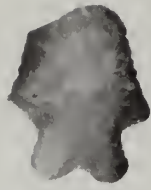
.3

Site number(s): 48 (T), 164 (S), 186 (P), 64 (S), 65 (P),
(Serrated), 137 (T), 11(T), 140 (P), 18 (P),
193 (T), 90 (S), 66 (S).

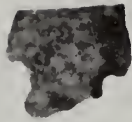
Description: Triangular, straight to slightly convex sides, straight to convex base with expanding stem, corner notching, well made.



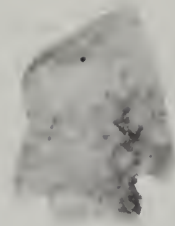
116



73



129



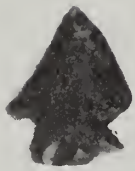
27



37

3-a

4-a



20



151



65



64



137

4-b

4-c



11



140



18



186



90



66

4-c

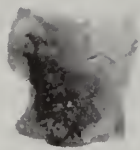
PROJECTILE POINTS (ACTUAL SIZE)

Comments: These well-made, finely shaped and flaked points are found in occupation areas of some Fremont sites in the Dinosaur region (Breternitz, 1970) and dates for their association with Fremont material culture at Cub Creek are A.D. 1000-1150. Gunnerson (1957) also records them at Fremont sites in eastern Utah (Figure 14, specimens a-e). A widespread type (Breternitz, 1970; Gunnerson, 1957).

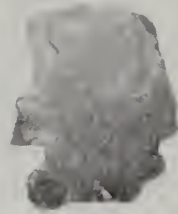
Miscellaneous points not yet identified are shown on Figure 6.



191



113



87



78



188



36



81



175

MISCELLANEOUS POINTS

NOT AS YET IDENTIFIABLE

PROJECTILE POINTS (ACTUAL SIZE)

Fig 6

Lithic Tool Analysis

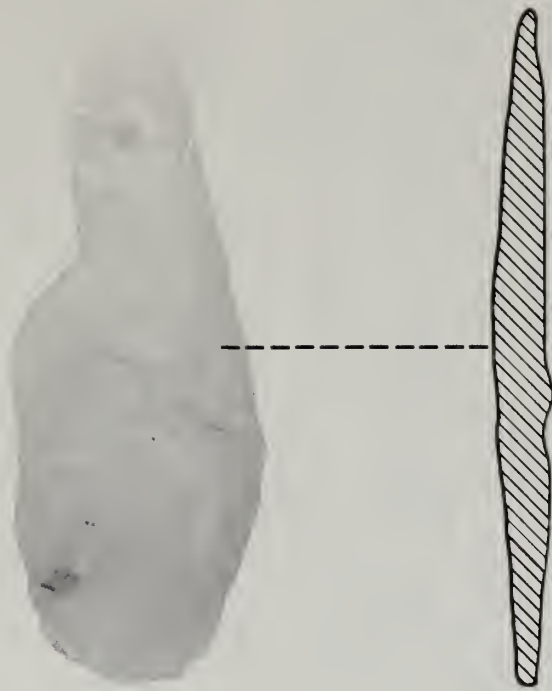
Definitions

Knives: Knives are defined as processing tools that were bifacially flaked to produce a wedge-shaped cutting edge. These were probably primarily used for cutting meat or other materials and working hides. Two general types of knives were made. One was a finished tool with distinct shape and dimensions. These were bifacially flaked on both edges and are morphologically similar to projectile points, but larger. The other type of knife was merely a flake which was bifacially flaked or retouched on one or more of the edges, but was not shaped by flaking. See Figures 7 and 8. A total of 87 knives, the majority of which are fragmentary, were recovered from primary and secondary sites.

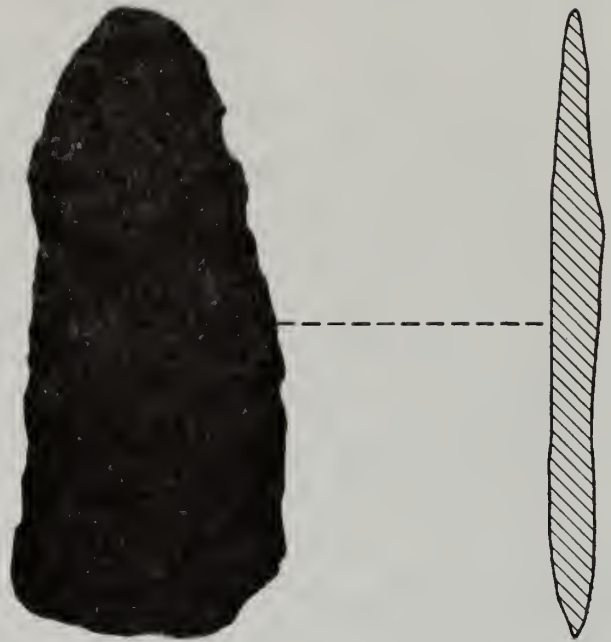
Scrapers: Scrapers were used to remove waste material from hides and other materials. The edge of a scraper differs from that of a knife in that it was chipped unifacially from the edge, giving it an angular surface. Finished scrapers have one flat side and a rounded or convex upper surface. See Figures 9 and 10, A and B. Eighty-six scrapers were recovered from primary and secondary sites.

Drills: Drills have long, slender shafts, generally oval to diamond shaped cross section and used as perforators. Drill bases vary in shape and proportional size to the shaft. See Figure 10, C and D. Nine drills were recovered. Only one remains intact, the rest are fragmentary.

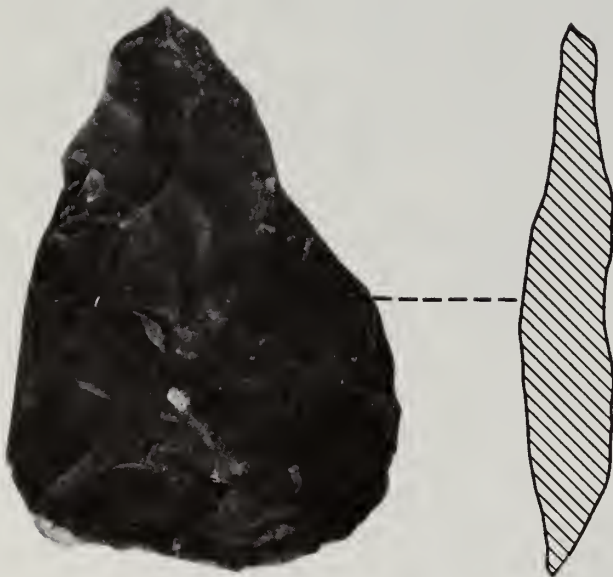
Gravers: Only one graver was found. This artifact is chipped on one face, and is a short, bulky, pointed tool designed to scratch rather than perforate.



Colo. H:3:1



Colo. H:3:3



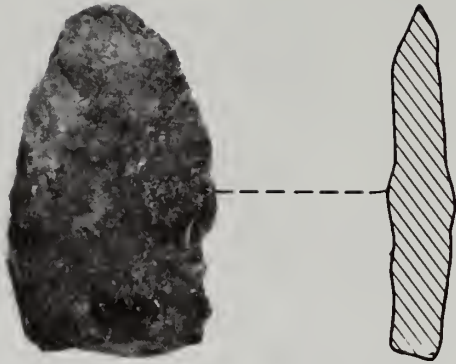
Colo. H:3:2



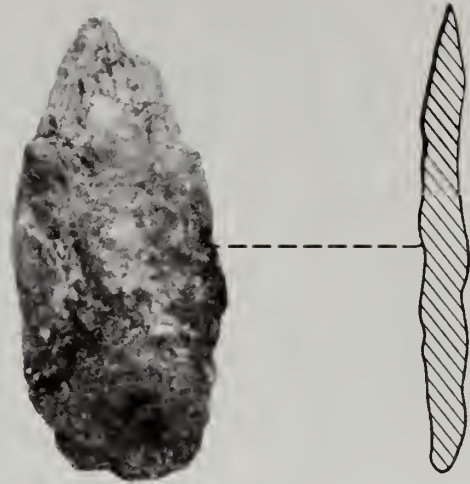
Isolated Artifact Field #192

ASYMMETRICAL BLADES
(ACTUAL SIZE)

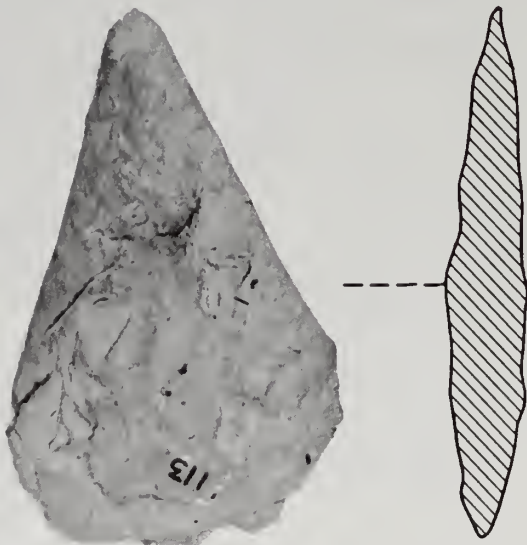
Fig. 7



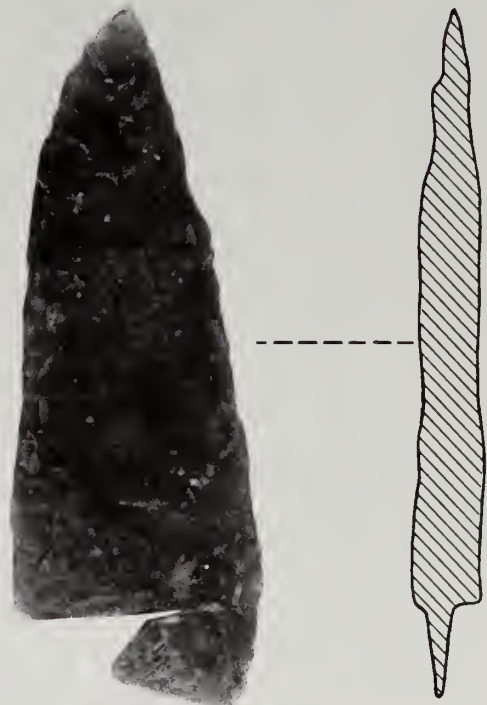
Colo. H:3:41



Isolated Artifact Field #127



Isolated Artifact Field #113

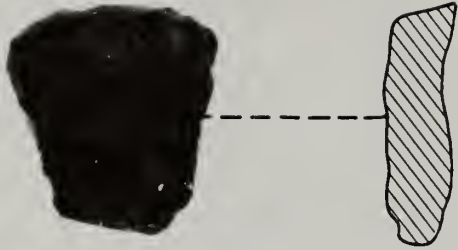


Colo. H:3:32

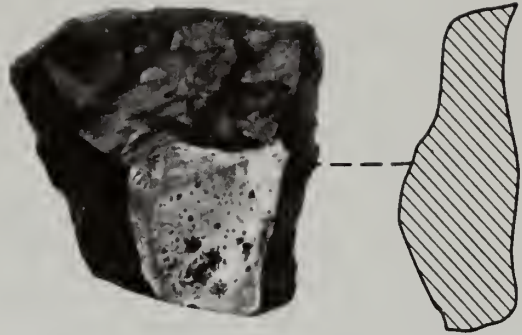
BIFACIAL BLADES

(ACTUAL SIZE)

Fig. 8

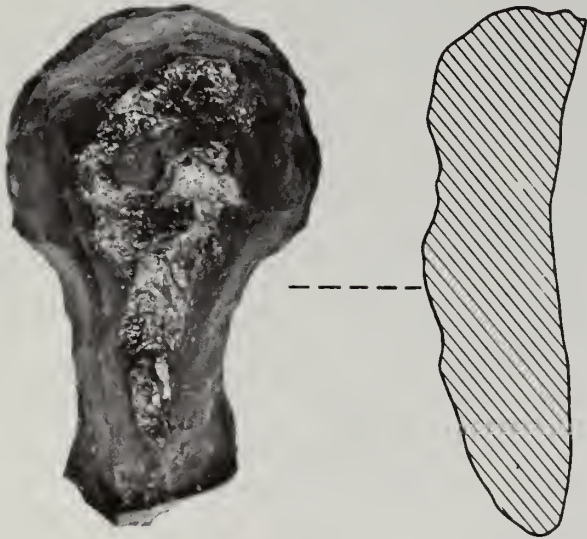


A
Colo. H:3:5

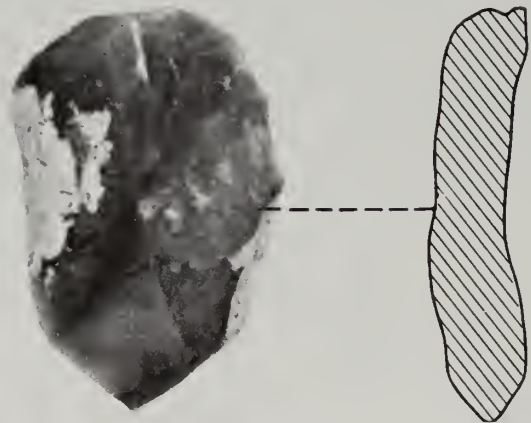


B
Colo. H:3:28

SIDE - END SCRAPERS



C
Colo. H:3:38

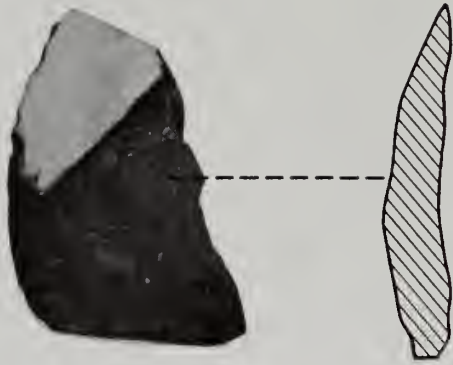


D
Colo. H:3:21

END SCRAPERS

SCRAPERS
(ACTUAL SIZE)

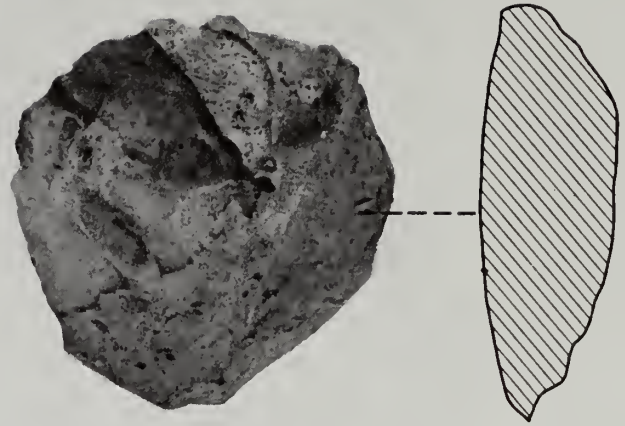
Fig. 9



A

Isolated Artifact Field #102

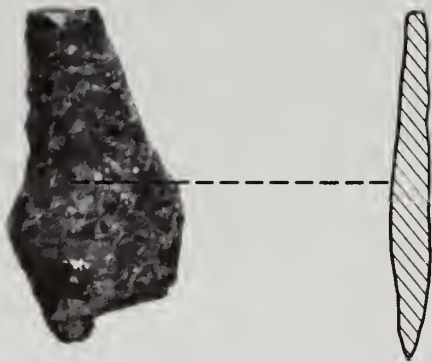
SIDE-SCRAPER



B

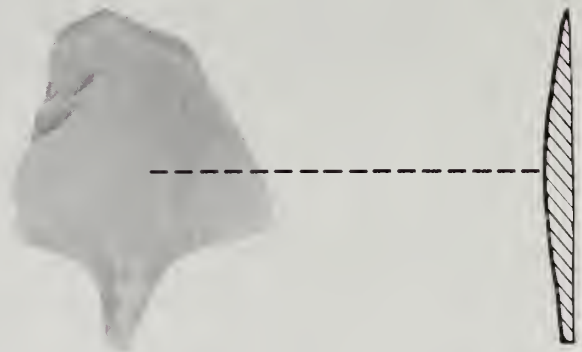
Colo. H:3:14

DOMED SCRAPER



C

Colo. H:3:23



Isolated Artifact Field #12

DRILLS

(ACTUAL SIZE)

Fig.10

Choppers: Choppers are large bulky implements, either made from large flakes or adapted for use from cores. The large, flake choppers (See Figure 11) are generally unifacially flaked, while the chopper-cores are flaked over the entire surface. A total of nine choppers were recovered from primary and secondary sites.

Utilized Flakes: These tools are flakes with no alteration prior to their use. The only distinguishing characteristic that qualifies this artifact as a tool are the minute flakes removed from the edge(s) resulting from its use. Most of these flakes have sharper edges than a chipped knife, but the edges are fragile and dull easily. The function of a utilized flake appears to be similar to a knife; however, some of these specimens have been used as a scraper. Utilized flakes compose 21.3% of the tools recovered from primary and secondary sites.

Cores: Cores are the remnants of toolstone from which flakes have been removed. They are not usually tools in themselves. Cores have been divided into two categories for this analysis: 1) exhausted cores, and 2) cores unexhausted. An exhausted core is a piece of toolstone that has been flaked too small for any more flakes to be removed. Eight of these specimens were recovered from primary and secondary sites. Twelve cores (unexhausted) were also recovered.

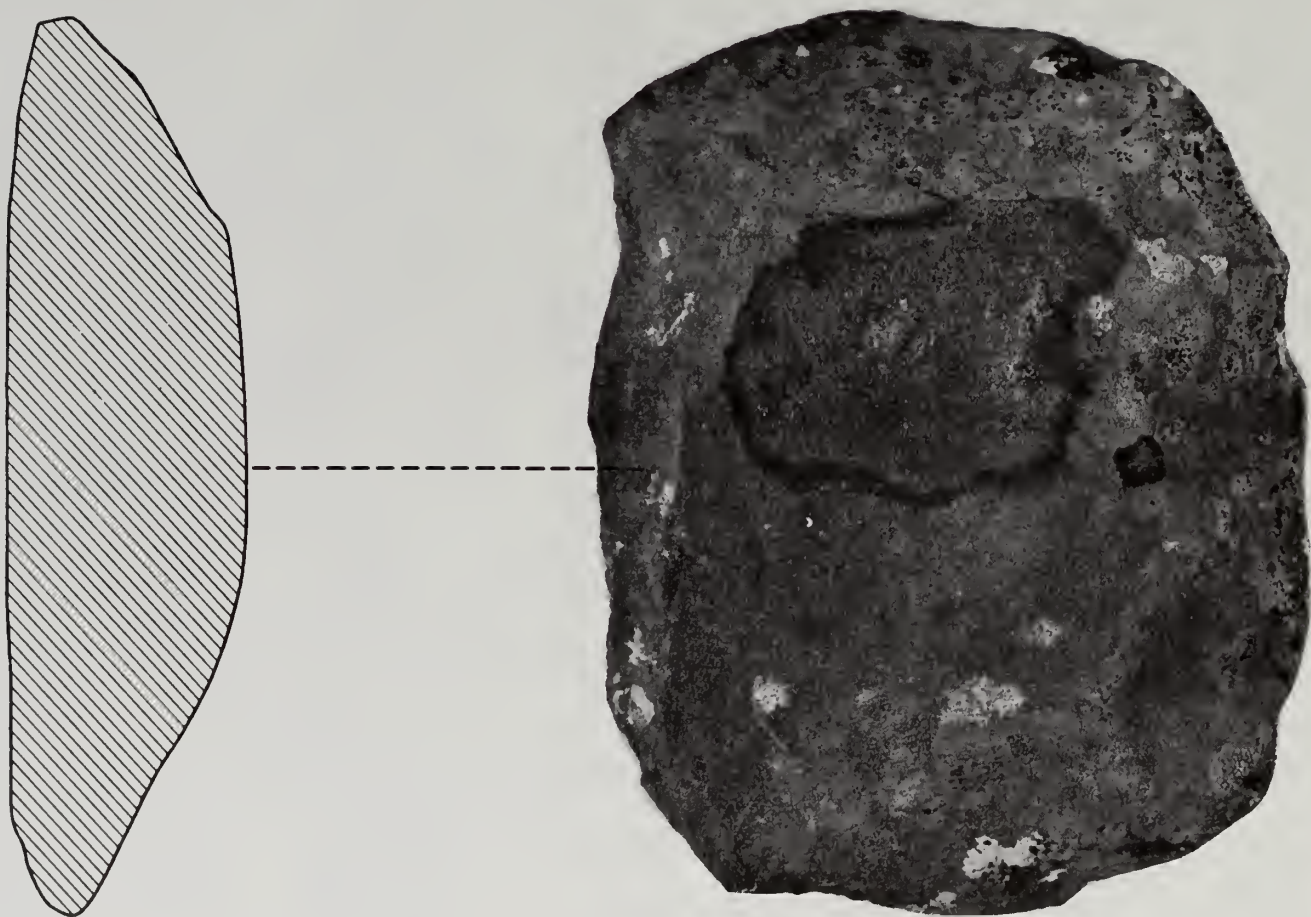
Hammerstones: Hammerstones are more or less spherical pieces of stone that were used to fabricate or process other materials. Hammerstones were used to shape manos and metates as well as to remove flakes from cores and tools. Fifteen hammerstones were recovered from primary and secondary sites.

FIG. 11

(ACTUAL SIZE)

CHOPPER

Colo. H:3:13



Ground Stone Tools: Metates (grinding slabs) and manos (handstones) were used for grinding a variety of materials, such as vegetal food and dried meat. Four fragments of grinding slabs, the stationary element, and thirty-eight manos, the movable element, were recovered from archaeological sites in the study area. See Figure 12, Illustration of Metates found on 84 Mesa.

A total of 2,925 artifacts were inspected during the chipped stone analysis of primary and secondary site material. Of this total, 365 items are classified as tools, while 2,650 are tabulated as waste flakes. The chipped stone tools included in this collection are projectile points - 26%, knives - 23.8%, scrapers - 23.6%, drills - 2.5%, gravers - 0.3%, choppers - 2.5%, and utilized flakes - 21.3%.

The analysis of lithic material recovered from the C-a Tract and associated study area was designed to shed light on the exploitative strategies employed by the aboriginal inhabitants of the area. The lithic tools were examined to explore the hypothesis that the region was utilized on a seasonal basis for the exploitation of game and vegetal resources.

The lithic analysis was designed to answer several specific questions:

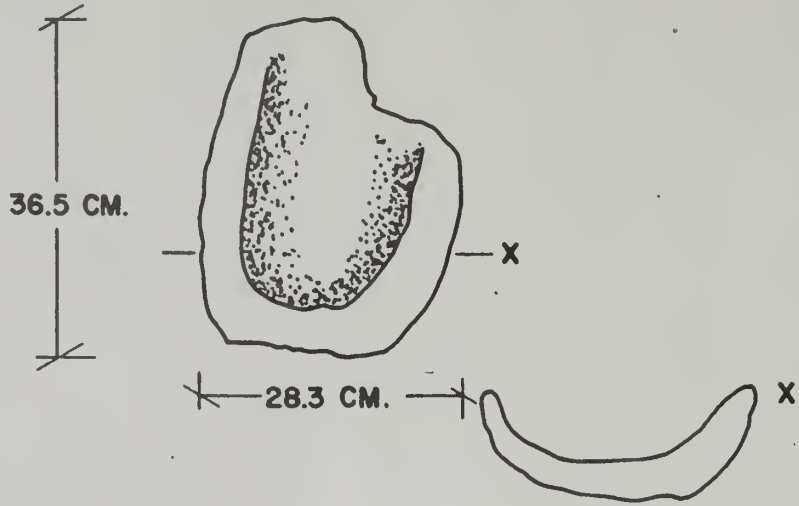
a) The amount of toolstone (inclusive of all stone artifacts) indigenous to the study area versus the amount of toolstone imported into the study area.

Toolstone may be considered as any stone of high quality that tools may be fashioned from.

b) The number of cortical waste flakes in comparison to the number of non-cortical waste flakes.

A cortical flake is a flake that has any portion of the original outside, weathered cortex of the rock remaining. This portion of the rock is often referred to as the rind, and is similar in theory to the rind of a

84 MESA



TRACT C-a

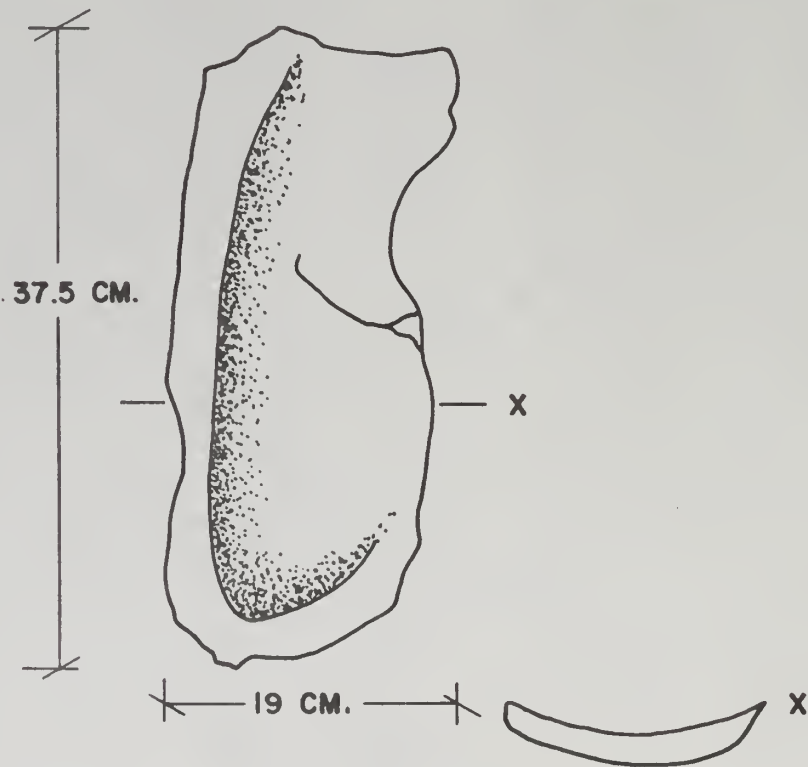


Fig. 12 METATES

grapefruit. A non-cortical flake is a flake that has no outside, weathered surface. It is chipped from the inside portion of the toolstone.

c) The relationship of waste flake material at a given site to the chipped stone tool material at the same site.

d) The number of tools related with hunting activities versus the number of tools related with the processing of vegetal foods.

Chipped Stone Raw Materials

Sources for chipped stone tool materials were not located within the study area during the archaeology survey. Gravels, containing toolstone were also not found in the study area. Local outcrops are limited primarily to shale and sandstone.

There is very little variation of tool material between sites. Both primary and secondary sites display, for the most part, identical percentages of chipped stone tool material. Based only on surface collection, however, this indicates that the aboriginal populations exploiting this area imported 100% of the material utilized for chipped stone tools. See Table 5 for material break-down of chipped stone tools and debitage recovered from primary and secondary sites.

TABLE 5

Material	Tools	Debitage
Chert	71.2%	74.5%
Quartzite	9.0%	9.0%
Petrified Wood	8.2%	9.0%
Chalcedony	6.6%	2.4%
Obsidian	2.2%	3.6%
Other Volcanics	1.1%	1.4%
Limestone	1.6%	0.0%
	<u>99.9%</u>	<u>99.9%</u>

The relationship of cortical to non-cortical waste flakes was examined to give an impression of what stage of tool stone manufacture took place at the sites. A total of 1,787 waste flakes were recovered from primary sites, 94.1% are non-cortical, and 5.9% are cortical flakes. Of the 773 flakes recovered from secondary sites, 92.0% are non-cortical, while 8.0% are cortical.

The high percentage of non-cortical waste flakes indicates that the majority of tool stone imported to the study area had undergone some degree of preparation before it was finally shaped into a tool at the site.

Conversely, the low percent of cortical flakes suggest that the initial stages of chipped tool manufacture took place outside the study area. Activity probably took place at or near the quarry site, where a core or tool preform was prepared. This pattern would allow the prehistoric flint knapper to fashion a specific tool at a specific local to accomplish a specific task.

The relationship of waste flake material at a given site to the amount of chipped stone tool material at the same site was examined to determine whether or not the tools left at a specific site had been fashioned at that site. This aspect of the lithic analysis met with little success. The major problem encountered was the variation found within a single piece of stone. Petrified wood, chalcedony and especially the chert grade in both color and quality throughout a core and even sometimes within a single flake. Therefore, any conclusion or inferences are unreliable, if not impossible.

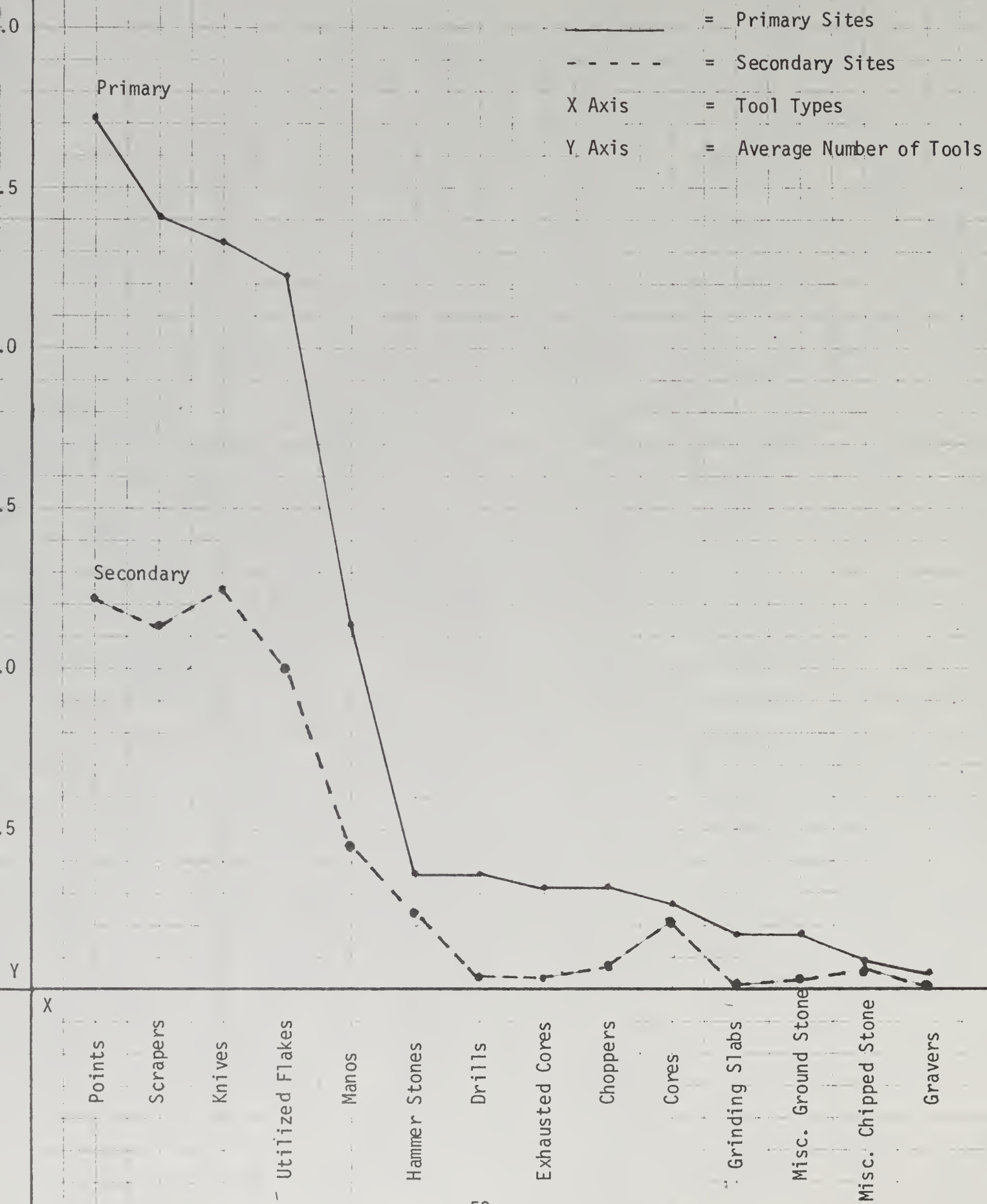
The number of tools associated with hunting activities was compared to the number of tools associated with gathering activities. As a general rule, projectile points, knives and scrapers are associated with hunting,

while manos and metates are associated with gathering wild crops or farming. A total of 268 points, knives and scrapers were recovered from sites in the study area, while only 42 manos and metates were found. These figures tend to indicate a strong emphasis on hunting. However, it should be noted that the presence of manos or grinding slabs were found at 34.5% of the secondary sites and 59.1% of the primary sites. To combine this information, it appears that hunting activities dominated the gathering activities. However, at slightly less than half of the primary and secondary sites gathering or food processing was present.

An unfortunate aspect of this analysis is that it deals with sites as static entities and does not account for the reuse of the same location over the years. It was hoped that when primary and secondary sites were stratified, the variation of individual tool assemblages found at a particular site would support the division. The analysis indicates, however, that primary and secondary sites are identical in tool assemblages, the only difference is the amount of tools per site. Figure 13 is a graph that compares the average number of specific tool types found at primary sites to those found at secondary sites. Because there is evidence for only seasonal occupation of the study area, the variation of site size may reflect how often the site was revisited and reused.

FIGURE 13

AVERAGE NUMBER OF PARTICULAR TOOLS FOUND AT PRIMARY AND SECONDARY SITES



Pottery

Three types of pottery were collected on the survey. Two have been identified (Breternitz, personal communication) as:

1. Shoshonean-like, 2) Fremont, and 3) unidentified (See Figure 14).

No complete vessels were recovered.

Two small pieces of Bl/Wh pottery, possibly from the Mesa Verde Area were also collected, but they are too small for positive identification.

- 1) Shoshonean-like, Site Colo. H:3:12 (Field #27) Figure 14-A

Exterior Surface: Color, dark gray

Surface finish: rough, may possibly be
basket impressed.

Interior Surface: Color, gray to buff; Surface finish, smooth

Thickness: 6 mm.

Temper: Very large grains

SEM*: Chemical and mineral composition of temper particles.

Mostly quartz and CaAlSi, a few particles of Ca, P, and
TiFe₂O₃ (Ilmenite)

- 2) Fremont, Site Colo. H:3:15 (Field #57) Figure 14-B

Exterior Surface: Color, buff

Surface, smoothed

Interior Surface: Color, buff

Surface finish, smoothed

Thickness: 0.8 mm.

Temper: Fine to medium grained

Some calcite.

SEM*: Chemical and mineral composition of temper particles.

Mostly silicate particles, small percentage of KAlSi and CaSi (Feldspars) and metallic elements, a large percentage of TiFe₂O₃ (Ilmenite)

3) Unidentified, Site Colo. H:3:14 (Field #115) Figure 14-C

Exterior: Color, buff to gray

Surface finish, smoothed

Interior: Color, buff to gray

Surface finish, smoothed

Thickness: 0.7 mm.

Temper: Very fine grains

SEM*: All particles are silicates, no metallic particles. Clay body represents largest percentage of material in sample.

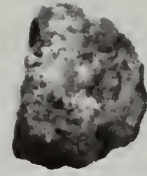
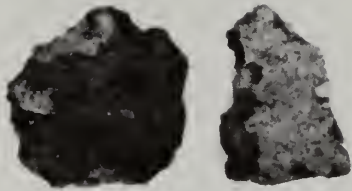
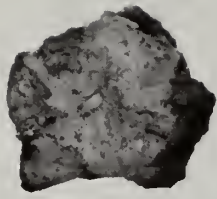
Decoration: Rim sherds, incised with diagonal lines.

Body, incised striations.

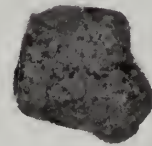
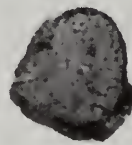
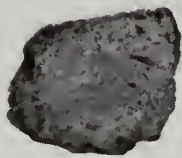
Trade Beads

The trade beads were analyzed by Richard Conn, curator of the Denver Art Museum. He tentatively dates one white bead, from site 46, as being from the late 18th century. Blue seed beads, site 146, are probably from the early 19th century.

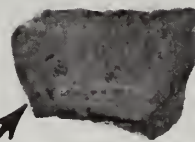
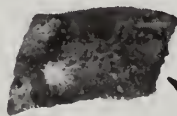
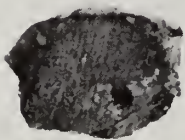
*Scanning Electron Microscope Analysis



Colo. H:3:12
SHOSHONEAN-LIKE



Colo. H:3:15
FREMONT-LIKE



RIM SHERDS

Colo. H:3:14
CULTURAL AFFILIATION UNKNOWN

POTTERY
(ACTUAL SIZE)

Fig. 14

CHAPTER V

SUMMARY

J. Jennings (1974) postulated that there is convincing evidence that the climate and resources in the arid West have been almost unchanged since 10,000 B.P. and that man's history has been achieved essentially under modern climatic conditions. This can be projected into the history of the Piceance Basin. While it is impossible to recreate the exact ecological pattern of the Basin, in terms of vegetative patterns, game dispersal, and other factors, it seems that there has not been any significant changes in the environment within this time period.

At this point in the archaeological investigation there are no artifacts or surface features that allow for absolute dating. However, the material that has been collected suggests that this area has been visited a number of times and utilized by man for several thousand years, possibly beginning as early as 9,000 B.P. and is currently being utilized.

The single most abundant and dependable, but seasonal, food resource in the Piceance Basin is the White River mule deer herd. The Basin is used as winter range by this herd, one of the largest in North America (RBOSP, Terrestrial Ecological Investigations, 1976). The herd moves into the lower elevations during October and remains there until spring when weather allows movement up to higher elevations to the east. The summer range is in the Flat Tops area in the upper reaches of the White River drainage. While elk are present in the Basin, it is not prime range for this species at the present time.

Pinyon Pine (Pinus edulus) which has a significant seed crop approximately every five years was probably also an important food source. This crop matures in late September or early October. There is a distinct possibility that the utilization of the Basin could have combined the hunting of deer and gathering of Pinyon.

The 1976 Botanical report for RBOSP recorded 41 species of grasses or grass-like plants growing in the area (Terrestrial Report 1975). The pre-historic distribution and abundance of this resource is difficult to project into the past. However, these grasses have been demonstrated to be a food source in other areas, and could have been harvested when they were available.

Evidence of agricultural activity in Northwestern Colorado begins in the Fremont period, with the addition of small village sites, pottery and corn growing (Breternitz, 1970). Marginal agriculture may have been practiced in the Piceance Basin in aboriginal times, but it cannot be demonstrated from our survey. Current agricultural activity, except for small gardens at local ranches is not practiced. Haying is the largest current agricultural activity, but is coupled with irrigation. Again there is no evidence for this activity on the prehistoric level.

Permanent structures are limited to the frameworks of what are called Wickiups; conical structures that were probably covered with bark or brush. No earlier structures were identified. However, this should not mean that there are no structures, since testing may well encounter them. However, permanent structures such as houses or granaries which can be demonstrated for areas in which there is a secure economic base dependent upon agriculture

are not present. It should be noted that this inference is based solely on the surface collections and could be changed with excavation.

The survey was designed initially to inventory whatever cultural resources were present in the area. This included any evidence of Native Americans up to the present. The intensive survey accomplished this purpose, with a sample that we consider adequate at the present level of investigation. It should be noted that the investigation of the area is not finished. Any activity on Tract C-a or the shale disposal areas, access corridors or road systems will have to be projected against the information that is currently available for archaeological sites. This estimate cannot be made at the present time and will have to be adjusted to construction schedules.

During the course of the survey and the subsequent analysis, the assessment of the aboriginal utilization of the Basin has been significantly modified in terms of interpretation. As the material came out of the field it appeared that the primary utilization of the area was for hunting. The analysis of site locations and tools in the field indicated a differing pattern. Further analysis indicates that there was a more varied utilization or structuring of occupation than was first thought. While the initial impression was that the basin was occupied on a limited seasonal basis there are further implications. It is probable that the area was not utilized during the winter months, but that during the clement periods of the year the area was utilized intensively.

The site location pattern and the tool types suggest several things. The sites are located adjacent to water sources, but not immediately next to them

nor in areas which deer are frequently found during the morning or evening hours. The location of sites to vegetative sources are more difficult to determine, due to the possibility of changes through time. However, it would appear that site locations were chosen for several reasons, accessibility to various resources, seasonal variations in climate, or perhaps just personal preference. While the location of sites near water is patently obvious, the concentrations of sites would suggest that exploitative patterns were more complex. Sites are located near several resources, rather than a single one, which would be practical in terms of any division of labor for males and females. If a single resource, such as hunting, was the sole reason for site location, the sites would probably have been located farther away from the water or meadow areas. If gathering were the primary reason for site location, then the sites would be situated at higher elevations in the Pinyon groves. The site clusters that we have identified are near any of these resources, but do not seem to be located for any definite or specific purpose. Initially, our artifact inventories were emphasized on the tools that could be identified with hunting activity, but subsequent study has indicated that tools or artifacts that are related to processing vegetal material are equally important. It would seem then, that there is a more equal balance between hunting and gathering, but probably without agriculture.

CHAPTER VI
RECOMMENDATIONS

The obligation of the contract archaeologist is to evaluate the cultural resources worthy of nomination to the National Register of Historic Places. Criteria for evaluation are: "The quality of significance in American History, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and Local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and ... (d) That have yielded, or may be likely to yield, information important in prehistory or history". (National Register, 1976).

However, Executive Order 11593 specifically states in Section B.4 that: "The National Historic Preservation Act of 1966, the NEPA of 1969, and E.O. 11593 established national historic preservation policy requiring all Federal agencies to seek 'feasible and prudent' alternatives to actions which may alter or diminish the integrity of our cultural heritage. The intent of this legislation is not to save all historic resources at any price, but to afford an independent review process (the Advisory Council) in which alternatives that would remove or mitigate adverse effects may be explored and discussed." (Executive Order 11593, 1971).

Several recommendations are being made in an effort to protect or preserve the cultural resources of Rio Blanco County. They include: the recommendation that several site clusters, and a historic horse trap be considered for nomination to the National Register of Historic Places; and recommendations for other endangered primary and secondary sites.

ARCHAEOLOGICAL RESOURCES

Site clusters have been established that reflect the cultural integrity of the area. These clusters appear to be more important archaeologically than individual sites, and may yield information important to the prehistory and history of Northern Colorado and the surrounding areas. Therefore, the primary and secondary sites located within the cluster areas of I, II and IV are being recommended to the National Register of Historic Places. The sites are:

CLUSTER I:

Primary, Field No.'s 20 and 65
Secondary, Field No.'s 36, 64, 66, and 19

CLUSTER II

Primary, Field No.'s 23, 24, 27, 57, 111, 115, 129, 175 and 177
Secondary, Field No.'s 116 and 109

CLUSTER IV

Primary, Field No.'s 140, 144, 146, 153, 160 and 186
Secondary, Field No.'s 139, 142, 145, 147, 148, 154, 159, and 164

Primary sites outside the above-named site clusters (see site location map, Figure #1) should be treated as being significant archaeological sites, (i.e., would likely yield information with excavation). Primarily, they should be avoided if possible. If they are in an area where avoidance is not possible, then proper mitigating procedures should be taken.

Primary sites which possibly lie in areas of future disturbance, but are not recommended for nomination to the National Register of Historic Places include site locations 93, 46, 85, 86, and 18 (see fold-out map). Disturbance would probably not advance to these areas for a number of

years. Therefore, any actions, other than avoidance, should not be taken until shortly before the disturbance.

Secondary sites which lie outside the above-mentioned site clusters are of less importance than primary sites. They should, however, be avoided if possible. If it becomes impossible to avoid these sites (see fold-out map), then mitigating measures, including limiting testing (furrow excavations) should be investigated to determine if these sites are of archaeological significance. Should this determination be made, then further mitigating measures should be taken. Secondary sites which fall in this category include numbers 123, 124, 45, 80, 118, 17, and 74.

No recommendations are being made for Tertiary sites.

HISTORICAL CULTURAL RESOURCES

The Historic horse trap, Field #197, Colo. H:2:31, should also be evaluated for nomination to the National Register of Historic Places to protect and preserve an important era in the history of the Meeker District.

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APPENDIX A
ARCHAEOLOGICAL SITE DESCRIPTIONS

APPENDIX A-

FIELD SITE NUMBER, SITE LOCATION, AND MATERIAL CULTURE ANALYSIS
FOR TRACT C-a ARCHAEOLOGICAL SURVEY.

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation	
				Point	Knife	Scraper	Flakes	Other			
4	T2S,	R99W	S3 , SE $\frac{1}{4}$	NW $\frac{1}{4}$		1f	3	Metate	T	-	
5	T1S,	R99W	S34, SW $\frac{1}{4}$	NE $\frac{1}{4}$		1f			T	-	
6	T1S,	R99W	S33, NE $\frac{1}{4}$	SW $\frac{1}{4}$	1f	1f			T	-	
7	T2S,	R99W	S4 , NW $\frac{1}{4}$	NE $\frac{1}{4}$		1f	6	9	T	-	
8	T1S,	R99W	S34, NW $\frac{1}{4}$	SW $\frac{1}{4}$				3	T	-	
9	T1S,	R99W	S33, NW $\frac{1}{4}$	SW $\frac{1}{4}$				3	T	-	
14	T2S,	R99W	S4 , NE $\frac{1}{4}$	SW $\frac{1}{4}$			1		T	-	
15	T1S,	R99W	S34, SE $\frac{1}{4}$	SW $\frac{1}{4}$	1f		1	6	T	-	
16	T1S,	R99W	S34, SW $\frac{1}{4}$	SW $\frac{1}{4}$	1f		1	2	T	-	
29	T2S,	R99W	S4 , NW $\frac{1}{4}$	SW $\frac{1}{4}$					Tool fragment	T	-
33	T1S,	R99W	S33, SE $\frac{1}{4}$	SW $\frac{1}{4}$			1f		T	-	
34	T1S,	R99W	S33, SW $\frac{1}{4}$	NE $\frac{1}{4}$			1f		T	-	
37	T2S,	R99W	S10, NW $\frac{1}{4}$	SW $\frac{1}{4}$	1f				T	-	
38	T2S,	R99W	S9 , NW $\frac{1}{4}$	NE $\frac{1}{4}$				1	T	-	
39	T2S,	R99W	S10, SW $\frac{1}{4}$	SW $\frac{1}{4}$				2	T	-	
40	T2S,	R99W	S10, NW $\frac{1}{4}$	NE $\frac{1}{4}$				1	T	-	
41	T2S,	R99W	S3 , SE $\frac{1}{4}$	SE $\frac{1}{4}$	1	3f		8	T	-	
42	T2S,	R99W	S3 , SW $\frac{1}{4}$	SE $\frac{1}{4}$					Metate F	T	-
43	T2S,	R99W	S9 , NE $\frac{1}{4}$	NW $\frac{1}{4}$				1	Mano fragment	T	-
								1	Tool fragment	T	-
45	T1S,	R99W	S33, NE $\frac{1}{4}$	SE $\frac{1}{4}$	3f	1f		30		S	I
51	T2S,	R99W	S10, SE $\frac{1}{4}$	SE $\frac{1}{4}$			1f			T	-
54	T2S,	R99W	S5 , SW $\frac{1}{4}$	SW $\frac{1}{4}$				5		T	-

f = Identifiable fragmentary tool

T = Tertiary sites

I = Indeterminant cultural affiliations

APPENDIX A-2

FIELD SITE NUMBER, SITE LOCATION AND MATERIAL CULTURE ANALYSIS FOR
ARCHAEOLOGICAL SITES LOCATED WITHIN 1-MILE PERIMETER
OF TRACT C-a.

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation	
				Point	Knife	Scraper	Flakes	Other			
10	T1S,	R99W	S29, NW $\frac{1}{4}$	SW $\frac{1}{4}$			1f			T	-
11	T1S,	R99W	S29, SW $\frac{1}{4}$	SW $\frac{1}{4}$	1f			2		T	-
12	T1S,	R99W	S29, SW $\frac{1}{4}$	SE $\frac{1}{4}$				4	Graver	T	-
13	T1S,	R99W	S29, SE $\frac{1}{4}$	SE $\frac{1}{4}$		1f	1	1		T	-
20	T2S,	R99W	S14, NW $\frac{1}{4}$	NW $\frac{1}{4}$	2-4f	2f	3-4f	94	Hammerstone, drill(f)	P	F(?)
21	T2S,	R99W	S15, SW $\frac{1}{4}$	NE $\frac{1}{4}$		1		13		T	-
25	T1S,	R99W	S27, SW $\frac{1}{4}$	SE $\frac{1}{4}$			2	7		T	-
28	T2S,	R99W	S8, SW $\frac{1}{4}$	SW $\frac{1}{4}$				1		T	-
30	T2S,	R99W	S17, SE $\frac{1}{4}$	SE $\frac{1}{4}$	1f		2	19		T	-
32	T1S,	R99W	S27, NE $\frac{1}{4}$	SW $\frac{1}{4}$			1f	15	1 Tooth fragment	T	-
35	T2S,	R99W	S11, SW $\frac{1}{4}$	NE $\frac{1}{4}$				2		T	-
36	T2S,	R99W	S11, NE $\frac{1}{4}$	SE $\frac{1}{4}$	1f	1	3f	20		S	I
44	T2S,	R99W	S17, SW $\frac{1}{4}$	NW $\frac{1}{4}$	1			1		T	-
47	T1S,	R99W	S35, NE $\frac{1}{4}$	NW $\frac{1}{4}$		1f		22		T	-
50	T2S,	R99W	S16, NE $\frac{1}{4}$	NE $\frac{1}{4}$				2		T	-
52	T2S,	R99W	S15, SW $\frac{1}{4}$	NE $\frac{1}{4}$		1	Historic	5		T	-
53	T2S,	R99W	S6, SW $\frac{1}{4}$	NE $\frac{1}{4}$		1			1 Toolstone	T	-
55	T2S,	R99W	S15, SE $\frac{1}{4}$	NE $\frac{1}{4}$	2f	1f		4	Toolstone	T	-
56	T2S,	R99W	S6, SW $\frac{1}{4}$	SE $\frac{1}{4}$				1		T	-
64	T2S,	R99W	S14, NW $\frac{1}{4}$	SE $\frac{1}{4}$	2f	2f	1		Mano, fossil bones, core	S	F(?)
65	T2S,	R99W	S14, NE $\frac{1}{4}$	NE $\frac{1}{4}$	1				Hammerstone		
					3f	1	1f	107	Mano fragment	P	F(?)
66	T2S,	R99W	S14, NE $\frac{1}{4}$	NW $\frac{1}{4}$	1f		3f	25		S	I
67	T2S,	R99W	S11, SW $\frac{1}{4}$	SE $\frac{1}{4}$			1f	10	Hammerstone	T	-
70	T2S,	R99W	S11, SE $\frac{1}{4}$	NE $\frac{1}{4}$				1		T	-
71	T2S,	R99W	S11, NW $\frac{1}{4}$	NW $\frac{1}{4}$			1f	8		T	-
72	T2S,	R99W	S2, NE $\frac{1}{4}$	SW $\frac{1}{4}$				1			
81	T2S,	R99W	S2, NE $\frac{1}{4}$	NE $\frac{1}{4}$	1					T	-
					2f			2	Core	T	-
82	T1S,	R99W	S35, SW $\frac{1}{4}$	SW $\frac{1}{4}$				2	Mano fragment	T	-
83	T1S,	R99W	S35, SW $\frac{1}{4}$	SW $\frac{1}{4}$					Mano	T	-
84	T1S,	R99W	S35, NW $\frac{1}{4}$	SE $\frac{1}{4}$	2f	1	2f	22	1 Mano fragments, core	S	I

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation	
				Point	Knife	Scraper	Flakes	Other			
94	T1S,	R99W	S29, NW $\frac{1}{4}$	SW $\frac{1}{4}$	1f	1f	3	14		S	I
95	T1S,	R99W	S28, SW $\frac{1}{4}$	NE $\frac{1}{4}$	1f			2		T	-
97	T1S,	R99W	S30, NE $\frac{1}{4}$	NW $\frac{1}{4}$					Toolstone	T	-
103	T1S,	R99W	S30, SE $\frac{1}{4}$	SE $\frac{1}{4}$				3		T	-
104	T1S,	R99W	S31, SW $\frac{1}{4}$	NW $\frac{1}{4}$					Toolstone	T	-
113	T1S,	R98W	S30, SW $\frac{1}{4}$	SW $\frac{1}{4}$	1f	1	2	5	Mano (f)	T	-
197	T1S,	R99W	S29 NE $\frac{1}{4}$	NE $\frac{1}{4}$					Historic Horse Trap	S	A

f = Identifiable fragmentary tool

P = Primary site

S = Secondary site

T = Tertiary site

- = Cultural affiliation not attempted because of small number of artifacts

I = Indeterminate

F = Fremont

A = Anglo

APPENDIX A-3

FIELD SITE NUMBER, SITE LOCATION, AND MATERIAL CULTURE ANALYSIS FOR ARCHAEOLOGICAL SITES ON 84 MESA, RBOSP.

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation		
				Point	Knife	Scraper	Flakes	Other				
1	T1S,	R98W	S29, SE $\frac{1}{4}$	NW $\frac{1}{4}$		2f	1	7		T	-	
2	T1S,	R99W	S25, SE $\frac{1}{4}$	NE $\frac{1}{4}$		1	1f	3	Basin Metate (#2)	T	-	
3	T1S,	R99W	S36, NW $\frac{1}{4}$	SW $\frac{1}{4}$		1f	1f	5		T	-	
17	T1S,	R98W	S18, SE $\frac{1}{4}$	SW $\frac{1}{4}$		1f	3f	3f	6	S	I	
18	T1S,	R98W	S18, SE $\frac{1}{4}$	SW $\frac{1}{4}$		1						
						2f	1f	1f	104	Chopper (f)	P	F(?)
22	T1S,	R98W	S18, SE $\frac{1}{4}$	SW $\frac{1}{4}$					9	T	-	
23	T1S,	R98W	S30, NW $\frac{1}{4}$	NE $\frac{1}{4}$		3	1					
						7f	6f	15	178	Hammerstone, drill, 3 choppers	P	F
24	T1S,	R99W	S25, NW $\frac{1}{4}$	SE $\frac{1}{4}$		1f		4f	97	Mano fragments	P	F(?)
26	T1S,	R98W	S20, NW $\frac{1}{4}$	SW $\frac{1}{4}$		1	2f	2f	1	T	-	
27	T1S,	R98W	S30, SE $\frac{1}{4}$	NE $\frac{1}{4}$		1			177	Potsherds, drill F cores, blades, Manos	P	A-F
						11f	9	16		T	-	
31	T1S,	R98W	S30, SE $\frac{1}{4}$	NW $\frac{1}{4}$		2	1					
46	T1S,	R98W	S8, SW $\frac{1}{4}$	SW $\frac{1}{4}$		1f	1f		15	1 historic knife, hammerstone, 5 Mano fragments, chopper, core, trade beads, wickiup structure	P	U
48	T1S,	R98W	S19, SE $\frac{1}{4}$	NW $\frac{1}{4}$		1			2	T	-	
49	T1S,	R98W	S19, NW $\frac{1}{4}$	SE $\frac{1}{4}$		1f			3	T	-	
57	T1S,	R98W	S19, NE $\frac{1}{4}$	SE $\frac{1}{4}$		2f	3	5	63	Drill (f), pottery	P	F
58	T1S,	R98W	S20, SW $\frac{1}{4}$	NW $\frac{1}{4}$					3	1 potsherd	T	-
59	T1S,	R98W	S20, SE $\frac{1}{4}$	NW $\frac{1}{4}$						Mano fragment	T	-
60	T1S,	R98W	S19, NE $\frac{1}{4}$	SE $\frac{1}{4}$						Mano fragment	T	-
61	T1S,	R98W	S19, NE $\frac{1}{4}$	SE $\frac{1}{4}$						Mano	T	-
62	T1S,	R98W	S19, SE $\frac{1}{4}$	SE $\frac{1}{4}$				1f	2	T	-	
63	T1S,	R98W	S20, NE $\frac{1}{4}$	NW $\frac{1}{4}$					2	T	-	
68	T1S,	R98W	S8, SW $\frac{1}{4}$	SE $\frac{1}{4}$			1	2f	9	T	-	
69	T1S,	R98W	S17, NW $\frac{1}{4}$	NE $\frac{1}{4}$					1	T	-	

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation	
				Point	Knife	Scraper	Flakes	Other			
73	T1S,	R98W	S18, NE $\frac{1}{4}$	SE $\frac{1}{4}$	1f			2	Mano	T	-
74	T1S,	R98W	S18, NE $\frac{1}{4}$	SE $\frac{1}{4}$	1f		3	7	2 Mano fragments, chopper	S	I
75	T1S,	R98W	S18, NE $\frac{1}{4}$	SE $\frac{1}{4}$				3		T	-
76	T1S,	R98W	S17, NW $\frac{1}{4}$	SW $\frac{1}{4}$			1f			T	-
77	T1S,	R98W	S18, SE $\frac{1}{4}$	SE $\frac{1}{4}$					Toolstone	T	-
80	T1S,	R99W	S13, SW $\frac{1}{4}$	SE $\frac{1}{4}$	1f	1f	4	25	Mano fragment, toolstone	S	I
85	T1S,	R99W	S13, SW $\frac{1}{4}$	SE $\frac{1}{4}$		3f	4f	99		P	I
86	T1S,	R99W	S13, NE $\frac{1}{4}$	SE $\frac{1}{4}$	1f	3f	1		Toolstone, pottery	P	F
						4	2f	71		P	F
87	T1S,	R98W	S30, NW $\frac{1}{4}$	NE $\frac{1}{4}$	1f			36	Toolstone	T	-
88	T1S,	R98W	S30, NW $\frac{1}{4}$	NW $\frac{1}{4}$		1f	2		Mano	T	-
90	T1S,	R99W	S36, NE $\frac{1}{4}$	SW $\frac{1}{4}$	1	3f	1	22	Mano	S	I
91	T1S,	R99W	S11, SE $\frac{1}{4}$	SW $\frac{1}{4}$				1		T	-
92	T1S,	R98W	S8, NW $\frac{1}{4}$	SE $\frac{1}{4}$			1	2		T	-
93	T1S,	R98W	S7, SW $\frac{1}{4}$	SW $\frac{1}{4}$					Wickiup structure toolstone	P	U
105	T1S,	R99W	S14, SE $\frac{1}{4}$	SE $\frac{1}{4}$			1f	1		T	-
106	T1S,	R98W	S29, SW $\frac{1}{4}$	NW $\frac{1}{4}$			1f	1		T	-
107	T1S,	R99W	S36, SE $\frac{1}{4}$	NW $\frac{1}{4}$		1f	1f	14		T	-
108	T1S,	R99W	S14, SE $\frac{1}{4}$	SE $\frac{1}{4}$				4		T	-
110	T1S,	R99W	S25, NE $\frac{1}{4}$	SE $\frac{1}{4}$			1			T	-
111	T1S,	R98W	S30, SE $\frac{1}{4}$	SW $\frac{1}{4}$	2		6	103	Drill fragment, Mano fragments, toolstone	P	I
112	T1S,	R98W	S30, SW $\frac{1}{4}$	SE $\frac{1}{4}$				2		T	-
114	T1S,	R98W	S20, SE $\frac{1}{4}$	SE $\frac{1}{4}$				6		T	-
115	T1S,	R98W	S20, SE $\frac{1}{4}$	SE $\frac{1}{4}$	1f	1	6	135	Bone, Mano toolstone, pottery	P	F
116	T1S,	R98W	S20, SW $\frac{1}{4}$	NE $\frac{1}{4}$	2		1	13	Mano, toolstone	S	A-F-U
117	T1S,	R98W	S29, NE $\frac{1}{4}$	NW $\frac{1}{4}$		2	2	9	Mano fragment	T	-
118	T1S,	R98W	S7, NE $\frac{1}{4}$	NE $\frac{1}{4}$		4f	1f	25	1 Mano fragment	S	I
119	T1S,	R99W	S13, SW $\frac{1}{4}$	NE $\frac{1}{4}$	1f			11	Toolstone	T	-
120	T1S,	R99W	S11, SE $\frac{1}{4}$	NE $\frac{1}{4}$				2		T	-
121	T1S,	R99W	S2, SW $\frac{1}{4}$	SE $\frac{1}{4}$					Mano fragment	T	-
122	T1S,	R99W	S12, NE $\frac{1}{4}$	NW $\frac{1}{4}$			1f	6		T	-

APPENDIX A-3 (Continued)

Field Number	Township	Range	Section	Tool Type					Site Classification	Cultural Affiliation	
				Point	Knife	Scraper	Flakes	Other			
123	T1S,	R99W	S11, SW $\frac{1}{4}$	NE $\frac{1}{4}$			4	17	Core, 2 Mano fragments, toolstone, bone	S	I
124	T1S,	R99W	S10, SE $\frac{1}{4}$	SW $\frac{1}{4}$	1			74		S	I
125	T1S,	R98W	S19, SW $\frac{1}{4}$	SE $\frac{1}{4}$			1	8		T	-
126	T1S,	R99W	S15, SE $\frac{1}{4}$	NE $\frac{1}{4}$				1		T	-
127	T1S,	R99W	S11, SW $\frac{1}{4}$	SW $\frac{1}{4}$			1	2		T	-
128	T1S,	R99W	S15, NW $\frac{1}{4}$	NE $\frac{1}{4}$			1f	13	1 Mano fragment, 1 hammerstone, toolstone	T	-
143	T1S,	R98W	S18, NW $\frac{1}{4}$	SW $\frac{1}{4}$			1f	1		T	-
109	T1S,	R99W	S36, NE $\frac{1}{4}$	NE $\frac{1}{4}$	1	1	2	82	Mano	S	F(?)

f = Identifiable fragmentary tool

P = Primary

S = Secondary

T = Tertiary

- = Cultural affiliation not attempted because of small number of artifacts

I = Indeterminate

A = Archaic

F = Fremont

U = Historic Ute

APPENDIX A-4

FIELD SITE NUMBER, SITE LOCATION AND MATERIAL CULTURE
ANALYSIS FOR OFF-TRACT ARCHAEOLOGICAL SITES.

Field Number	Township	Range	Section	Tool Type					Site Classification
				Point	Knife	Scraper	Flakes	Other	
19	T2S,	R99W	S13, SW $\frac{1}{4}$ NW $\frac{1}{4}$	2f	1 1f	1f	18	Hammerstone	S
78	T1S,	R98W	S21, NW $\frac{1}{4}$ NW $\frac{1}{4}$	1f		1f	5		T
79	T1S,	R98W	S16, SE $\frac{1}{4}$ SW $\frac{1}{4}$			1f			T
89	T2S,	R100W	S13, SE $\frac{1}{4}$ NE $\frac{1}{4}$		1f				T
96	T1S,	R98W	S9, NE $\frac{1}{4}$ SW $\frac{1}{4}$					Mano fragment	T
98	T1S,	R98W	S5, SE $\frac{1}{4}$ SE $\frac{1}{4}$				1	Maul	T
99	T1S,	R98W	S9, NW $\frac{1}{4}$ NW $\frac{1}{4}$					Mano fragment	T
100	T1S,	R99W	S21, SE $\frac{1}{4}$ SW $\frac{1}{4}$				5	Mano fragment	T
101	T1S,	R99W	S21, NW $\frac{1}{4}$ SE $\frac{1}{4}$	1					T
102	T1S,	R99W	S21, NE $\frac{1}{4}$ NW $\frac{1}{4}$			1f			T
129	T1S,	R98W	S32, NW $\frac{1}{4}$ NE $\frac{1}{4}$	5f	1f	3f	88		P
130	T1S,	R98W	S9, NE $\frac{1}{4}$ SE $\frac{1}{4}$					1 Mano in 2 fragments	T
131	T1S,	R98W	S9, SE $\frac{1}{4}$ SE $\frac{1}{4}$					1 Mano fragment	T
132	T1S,	R98W	S9, SE $\frac{1}{4}$ SE $\frac{1}{4}$		1f	1f	14		T
133	T1S,	R98W	S10, SW $\frac{1}{4}$ SW $\frac{1}{4}$					Mano fragment	T
134	T1S,	R98W	S9, SE $\frac{1}{4}$ SW $\frac{1}{4}$				5		T
135	T1S,	R98W	S21, NE $\frac{1}{4}$ SW $\frac{1}{4}$				1		T
136	T1S,	R98W	S22, NW $\frac{1}{4}$ NW $\frac{1}{4}$				1		T
137	T1S,	R98W	S22, NE $\frac{1}{4}$ NW $\frac{1}{4}$	1f				Toolstone fragment	T
138	T1S,	R98W	S21, SW $\frac{1}{4}$ SW $\frac{1}{4}$	1f	1f		2	Mano fragment	T
139	T1S,	R98W	S10, SW $\frac{1}{4}$ SE $\frac{1}{4}$		1f	1	49		S
140	T1S,	R98W	S9, NE $\frac{1}{4}$ NW $\frac{1}{4}$	3f	3f	4 1f	90	Drill, 5 tool fragments, Mano, 4 Mano fragments, toolstone	P T
141	T1S,	R98W	S9, NW $\frac{1}{4}$ NE $\frac{1}{4}$	1f	1f	2	7		T
142	T1S,	R98W	S10, NW $\frac{1}{4}$ NW $\frac{1}{4}$			1	1	3 potsherds, core, hammerstone, Mano, 10 Mano fragments	S
144	T1S,	R98W	S10, NW $\frac{1}{4}$ NE $\frac{1}{4}$	1f	1f	3f	28	Mano fragment, wickiup	P
145	T1S,	R98W	S10, NW $\frac{1}{4}$ SW $\frac{1}{4}$	1f		5f	14		S

Field Number	Township	Range	Section	Tool Type					Site Classification	
				Point	Knife	Scraper	Flakes	Other		
146	T1S,	R98W	S10, SE $\frac{1}{4}$	NE $\frac{1}{4}$	1f	1f	1	35	Chopper, 3 Mano (f), 2 wickiups, 13 small blue trade beads, 2 small white trade beads, 1 blue bead	P
147	T1S,	R98W	S10, SE $\frac{1}{4}$	NE $\frac{1}{4}$		1f	3 4f	22		S
148	T1S,	R98W	S11, NW $\frac{1}{4}$	NW $\frac{1}{4}$	2f	2f		52	1 gray sandstone bead	S
149	T2S,	R98W	S4, SW $\frac{1}{4}$	SW $\frac{1}{4}$			1	3	1 potsherd	T
150	T1S,	R98W	S32, NE $\frac{1}{4}$	SE $\frac{1}{4}$			1f	6		T
151	T1S,	R98W	S33, SW $\frac{1}{4}$	SE $\frac{1}{4}$	2f	1f	4f	42		S
152	T1S,	R98W	S11, NW $\frac{1}{4}$	SE $\frac{1}{4}$	1		1	13	Mano, hammerstone, 1 hammerstone fragment	T
153	T1S,	R98W	S11, NE $\frac{1}{4}$	NE $\frac{1}{4}$	1f	4f	6	51	Mano fragment	P
154	T1S,	R98W	S2, SW $\frac{1}{4}$	SW $\frac{1}{4}$	1 2f		1 1f			
155	T1S,	R98W	S2, SW $\frac{1}{4}$	SW $\frac{1}{4}$				89 5		S T
156	T1S,	R98W	S2, SW $\frac{1}{4}$	SW $\frac{1}{4}$				3	Mano fragment petrified bone	T
157	T1S,	R98W	S2, NE $\frac{1}{4}$	SW $\frac{1}{4}$				20	Petrified bone	T
158	T1S,	R98W	S21, SW $\frac{1}{4}$	NW $\frac{1}{4}$				6	Petrified bone	T
159	T1S,	R98W	S11, NW $\frac{1}{4}$	NW $\frac{1}{4}$			4 2f	9	Hammerstone, 2 Mano fragments	S
160	T1S,	R98W	S16, NE $\frac{1}{4}$	NE $\frac{1}{4}$	3f	4f	1f	43	1 potsherd, 3 Mano fragments	P
161	T1S,	R98W	S16, SW $\frac{1}{4}$	NE $\frac{1}{4}$		1f		4		T
162	T1S,	R98W	S34, NW $\frac{1}{4}$						Mano fragment	T
163	T1S,	R98W	S33, NE $\frac{1}{4}$	NE $\frac{1}{4}$		1f		2	Mano fragment	T
164	T1S,	R98W	S8, NE $\frac{1}{4}$	NE $\frac{1}{4}$	2f	3f	1f	12	Hammerstone, 4 Mano fragments, chopper	S
165	T1S,	R98W	S9, NW $\frac{1}{4}$	NW $\frac{1}{4}$						
165	T1S,	R98W	S16, SE $\frac{1}{4}$	SE $\frac{1}{4}$	2f	1f		6	Core	T
166	T1S,	R98W	S1, SW $\frac{1}{4}$	NW $\frac{1}{4}$		1	1	10	Mano, hammerstone	T
167	T1S,	R98W	S35, NW $\frac{1}{4}$	SW $\frac{1}{4}$	1f	1f		3	Core, Mano fragment	T
168	T2S,	R98W	S2, SE $\frac{1}{4}$	SE $\frac{1}{4}$	1f			3		T

Field Number	Township	Range	Section	Tool Type					Site Classification	
				Point	Knife	Scraper	Flakes	Other		
169	T1S,	R97W	S19, SW $\frac{1}{4}$	SW $\frac{1}{4}$			2	Mano fragment	T	
170	T1S,	R97W	S18, SE $\frac{1}{4}$	NW $\frac{1}{4}$			1		T	
171	T1S,	R98W	S29, NE $\frac{1}{4}$	NE $\frac{1}{4}$			3		T	
172	T1S,	R98W	S28, NW $\frac{1}{4}$	NW $\frac{1}{4}$			3		T	
173	T2S,	R98W	S6, NW $\frac{1}{4}$	NW $\frac{1}{4}$		1,2f	5		T	
174	T1S,	R98W	S31, SW $\frac{1}{4}$				8		T	
175	T1S,	R98W	S31, NW $\frac{1}{4}$	NE $\frac{1}{4}$	3f	1f	2f	34	Mano, Mano fragment, 5 tool fragments	P
176	T1S,	R98W	S31, NE $\frac{1}{4}$	NE $\frac{1}{4}$		1f	1	7	Core	T
177	T1S,	R98W	S32, NW $\frac{1}{4}$	NW $\frac{1}{4}$	4f	2f	2	74	Core tool	P
178	T2S,	R98W	S6, NE $\frac{1}{4}$	NE $\frac{1}{4}$	1f		1			T
179	T1S,	R98W	S32, NW $\frac{1}{4}$	SW $\frac{1}{4}$	1f			3	Tool fragment	T
180	T1S,	R98W	S31, NW $\frac{1}{4}$	SE $\frac{1}{4}$	1f			2	Tool fragment	T
181	T1S,	R98W	S32, SW $\frac{1}{4}$	NE $\frac{1}{4}$		2f		11	Tool fragment	T
182	T1S,	R98W	S31, SE $\frac{1}{4}$	SE $\frac{1}{4}$		1f		42		T
183	T2S,	R99W	S14, NE $\frac{1}{4}$	SW $\frac{1}{4}$					Tool fragment	T
184	T2S,	R99W	S23, NE $\frac{1}{4}$	SW $\frac{1}{4}$				1	Tool fragment	T
185	T2S,	R98W	S19, NW $\frac{1}{4}$	SW $\frac{1}{4}$				1	Tool fragment	T
186	T1S,	R98W	S1, NW $\frac{1}{4}$	NE $\frac{1}{4}$	3f	1f	4f	40	Hammerstone, Mano fragment, 3 tool fragments	P
187	T1N,	R98W	S36, E $\frac{1}{2}$				1f	7	Hammerstone, Mano	T
188	T1N,	R98W	S24, SE $\frac{1}{4}$	SE $\frac{1}{4}$	1f	1f	2	15	5 tool fragments, hammerstone	S
189	T2S,	R98W	S3, NW $\frac{1}{4}$		1f	1f	1	42	2 tool fragments	S
190	T2S,	R98W	S4, SE $\frac{1}{4}$	NE $\frac{1}{4}$	1f	2f	3	42	2 toolstone fragments	S
191	T2S,	R98W	S3, NE $\frac{1}{4}$	NW $\frac{1}{4}$	1 1f		1f	11	1 Mano fragment, 2 tool fragments	S
192	T1N,	R98W	S23, NW $\frac{1}{4}$	NW $\frac{1}{4}$		1		1		T
193	T1N,	R98W	S24, NE $\frac{1}{4}$	NW $\frac{1}{4}$	1f		1	16	Tool fragment	T
194	T1N,	R98W	S13, W $\frac{1}{2}$		2f		1	8	1 core tool, 1 hammerstone frag- ment, 1 Mano fragment	S

APPENDIX A-4 (Continued)

Field Number	Township	Range	Section	Tool Type						Site Classification	
				Point	Knife	Scraper	Flakes	Other			
195	T1S,	R98W	S34, SW $\frac{1}{4}$	SE $\frac{1}{4}$	1						T
196	T1N,	R98W	S13, E $\frac{1}{2}$		1	1f	2f	4	Mano, Mano fragments, 3 tool fragments, 4 petrified bone fragments		S

f = Identifiable fragmentary tool

P = Primary site

S = Secondary site

T = Tertiary site

¹ = Sites off-tract other than 84 Mesa or the 1-mile perimeter

² = Cultural affiliations of off-tract sites are not yet available

APPENDIX B

UNIVERSITY OF DENVER SITE NUMBERS
FOR PRIMARY AND SECONDARY SITES

APPENDIX

University of Denver Site Numbers Assigned to Primary and Secondary Sites

PRIMARY

<u>Field Number</u>	<u>DU Number</u>
18	Colo.H:3:17
20	Colo.H:3:5
23	Colo.H:3:13
24	Colo.H:3:11
27	Colo.H:3:12
46	Colo.H:3:23
57	Colo.H:3:15
65	Colo.H:3:3
85	Colo.H:3:20
86	Colo.H:3:21
93	Colo.H:3:24
111	Colo.H:3:10
115	Colo.H:3:14
129	Colo.H:3:32
140	Colo.H:3:41
144	Colo.H:3:43
146	Colo.H:3:38
153	Colo.H:3:46
160	Colo.H:3:35
175	Colo.H:3:34
177	Colo.H:3:33
186	Colo.H:3:48

SECONDARY

<u>Field Number</u>	<u>DU Number</u>
17	Co1o.H:3:18
19	Co1o.H:3:2
36	Co1o.H:3:6
45	Co1o.H:2:29
64	Co1o.H:3:1
66	Co1o.H:3:4
74	Co1o.H:3:22
80	Co1o.H:3:19
84	Co1o.H:3:7
90	Co1o.H:3;8
94	Co1o.H:2;30
109	Co1o.H:3:8
116	Co1o.H:3;16
118	Co1o.H:3:27
123	Co1o.H:3:26
124	Co1o.H:3:25
139	Co1o.H:3:36
142	Co1o.H:3:42
145	Co1o.H:3:37
147	Co1o.H:3:39
148	Co1o.H:3:45
151	Co1o.H:3:31
154	Co1o.H:3:46
159	Co1o.H:3:47
188	Co1o.H:3:34
164	Co1o.H:3:40

189	Colo.H:3:29
190	Colo.H:3:28
191	Colo.H:3:30
194	Colo.A:15.2
197	Colo.H:2:31

APPENDIX C

RAW DATA

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Colo.H:3:17 Township 1S Range R98W Sec. 18SE 1/4 of SW 1/4
 Field # 18 Project RBOSP Map. Ref. USGS- 7.5 W of Ridge
 Location See Back UTM - Zone 12 18872603
 Site Type Primary Cult. Aff. Fremont Recom. Testing
 Survey Date 6/23/75 By _____ Excav. Date _____ By _____
 Structures and Features _____

Pottery

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj.-Pt. (1) - 2 frag

(1) Triangular straight - slight convex sides, convex base, expanding stem, corner notched, W-chal.

(1) Tip frag - BR-CH

(1) Center frag - BR-CH

Scrapers - 3

(1) 1 side - BL-CH

(1) Side - double edge - W CH

(1) Red - Qtz - Side

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe.

4 manos

3 fragments of 3 different pink manos

3 fragments of 1 br. Qtz. or volcanic mano, appears fire-cracked.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Location - southern exposure of wooded ridge top approx 30 ft. rise from Arroyo.
 South of sandy clearing, ridge trend east - west (arroyo drains SW to
 Corral Gulch - 1/4 mile N of arroyo.

Choppers - 2

(2) limestone

1 frag - toolstone - BL Chert (small piece)

1 Qtz. rock

3 exhausted cores - (1) CHAL (2) BR-CH

Flakes 9 - BL-CH; 21 - R-CH; 12 - P.wood; 11-BL-OBSI; 6 - CHAL-CLEAR; 18 - Qtz-P;

1 - P-CH; 4 - P-Qtz; 9 - GR-CH; 7 - BR-CH; 1 - W-CH; Cortical - 3; non-cort. - 79

Field Samples:

Reference:

Photos:

DU SITE # *Polo A: 3.5* TOWNSHIP T2S RANGE 99W SECTION 14, NW 1/4 OF NW 1/4

FIELD # 20... PROJECT RBOSP MAP REF USGS, Wolf Cr. Quad, 7 1/2'

LOCATION Perimeter, 300 m. East of SE corner of C-a tract. *LITM-200012-15411781*

SITE TYPE Habitation CULT. AFF. Ute & poss. Fremont RECOM Test or avoid.

SURVEY DATE 6/23/75 BY APO EXCAV. DATE BY

STRUCTURES & FEATURES 5 wickiups

POTTERY NONE

CHIPPED STONE TOOLS-list in order of: Points, Scrapers, Blades, Drills, Gravers, utilized flakes, flakes. Include: description, material, color, culture if known & sketch if desired.

Proj. Pts. 5

- (1) straight base, corner notch, Br. Pet. Wd. 2.8x1.8x0.4 cm.
- (1) fragmentary mid section, base, notches, & stem- not present, Bl. chert.
- (1) tip fragment, pink chert, dimensions unknown.
- (1) basal frag., concave base, no notches, no stem, Bl. chert, ?xl.2x0.4 cm.
- (1) frag. of poss. bi-fercate pt., ID not positive, Red chert.

Scrapers- 3

- (1) snubnose, Bl. chert; (1) side & end, w/ notch, Br. Chert; (1) frag. of steep angle, Br. chert scraper.

Knives- 3

- (1) complete, symmetrical, Br. Pet. Wd.; (1) frag. of symmetrical, Red chert; (1) irregular shaped, poorly flaked, Br. chert.

Drills- 1 (1) base frag. of white chert drill.

- (1) utilized flake, Red- Br. chert, used on 2 sides.

USE BACK SIDE OR EXTRA CARD IF NEEDED.

FLAKES & DRAWINGS OF PTS. ON BACK.

ANALYSED BY T. Bridge DATE 3/8/7

GROUND STONE-list and describe. (1) Hammerstone, minimal use, large river cobble, Gr. gneiss.

CHIPPED STONE CONTINUED---

Flakes- 96

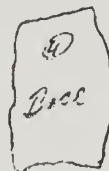
- 30 Brown petrified wood.
- 25 Reddish brown chert.
- 24 white chert.
- 10 volcanic...
- 3 pink chert.
- 1 black chert.
- 1 gray chert.
- 1 pink to clear chalcedony.
- 1 white quartzite.

*11 - cortical
25 - Non Cortical*

ADDITIONAL INFORMATION-Vegetation, H2O sources, Site description, Topog., Structures or architecture, Site impressions, ect.

Relationship of stone tools to waist flakes; a very positive correlation of tool material to waste flake material exists at this site. The only tool material that does not have a large number of flakes of that material is black chert. Also waste flakes of Br. pet wood, reddish brown chert, and white chert are of both large and small size -- probably indicating that the tools made of this material were made at the site, whereas, tools of black chert may have been made elsewhere, and then brought and left at this site.

Proj. points 1-5



FIELD SAMPLES: None

PHOTOS: None

REFERENCE:

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Col.H:3:13 Township 1S Range 98W Sec. 30 NW+NE/NW of NW/NE 1/4
 Field # 23 Project RBOSP Map. Ref. USGS 7.5--Wolf Ridge Quad
 Location Corral Gulch - Follows Corral Gulch Rd. (Ridgetop) Coren.
 Site Type Primary Cult. Aff. Fremont Recom. Testing
 Survey Date 7/31/75 By B.Thiaville Excav. Date _____ By _____
 Structures and Features _____

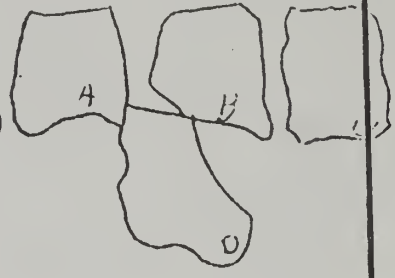
UTM-ZONE12 19002434

Pottery _____

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj.Pt. (frag) 8
 4 base F.

- (3) concave base [A] (bl ch), [B] (gr-ch), [C] (RCD-CH)
- (1) concave base - corner notched R-CH (D)
- (3) tip frag. (1) RED CH, 2 GR,CH
- (1) Midsection, triangular blade - R-CH



Scrapers - 3

- (1) domed scraper - quartzite, Aiken's Hogup Cave pg. 66
- (1) side lens - R-CH
- (1) End - BR-Qtz.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LaFrec

4/19/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Use,
 FRE = Fremont, AR = Archaic, W = Woodland

Ground Stone - List and Describe. Mano frag - R-Qtz.

Chipped Stone Tools (cont.) Knives - 4

- (1) Tip frag - GR-CH
- (1) Tip frag - PW
- (1) RCH-Frag
- (1) Knife - Core - GR-CH

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

- (1) Scraper - Graver - Chal - end of tool has pt that shows polish from use
- (4) Utilized flakes (1) CHAL (2) Pwood - 1CH
- (1) Chopper - large limestone - bifacially flaked
- (1) Core - w/cortex - BR-CH
- (1) rock - Beenifire

PROJ. PTS. (cont.) (2) unnotched triangular blade, concave base, straight to convex sides
 CH Type 1-B

- (1) concave base side notched, triangular blade - Qtz. (Type 2-b)
- (1) straight base, small triangular blade, side notched (Type 2-d)

Flakes

72 Buff-B1CH; 1 - OBSI; 12 - P-CH; 12 - X P-CH; 3 tiger stripe CH; 11 - CHAL; 37 - PW;
 4 WH,CH; 20 - R-CH; 17 - Qtz.; Cortical - 11; non-cort. 178

Field Samples:

Reference:

Photos:

PRIMARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # Colo H: 3: 11 Township 1S Range 99W Sec. 25 NW 1/4 of SE 1/4
Field # 24 Project RBOSP Map. Ref. Wolf Ridge, USGS, 7-1/2
Location 84 Mesa 6777 zone 13 1760 2-3-10
Site Type Prob.-campsite Cult. Aff. Fremont-Ute Shoshoni Recm. Test or avoid.
Survey Date 6/25/75 By _____ Excav. Date _____ By _____

Structures and Features

None-but 4 pieces of charred (rodent?) bone, site prob. has a firepit

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired. SEE BACK FOR PROJECTILE POINTS

1) Utilized flake - white chert, used as knife

2) Debitage - 122 121 non-cortical; 1 cortical

74 - Pink gray to purple CH

17 - translucent gray CH

11 - gray to dark gray CH

14 - yellow to brown and pink to orange PW

4 - WH CH

1 - gray QTZ

1 - OB

*4 small pieces of charred bone, prob. small rodent

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

T. Bridge

DATE:

4/9/76

Ground Stone - List and Describe.

2 - manos:

#1 - Pink quartzite, pecked and ground into elliptical shape, ground on 2 sides
length - 11.8 Width - not complete, thick. - 4.1 cm.

#2 - Small frag. P QTZ, but stained, 1 and maybe ground on 2 sides

1 Hammerstone - 1 - small ^{QTZ.} F, 1 battered and remains, appears to be chipped/fire cracked

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.
- proj. pt. P to R CH Dates: 400A.D. - 1350 A.D. & into historic Shoshonean times, this point falls into the widespread category of Desert Side Notch

Chipped stone tools almost non-existent at this site. Manos indicate food processing Charred rodent bone indicates prob. campsite, complete with fire, and at least some level of hunting.

Cultural association is nebulous, the point type ranges from 400 A.D. to Historic, associated with Fremont, Ute and Shoshone.

This is a good site to test, because it doesn't follow the pattern of chipped tool domination, and prob. a campsite.

Field Samples: 4 small pieces of charred rodent bone

Reference:

DESERT SIDE NOTCH- Aikens 1970
Fowler 1966
Shutler 1963

DU Site # Col.H:3:12 Township 1S Range 98W Sec. 30 SE 1/4 of NE 1/4
 Field # 27 Project RBOSP Map. Ref. Wolf Ridge, USGS 7'1/2
 Location 84 Mesa
 Site Type lithic-Scatter Cult. Aff. _____ Recom. Test or avoid
 Survey Date 6/25/75 By APD, B.T. Excav. Date _____ By _____

Structures and Features

None

Pottery

11 sherds

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Points - 11

- # 1 - dirty white ch., corner notch, straight base, tip missing, large, dart point, type 4-a
 # 2 - Base frag. gray ch., thick & heavy, basal notch, prof. type 3-a.
 # 3-- Translucent dark brown. ch., base frag., concave base, prob. no notches of 1/sides, looks old
 # 4 - Yellow br. P.W., tip frag.
 # 5 - Translucent wh. ch., or chsl., midsection of blade
 # 6 - Light gr. ch. w/wk petena, base frag., slightly convex base.
 # 7 - Dark br. & Bl Ch w/pink impurity on one side, small portion of blade mid section

Chipped Stone Tools continue on 2nd card.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

T. Britze

DATE:

4/9/76

CTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Use,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe. Manos - 3 #1 - Red sandstone, circular shape, ground & packed, one face ground; #2 - tan quartzite, irregular shape, bifacial; #3 - Poss Tan colored mano frag., Qtz.

Hammer stone - 1, fractured wh. quartzite, used as hammer after it was broken

Misc. Ground Stone - small frag., dark metamorphic rock, 1 surface highly polished, poss. fire-cracked

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Tool to flake material

Point #4 and Knives #2 and 3 are similar to 35 PW flakes; Points #3, #11, #12 and utilized flakes #1 and 4 are similar to 50 brown translucent ch. flakes; Knife #1 and Ut. flake #3 are similar to 4 Bl., pitch stone flakes; Knives 9 & 10 are similar to one flake. Knife #4 similar to one flake.

Flakes 35 P.W.; 50 Translucent Br., Ch.; 35 Quartzite; 1 obsidient; 96 misc. color ch. 217 total; 8 cortical; 209 non cortical

Some pieces of fire-cracked quartzite also some of the chipped stone appears fire treated, Most prob. there is at least a fire pit at this site.

Field Samples: None

Reference:

Photos: None



PRIMARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

Card 2 of 3

DU Site # _____ Township 1S Range 98W Sec. 30 SE 1/4 of NE 1/4
 Field # 27 Project RBOSP Map. Ref. Wolf Ridge, USGS 7 1/2
 Location 84 Mesa
 Site Type lithic-Sherd Scatter Cult. Aff. _____ Recom. Test or avoid
 Survey Date 6/25/75 By APQ & B.T. Excav. Date _____ By _____
 Structures and Features _____

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 RE = Fremont, AR = Archaic, W = Woodland

Pottery _____
 other card

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Scrapers - 6

- #1 - Wh. Chert, small steep & snubnose
- #2 - Yellow quartzite, unifacially flaked on 2 edges
- #3 - Gr. Br. Ch., unifacially flaked on one side, unretouched edge also used, as knife & Baren
- #4 - Gray Ch., some retouch on 2 edges may have been used as knife also
- #5 - Tan & Gr. Ch., retouch on 1 edge, poss. use as knife also.

Knives - 9

- #1 - Black shiny pitch stone, triangular and small, maybe broken point, maybe used as furen.
- #2 - Br. pet. Wd. symmetrical shape, 2 edges bifacially flaked w/small serrations
- #3 - Br. w/black specks, P.W. tear drop shape, bifacially flaked and (over)

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

Continued on back

T. Bridge

4/9/76

Chipped Stone Continued

- ~~XXXXXX~~ #4 - Pink-Br., Chert, bifacial flaked & retouched on all but one side, small oval shape.
- #5 - Tan Ch., very thin Flake, retouched unifacially on 2 sides, classified as a knife because so thin.
- #6 - P.W. Dark brown w/tan specks - frag of blade, prob. triangular but is highly fractured
- #7 - Banded Gr & Tan Ch., irregular rectangle, 3 knife edges, 1 scraper edge, also poss. furen.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Utilized Flakes - 4

- #1 - Bended gray & tan Ch., used as knife.
- #2 - tan quartzite, used as knife.
- #3 - Bl. pitch stone, used as knife
- #4 - Dark Brown Ch. used as knife, small flake

Chipped Stone Tools (cont)

- Points #8 - Speckled light brown translucent ch., frag. large down sweeping tang, poss. east gate.
- #9 - Frag of tang & base, dark gray ch., corner notch.
- #10 - Gray ch., base missing, apparently flaked on one side, poss. hefted knife.
- #11 - Dark br. translucent ch., frag appears to be unfinished point that broke, poss. knife.
- #12 - Base frag. translucent Br. ch., straight expanding base, can't tell if it had notches.
- #13 - Base frag. slight concave base, notches?, green color, ch., or maybe JADITE!

Field Samples: None

Reference:

Photos: None

PRIMARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

Card 3 of 3

DU Site # _____ Township 1S Range 98W Sec. 30 SE 1/4 of NE 1/4
 Field # 27 Project RBOSP Map. Ref. Wolf Ridge, USGA 7 1/2
 Location 84 Mesa
 Site Type Lithic-Sherd Scatter Cult. Aff. _____ Recom. Test or avoid
 Survey Date 6/25/75 By APO & B.T. Excav. Date _____ By _____
 Structures and Features _____

Pottery
other card

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired. (continued)

Scraper

#6 - Yellow Ch., thick flake from prepared core, large platform remains, platform one side used for scraping.

Knives

#8 - Gray Br. Ch., tip frag of knife, blunt tips, poss. a graver also.
 #9 - Gray & Tan Ch., frag, one edge bifacially flaked.

1 Chopper - Quartzite w/Fe inclusions, bifacially flaked.
 1 Exhausted Core - Br. Ch., may have been chopper.

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/9/76

PRIMARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Co/o. 4: 3: 23 Township 1S Range 98W Sec. 8 SW 1/4 of SW 1/4
Field # 46 Project RBOSP Map. Ref. Wolf Ridge 7.5 USGS
Location 84 Mesa 4771-2088 12- 2019 2776
Site Type Habitation Cult. Aff. Ute ? Recom. Test or avoid
Survey Date 7/9/75 By APO Excav. Date _____ By _____

Structures and Features
1 standing wickiup, one circle of rock slabs (8-10' dia.) with antichamber

Pottery None
Beads - 2 white glass

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Projectile Point - 1 - Y-BR PW with BL specks, tip F ID unknown
Drill - 1 - GR CH, tip missing & part of base missing
Utilized Flakes - 2 1-translucent GR CH, utilized edge has dark "oily" deposit, under 36X misc.
1-GR-WH QTZ, large flake, used as knife or scraper

Exhausted core - GR CH
Flakes - 11 1 - carbon, 10 - non-carbon
3 - Dark R CH
3 - BR PW
2 - Whitish P CH, poor quality
1 - tan QTZ 1 Dark R QTZ
1 - BR QTZ

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: T. Bridge DATE: 3/22/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe.

- 1 - Mano - F - tan-colored SS Bifacial, battered at 1 end
- 2 - Hammerstones - 1 - CH ro CHAL, WH with BL & WH coloring, battered on all edges, well used and small
- 1 - GR QTZ, heavily battered at one end, medium to large
- 1 - Misc. ground stone - 1 - Green QTZ, large POSS hammerstone, chopper, planer, anvil

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.
1 - Purple QTZ F, appears to be ground as mano, but very little
1 - non-artifactual - large fractured stream cobble, WH-R QTZ

See back side for artists deception of possible rock structure. Field notes are lacking on this feature. It does appear to be somewhat like a pit house, slabline, if it is, this site is unique to the study area and deserves test excavation.

Field Samples: None

Reference:

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # C.10 N.3.75 Township 1S Range 98W Sec. 19 NE 1/4 of SE 1/4
 Field # 57 Project RBOSP Map. Ref. USGS Wolf Ridge Quad 7.5
 Location 84 Mesa (175) - 2000 12 - 1986.2501
 Site Type Lithic scatter Cult. Aff. Fremont Recom. Test or avoid.
 Survey Date 7/8/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery
9 Sherds - appears to be Turner Gray II (T. Bridge)

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Projectile points - 1 - F, BL CH, small mid-section ID impossible poss. not even pt.

Scrapers - 5

- #1 1 - small snubnose&side scraper; GR CH, the side may have been used as knife, & the artifact may be fragmentary
- #2 1 - notched scraper, GR BR CH, complete artifact
- #3 1 - 1 side scraper, GR & Tan CH, frag. made, from thin flake, may have been used as knife
- #4 - 1 F, BL CH, retouched along small curved edge.
- #5 - 1 BR PW with BL spots, close to utilized flake, but some retouch is present.

Drill - 1 - POSS F, BL CH wth BR spots, base only. Bifac. flaked on all

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

unbroken surfaces.

T. Bridge

3/15/76

2 - lost tool, 61 - thin chert

Ground Stone - List and Describe. None

CHIPPED STONE CONT'D

Knives - 2

- 1 - GR CH, very thick knife F
- 1 - GR CH F, same material as other knife, but diff. knife, this one is much thinner

Utilized Flakes - 6 : 2-BL CH; 3 GR & tan CH; 1 - CHAL

FLAKES - 63 18-GR to BR CH wth some tan banding

16 - GR & BL CH, generally poor nature

14 - GR tan CH

5 - Misc. BL, bR, WH CH

4 - R CH 3-R QTZ 2 BR PW 1-OB (Small)

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Positive relationships between waste flake material to artifact material, it appears that most the chipped stone tools were made at the site.

NOTE: The tools at this site are either small or have working surfaces that are small. A large number of small utilized flakes were recovered. The tool types are diversified, for instance - snubnose scraper, notched scraper, side scraper, possible drill and knives. I can't help but think these tools were used for delicate finishing jobs, or making small items. They contrast in size alone to other Fremont sites with chipped stone tools. WHY? The presence of ceramics at this site is also interesting, and may have some relationship to the small tools.

85' ESE of road

C.7 11 LE T. (MAD) 1986.2501

Field Samples: None

Reference:

Photos: None

UNIVERSITY OF DELAVER SITE INVENTORY CARD
 DU SITE # 2010 N:3:2 TOWNSHIP 25 RANGE 99W SECTION 14 NE 1/4 OF NW 3/4
 FIELD # 65 PROJECT RBO SP MAP REF 4565 Well River Quad, 75'
 LOCATION Perimeter UTM 70N 12-16.4E 1759'
 SITE TYPE Chipping Stone POSS. CULT. AFF. FREMONT RECOM TEST OR AVOID
 SURVEY DATE 7/7/75 BY HPO EXCAV. DATE BY
 STRUCTURES & FEATURES NONE

POTTERY NONE

CHIPPED STONE TOOLS-list in order of: Points, Scrapers, Blades, Drills, Gravers, utilized flakes, flakes. Include: description, material, color, culture if known & sketch if desired.

- POINTS - 3 TAN chert. FREMONT
- #1 (1) Complete; straight, expanding base; corner notched; triangular & serrated blade; 3.0 x 1.9 x 0.4 cm.
 - #2 (1) F; Wh. Ch.; corner notch, expanding base?; serrated blade. Poss. Fremont, but fragmentary.
 - #3 (1) F; Light R-Bn. Ch.; No Notches; Straight to slightly concave base, looks like a small

- KNIVES - 4
- #1 (1) Large, Dark red, bifacial flaked on all edges, well made; 8.0 x 3.9 x 1.9 cm.
 - #2 (1) F; Gray/wh. Spongy ch; tip frag; bifacial fl. on edge, unifacial on other.
 - #3 (1) F; R. Ch.; Tip frag; poss. pressure.
 - #4 (1) F; Bl. ch.;

UTILIZED FLAKE - 2
 (1) F; Bn. P.W. slight bifacial flaking resulting from use as knife + press. scraper.
 (1) F; Gr. Ch.; poss. knife frag.

Core (1) Exposure, small, gray, 6.2 x 0.6 ft.

USE BACK SIDE OR EXTRA CARD IF NEEDED.

ANALYSED BY T. Bridge DATE 3/11/75

GROUND STONE-list and describe.

- Memo (1) Large, 2.0 x 2.0, wedge shaped, 3 ground faces, pecked and ground to shape
 Humate stone (1) Close to grey colored chert or Chateaugay, battered over almost entire surface

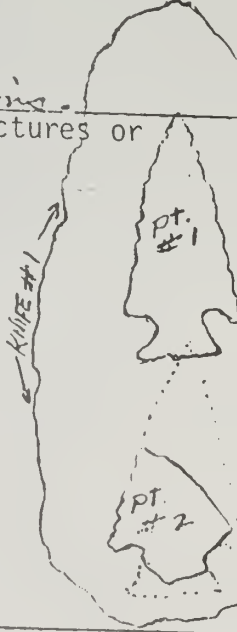
Also heavily battered.

- FLAKES - 114 11 - cortical 103 - Non Cortical
- 95 - Small wh. ch. 1 - Black Ch.
 - 12 - reddish, brownish, pinkish Ch. 2 - Chateaugay
 - 1 - gray Qtz. 2 - gray ch.
 - 3 - Dark Gray Qtz. or chert material and quartz w/ small, tabular inclusions.

ADDITIONAL INFORMATION-Vegetation, H₂O sources, Site description, Topog., Structures or architecture, Site impressions, ect.

Flakes to tools, etc. Most of the small wh. ch. flakes are the same material as point #2. Point #3 + knife #3 are similar to the 12 R, Bn. + P. Ch. flakes. The Bl. ch. flake matches w/ knife #4. Both point #1 + 2 are Fremont. The majority of the flakes at this site appear to be associated with Fremont. Knife #3 bears resemblance to knives 1 + 2 from Site # 86, another Fremont site.

1/2 of a mano was found at this site - well shaped, well shaped, and projecting the missing half, would be at least 16 cm long, the lower size range of 2-handed manos. This appears to be a solid Fremont site, the porphyry is the mano is an indicator of corn cultivation? I think this is a good site to test - we may be able to add to the definition of the Fremont/Adena site in the presence of this.



FIELD SAMPLES: None
 PHOTOS: None

REFERENCE:
 Proj. Pts 1+2 - Bortner et al.,
 Types 3E + 1F respectively.

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Col.H:3:20 Township 1S Range 99W Sec. 13 SW 1/4 of SE 1/4
 Field # 85 Project RBOSP Map. Ref. USGS Wolf Ridge, 7 1/2
 Location 84 Mesa
 Site Type Lithic scatter Cult. Aff. _____ Recom. Test or avoid
 Survey Date 7/15/75 By APQ Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

1 - Points

#1 - F. Wh. Ch., part of midsection, unidentifiable

5 - Scrapers

- #1 - F, 2 pieces, snubnose, w/keel, gray ch.
- #2 - F., translucent ch or Chal, steep angle scraping edge.
- #3 - small, gray banded ch., finely retouched, looks like small plane
- #4 - F. Gr. Ch., small piece of edge, steep angle scraper
- #5 - F. Gr. Ch., low angle scraper.

1 - Knife

#1 - Wh & Gr. Ch., F., poss. section of point.

2 - Utilized Flakes

#1 - Br. Ch. used as scraping knife #2 - Br. translucent Ch. lightly used as knife
 USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: DATE:

T. Bridge

4/21/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe, None

Waste Flakes - 98; 1 cortical, 97 non-cortical
 26 Gr. Ch., similar to scrapers #1, 3, 4, & 5, and utilized Flake #1
 10 Wh. Ch. flakes similar to point #1
 1 Translucent Gr. Ch. flake similar to utilized Flake #2
 2 Obsidian Flakes
 1 Tan Quartzite Flake; 58 Ch. flakes of assorted colors.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Fairly good & relationship of waste flakes to tools

Chipped Stone Tools (cont.)

1 exhausted core, gray ch., similar to 26 flakes, scrapers 1, 3, 4, & 5, and utilized Flake #2

Field Samples: None

Reference:

Photos: None

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # Ado H: 3:21 Township 1S Range 99W Sec. 13 NE 1/4 of SE 1/4
Field # 86 Project RBOSP Map. Ref. USGS Wolf Ridge 7-1/2
Location 84 Mesa (177) - Zone 12 1796 - 26 1/2
Site Type Poss. campsite Cult. Aff. Fremont Recom. Test or avoid
Survey Date 7/15/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery 1 B/W rim sherd, possible Mesa Verde - intrusive 1 plain ware
3 sherds: 1 well-polished white sherd, poss. from B/W vessel) Prob. Fremont, Cisco

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj. Pt. 1 F GR CH Midsection, poss. graver.

Scrapers - 4

- 1 - snubnose, yellow-gray CH
- 1 - side scragger, F, Y-GR with BL & WH Specks, fine retouch
- 1 - small F of side (?) Scraper, WH CH
- 1 - Triangular shaped BR PW with BL Specks. Bifacial flaking at one point on edge, this is classified as a scraper, but POSS an unfinished knife

Knives - 3

- 1 - Triangular shaped dark R-BR colored blade, base appears missing
- 1 - roughly triangular, clear CHAL with BR streak, base appears missing
- 1 - GR CH F, small F of large knife, appears to be adapted from large side scraper

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

Ground Stone - List and Describe.

1 small Frag. of hammerstone and POSS mano, P & BL Gneiss
1 Utilized Flake - WH QTZ, used as knife (Chipped stone cont'd)

FLAKES - 87

- 26 - dark R CH
- 17 - WH CH
- 13 - Dark BR & BL CH
- 7 - Light BR with BL specks PW
- 5 - WH to R/BR QTZ
- 3 - Opaque BR CH
- 1 - CHAL
- 1 - OB
- 13 - POSS volcanic P & BR with WH inclusions

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

The first two knives listed above are similar in shape, size and flaking technique. This site has been assigned to the Fremont culture on the basis of 1 of the 3 sherds and a snub-nosed scraper. If similarites of those knife types could be made toother knives at other sites, where Fremont projectile points have been found, another diagnostic Fremont trait maybe identified. This is wishful thinking, but may be worth a try.

Field Samples: None

Reference: Fremont snub-nose: Aikens-Fremont Promontory, Plains Relationship

Photos: None

DU Site # Colo 4:3:24 Township 1S Range 98W Sec. 7 SW 1/4 of SW 1/4
 Field # 93 Project RBOSP Map. Ref. USGS Wolf Ridge 7.5
 Location 84 Mesa
 Site Type Habitation Cult. Aff. Ute Recom. Test or avoid
 Survey Date 7/17/75 By APO Excav. Date _____ By _____

Structures and Features

1 wickiup

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Chopper - 1 - R QTZ, does not appear to be intentionally flaked, but the shape is a product of being fire-cracked, perhaps this should be considered a utilized flake? The one remaining cortical surface is very smooth, indicating possible use as mano, but this is only a guess, no striations present.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

1 - Mano - low grade R QTZ (almost sandstone), 1/3 of mano is broken off. Mano has been shaped on all surfaces by pecking and grinding. The one remaining end is heavily battered, projecting the missing portion, this artifact would have been about 10 cm. long, and well in the range of 1 handed manos.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

See comments for Site #146 for artifact density at a habitation site.

Field Samples: None

Reference:

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Colo H: 3: 10 Township 1S Range 98W Sec. 30 SE 1/4 of SW 1/4
Field # 111 Project RBOSP Map. Ref. USGS Wolf Ridge 7-1/2
Location 84 Mesa 117A 2001 12 1897-2306
Site Type Chipped & Grnd Stn Cult. Aff. _____ Recom. Test or avoid
Survey Date 7/22/75 By APO Excav. Date _____ By _____

Structures and Features
None

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

1 Proj. Pt. - F WH CH, stained 4-BR, Base missing, plano-convex, well-flaked on plano.

3 knives - #1 - frag. light GR CH

#2 - F of large blade, R Purple & GR^{ch}, prob. was symmetrical and leaf-shaped

#3 - Transl. GR-BR CH, irregular shape, 2 edges, bifacially flaked, maybe a F of drill or graver

Drill (1) - transl. GR CH or CHAL, with impurities, well-made, but only base

Misc. (1) - Dark BR CH, irregular shape, bifacially flaked, maybe broken drill retouched for use as graver

Utilized flakes 6 3-Pudding stone CH, GR & WH color

2 - fine grain WH QTZ

1 - R & tan CH

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

DEBITAGE ON BACK

T. Bridge

4/7/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe.

2 Mano Fragments

1 - R QTZ ground on 2 sides, slightly battered at end

1 - R QTZ ground on 1 (remaining) side

*Although material is similar, they appear to be from 2 different manos

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

WASTE FLAKES - 99 NO CORRELATION BETWEEN WASTE FLAKES AND TOOLS

21 - WH CH poor quality - 12 cortical, 9 non-cortical

13 - BR with BL spots PW - 2 cortical, 11 non-cortical

12 - T ransl. dark BR CH, 12 non-cortical

19 - Dark GR - light GR CH, 4 cortical, 15 non-cortical

22 - Misc. CH - 3 cortical, 19 non-cortical

5 - pieces of calcite (non-artifactual)

2 - pieces of gypsum (non-artifactual)

5 - pieces of low grade CH, non-artifactual

1 - basalt, non-cortical

19 - Cortical including calcite and gypsum

50 - Non Cortical

Field Samples: None

Reference:

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Col.H:3:14 Township 1S Range 98W Sec. 20 SE 1/4 of SE 1/4
 Field # 115 Project RBOSP Map. Ref. USGS 7 1/2, Wolf Ridge
 Location Ridge overlooking Yellow Creek to west, off tract UTM - Zone 12 21382461
 Site Type Primary Cult. Aff. _____ Recom. _____
 Survey Date 7/22/75 By _____ Excav. Date _____ By _____

Structures and Features

Pottery Temper Qtz. color Buff to Gr., 3 rim 3 herds, ticked (1 rim sherds ticked 31 sherds, surface, smoothed, not polished, thickness - 0.7 cm.

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj.Pts - 1 base frag, straight base, RD-CHERT

Scraper - 3



(1) concave side scraper - creamy, Ch

(1) tiger stripe Ch - side unifacial

(1) small domed scraper - y - Chert (See Aikens Hogup Cave, pg. 63)

Utilized Flakes

(1) Tiger Chert, 2 OB, 1 Yellow Chert

Flakes: 13 ROB; 4 - R-CH; 8 Misc. CH; 13 CHAL (WH and Y); 45 - CH (Y-GR);

11 - Tiger Stripe; 9 Qtz (R, P, GR); 27 - B1-CH;

7 - cortical; 129 non-cortical

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe.

1 mano unifacial R,SS

1 mano unifacial

1 mano - frag - SS

1 trough metate - R, SS (frag) ovoid

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

2 poss. cores - Qtz

3 - bone frag - charred

1 R, SS, rock

A number of obsidian and Cr. Ch flakes, the ratio of debitage material to tool material is low (tools were made of different stone). The area may have been a chipping station as well as a processing of vegetal.

Field Samples:

Reference:

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # C. 1/4 N. 3: 32 Township 1S Range 98W Sec. 32 NW 1/4 of NE 1/4
 Field # 129 Project RBOSP Map. Ref. USGS Wolf Ridge 7-1/2
 Location Off-tract
 Site Type Chipping Station Cult. Aff. Archaic ? Recom. Avoid-poss. limited test
 Survey Date 7/23/75 By APO Excav. Date _____ By _____

Structures and Features
 None

Pottery
 None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 4 points
 1) - translucent BR CH 2 pieces, but base & tip missing. well flaked
 2) GR tan & BL CH tip & part of base missing, corner notch, bifurcate base
 Type 3-a
 3) dark R CH; F of blade, tip and base missing
 4) P CH Blade F, maybe from knife
- 2 knives
 #1 - Transl. GR P CH or CHAL. Large well made blade, prob. hafted
 #2 - BL CH, small F, undetermined shape
- 2 utilized flakes
 #1 - Dark GR poor quality, dimpled CH, used as scraper of knife
 #2 - Transl. GR CH, used as scraper DEBITAGE ON BACK

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: T. Bridge DATE: 4/8/76

Ground Stone - List and Describe. NONE Waste Flakes - 87 3 cortical 84 non-cortical
 34 - Tan QTZ, no tools of that material 5 - tan and specked CH
 11 - P to purple ch 6 - clear to BL OB
 7 - transl. BR CH 6 - WH to Y CH
 7 - GR and WH CH 2 - Misc. GR - BR CH
 9 - Trans. BR CH with WH specks

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.
 - Proj. pts. #3 & 4 appear similar to 11 pink to purple flakes. Other than this, flakes do not match with tool material
 - Proj. pts. #2 - is type 3-a (C. Craig, 6th Quart. RBOSP) is an old point, dating 6400 B.C.-1250 B.C. Elko Split-stem
 - Interesting, no scrapers, large non-cortical to cortical relationships, but several points, the only identifiable point being Archaic. Most probably, this has more than Archaic cultural associations.

Field Samples: None

Reference: point #2 - Aikens 1970
J. Jennings, 1957

Photos: None

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # Colo H:3:41 Township 1 S Range 98W Sec. 9 NW 1/4 of NE 1/4
Field # 140 Project RBOSP Map. Ref. USGS Wolf Ridge 7.5
Location Off-tract 011-722512-2292-2900
Site Type habitation Cult. Aff. Ute & Poss. Fremont Recom. Test or avoid
Survey Date 7/29/75 By APO Excav. Date _____ By _____

Structures and Features
3 fallen wickiups

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- Projectile points - 4
- 1 - base F, GR CH with Y & BR coloring, concave base, parallel sides, prob. no notches or shoulder
- 1 - base F, WH GR CH with dark impurities, straight base, prob. no notches or shoulder
- 1 - fragmented base, translucent br CH, impossible to ID, this artifact may even be drill base
- 1 - dark R-BR CH with BL specks, tip & part of base missing, corner notch, slight convex base, small serrations on blade, POSS Rose Springs
Corner Notch; 1250-BC- AD 1350

- Scrapers - 5
- 1 - R purple CH; end & 2 side scraper, 1 side is retouched on opposite side of rock then the end & side scraper, the edge of the scraping edges varies

- SCRAPERS CONT'D: 1 - translucent WH CH or CHAL retouched on 2 edges, appears to be fragment
- 1 - high fractured R-BR CH
- 1 - small F of GR & BL banded CH
- 1 - R-BR QTZ, large flake, little preparation, (may be utilized flake), but appears to be used as scraper & knife
- 1 - utilized flake - (?) P SS or QTZ, appears to be ground on small cortical surface,

Additional Information - this flake is battered on one end, and used as a knife-scraper on one edge.

- 1 - Mano- tan to P low grade QTZ: BL patina on top with clach, unifacial, 11.0 cm long
- 1 - grinding slab- P SS, ground & pecked to shape, one side is rounded, 1 broken edge appears to be reused as grooved abradar.

- KNIVES - 5 1 - BR QTZ, symmetrical & bifacial, base broken off.
- 1 - Whitish GR QTZ, tip & base missing, edges to not converge at equal angles; slight serration present
- 1 - Orange-clear-BR CH, small cross-section of large blade
- 1 - F, Dark GR with light GR streaks, 2 edges retouched, poss. F of unfinished pt.
- 1 - F, translucent BR CH, bifacial retouch on 2 edges, & used with no retouch on other

- Utilized flakes - 4 1 - R to P QTZ, May have been retouched (?) used as a backed knife, edge is convex.
- 1 - translucent GR CH, small flake
- 1 - GR & Tan CH
- 1 - GR 7 Tan CH, used as knife, concave edge
- 1 - translucent BR CH, used as naturally backed knife

Field Samples:

Reference:

Photos:

DU Site # _____ Township 1S Range 98W Sec. 9 NW 1/4 of NE 1/4
 Field # 140 Project RBOSP Map. Ref. Wolf Ridge, USGS 7.5
 Location Off-tract
 Site Type habitation Cult. Aff. Ute & Poss. Fremont Recom. Test or avoid
 Survey Date 7/29/75 By APO Excav. Date _____ By _____

Structures and Features
3 fallen wickiups

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Planer, chopper, core - large chert stream cobble, mostly used as planer
 (in ground stone box)

WASTE FLAKES - 87

23 - flakes of chert, assorted colors

18 - Dark GR CH

12 - P to R QTZ

1 Drill -translucent BR CH, small tip broken off.

15 - P to R CH

14 - WH to clear CH

5 - BR with BL specks PW

*9 - Co. drilled
 70 - New Point*

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

3/19/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

NOTE: Rose Springs Corner notch points are dated from California; not this study area.

This is a large site, including Ute structures; and a large assortment of tool types. The points especially pt. #4 indicates an earlier occupation, of Fremont times and possibly as Archaic times. It is very probably that this site has at least 2 occupations. The diversity to tool types (points, scrapers, knives, drill, planer, mano, grinding slab), indicates many functions of this site. This site should be tested.

Field Samples: None

Reference:

Photos: None

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DU Site # C-16 N-2-43 Township 1S Range 98W Sec. 10 NW 1/4 of NE 1/4
Field # 144 Project RBOSP Map. Ref. Wolf Ridge USGS 7.5
Location Off-tract
Site Type Habitation Cult. Aff. Ute Recom. Test or avoid
Survey Date 6/30/75 By B.Thiaville Excav. Date _____ By _____

Structures and Features
1 wickiup (fallen)

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- Projectile points - 1 - WH CH F; side-notch, indented or notched base, tip & part of base missing
- Scraper - 1 - BR CH; side scraper, 2 sides retouched, edge varies from Ca 45' to 90°
- Knives - 1 - BR CH; appears to be small tip F of large symmetrical blade
- 1 - core scraper - Dark BR with tan stripes, exhausted core, with some use as scraper
- 1 - utilized flake - translucent - GR WH CH or Chal, some R & Y coloring, utilization questionable.

- Flakes - 26
- 10 - BR to tan CH same material as the scraper & exhausted core scraper
- 5 - GR QTZ 2 Dark BR transl. CH, same material as knife frag.

USE BACK SIDE OR EXTRA CARD, IF NEEDED: ANALYZED BY: T. Bridge DATE: 3/26/76
SEE BACK

FLAKES CONT'D: 3 - Clear WH CHAL; 2- BL CH; 4 - Misc. CH & QTZ flakes
Ground Stone - List and Describe.

Misc. ground stone (1) The ground surfaces are on two sides, and 2 edges, limited pecking is present along 1 edge of the ground side. Rock is also partially covered with caliche. Fine grain SS to siltstone, light BR in color; 10.5x10.0x4.5 cm. Grinding surfaces are not uniform, nor well-developed. This tool appears to have been used 2 ways: as the stationary rock in which a smaller object was ground on; as the moveable rock which ground another (larger) object.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.
The lithic analysis supports the seasonal use theory -- A high correlation factor is present between the waste flake material and the chipped stone tool material of this site.
All waste flakes are non-cortical.
Flakes indicate that prepared cores and/or tool preforms were brought into the area, and tools were fashioned for specific jobs.

Field Samples: None

Reference:

Photos: None

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # Colo A:3:38 Township 1S Range 98W Sec. 10 SE 1/4 of NE 1/4
Field # 146 Project RBOSP Map. Ref. USGS Wolf-Ridge 7-1/2
Location Off-tract 0111-2nd St. 2406-2823 Square S. Area
Site Type Habitation Cult. Aff. Ute Recom. Test or avoid
Survey Date 7/30/75 By APO Excav. Date _____ By _____

Structures and Features
2 collapsed wickiups

Pottery
No sherds, but 1 large, light-blue bead, waiting for comments from Dr. Conn

CHIPPED STONE TOOLS—list in order of Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj. Pts. - 1 - Dark BR to BL CH, basal F. No notches, appears to be base of triangular blade. Base: straight to slight concave

Knife 1 - F of large knife, tan CH grading into dark BR CH. Bifacially flake on 2 edges

Chopper-core 1 - high quality dark BR CH prepared core. Little or no cortex remains.

Utilized flake 1 - Dark BR CH with tan banding—very small utilized surface used as scraper.

FLAKES ~~24~~ 0-Cortical, 24-Non cortical.
10 - GR CH

8 - P to light BR with BL specks PW(?)
3 - Dark GR to BL OB

2 - Light GR, apparently QTZ
1 - Dark BR to BL CH, this is from choppercore/same material as the point F

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: T. Bridge DATE: 3/17/76

Ground Stone — List and Describe. NONE
Although conjectural the remaining portion of this point suggests a triangular blade, with no notches and a straight to slight concave base

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

It seems strange that at a semi-permanent habitation site, so few tools were found. Perhaps, the wickiups attracted collectors. The tools - a chopper and a knife, are large tools. The point fragment appears to be made from a flake from the core. The blue bead and the 2 wickiups indicate an historic origin for this site. Because of the historic Ute association, at the time of site occupation, the material culture was most probably a combination of Anglo and Ute traits. If metal knives, etc. were used, they probably would not leave them behind, even if broken. Another possible reason for the low number of tools. Under flakes: the two pieces of light grey quartzite or volcanic rock has quartz crystals that are similar to the crystals of quartz found in the temper of sherds at site #57, a Fremont site.

Field Samples: None Reference:
Photos: None

DU Site # Col.H:3:46 Township 1S Range 98W Sec. 11 NE 1/4 of NE 1/4
 Field # 153 Project RBOSP Map. Ref. USGS 7 1/2
 Location Off Tract UTM - 20NE12 25832898 Square S - Ranch
 Site Type Lithic Scatter Cult. Aff. _____ Recom. Test or avoid
 Survey Date 6/31/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

1-Point

#1 translucent Br. Ch., frag. of blade midsection, not identifiable

4 - Scrapers

#1 Wh. Ch. w/wh crust, naturally backed scraper, sharpened edge is convex

#2 Br. to Gr. transparent Ch., thin flake, side scraper

#3 Gr. Ch. thin flake, end and side scraper

#4 Gr. Wh. Ch. w/Blit Wh coloring on one side, low angle scraper, maybe used as knife

2 - Knives #1 - Gr. Purple Ch., irregular shaped frag.

#2 Br. w/Bl specks P.W., triangular fragment, knife on one side, utilized flake on other

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

continued on back

ANALYZED BY:

T. Bridge

DATE:

4/19/76

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 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 GR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe. None

Chipped Stone Tools Cont.

1 Drill - Br. to R. P.W. unifacially flaked on sides, blunt end, possibly, unfinished drill, and possl. graver, base is missing.

1 misc. chipped tool - Br. Ch. w/bl streaks, unifacially flaked on 2 faces, comes to sharp point, maybe used as perforator or fine knife-scraper

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flake Material - Tool Mat.

5 flakes similar to scraper #1

4 flakes similar to scraper #4

2 flakes similar to point #1

8 flakes similar to knife #1

65 Chert flakes

11 Quartzite flakes

1 obsidian

77 total

7 cortical

70 non-cortical

Misc Chipped Tools

Utilized flakes - 2

#1 - Dark R to purple Ch. used on 2 edges

#2 - Br. Ch. lightly used on 2 sides

Field Samples: None

Reference: None

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

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DU Site # Col H:3:35 Township 1S Range 98W Sec. 16 NE 1/4 of NE 1/4
 Field # 160 Project RBOSP Map. Ref. USGS, Wolf Ridge, 7 1/2
 Location Off Tract UTM - Zone 12 22942777
 Site Type Lithic Scat.+1Sherd Cult. Aff. Ute? poss. Fremont Recom. test or avoid
 Survey Date 8/3/75 By B. Thievill Excav. Date _____ By _____

Structures and Features
 None

Pottery
 1 sherd, appears to be Shoshonean

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- Points - 1
 #1 light Gr. Ch., side notch, slight undented base, type 2-b
- Knives - 7
 #1 Tan Ch, irregular shape
 #2 Gr. Ch. F. fine retouch
 #3 Br. of Bl specks, PW.F.
 #4 R. Br. Ch. small edge F.
 #5 Transluscent Br. Ch.
 #6 Br. PW, symmetrical shape & well flaked
 #7 Limestone, F., 2 converging edges, bifacially flaked



USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/21/76

Ground Stone — List and Describe.

1 Mano - R. Sandstone F.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Chipped Stone cont.
 4 - Utilized flakes
 #1 - translucent Br. Ch.
 #2,3,4, - Pink Ch.

38 flakes, 4 cortical, 34 non-cortical

- 3-PW
- 2-OB
- 33-CH

3 flakes similar to knife #3
 6 flakes similar to Utilized Flakes #2,3,4

Only one sherd was found during most likely there is more

Field Samples: None

Reference: Hunt - 1953

Photos: None

Taylor - 1957
 Sharock - 1966

Point Type 2-b

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DU Site # Colo 4:3:54 Township 1S Range 98W Sec. 31 NW 1/4 of NE 1/4
Field # 175 Project RBOSP Map. Ref. 7.5 Barcas Creek USGS
Location Off-tract 1111-2-0000 19.25-22/W of Ridge
Site Type Lithic scatter Pri. Cult. Aff. _____ Recom. Test
Survey Date 8/8/75 By APO Excav. Date _____ By _____

Structures and Features
None

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include description, material, color, culture if known and sketch if desired.

Projectile points - 3
1 - tip F, serrated, P, QTZ
1 - blade F - BL CH
1 - POSS corner-notched, WH CHAL
Scrapers - 4
1 - snubnosed, F PW
1 - side CH
1 side obverse and reverse flaked, Y CH
1 - side end PW Y
Drills - 1 - BL CH (F)
Utilized flake - 1 - Y CHAL
Core - 1 - WH CH
*5 - Co. 1 - 2
SH - No. 1 - 1*
31 Flakes - 7 - QTZ
21 - CH
9 - CHAL
1 - PW
1 - OB
Blades - 2
1 - GR CH
1 - BR QTZ

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

3/5/76

Ground Stone — List and Describe.

Manos - 3

2 - R QTZ
1 - (F) R QTZ

1 hammerstone and maul comb., GR QTZ

OTHER: black river cobble

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Pinyon-juniper. Sagebrush. 1200 M due West of Stake Springs Draw; 6540 Elev.

1000 meters due west of Stake Springs Draw Rd. on fairly flat ridge.

Field Samples:

Reference:

Lab. & loc. Box 3 - Gr. Stone
Box 10 - Arch. lab.

Photos:

PRIMARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

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DU Site # Colo 4:3:33 Township 1S Range 98W Sec. 32 NW 1/4 of NW 1/4
Field # 177 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge Quad
Location Off-tract 1711-202E-2-1968-2040
Site Type Primary-lithic Cult. Aff. Recom. test or avoid
Survey Date 8/7/75 By APO Excav. Date By

Structures and Features
None

Pottery
None

CHIPPED STONE TOOLS—List in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- Projectile Points - 4
1 - concave base - CHAL GR A
1 - side notched - CHAL GR B
1 - mid-section CHAL F C
1 - mid-section - WH CH Finely flaked D

- Scrapers - 4 F
1 - WH CHAL unifacially flaked F
1 - BL CH Unifacially flaked 1 edge
1 - P QTZ unifacially flaked
1 - tiger stripped CH random flaked scraper
1 - tool fragment

FLAKES - 5 tiger stiped CH 27 BR CH; 22 BL CH (1 large cort. Flaked BL CH)
USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: B. Le Free DATE: 3/15/75

Ground Stone — List and Describe.

1 P CH; 1 R CH; 1 R - mottled CHAL; 2 GR CH; 1 WH CH; 2 GR QTZ rocks; 1 P SS rock; 1 BL cortex remains on 1 side.

The tools and flake are of different material - except for BL CH scraper, the interest is in the 2 rocks with the cortex.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Field Samples: None

Reference:

Photos: None

PRIMARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Q. 1/4 3: 48 Township 1S Range 98W Sec. 1 NW 1/4 of NE 1/4
 Field # 186 Project RBOSP Map. Ref. 7.5 Barcus Creek Quad USGS
 Location Off-tract 21.6.73107 V.S.E.
 Site Type lithic scatter Cult. Aff. _____ Recom. Test
 Survey Date 9/8/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Projectile points - 2

- 1 - POSS Side notched, BR, CHAL: triangular blade 2.2x1.2x (F)
- 1 - convex base, corner notched stem, expanding WH CHAL 1.6 x x (F)

Scrapers - 3

- 1 - (F) snubnosed scraper, PW
- 1 - unifacially flaked, obverse, unif. flaked reverse, creamy CH
- 1 - unifacially side scraper Y CH

Drills - 1 - (F) bifacially flaked - BR CHAL

1 - tool frag. BR CHAL.

1 - utilized flake - GR CHAL

Flakes - 20 CH 1 PW
 8 - QTZ 9 - CHAL

core - WH. CH - 1

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

3/11/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
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 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

Manos - 2

- 1 - R SS (F)
- 1 - BL ~~CH~~ (F)

Metamorphic

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

water source - Yellow creek - 500 E. of site

Veg. - pinyon, sage, juniper

Field Samples: None

Reference:

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo.

DU Site # H:3:18 Township 1S Range 98W Sec. 18 SE 1/4 of SW 1/4
 Field # 17 Project RBOSP Map. Ref Wolf Ridge, USGS 7 1/2
 Location 84 Mesa UTM - Zone 12 18732220
 Site Type Lithic Scatter Cult. Aff. _____ Recom. avoid
 Survey Date 6/23/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

3 Scrapers

- #1 Wh Ch w/some cortex remaining, shallow angle scraper, used as knife
- #2 Gr. Br. Ch., very fine retouch, on side and one end
- #3 Dark R. Ch. F., steep angle scraper

2 Knives

- #1 Obsidian Tip F., symmetrical blade
- #2 Gr. & Tan Ch., large tip F. of symmetrical blade

2 Utilized flakes

- #1 Obsidian
- #2 Wh Ch

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:
T. Bridge

DATE:
4/28/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
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Ground Stone — List and Describe. None

4 flakes - 0 cortical, 4 non-cortical
4 Ch

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

One dark R Ch flake is similar to scraper #3

Almost all recovered material from this site is a tool.

Field Samples: None

Reference:

Photos: None

SECONDARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Colo H:3:2 Township 1S Range 99W Sec. 13 SW 1/4 of NW 1/4
Field # 19 Project RBOSP Map. Ref. USGS Wolf Ridge 7 T/2
Location off tract UTM Zone 12 16671725
Site Type Lithic Scatter Cult. Aff. _____ Recom. Test or avoid
Survey Date 6/23/75 By APO Excav. Date _____ By _____

Structures and Features
None

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 1 Point - basal F., dark Br. to Bl Ch. convex base, corner notch, I.D. unknown
- 1 scraper - Br. PW, small scraper, also used slightly as graver
- 3 Knives
 - #1 Gr. Br. Ch., large symmetrical, tear drop shape
 - #2 Br. PW, TipF., appears to be part of large, thick symmetrical blade
 - #3 Gr. and Wh. Chal, F. of midsection poss. was symmetrical blade
- Flakes - 17 0 - cortical, 17--non-cortical
 - 12 Br. PW
 - 5 Ch

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:
T. Bridge

DATE:
5/3/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

- 2 - Hammerstones
 - #1 - R & Wh. Ch., well used, spherical shape
 - #2 - Dark Gr. cobble, poss Volcanic, used on edges.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

The 12 Br. P.W. flakes are similar to scraper #1 and Knife #2

Field Samples: None

Reference:

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

Co. Co.

DU Site # H:3:6 Township 2S Range 99W Sec. 11 NE 1/4 of SE 1/4
 Field # 36 Project RBOSP Map. Ref. Wolf Ridge USGS 7 1/2
 Location Perimeter UTM Zone 12 16601848
 Site Type Lithic Scatter Cult. Aff. Fremont? Recom. Test or avoid
 Survey Date 6/29/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 1 Point - large triangular Br. Ch. point, no notches, straight base, not identified and maybe hafted knife.
- 1 Scraper - R. Ch., snubnose
- 2 Knives
 - #1 - R. Qtz. F.
 - #2 - Br. P.W. F. of irregular shaped serrated blade
- Flakes - 20; 0 - cortical, 20 - non-cortical
- 1 Qtz., 3 P.W., 16 CH

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/28/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone -- List and Describe. None

Additional Information -- Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

3 P.W. flakes are similar to

Field Samples: None

Reference:

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

Site # H:2:29 Township 1S Range 99W Sec. 33 NE 1/4 of SE 1/4
 Field # 45 Project RBOSP Map. Ref. Sage Bruch Hill, USGS
 Location On Track Ca UTM - Zone 12 13252114 7 1/2
 Site Type Lithic Scatter Cult. Aff. Fremont & poss. Ute Recom. Test or avoid
 Survey Date 7/2/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired. No dates but Pt. #1 is considered late

3 points

- #1 Dark Br. Ch., triangular point, no notches, slight concave base, type 1-
- #2 Br. Ch. no notches, rounded to convex base, tip missing, type 1-c, and is found at Fremont sites, dates range from 1190±80 to 1260±90
- #3 Br. Ch., corner notch, expanding stem, slight concave base, tip missing.
- 1 Knife - translucent Gr. Ch., irregular shape
- 32 flakes: 5 cortical, 27 non-cortical
- 2 Qtz., 30 Chert

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/28/76

Ground Stone — List and Describe. None

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Stone Materials--No match between flakes and tools at this site

2 pieces of large mammal, prob. deer, tooth enamel were recovered, the relationship of enamel to tools is unknown

Field Samples:

2 pcs. of tooth enamel, prob. deer

Reference: Pt. type 1-b - Gunnerson, 1957, Shutter & Shutter, 1963, Taylor, 1957.
 pt. type 1-c Marwitt 1968

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 FRE = Fremont, AR = Archaic, W = Woodland.

Colo. DU Site # H:3:1 Township 2S Range 99W Sec. 14 NW 1/4 of SE 1/4
 Field # 64 Project RBOSP Map. Ref. USGS, Wolf Ridge, 7 1/2
 Location Perimeter UTM Zone 12 15891688
 Site Type Lithic Scatter Cult. Aff. Fremont Recom. Test or avoid
 Survey Date 7/8/75 By APD Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 2 points
 - #1 Wh Ch., expanding, straight base; corner notch, type 4-c, Fremont A.D. 1000-1150
 - #2 R-Br. Ch., Base F., tapered base, basal notch unidentifiable.
- 2 Knives
 - #1 Wh Chal, very well made, appears to have been hafted.
 - #2 Br. P.W. F.
- 1 Core - Bl matrix w/wh inclusions appear to be chert, fully prepared core, small but not exhausted
- 14 flakes: 0 - cortical, 14 non-cortical
 - 1 Qtz.; 4 P.W.; 9 Ch

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
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USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

Drawings on back

T. Bridge

4/20/76

Ground Stone - List and Describe.

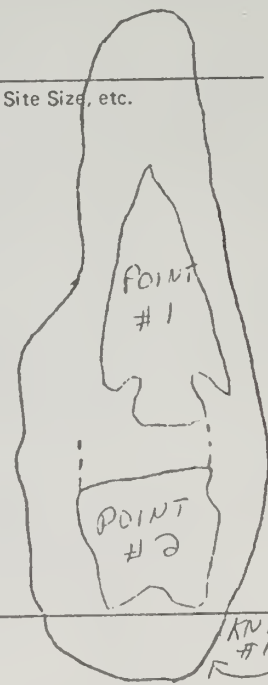
- 1 mano - small R. sandstone mano, bottom half missing 8.9 x 6.7 x ? cm
- 1 hammerstone - Wh Qtz. F., small

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Materials - tools to flakes

- 4 PW flakes are similar to Knife #2
- 1 Qtz. flake is similar to

It is becoming evident that exact matching of flake material to tool material is beyond the means of this analysis. The impressions are valid, however, it is impossible to quantify impression. A problem with this site is that the P.W. flakes are similar to the PW knife (#2) but not the same. I am convinced that the flakes and tool are from the same source but the tool appears fire treated while the flakes are not. It is impossible to know for sure what the knife looked like before fire treating.



Field Samples: None

Reference: Pt. #1, Type 4-c
 Breternetz, 1970
 Gunnerson 1957

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo.

DU Site # H:3:4 Township 2S Range 99W Sec. 14 NE 1/4 of NW 1/4
 Field # 66 Project RBOSP Map. Ref. Wolf Ridge, USGS, 7 1/2
 Location Off Tract, E. Rim of Yellow Cr. UTM - Zone 12 15671783
 Site Type Campsite Cult. Aff. Fremont Recom. Test or avoid
 Survey Date 7/9/75 By APQ Excav. Date _____ By _____

Structures and Features

None observed, but prob. firepit, due to charred bone

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 1 Point - Br. Ch. comer notch, expanding, convex base, type 4-C, Fremont association A.D. 1000-1150
 2 Knives
 #1 Tan Ch. similar to pudding stone, irregular shape, retouched on 2 edges
 #2 Br. Qtz. F., irregular shape, only small portion of retouched surface remains
 Utilized Flakes - 2
 #1 Wh to Gr. Ch., used as knife
 #2 R. Ch., used as scraper or knife
 Flakes - 21: 6 cortical, 15 non-cortical
 4 Qtz.; 1 obsidian; 16 Chert

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/27/76

Ground Stone - List and Describe.

- 1 hammerstone - 4 small pieces, P. Ch., maybe reused as cores (#now exhausted) or possibly fire cracked.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Only one flake matches to Knife #2

High number of cortical flakes by %

4 pieces of charred bone, plus 2 pieces of tooth enamel (prob. deer), were recovered from the site.

This combined with the hammerstone fragments that appear fire cracked, are good indications of a firepit, and a campsite.

Field Samples: 4 pcs. of charred bone

Reference: Pt. #1, Type 4-c, Fremont association

2 pcs, tooth enamel

Bretermetz, 1970

Photos: None

Gunnerson, 1957

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ure,
 FRE = Fremont, AR = Archaic, W = Woodland.

SECONDARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo. DU Site # H:3:22 Township 1S Range 98W Sec. 18 NE 1/4 of SE 1/4
 Field # 74 Project RBOSP Map. Ref. USGS Wolf Ridge 7 1/2
 Location 84 Mesa UTM - Zone 12 19782676
 Site Type Secondary Cult. Aff. _____ Recom. Avoid
 Survey Date 7/10/75 By _____ Excav. Date _____ By _____
 Structures and Features _____

Pottery

CHIPPED STONE TOOLS--list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj. Pt. 1 base & Midsection frag. R. CH. (fire cracked) straight base, slightly expanding stem.

- 1 scraper - side - creamy Ch.
- 1 toolstone - Red Qtz.
- 1 chopper - Rd. Ch.



USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:
B. LeFree

DATE:

C = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

SW of drill pad M-5. Ov top of ridge 400 yards, SE of M-5 RD.

1 exhausted core clear & R. Ch.

Flakes 1--P.W.; 2--P. Qtz.; 2--W & P. Ch; 1--W & Bl. CHAL; 1 BR-CH

1 cortical, 6 non-cortical

Field Samples:

Reference:

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

SECONDARY
Colo.

DU Site # H:3:19 Township 1S Range 99W Sec. 13 SE 1/4 of SW 1/4
 Field # 80 Project RBOSP Map. Ref. USGS 7 1/2 Wolf Ridge
 Location 84 Mesa UTM - Zone 12 1786 2618
 Site Type Secondary Cult. Aff. _____ Recom. Limited testing
 Survey Date 7/13/75 By _____ Excav. Date _____ By _____

Structures and Features

Pottery

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include description, material, color, culture if known and sketch if desired.

Proj. Pt. - tip frag. Bl. Ch.

2 blades - 2 frag.
 (1) tip - Wh. Chal
 (1) Tip - Rd. Ch.

2 scrapers
 Side & end - Br. Ch.
 End - Bl Ch.

1 Utilized flake - W. CHAL

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

4/26/76

Ground Stone - List and Describe.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Tool stone - cream Qtz.

Flakes: 14 CHAL; 20 OBSID; 1 Purple Ch.; 4 Y Ch.; 1 Orange Ch.; 1 R. Ch.; 1 Bl. Ch.
 2 cortical, 22 non-cortical

Field Samples:

Reference:

Photos:

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 CTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ure,
 RE = Fremont, AR = Archaic, W = Woodland.

SECONDARY
Colo.

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # H:3:7 Township 1S Range 99W Sec. 35 NE&NW 1/4 of SE 1/4
Field # 84 Project RBOSP Map. Ref. USGS Wolf Ridge 7 1/2
Location Perimeter UTM Zone 12 15902167
Site Type Lithic Scatter Cult. Aff. ? Recom. _____
Survey Date 7/13/75 By APO Excav. Date _____ By _____

Structures and Features

None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

2 points

#1 Br. translucent ch., F. probl corner notch, small point

#2 Obsidian F., midsection

knife - 1 Bl & R. Qtz. F.

1 Scraper - Gr. Qtz.

Flakes 23: 3 cortical, 20 non-cortical

8 Gr. Ch.; 1 Br. Ch.; 4 Wh. Ch.; 3 Qtz. Wh.; 6 Misc. Ch.; 1 Obsidian

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/

c = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe.

1 mano - R. sandstone, F., ground and pecked to shape, unifacial
1 hammerstone - chopper core, quartzite

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Only one flake matches to point #1

Field Samples: None

Reference: None

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo. Site # H:3:8 Township 1S Range 99W Sec. 36 NE 1/4 of SW 1/4
 Field # 90 Project RBOSP Map. Ref. USGS Wolf Ridge 7 1/2
 Location 84 Mesa UTM Zone 12 17302182
 Site Type Lithic Scatter Cult. Aff. Fremont Recom. Test or avoid
 Survey Date 7/16/75 By APO Excav. Date _____ By _____

Structures and Features
 None
 Pottery
 None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 3 Points
 #1 Obsidian, small corner notch, convex base, type 4-c, Fremont association A.D. 1000 - 1150
 #2 Br. Ch., F., base & tangs & tip missing, but appears corner notch, w/slight serration on edges
 #3 Wh. Ch. F. of tip
 2 Knives
 #1 Br. PW back knife
 #2 Wh. Ch. retouched on all edges, F., maybe F. of drill or graver.
 2 Utilized Flakes
 #1 Br. Gr. Ch. used on 2 edges as knife.
 #2 Gr. limestone, large flake, used as knife or chopper.



USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: T. Bridge DATE: 4/26/76

c = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

1 misc. ground stone - R. Qtz. stream cobble, used as abrador

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

No positive flake - tools' material match

Chipped Stone Tools Cont.
 Flakes - 20: 2 cortical, 18 non-cortical
 5 - wh. ch.; 12 R. Ch.; 3 R. Br. PW

Field Samples: _____ Reference: _____
 Photos: _____

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

Colo. DU Site # H:2:30 Township 1S Range 99W Sec. 29 NW 1/4 of SW 1/4
Field # 94 Project RBOSP Map. Ref. USGS 7.5 Sage Brush Hill
Location Perimeter - Dead Horse Ridge UTM = Zone 12 10402281
Site Type Secondary Cult. Aff. _____ Recom. Avoid
Survey Date 7/17/75 By _____ Excav. Date _____ By _____
Structures and Features _____

Pottery _____

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- Blades (2)
 - (1) Tip - Br. Ch. (frag)
 - (1) Midsection Frag - 2 pieces probably same blade B1 0b
- Scrapers (3)
 - (1) Side - 1 side obverse flaked, one side reverse flaked, tiger striped CH
 - (1) Snubnosed, side scraper, pwood
 - (1) 2 parallel sides flaked Gr. Ch.
- Flakes
 - 6 Qtz. P., Y., W; 2 Gr. Ch.; 1 Gr. CHAL; 4 R. Ch.; 1 pwood; 1 cortical

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

4/22/76

UNIVERSITY OF DENVER SITE INVENTORY CARD

= Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 TZ = Quartzite, V = Volcanic, SS = Sandstone, Y = Yellow, R = Red,
 B = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FE = Fremont, AR = Archaic, W = Woodland.

Colo. DU Site # H:3:8 Township 1S Range 99W Sec. 36 NE 1/4 of NE 1/4
 Field # 109 Project RBOSP Map. Ref. Wolf Ridge, USGS 7 1/2
 Location 84 Mesa UTM Zone 12 18262256
 Site Type Campsite Cult. Aff. Fremont Recom. _____
 Survey Date 7/21/75 By APQ Excav. Date _____ By _____
 Structures and Features _____

None
 Pottery _____

None
 CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 1 Point - Gr. Br. Ch. no notches, straight base, point is almost equalateral triangle shape, type 1-a, similar to Cottonwood triangular, Fremont, A.D. 400-1550
- 2 Knives
 - #1 Wh. Ch., midsection of Grge, well made symetrical blade
 - #2 Bl. pitch stone, triangular shaped tip frag.
- 1 Utilized Flake - Br. Ch.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/28/76

Ground Stone — List and Describe.

1 mano - qtz.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flakes - 78: 2 cortical, 76 non-cortical
 1 qtz.; 7 obsidian; 7 pitchstone; 62 Chert.; 1 Shale

2 pieces of charcoal were recovered from this site, a good indication that a firepit is somewhere nearby.

Good material association, Bl. Br. Ch. flakes appear similar to proj. pt. #1 and Utilized Flake #1; also 7 flakes of pitch stone are similar to Knife #2

Field Samples: 2 pcs. of charcoal

Reference: Proj. Pt. #1, Type 1-a, Aikens 1970

Photos: None

Colo. Site # H:3:16 Township 1S Range 98W Sec. 20 SW 1/4 of NE 1/4
 Field # 116 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge, Quad
 Location 84 Mesa UTM - Zone 12 20962538
 Site Type Secondary Cult. Aff. Archaic-His. Shoshonean Rec. Com. Avoid
 Survey Date 7/22/75 By APO Excav. Date _____ By _____
 Structures and Features _____

Pottery _____

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj. Pts. (2)

- (1) Triangular blade, straight sides, expanding stem, indented base, dart point (Type 3-a) Elko side notched, 6400 B.C.
- (1) Triag. blade straight sides, small side notches, basal notched, (Type 2-a) Desert Side notched - 400 A.D. - historic Shoshonean.

Flakes - 9 various color Ch.
 1 Gr. Qtz.

3 Qtz. tool stones

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:
 B. LeFree

DATE:
 4/22/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ure,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

Mano frag. R-SS

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Field Samples:

Reference:
 113

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 RE = Fremont, AR = Archaic, W = Woodland

SECONDARY

Site # 6019 H:3:27 Township 1S Range 98W Sec. 7 NE 1/4 of NE 1/4
 Field # 118 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge
 Location 84 Mesa South Side of Duck Creek UTM 19622909
 Site Type Secondary Cult. Aff. _____ Recom. Limited testing
 Survey Date 7/6/75 By _____ Excav. Date _____ By _____
 Structures and Features _____

Pottery

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Blade

- (1) R. Qtz. base missing
- (1) Frag. Gr. Ch. midsection

Tool Frag - R. Ch.

Scraper (1)

Gr. Qtz. irregularly flaked one side

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

Ground Stone — List and Describe.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flakes: 7 Gr. Bl. Ch.; 2 Gr. Yellow Ch.; 2 tiger stripe Ch.; 8 Qtz.; 1 W. Ch.;
 6 PW; 3 cortical

Field Samples:

Reference:

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

SECONDARY

Colo Site # H:3:26 Township 1S Range 99W Sec. 11 SW 1/4 of NE 1/4
 Field # 123 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge Quad
 Location 84 Mesa UTM - Zone 12 15802892
 Site Type Secondary Cult. Aff. _____ Recom. Limited testing
 Survey Date 7/23/75 By APO Excav. Date _____ By _____
 Structures and Features _____

Pottery

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Scrapers (1) Br. Ch.
 Utilized Fl. Mottled X-Ch.

Limestone chopper

29 pieces of toolstone collected not indigenous to area, indicative of tool manufacture at site

Bone - At Rio Blanco March 10 for analysis

Flakes 11 CH (Gr. & R); 1 W. Qtz.; 1 CHAL; 1 W. Ch.; 3 large mottled CHERT
 2 cortical

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

2 poss. mano frag. (1) qtz. (1) R-SS

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Field Samples:

Reference:

Photos:

SECONDARY UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo.
 DU Site # H:3:25 Township 1S Range 99W Sec. 10SE 1/4 of SW 1/4
 Field # 124 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge Quad
 Location 84 Mesa UTM Zone 12 13842804
 Site Type Secondary Cult. Aff. Fremont & Ute Recom. Avoid
 Survey Date 7/23/75 By APO Excav. Date _____ By _____
 Structures and Features
None
 Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj. Pts. (1)
 (1) Black ob. concave notched base, side notched triangular blade (Type 2-a)
 Dates: 400 A.D. (Fremont) to Shoshonean (Historic)
 (Aikens, 1970; Fowler, 1966; Shutler & Shutler, 1963)

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: DATE:
 B. LeFree

Ground Stone — List and Describe.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Very small Bl. Obsid flakes, may represent flaking station for only proj. pt.
 i exhausted core
 1 piece yellow ochre (?)

Flakes - 119: 3 cortical, 116 non-cortical
 26 OB; 7 Bl. Ch.; 27 pwood; 1 Gr. Gr. Ch.; 1 Gr. Qtz.; 1 Gry. Ch;

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # H:3:36 Township 1S Range 98W Sec. 10SW 1/4 of SE 1/4
 Field # 139 Project RROSP Map. Ref. USGS 7.5 Square S. Ranch
 Location Off Tract UTM Zone 12 24022800 Qual.
 Site Type Secondary Cult. Aff. _____ Recom. avoid
 Survey Date 6/23/75 By APO Excav. Date _____ By _____
 Structures and Features
None
 Pottery
None

f = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 CTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Knife - Gr. CHAL
 Utilized flake - Gr. CHAL

Note % of wh. Chert flakes, no tools at location made of this toolstone. Hardly any of the tools recovered on project were made from this stone. Quarry unknown. See site 151 for similar relationship and toolstone

Flakes 46 W. Ch.; 1 W. Qtz.; 2 Gr. Ch.; 1 cortical

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:
 B. LeFree

DATE:

Ground Stone — List and Describe.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

1/2 mile SE Yellow Cr. Rd., 1 mi. S of road to drill pad enter Duck Creek Rd.

Field Samples:

Reference:

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

SECONDARY

DU Site # 101 H:# 42 Township 1S Range 98W Sec. 10NW 1/4 of NW 1/4
 Field # 142 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge
 Location Off Tract UTM Zone 12 23292908
 Site Type Secondary Cult. Aff. _____ Recom. Limited testing
 Survey Date 7/29/75 By APO Excav. Date _____ By _____
 Structures and Features _____

Pottery

3 rimsherds, Gr. Cream, interior and exterior, smoothed. QTZ temper, poss.

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, Stone material, color, culture if known and sketch if desired. CA Temper

1 BRN jasper flake

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:
B. LeFree

DATE:

Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, CB = Obsidian, OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

- Mano - 3
 (1) Gray Qtz. 7 frags
 (1) 3 P-SS. frag. same mano
 (1) Gr. metamorphis unifacial whole

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

1 qtz. core

1 poss hammerstone

Flakes 1 Br. Ch.

Field Samples:

Reference:

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo. DU Site # H:3:37 Township 1S Range 98W Sec. 10NW 1/4 of SW 1/4
 Field # 145 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge
 Location Off Tract UTM Zone 12 23422827
 Site Type: Secondary Cult. Aff. _____ Recom. Avoid
 Survey Date 7/30/75 By _____ Excav. Date _____ By _____
 Structures and Features _____

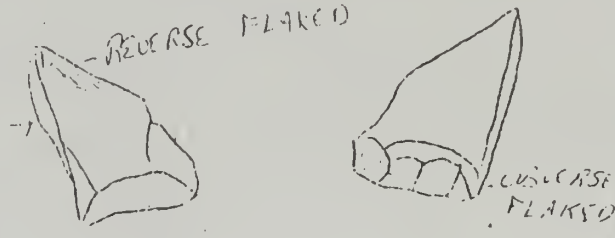
Pottery _____

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Proj. Pt. - pt. end - triangular blade, W. Chal (missing)

Scrapers
 1 side Br. Ch.
 1 unique side & end
 one side well polished



Random flaked scraper Br. Ch.
 Drill - Frag. Pt. Missing p. Qtz.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

4/21/76

Ground Stone — List and Describe.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flakes: 4 Gr. Ch.; 1 OB; 1 Gr. Qtz.; 2 P. Ch.; 1 tiger stripe; 2 yellow Ch.;
 3 cortical

Field Samples:

Reference:

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo. Site # H:3:39 Township 1S Range 98W Sec. 10SE 1/4 of NE 1/4
 Field # 147 Project RBOSP Map. Ref. USGS 7.5 Square S. Ranch
 Location Off Tract UTM Zone 12 23742587
 Site Type Secondary Cult. Aff. _____ Recom. Avoid
 Survey Date 7/30/75 By APO Excav. Date _____ By _____
 Structures and Features _____

Pottery _____

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Scrapers - 3

- #1 side scraper R. Ch.
- #2 snubnosed Gr. Ch.
- #3 end scraper Gr. Ch.

Utilized flake - unifacially flaked, Ch.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

4/22/76

Ground Stone — List and Describe.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Located on top of rim overlooking the confluence of Duck Creek and Yellow Creek to the South

2 scrapers - well made located on this site, probably an area of occupation for hide processing.

Flakes - 2 tiger stripe Ch.; 16 Gr. Ch.; 1 Y. Qtz.; 3 OB; 1 CHAL; 5 cortical

Field Samples:

Reference:

Photos:

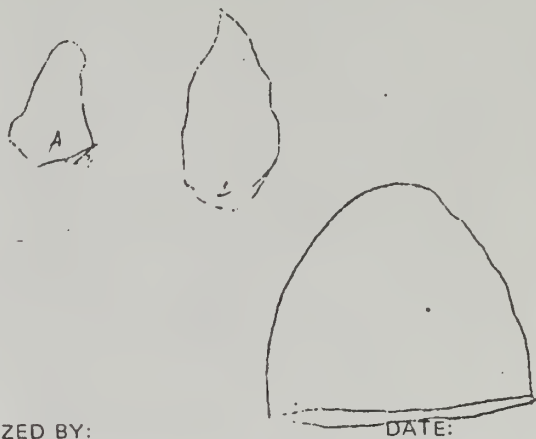
F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, GR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

CO Site # H:3:45 Township 1S Range 98W Sec. 11NW 1/4 of NW 1/4
 Field # 148 Project RBOSP Map. Ref. USGS 7.5 Square S. Ranch
 Location Off Tract UTM Zone 12 24662914 Quad _____
 Site Type Secondary Cult. Aff. _____ Recom. Avoid
 Survey Date 7/30/75 By _____ Excav. Date _____ By _____
 Structures and Features _____

Pottery

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj. Pt. 3 frag.
 (1) tip frag - Br. Ch. (A)
 (1) tip frag - Br. Ch. (B)
 (1) center frag Br. Ch. (B)
 Blade - 1 - tip frag. Br. Ch.
 Utilized Fl - 2
 (1) Y-CH 2 sides utilized
 (1) Gr. Qtz. 2 sides utilized
 Gr. sandstone tubular rock F.



USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ure,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flakes: 6 Bl. Ch.; 27 Br. Bl. Ch.; 6 Wh. Ch.; 1 P. Ch.; 4 OB; 5 Br. R. Ch.;
 1 Y. Ch.; 6 tiger striped Ch.; 1 Gr. Qtz.

3 cortical

Field Samples:

Reference:

Photos:

SECONDARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # H:3:31 Township 1S Range 98W Sec. 33SW 1/4 of SE 1/4
 Field # 151 Project RBOSP Map. Ref. USGS 7.5 Wolf Ridge
 Location 184 yds. NE of Main 84 Road by gate-Off Tract UTM Zone 12 22442150
 Site Type Secondary Cult. Aff. _____ Recom. Avoid
 Survey Date 8/4/75 By _____ Excav. Date _____ By _____

Structures and Features

Pottery

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Points - triangular straight base, corner notched Grey Ch.

Scraper - 1 - snubnosed Br. Ch.

Utilized Flakes (1) Bl. Ch. (1) Gr. Ch. (1) Wh. Gr. Ch.

Blade (frag) 1 Gr. Ch.

Tool frag. Br. Ch.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:
B. LeFree

DATE:
4/20/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Opensage 184 yards off main 84 ranch Rd. Due east

Drainage - Stake Springs Draw.

Largest % of flakes W-Gr. Ch. No tools of this material

1 Br. Qtz. rock

Flakes: 38 W.-Gr. Ch.; 1 R. Ch.; 1 CHAL; 1 Bl. Ch.; 1 PW; 1 P & G. CH;
No cortical flakes

Field Samples:

Reference:

Photos:

SECONDARY
Colo.

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # H:3;46 Township 1S Range 98W Sec. 2 SW 1/4 of Sw 1/4
Field # 154 Project RBOSP Map. Ref. USGS 7.5 Square S. Ranch
Location Off Tract UTM Zone 12 24582938
Site Type Secondary Cult. Aff. Indeterminate Recom. Avoid
Survey Date 7/31/75 By _____ Excav. Date _____ By _____
Structures and Features _____

Pottery _____

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

Proj. Pts.

- (1) side notched, concave base, base widest part of pt., Br. Ch. (Type 2-c)
- (1) tip frag. Bl. Ch.
- (1) midsection frag. poss. side notched.

Blade (1) Bl. Ch.

Scraper - tiger striped Ch.

Flakes - 14 tiger striped Ch.; 24 Bl. Ch.; 47 Br. Ch.; 4 OBSIDIAN; 6 cortical

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

B. LeFree

4/23/76

Ground Stone - List and Describe.

Poss. Mano R. Qtz.

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

The relationship of debitage material to tool material is an unique situation compared to other sites. Possibly the tools found were broken and discarded. The exception is the complete proj. pt. site is probably tool manufacturing area.

Field Samples:

Reference:

Photos:

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
FRE = Fremont, AR = Archaic, W = Woodland.

SECONDARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ure, FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # Colo. H:3:47 Township 1S Range 98W Sec. 11NW 1/4 of NW 1/4
Field # 159 Project RBOSP Map. Ref. USGS 7.5 Square S. Ranch
Location Off Tract UTM Zone 12 24622896
Site Type Lithic Scatter Cult. Aff. _____ Recom. Test or avoid
Survey Date 8/3/76 By APQ Excav. Date _____ By _____
Structures and Features
None

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 1 scraper - Wh. to Gr. Ch., retouched on all sides.
#2 - Pink to Wh. Ch. retouched on one side
- 1 Knife - Gr. to tan Ch., irregular shape, used on one side
- Utilized Flakes
Gr. to tan Ch. naturally backed, used as knife or scraper
- 9 Flakes, 2 cortical, 7 non-cortical
all flakes are Ch.

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: DATE:
T. Bridge 4/26/76

- Ground Stone — List and Describe.
- 2 Manos
#1 R. sandstone F. ground on 1 side, ground & pecked to shape
#2 R. sandstone F., fire cracked, only one surface ground surface, retouched
 - 1 hammerstone - Chert, light use.

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

No flake tool correlation
Poss. firepit at this site because of firecracked mano.

Field Samples: None Reference: None
Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Co10 H:3:34 Township 1N Range 98W Sec. 25 1/4 of E1/2 1/4
 Field # 188 Project RBOSP Map. Ref. Barcus Cr. SE USGS 7 1/2
 Location Off Track UTM Zone .12 27303468
 Site Type Lithic Scatter Cult. Aff. _____
 Survey Date 8/8/75 By APO Excav. Date _____ Recom. Test or avoid
 Structures and Features none
 Pottery none

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- point - large Gr. and tan Ch. point, straight expanding base, corner notch, prob. Archaic.
- 3 knives
 - #1 Tan, Br. & Gr. Ch. large knife F.
 - #2 Bl. Ch. F. of prob. symmetrical blade, well flaked, maybe proj. pt. F.
 - #3 Gr. Ch. F.
- 2 Utilized Flakes
 - #1 Large Wh. to P. Qtz. flake used as knife, and naturally backed.
 - #2 Translucent Gr. Blue Ch., used on one small edge
- Flakes - 12: 2 cortical, 10 non-cortical
 2 quartzite, 10 Chert

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: T. Bridge DATE: 4/27/76

Ground Stone — List and Describe.

hammerstone - Bl. Qtz. or metamorphic, elongated river cobble, battered at both ends

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

flakes match with utilized flake #2
 flake matches with knife #3

Field Samples: None
 Photos: None

SECONDARY

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo. DU Site # H:3:40 Township 1S Range 98W Sec. 8+9 NE 1/4 of Sec. 8 and NW 1/4 of Sec. 9 1/4
 Field # 164 Project RBOSP Map. Ref. Wolf Ridge, USGS 7 1/2
 Location Off Tract UTM Zone 12 21492892

Site Type Lithic Scatter Cult. Aff. _____ Recom. Test or avoid
 Survey Date 8/3/75 By APO Excav. Date _____ By _____

Structures and Features
none

Pottery

none

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 2 points
 - #1 Br. yellow and Bl. Ch. F., midsection, no notches or base present.
 - #2 Wh. Ch. or Chal., F., corner notch.
- 3 Knives
 - #1 Wh. Qtz. tip F. of symmetrical blade
 - #2 R. Qtz. Tip F. of symmetrical blade
 - #3 Gr. Ch. tip F. of symmetrical blade
- 2 Utilized Flakes
 - #1 Yellow Br. Ch.
 - #2 R. Ch.

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

T. Bridge

DATE:

4/28/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

1 poss. mano F., appears volcanic in origin, andis fire cracked.

Additional Information— Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flakes - 10: 2 cortical, 8 non-cortical

1 volcanic, 9 Chert

Field Samples:

Reference:

Photos:

UNIVERSITY OF DENVER SITE INVENTORY CARD

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian, OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red, BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute, FRE = Fremont, AR = Archaic, W = Woodland.

DU Site # Colo. H; 3:29 Township 2S Range 98W Sec. 3NW 1/4 of NW 1/4
Field # 189 Project RBOSP Map. Ref. USGS Wolf Ridge, 7 1/2
Location Off Tract UTM Zone 12 23412090
Site Type Lithic Scatter Cult. Aff. _____
Survey Date 8/2/75 By APQ Excav. Date _____
Recom. Test or avoid
Structures and Features _____
Pottery _____

None
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 1 Knife - Gr. Ch. F., triangular blade tip.
- 4 scrapers
- #1 Gr. Ch. steep angle scraper, naturally backed w/tan color cortex (side scraper)
- #2 Gr. Ch., banded w/concentric circle, side scraper one side, utilized flake on other
- #3 Gr. to tan Ch. F.
- #4 Gr. to tan Ch., small notched scraper
- 1 bullet cartridge - 9 mm luger by Speer
- Flakes - 42; 2 cortical, 40 non-cortical
- 25 grey to tan ch.; 2 volcanic?; 10 Bl. Ch.; 1 White Ch.; 3 R. Ch.; 1 Gr. Qtz

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: DATE:
T. Bridge 4/26/76

Ground Stone - List and Describe. None

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

- 2 small unidentifiable partially lithified bone frags.
- High correlation of stone materials. All chipped stone tools are similar to the gray to tan Ch. flakes, numbering 25 of the total of 42

Field Samples: 2 pcs. of bone Reference: None
Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

DU Site # Colo. H:3:28 Township 2S Range 98W Sec. 4SE 1/4 of NE 1/4
 Field # 190 Project RBOSP Map. Ref. Wolf Ridge, USGS 7.5
 Location Off Tract UTM Zone 12 23082062
 Site Type Lithic Scatter Cult. Aff. Fremont Recom. Test or avoid
 Survey Date 8/12/75 By APO Excav. Date _____ By _____
 Structures and Features
None

Pottery
None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 2 points
 - #1 Dark Gr. Ch., triangular blade, straight base, no notches, Type 1-a, A.D. 400-1050, Cottonwood triangular
 - #2 Dark Gr. Ch. F., tip only, slight serrations.
- 3 Knives
 - #1 Qtz. light Gr. w/wh cortex on oneside, large blade, used on 2 edges, but retouched on one
 - #2 Qtz light Gr. F. of small blade, serrated edge
 - #3 Ch. Gr. & Wh. Ch., F., retouched on 2 edges poss. frag. of drill or graver.
- 3 scrapers
 - #1 Gr. and Br. Ch., scraper on 2 edges, steep angle on one side shallow angle on other

USE BACK SIDE OR EXTRA CARD, IF NEEDED.

ANALYZED BY:

DATE:

Continued on back

T. Bridge

4/26/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone - List and Describe. None

Chipped Stone Cont.

Scrapers

- #2 Red Ch. shallow angle, poss. used as knife, but side scraper
- #3 Br. PW.F. side scraper

1 exhausted core - obsidian

Additional Information - Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Poor correlation of materials 3 PW flakes appear similar to scraper #3

5 utilized flakes - 2 PW, 3 CH.

Flakes - 37: 1 cortical, 36 non-cortical
 10 qtz.,; 4 PW; 22 CH; 1 volcanic?

Field Samples: None

Reference: Cottonwood Triangular, Aikens, 1970
Hogup Cave

Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

Co10 DU Site # H:3:30 Township 2S Range 98W Sec. 3NE 1/4 of NW 1/4
 Field # 191 Project RBOSP Map. Ref. Wolf Ridge USGS 7.5
 Location Off Tract UTM Zone 12 23732100
 Site Type Lithic Scatter Cult. Aff. ? Recom. Test or avoid
 Survey Date 8/12/75 By APO Excav. Date _____ By _____
 Structures and Features None
 Pottery None

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 OTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

- 2 points
 - #1 Dark Gr. Ch. Tip F.
 - #2 Yellow & R. PW, Corner notch w/2 notches on 1 side, expanding straight, not base, this point may have been broken, then used as hefted knife, identifiable
- 2 scrapers
 - #1 Dark R Ch. F., steep angle, maybe frag. of snubnose or thumbnail
 - #2 Gr. Wh. Ch. F. very small, shallow angle, poss used as knife.
- 1 Utilized Flake - Gr. Bl, Wh. Ch.

USE BACK SIDE OR EXTRA CARD, IF NEEDED. ANALYZED BY: T. Bridge DATE: 4/30/76

Ground Stone — List and Describe.

1 poss mano, 2 very small fragments of Bl. Qtz. appear to be fire cracked

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flakes - 7: 0 cortical, 7 non-cortical
 1 Qtz.; 1 PW; 5 CH

1 flake matches Utilized Flake #1

Field Samples: None Reference: None, Proj. Pts. not identifiable
 Photos: None

UNIVERSITY OF DENVER SITE INVENTORY CARD

Colo. DU Site # A:15:2 Township 1N Range 98W Sec. 13 W1/2 1/4 of 1/4
 Field # 194 Project RBOSP Map. Ref. Barcus Cr. SE, USGS 7.5
 Location Off Tract UTM Zone 12 26233692
 Site Type Lithic Scatter Cult. Aff. Fremont or Ute Recom. Test or avoid
 Survey Date 8/25/75 By APO Excav. Date _____ By _____
 Structures and Features
None

Pottery

None

CHIPPED STONE TOOLS—list in order of: Points, Scrapers, Blades, Drills, Gravers, Utilized Flakes, Flakes. Include: description, material, color, culture if known and sketch if desired.

2 points

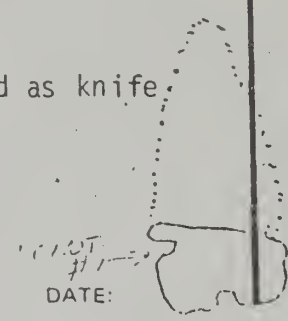
- #1 Base F., dark Br. Ch., side notch, basal notch Type 2-a, associated w/Fremont A.D. 400-1350, and w/historci Ute-Shoshonean
- #2 F. of midsection, Br. P.W., large point, but not identifiable

2 scrapers

- #1 Br. Qtz. made from small flake, retouched on one edge
- #2 Dark R. Ch. F., shallow angle edge, appears to have been used as knife.

3 utilized flakes

- #1 Translucent Gr. Ch.
- #2 Transluscent Br. Ch.
- #3 Tan volcanic w/chal inclusions, used as scraper



USE BACK SIDE OR EXTRA CARD; IF NEEDED.

ANALYZED BY:

DATE:

T. Bridge

4/27/76

F = Fragment, PW = Petrified Wood, CHAL = Chalcedony, CH = Chert, OB = Obsidian,
 QTZ = Quartzite, V = Volcanic, SS = Sandstone, LS = Limestone, Y = Yellow, R = Red,
 BR = Brown, BL = Black, WH = White, GR = Gray, P = Pink, POSS = Possible, U = Ute,
 FRE = Fremont, AR = Archaic, W = Woodland.

Ground Stone — List and Describe.

- 1 mano F., R. sandstone, fire cracked and used on 2 sides
- 2 cores appear to be volcanic in origin, w/inclusions of

Additional Information — Vegetation, Water Sources, Site Description, Topog., Structures or Architecture, Site Impressions, Site Size, etc.

Flakes - 5: 3 cortical, 2 non-cortical
 2 qtz.; 3 Ch.

Only material match is Utilized Flake #5 to the 2 cores
 Mano fragment is definitely fire cracked, a firepit is probably nearby

Field Samples: None

Reference: Proj. Pt. #1, Type 2-a, Aikens, 1970

Photos: None

Fowler, 1966
 Shutler & Shutler
 1963

#197 T1S R99W S29 NE/4 NE/4

Du. C. l. N: 2:31

Rio Blanco

~~84-Mesa~~

PERIMETER
SECONDARY

Historic Horse Trap

Site located immediately south of the present access road on Dead Horse Ridge, in the NE/4 or NE/4 of Sec. 29, R99W, T1S, approximately 1 mile west of the location of Station M4. The site is a wigned horse trap with cable

reinforcement and a catch and holding corral that is also cable reinforced using natural trees and additional wooden elements. The site is not terribly old and has not been used for some time, but it is in a good state of preservation and should not be damaged. The area has also been extensively used as a deer camp area with attendant trash. Any expansion of the present road to the south would present a danger to the site.

ca. 200 yds E-W, 100 yds N-S

Date of Survey 9-5-74

Recommendations: that this area be flagged out and avoided prior to the time of road expansion. The site is easily recognized and should present no problem.

APPENDIX D
FOSSILIZED BONE DATA

Rio Blanco Oil Shale Project

March 29, 1976

Mr. Ed Sandell
Tract C-a Coordinator
Area Oil Shale Office
Mesa Federal Savings & Loan Building
131 N. 6th, Suite 300
Grand Junction, Colorado 81501

Re: Paleontological Samples: Letter to Dr. P. O. McGrew from E. A. Ziemba dated March 17, 1976 (copy to E. Sandell)

Dear Ed:

Please refer to the captioned letter which details the work requested of Dr. McGrew, vertebrate paleontologist, University of Wyoming. Briefly, his work involved paleontological samples collected last summer by Dr. A. Olson's archeological field teams at eight (8) sites in the Tract C-a area.

Enclosed is a copy of Dr. McGrew's report dated March 26, 1976. He concludes none of the specimens is of paleontologic significance.

For your convenience, a map is also enclosed showing the eight archeological sites at which the samples were collected flagged with red dots.

Very truly yours,

E. A. Ziemba

E. A. Ziemba

EAZ/dh

Enclosures (2) Report and Map

cc: w/o encl. C. O. Spielman
w/report S. H. Miller
A. P. Olson
C. F. Gist

Laramie, Wyoming
March 26, 1976

Mr. E. A. Ziemba
Rio Blanco Oil Shale Project
Dayton Commons
9725 East Hampden Ave.
Denver, Colorado 80231

Dear Mr. Ziemba:

I have examined the "fossil" material mailed to me on March 17. A couple of the specimens were real puzzlers hence the little job took longer than anticipated. I believe, however, that my conclusions are correct.

Identifications are as follows:

157
Loc. ~~57~~ One scrap of the carapace of a fossil turtle.

The genus and species are not identifiable. This specimen is obviously fossil and doubtless from the Uinta Formation.

Loc. 64 This was a tough one! After considerable study it was identified as a fragment of a posterior thoracic vertebra of a uinthere--probably of the genus Eobasileus. This form is well known in other basins. The specimen is almost certainly from the Uinta Formation. Associated with this are several scraps that may well be bits from the same vertebra.

Loc. 123 Two small scraps of mammal bone. Not identifiable but certainly fossil and probably from the Uinta Formation.

Loc. 156 An unidentifiable scrap of fossil bone. Probably mammalian.

Loc. 158 Three pieces of fossil wood, a small piece of weathered siliceous shale, and a fragment of fossil turtle shell.

Loc. ¹⁷⁸~~159~~ A group of bone scraps that are not fossil. All have been burned (doubtless by indians). Most cannot be identified. Two epiphyses are certainly from the metapodial of a deer but are too corroded to distinguish between Odocoileus virginianus (white tail) and O. hemionus (mule deer). One fragment appears to be a small piece from a leg bone of Bison bison.

Loc. 189 One scrap of burned mammal bone. This specimen is not fossil and was probably burned by indians.

Loc. 196 Three fragments of fossil turtle shell. These almost certainly are from the Uinta Formation.


(3)

In themselves none of these specimens is of paleontologic or stratigraphic significance. Turtle scraps are omnipresent in both near shore and fluvial Eocene sediments of the entire Rocky Mountain area. Uintatheres are well known from the Bridger Basin, the Washakie Basin, the Sand Wash Basin, etc. Scraps of fossil wood, too, occur throughout near shore and fluvial Eocene sediments of the region.

In summary, on the basis of this collection I would consider the area of doubtful paleontologic significance. The Piceance Creek Basin was probably not environmentally suited for an abundance of Eocene mammals. Certainly with the great amount of geologic work that has been done in the Piceance Basin more evidence would have appeared by this time.

The collection is being returned under separate cover.

Sincerely,


Paul. C. McGrew

R 100 W

R 99 W

R 98 W

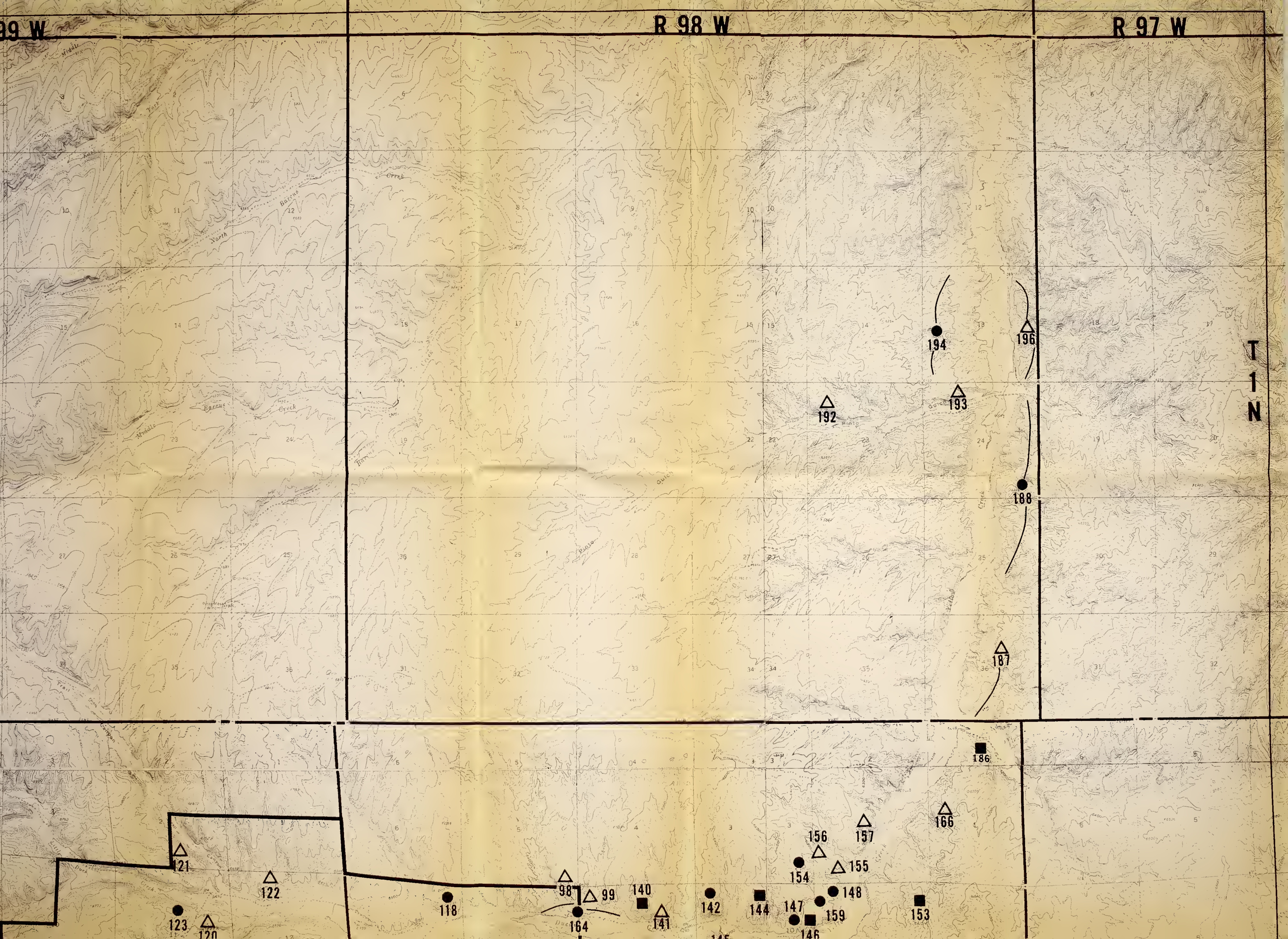
T 1 N



9 W

R 98 W

R 97 W



121

122

123

120

118

98

164

99

140

141

142

144

154

147

146

156

155

148

159

157

153

166

186

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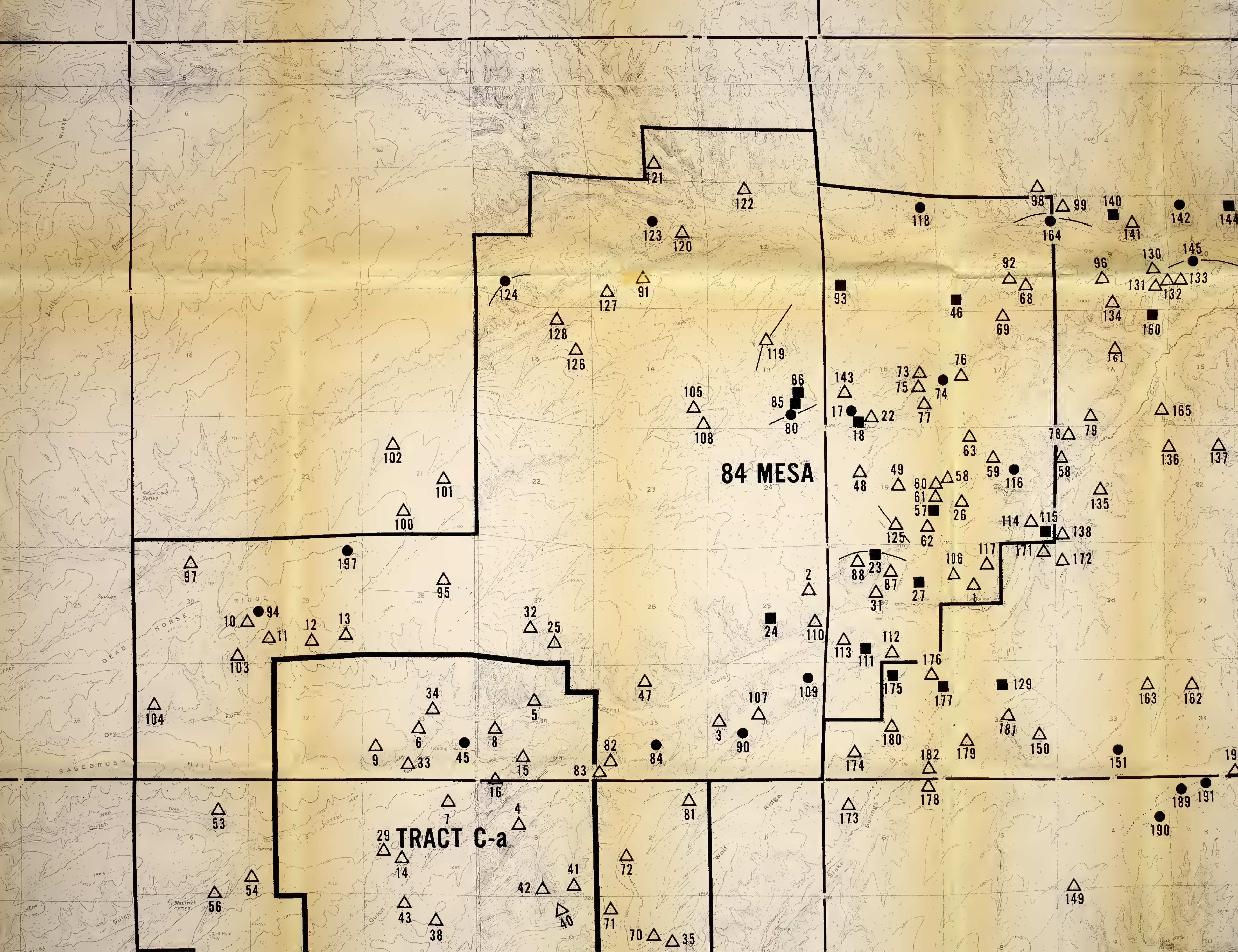
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84 MESA

TRACT C-a

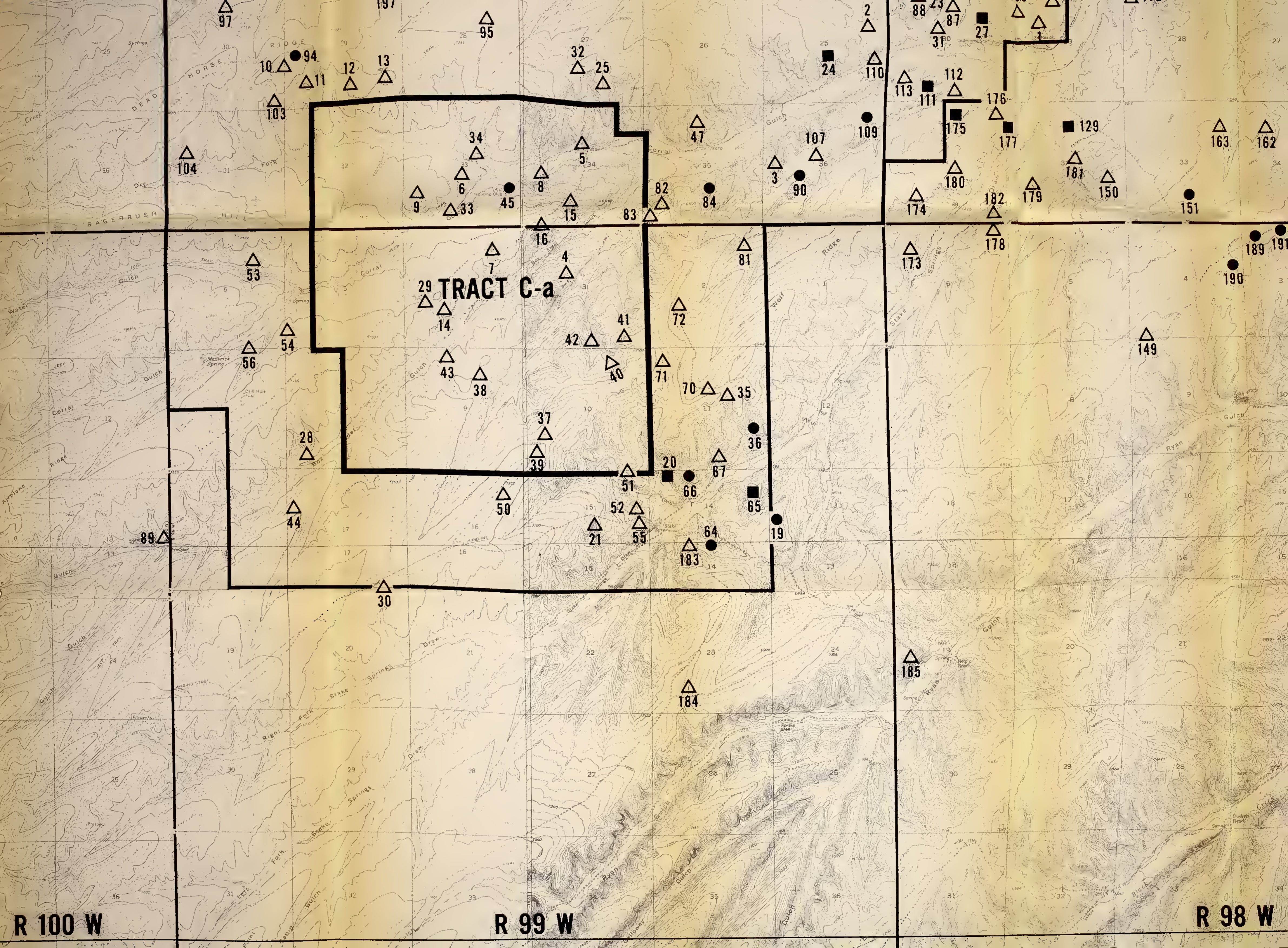
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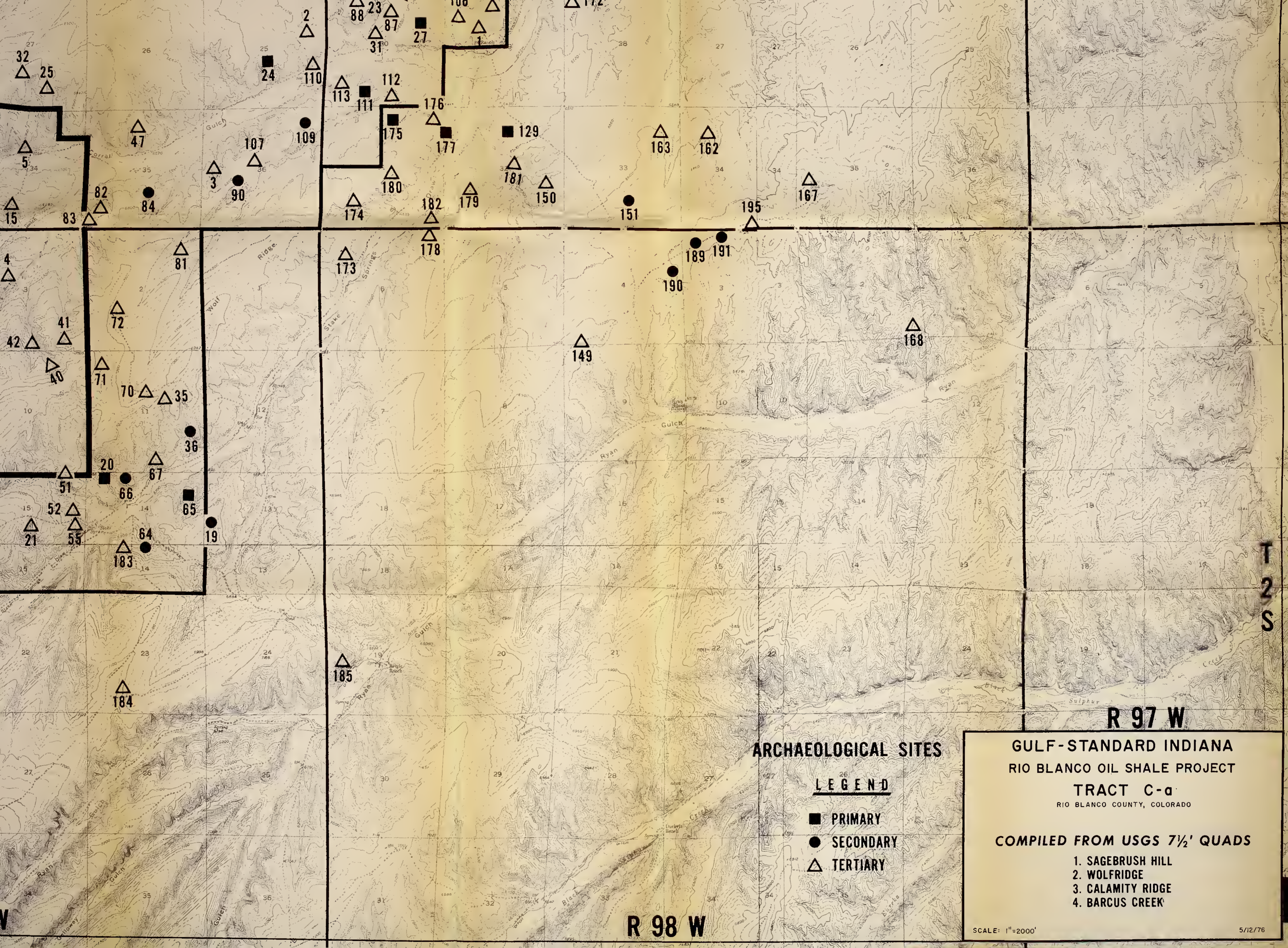


TRACT C-a

R 100 W

R 99 W

R 98 W



ARCHAEOLOGICAL SITES

LEGEND

- PRIMARY
- SECONDARY
- △ TERTIARY

R 97 W

**GULF-STANDARD INDIANA
RIO BLANCO OIL SHALE PROJECT
TRACT C-a**
RIO BLANCO COUNTY, COLORADO

COMPILED FROM USGS 7½' QUADS

1. SAGEBRUSH HILL
2. WOLFRIDGE
3. CALAMITY RIDGE
4. BARCUS CREEK

R 98 W

SCALE: 1"=2000'

5/12/76

Form 1279-3
(June 1984)

BORROWER

TN 859 . C64 A72 1975

An archaeological survey
assessment for Rio B

DATE LOANED	BORROWER

USDI - BLM

