4.3 Blair Lakes Archaeological District (FAI-00335)

The Blair Lakes Archaeological District consists of six archaeological sites located on the north shore of Blair Lakes South. Four of these sites—FAI-00044, FAI-00045, FAI-00048, and FAI-00049—are prehistoric sites yielding flakestone artifacts and faunal remains from a buried context. Two of the sites—FAI-00046, and FAI-00054—are log cabin remains, and cache pit features and early 20th Century artifacts associated with the late 1930's Walter "Tex" Blair homestead. The boundaries of sites FAI-00045 and FAI-00046 overlap; FAI-00046 is the historic component related to Tex Blair's homestead, while FAI-00045 is a prehistoric component consisting of lithic artifacts and faunal remains. At the time of the investigation, Dixon et al. (1980: 116-119) assigned two different site numbers to what is essentially a multi-component site.

The Blair Lakes archaeological sites were nominated as constituting an NRHP Archaeological District during 1985 by the Alaska Heritage Resource Group as significant under two NRHP eligibility criteria: Criteria B and Criteria D.

In terms of NRHP Criteria B, the historic sites within the district—sites FAI-00045 and FAI-00054—are associated with the life of a the life of an individual prominent in Alaska history. The historic component at the Blair Lakes Archaeological District documents a homestead established by Walter "Tex" Blair in the late 1930's. The homestead was one of the few in the central portions of the Tanana Valley, and the only one in the Blair Lakes vicinity.

The prehistoric sites in the district—FAI-00044, FAI-00046, FAI-00048, and FAI-00049— are significant under NRHP Criteria D in that they have provided, and are likely to further provide, valuable information on both the prehistory of the Tanana Valley and interior Alaska. The prehistoric components at the Blair Lakes are affiliated with the Denali, and Northern Archaic traditions with a potential late prehistoric occupation (Dixon et al. 1980). The Denali complex is represented by microblades, microblade cores, and burin spalls. Evidence for a Northern Archaic occupation is present in the form of lanceolate and side-notched points. A radiocarbon date of 1820 ± 70 BP from site FAI-00045 is later than the accepted temporal limits of the Northern Archaic, and possibly represents a late prehistoric Athabaskan occupation.

2008 & 2009 Field Methods

The Blair Lakes Archaeological District was visited by two Colorado State University CEMML archaeologists under the supervision of Edmund Gaines, M.A., R.P.A. during July 29-30, 2008 and on August 6, 2009. The purpose of these visits was to relocate and assess the condition of the sites that constitute the archaeological district. Visual surface inspection consisted of pedestrian transects of the reported site areas. In addition, we conducted a systematic survey of the shallow water within a few m of the lakeshore.

Results

The landscape comprising the Blair Lakes Archaeological District has changed significantly since the time of 1979 investigation. Dixon et al. (1980) report extensive evidence of military

training activities, and concomitant loss of vegetation and erosion. Land-based military training exercises in the area were terminated in the early 1980's, and recreational activities are the only type of recent human use of the area. The reported locations for the sites that comprise the district were found to be heavily overgrown with very thick brush. This vegetation consists of alder, rose hips, willows, dwarf birch, birch and spruce trees. The heavy vegetation hindered field efforts to a certain extent; however, our investigation relocated all of the sites comprising the district and documented their current conditions:

FAI-00044

Site FAI-00044 was originally identified by Dixon et al. (1980) in an eroding cut bank located 3 m from the present shoreline of Blair Lake South. At the time of site discovery, four lithic artifacts, including one microblade core, and one unifacially retouched rhyolite blade-like flake, were found on the surface, having recently eroded out of the cut bank exposure. Phase II testing conducted during the same investigation recovered 223 lithic artifacts from a buried context. Most of this is lithic debitage; formal tools among the assemblage included "one bifacially worked black chert knife fragment" (Dixon et al. 1980: 108), two rhyolite microblade cores, two core tablets, a total of 25 microblades and microblade fragments, one chert and two chalcedony burin spalls. Their investigation also recovered 10 fire cracked rocks, and hundreds of faunal fragments, most of them burnt and calcined. Identifiable remains in the faunal assemblage include a snowshoe hare phalange distal fragment, a distal fragment of a phalange likely from a moose or bear, a humerus head from a snowshoe hare, a canid carpal, five large mammal long bone fragments, and one small mammal long bone fragment.

The recovered assemblage indicates multiple activities on the part of the site's prehistoric inhabitants. The numerous flakes and tools are evidence of intensive artifact manufacture and maintenance. The presence of fire cracked rock and faunal remains suggest a period of occupation longer than just a short-term stopover related to a single event. The site likely served as a camp, or perhaps a village.

An affiliation with the Denali complex was postulated on the basis of microblade technology and burin spalls. Depth of material recovered and its relation to the present lake shore, which has fluctuated over time, was thought at the time to suggest that the site was affiliated with the "late phase" of the Denali Complex.

Dixon et al. (1980: 109) were explicit that they had not clearly defined the site's boundaries and that further testing above their Phase II evaluations would be necessary to establish the site's spatial limits. They were also clear that the separation of individual prehistoric sites along the north shore of Blair Lakes south was probably a sampling issue and it is likely that the four individual sites defined, in fact, represent one extensive, continuous, multi-component site.

At the time of the 1979 investigation, the site was reportedly being impacted by military training and natural lakeshore erosion.

2008/2009 Site Condition and Recommendations

The site was relocated based on Dixon et al.'s (1980) description of the area; however the metal tags reportedly left in place during Phase II investigations were not found, probably due to thick vegetation and ground cover. The coordinate information given at the beginning of this section is the most up to date and accurate. The site was found to be in fair to good condition. The erosional cut bank described during site discovery by Dixon et al. (1980) has stabilized and is now heavily vegetated (Figure 139). Military training has ceased in the vicinity and there were no observed impacts from any type of recent human use of the area. Presently, the primary potential threat to the site seems to be from lake shore erosion. Two years of repeated site visits, however, identified no observable change in lakeshore condition. The site should be subjected to annual monitoring to continue to assess the effect of lakeshore erosion, if any, on the site

Numerous lithic artifacts were collected from the shallow water in the vicinity of FAI-00044; however, they are from a nearly continuous artifact scatter in a disturbed context and cannot be positively identified as to what site they are from. This shallow water collection will be described and discussed in a following section.

Figure 139. FAI-00044 overview (view to north)

FAI-00045

Site FAI-00045 was originally identified by Dixon et al. (1980) in an eroding cutbank 6 m north and 4 m above the shoreline of Blair Lake South. Dixon et al.'s (1980) phase II evaluations produced 161 lithic artifacts from a buried context. Tool forms among the assemblage include three end scrapers, one burin spall, one projectile point basal fragment, two bifacial tool one of which might be a knife or projectile point, and eight flake tools. The site also produced hundreds of burnt and calcined bone fragments. Most of these were too small for species or element identification; however, some are recognizable as large mammal long bone fragments, and several fragments fit together and are caribou metacarpal or metatarsal. One of the fragments had five identifiable cut marks; however, microscopic examination did not reveal the type of tool used.

Dixon et al. (1980: 114) recognize typological similarities between the projectile point fragment and projectile point styles affiliated with the Northern Archaic Tradition. One radiocarbon date obtained from stratigraphic charcoal yielded an age of 1820 ± 70 BP. This might indicated a late persistence of the Northern Archaic Tradition, or it might indicate an Athabaskan affiliation for the site.

Phase II testing demonstrated that the site extends at least 15 m from the lakeshore; however Dixon et al. (1980: 114) state that this is a tentative conclusion and that further testing is required to firmly establish the site's boundaries. Dixon et al. (1980: 114) identified impacts to the site from both military training and historic homesteading.

2008/2009 Site Condition and Recommendations

The site was relocated based on Dixon et al.'s (1980) description. The coordinate information given at the beginning of this section is the most up to date and accurate. The site was found to be in fair to good condition. The erosional cut bank described by Dixon et al. (1980) during site discovery has stabilized and is now heavily vegetated (Figure 139). Military training has ceased in the vicinity and there were no observed impacts from any type of recent human use of the area. Currently, the main potential threat to the site seems to be from possible lake shore erosion. Two years of repeated site visits, however, identified no observable change in lakeshore condition. The site should be subjected to annual monitoring to continue to assess the effect of lakeshore erosion, if any, on the site.

Numerous lithic artifacts were collected from the shallow water in the vicinity of FAI-00045; however, they are from a nearly continuous artifact scatter in a disturbed context and cannot be positively identified as to what site they are from. The shallow water collection will be described and discussed in a following section.

Figure 140. FAI-00045 overview (view to south)

FAI-00046

Site FAI-00046 consists of the burnt remains of a 7 m x 6 m log structure, a 1.5 m x 1 m x .75 pit feature, and associated early 20th debris including bricks, glass fragments, asphalt shingles, metal light fixtures, windowscreen, sections of stove pipe, nails, and other metal debris. The pit feature reportedly contained several metal cans. At the time of site discovery in 1979, remains of the original logs used in the structure were preserved only in the south wall.

The site represents historic use of the area by "Tex" Blair. Archival research revealed the Mr. Blair applied for a manufacturing claim in the same area the site was found and that he was in the area as early as 1938 (Dixon et al. 1980: 118).

Site boundaries overlap with prehistoric site FAI-00045; however, the sites were given separate numbers in order to avoid confusion (Dixon et al. 1980).

2008/2009 Site Condition and Recommendations

The site was relocated based on Dixon et al.'s (1980) description. The coordinate information given at the beginning of this section is the most up to date and accurate. The site was found to be in fair to good condition. Our investigation found the pit (Figure 142) described by Dixon et al. (1908: 118-119), as well as metal and glass debris. Several of these artifacts, such as sections of stove pipe, match the site description given by Dixon et al. (1980: 118). The burnt log

structure remains, however, were not found. The area is heavily vegetated (Figure 141), and it is possible this obscured any surviving remains. During 1979 the burnt log remains were only apparent on the south wall (Dixon et al. 1980: 118). It is possible that erosion and other impacts over the past 30 years degraded the cabin remains beyond recognition. Military training has ceased in the vicinity and there were no observed impacts from any type of recent human use of the area.

Figure 141. FAI-00046 overview (view to north)

Figure 142. FAI-00046 pit feature with associated metal cans and wooden debris

FAI-00048

Dixon et al. (1980) identified site FAI-00048 in a cutbank 4 m north and 3 m above the north shoreline of Blair Lake South. The site consists of six flakes, one of which is retouched, and 14 burnt and calcined bone fragments found in the surface of the cutbank exposure. The bone fragments are too small for species identification, but they are recognizable as long bone fragments from medium to large mammals. Fire cracked rocks and cobbles were also noted in the exposure, but were left in place.

Only one test pit was excavated during an ostensible Phase II investigation, yielding no cultural material. Dixon et al. (1980: 124) are clear that this limited sampling is insufficient to determine site boundaries and presence of buried remains.

2008/2009 Site Condition and Recommendations

The site was relocated based on Dixon et al.'s (1980) description. The coordinate information given at the beginning of this section is the most up to date and accurate. The site was found to be in fair to good condition. The erosional cut bank described by Dixon et al. (1980) during site discovery has begun to stabilize and is in the initial phases of revegetation (Figure 143). Military training has ceased in the vicinity and there were no observed impacts from any type of recent human use of the area. Presently, the primary threat to the site seems to be from continued lake shore erosion. Two years of repeated observation, however, indicate very slow rates of erosion,

with no observable change. The site should be subjected to annual monitoring to continue to assess the effect of lakeshore erosion on the site.

Numerous lithic artifacts were collected from the shallow water in the vicinity of FAI-00048; however, they are from a nearly continuous artifact scatter in a disturbed context and cannot be positively identified as to what site they are from. The shallow water collection will be described and discussed in a following section.

Figure 143. FAI-00048 overview (view to southwest)

FAI-00049

Dixon et al. (1980) discovered site FAI-00049 in a cutbank 4 m above and 2 m north of the north shoreline of Blair Lake South. The site consists of three flakes found on the surface of the cutbank exposure. No subsurface testing or Phase II evaluations were conducted.

2008/2009 Site Condition and Recommendations

The site was relocated based on Dixon et al.'s (1980) description of the area. The coordinate information given at the beginning of this section is the most up to date and accurate. The site was found to be in fair to good condition. The erosional cut bank described by Dixon et al. (1980) has stabilized and currently exhibits thick vegetation (Figure 144). Military training has ceased in the vicinity and there were no observed impacts from any type of recent human use of

the area. Presently, the primary threat to the site seems to be from continued lake shore erosion. Two years of repeated observation, however, indicate very slow rates of erosion, with no observable change. The site should be subjected to annual monitoring to continue to assess the effect of lakeshore erosion on the site.

Numerous lithic artifacts were collected from the shallow water in the vicinity of FAI-00049; however, they are from a nearly continuous artifact scatter in a disturbed context and cannot be positively identified as to what site they are from. The shallow water collection will be described and discussed in a following section.

Figure 144. FAI-00049 site location overview (view to southeast)

FAI-00054

Site FAI-00054 consists of the burnt remains of two log structures, a log cache, and associated early 20th Century artifacts including porcelain fragments and tiles, a metal drill press, metal sections of stove pipe, and other metal debris.

The site represents historic use of the area by –Tex" Blair. Archival research revealed the Mr. Blair applied for a manufacturing claim in the vicinity. Mr. Blair's use of the area began as early as 1938 (Dixon et al. 1980: 142).

2008/2009 Site Condition and Recommendations

The site was relocated based on Dixon et al.'s (1980) description of the area. The coordinate information given at the beginning of this section is the most up to date and accurate. The area is heavily vegetated (Figure 145) We relocated historical debris associated with site FAI-00054, including the drill press (Figure 147; Figure 148), berm features, burnt cache poles (Figure 146), metal debris, milled wood ,bricks and porcelain fragments reported by Dixon et al. (1980: 142-143, 350). In general, the site was found to be in fair condition. Military training has ceased in the vicinity and there were no observed impacts from recent human use of the area.

Figure 145. FAI-00054 overview (view to east)

Figure 146. FAI-00054 cache support pole (see Dixon et al. 1980: 141, view to north)

Figure 147. FAI-00054 drill press 1979 (from Dixon et al. 1980: 350)

Figure 148. FAI-00054 drill press 2009

Additional Findings

During the initial site visit, while navigating difficult lakeshore terrain, a large rhyolite biface was discovered in the shallow water near the lake margin (Figure 149; Figure 150). Subsequent surveys conducted during both 2008 and 2009 revealed the presence of numerous lithic artifacts and calcined bone fragments diffusely scattered in the shallow water along the shoreline. Judgmental collection of artifacts focused on tool forms and large, obvious pieces of lithic debitage. A total of 117 lithic artifacts were collected including: lithic debitage (Table 11); scrapers (Figure 151: Figure 152; Table 12) bifaces (Figure 153; Table 14), projectile points (Figure 154; Table 15) microblade cores (Figure 156;
Table 16), retouched flakes (Table 13), and one burin (Figure 155). Many exhibited extensive rounding and polishing as a result of substantial time in the water (e.g. Figure 152 a-d; Figure 156 b). This extensive weathering obscured flakes scars and in many cases (e.g. microblade core shown in Figure 156 b) prevented analysis of metric attributes.

Figure 149. Discovering artifacts in shallow water at FAI-00335

Figure 150. FAI-00335 rhyolite biface under water

Figure 151. FAI-00335 submerged scrapers

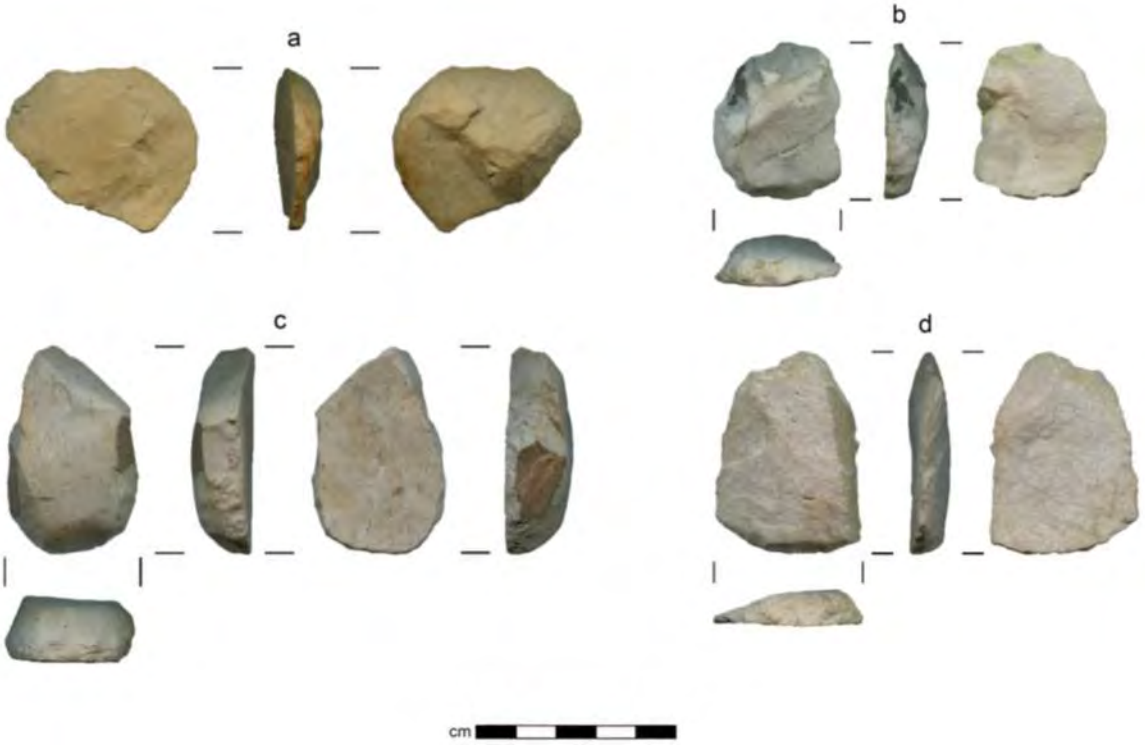

Figure 152. FAI-00335 submerged and heavily weathered scrapers

Table 11. FAI-00335 lithic debitage

Debitage Type	Size Class	Material Type	Color	Munsell Code
flake fragment	> 40 mm	rhyolite	light gray	5Y 7/1
flake fragment	20-30 mm	rhyolite	light gray	2.5Y 7/1
flake fragment	30-40 mm	rhyolite	light gray	2.5Y 7/2
flake fragment	30-40 mm	chert	gray	2.5Y 5/1
complete flake	> 40 mm	rhyolite	gray	2.5Y 5/1
broken flake	20-30 mm	rhyolite	light gray	5Y 7/1
broken flake	20-30 mm	chert	light gray	2.5Y 7/1
broken flake	20-30 mm	rhyolite	light gray	10YR 7/1
broken flake	30-40 mm	chert	dark reddish gray	2.5YR 3/1
flake fragment	10-20 mm	rhyolite	gray	2.5Y 6/1
broken flake	30-40 mm	basalt	black	5Y 2.5/1
flake fragment	20-30 mm	basalt	black	5Y 2.5/1
broken flake	20-30 mm	rhyolite	light gray	2.5Y 7/2
broken flake	> 40 mm	basalt	dark gray and light gray	2.5Y 4/1 and 5Y 7/1
complete flake	20-30 mm	chert	dark gray	2.5Y 4/1
flake fragment	20-30 mm	rhyolite	light gray	2.5Y 7/1
flake fragment	20-30 mm	chert	very dark gray	5Y 3/1
broken flake	30-40 mm	basalt	dark gray	5Y 4/1
debris	20-30 mm	chert	black	5Y 2.5/1
flake fragment	10-20 mm	chert	black	5Y 2.5/1
flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
broken flake	30-40 mm	chert	gray	5Y 5/1
broken flake	10-20 mm	chert	black	5Y 2.5/1
flake fragment	30-40 mm	rhyolite	light brownish gray	10YR 6/2
broken flake	> 40 mm	chert	black	5Y 2.5/1
debris	> 40 mm	basalt	very dark gray	5Y 3/1
debris	> 40 mm	basalt	dark gray	5Y 4/1
complete flake	20-30 mm	chert	gray	2.5Y 5/1
broken flake	> 40 mm	rhyolite	very pale brown	10YR 7/3
flake fragment	20-30 mm	rhyolite	gray	10YR 6/1
flake fragment	> 40 mm	chert	black	2.5Y 2.5/1
flake fragment	> 40 mm	rhyolite	light gray	2.5Y 7/2
flake fragment	20-30 mm	rhyolite	light gray	5Y 7/1
broken flake	> 40 mm	basalt	gray	5Y 5/1
flake fragment	30-40 mm	chert	dark gray	2.5Y 4/1
debris	> 40 mm	chert	black	10YR 2/1
complete flake	7.5-10 mm	chert	light gray	5Y 7/1
debris	20-30 mm	chert	dark gray	5Y 4/1
debris	10-20 mm	chert	pale olive	5Y 6/3
flake fragment	30-40 mm	basalt	very dark gray	10YR 3/1
complete flake	30-40 mm	milky quartz	white	5Y 8/1
debris	30-40 mm	chert	black	5Y 2.5/1
complete flake	> 40 mm	chert	very dark gray	5Y 3/1
flake fragment	20-30 mm	chert	gray	7.5YR 6/1
broken flake	20-30 mm	chert	black	2.5Y 2.5/1
flake fragment	> 40 mm	rhyolite	light gray	2.5Y 7/1
flake fragment	30-40 mm	basalt	black	2.5Y 2.5/1
broken flake	10-20 mm	rhyolite	light gray	7.5R 7/1
debris	20-30 mm	chert	black	2.5Y 2.5/1
broken flake	> 40 mm	rhyolite	gray	2.5Y 6/1
broken flake	30-40 mm	rhyolite	reddish gray	10R 6/1
debris	10-20 mm	rhyolite	light gray	2.5Y 7/1
flake fragment	10-20 mm	chert	reddish gray	2.5YR 6/1
broken flake	20-30 mm	chert	light gray	10YR 7/1
flake fragment	10-20 mm	chert	reddish gray	10R 5/1
flake fragment	10-20 mm	chert	gray	7.5YR 6/1
debris	30-40 mm	chert	black	10YR 2/1
flake fragment	20-30 mm	rhyolite	light gray	10YR 7/1
debris	> 40 mm	chert	brown	7.5YR 4/4
broken flake	20-30 mm	rhyolite	light gray	5Y 7/1
flake fragment	20-30 mm	rhyolite	reddish gray	2.5YR 5/1
flake fragment	10-20 mm	rhyolite	light gray	2.5Y 7/1

Table 12. FAI-00335 scraper attributes

							Retouch Length (mm)			
Figure	L (mm)	W (mm)	T (mm)	Material Type	Color	Munsell Code	A (left lat.)	B (dist.)	C (right lat.)	D (prox.)
193 a	28.8	35.2	8.7	chert	dark gray	2.5Y 4/1	22	42	22	0
193 b	36.3	23.5	13.5	chert	gray	2.5Y 5/1	36	26	32	18
193 c	49.2	42.9	13.3	chert	olive brown	2.5Y 4/3	0	42	46	0
193 d	52.3	35.4	14.1	chert	gray and light yellowish brown	2.5Y 5/1 and 2.5Y 6/3	48	38	49	12
194 a	49.2	38.2	13.0	rhyolite	pale yellow	2.5Y 7/4	46	33	UID*	0
194 b	51.1	42.4	11.7	chert	gray	5Y 5/1	39	26	40	45
194 c	51.3	34.5	16.1	rhyolite	gray	2.5Y 6/1	UID*	36	UID*	0
2d	51.5	38.5	11.3	rhyolite	light gray	2.5Y 7/1	0	41	0	0
not shown	98.2	69.4	15.6	chert	olive gray	5Y 5/2	0	0	106	0
not shown	29.5	26.3	7.7	rhyolite	light gray	2.5Y 7/1	26	29	0	24
not shown	27.3	19.5	7.7	chert	dark reddish gray	5YR 4/2	21	28	0	0

*flake scars too heavily weathered

Table 13. FAI-00335 retouched flake attributes

Figure	L (mm)	W (mm)	T (mm)	Material Type	Color	Munsell Code	A (left lat.)	B (dist.)	C (right lat.)	D (prox.)
not shown	55.7	31.1	10.0	chert	very dark gray	10YR 3/1	54	0	67	0
not shown	35.1	49.5	13.6	chert	dark gray	5Y 4/1	0	55	0	0
not shown	51.6	34.5	11.6	chert	olive gray	5Y 5/2	51	0	0	0
not shown	39.3	33.2	11.5	rhyolite	light gray	5Y 7/1	0	UID	0	0
not shown	47.0	43.4	10.0	rhyolite	light gray	7.5R 7/1	33	0	0	0
not shown	38.4	20.3	13.2	rhyolite	light gray	5Y 7/1	52	0	28	0
not shown	44.5	40.9	7.0	rhyolite	light gray	2.5Y 7/1	32	41	38	17
not shown	65.2	57.8	16.2	chert	very dark gray	5Y 3/1	34	0	0	0
not shown	29.7	30.8	6.1	rhyolite	light gray	5Y 7/2	0	0	30	0
not shown	24.2	24.5	5.8	rhyolite	light gray	5Y 7/1	0	26	0	0
not shown	64.8	44.8	21.8	chert	very dark gray	5Y 3/1	0	52	54	0

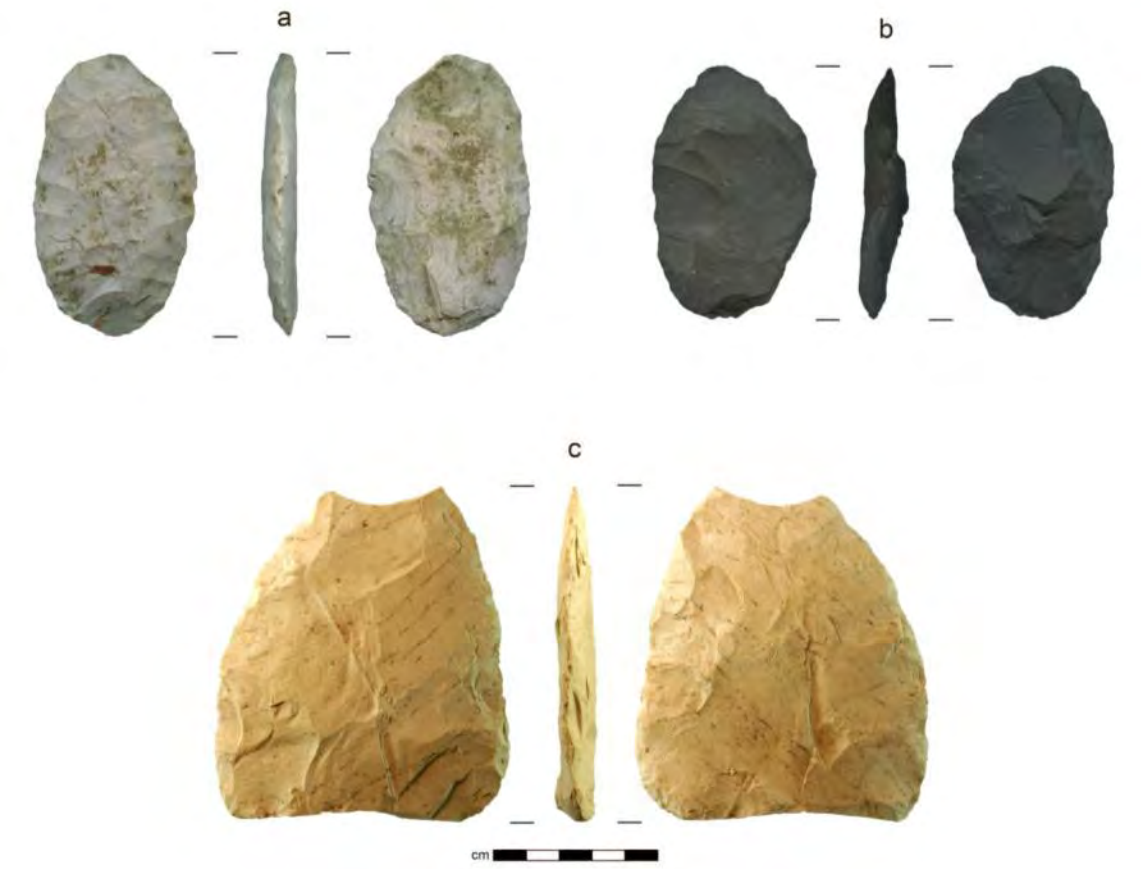

Figure 153. FAI-00335 submerged bifaces

Table 14. FAI-00335 biface attributes

Figure	L (mm)	W (mm)	T (mm)	Material Type	Color	Munsell Code
195 a	85.0	50.5	12.0	rhyolite	gray	5Y 6/1
not shown	na*	27.1	9.4	chert	very dark gray	5Y 3/1
195b	77.1	51.2	15.7	basalt	very dark gray	5Y 3/1
not shown	na**	na**	11.9	chert	dark gray	2.5Y 4/1
not shown	na**	na**	9.7	rhyolite	light gray	5Y 7/1
not shown	na***	35.2	15.2	chert	dark gray	2.5Y 4/1
195c	98.7	87.4	12.2	rhyolite	light gray	2.5Y 7/2

*medial fragment;**margin fragment; ***basal fragment

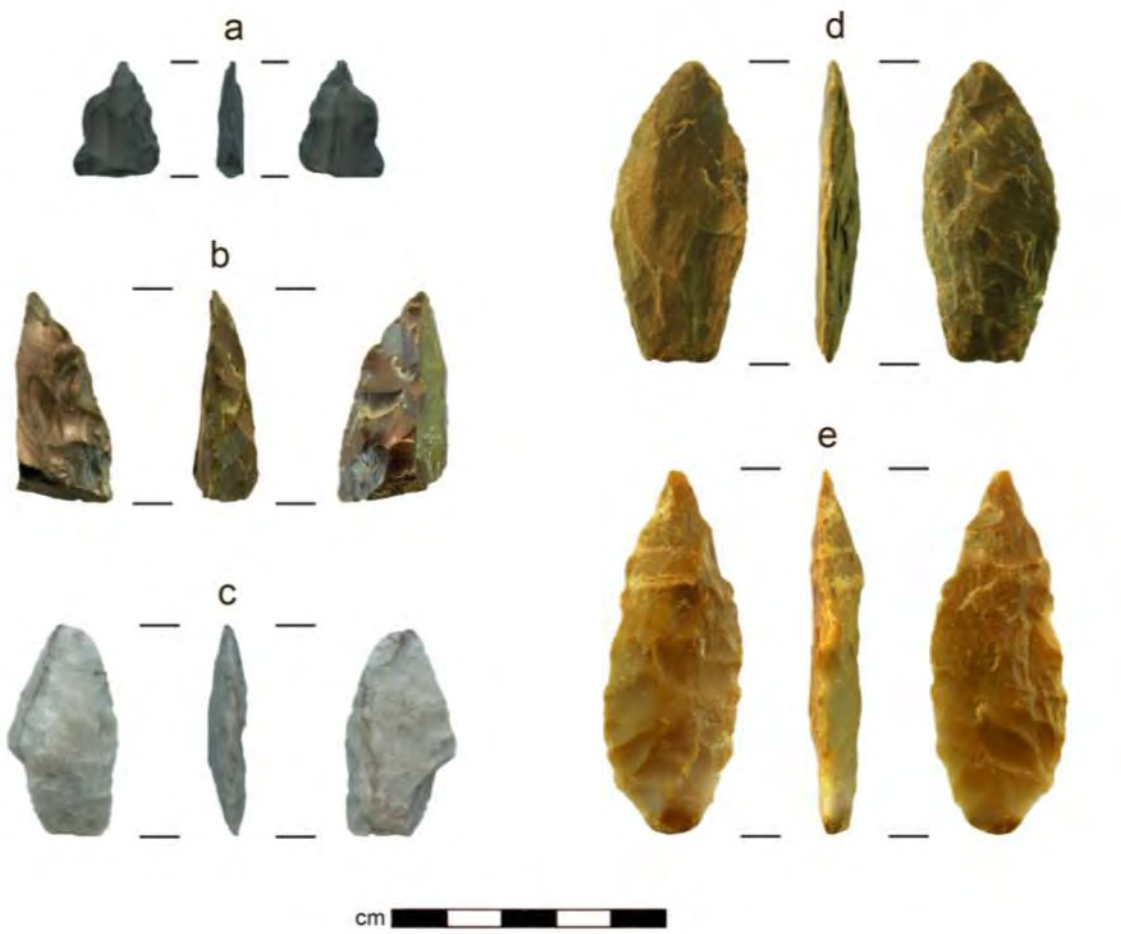

Figure 154. FAI-00335 submerged projectile points

Table 15. FAI-00335 projectile point attributes

Figure	L (mm)	W (mm)	T (mm)	Material Type	Color	Munsell Code
196 a	na*	16.5	5.8	chert	black	2.5Y 2.5/1
196 b	na*	na*	11.5	chert	black	10YR 2/1
196 c	38.2	20.7	7.4	chert	light gray	2.5Y 7/1
196 d	53.5	24.8	7.8	chert	dark greenish gray	10GY 4/1
196 e	65.1	24.5	9.2	chert	olive brown	2.5Y 4/3

*margin fragment

Figure 155. FAI-00335 submerged burin

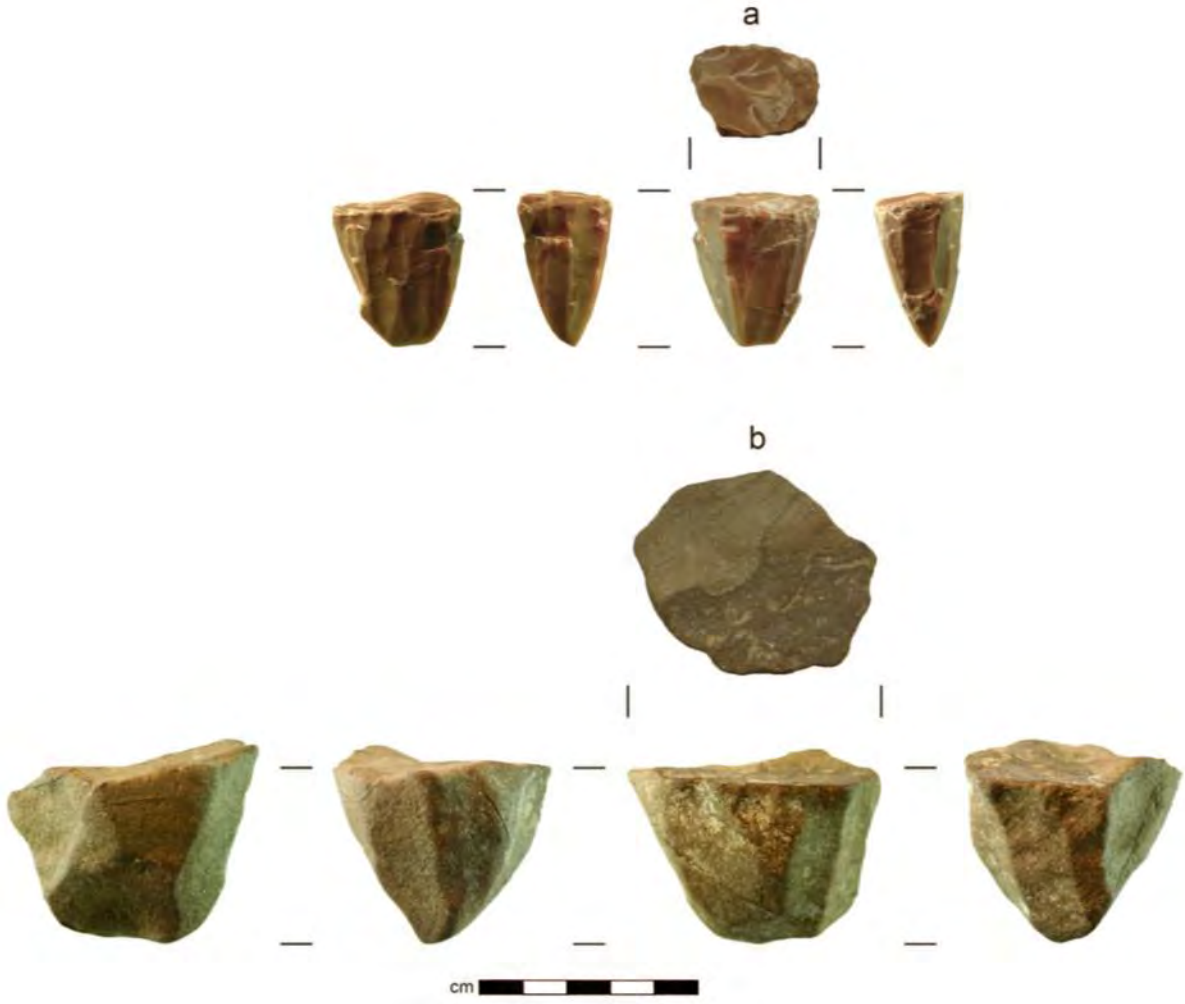

Figure 156. FAI-00335 submerged microblade cores

Table 16. FAI-00335 microblade core attributes

core form	core length	core height	core T	# of flutes	Avg. flute W	# of flute hinges	platform L	platform W	platform # of flake scars	keel shape	keel damage	Material Type	Color	Munsell Code
conical	27.6	33.5	20.5	16	4.4	5	27.1	20.2	7	point	n	chert	light olive brown	2.5Y 5/4

*metric attributes were only recorded for Figure 197 specimen a; the flake scars on specimen b were too heavily weathered to obtain precise measurements

FAI-000335 Archaeological District Boundaries

Shoreline artifact distribution documented during 2008 and 2009 obliges an update of the Blair Lakes Archaeological District boundaries. The artifacts were found in a more or less continuous distribution in the shallows along 820 m of shoreline. Given this continuous distribution, assigning recovered artifacts to specific sites within the district is problematic. The spatial distribution and density of artifacts supports the notion that the individual prehistoric sites defined within the district, in fact represent one extensive site with multiple components and activity areas.

Dixon et al. (1980) were clear that they had not clearly established the boundaries for any of the prehistoric sites within the district. Phase II evaluations of FAI-00044 and FAI-00045 were deemed insufficient to determine site boundaries. Neither of the other two prehistoric sites within the district was subjected to evaluation phase investigations that would delineate their boundaries.

Dixon et al. (1980) report that the Blair Lakes sites occupy a 600 m stretch of shoreline. Given that the recent investigation documented artifacts along a continuous 820 m of shoreline, the Blair Lakes Archaeological District boundaries should be expanded by roughly 220 m in an east-west direction.

The Blair Lakes Archaeological District nomination form was prepared by the Alaska Heritage Research Group in 1985.

With the proposed expansion of the Blair Lakes Archaeological District boundaries and advances in GPS technology in the past 25 years, the boundary coordinates of the district should be updated.

4.4 TFTA Sand Dunes

The northwestern portion of the TFTA contains a 45 km²/19,255 acre discontinuous vegetated sand dune field that occupies a triangular area east of the lower Wood River, south of the Tanana River and north of the Wood River Buttes (Figure 157). Topographically, the dune field is dominated by a northeast-southwest trending linear dune complex that extends roughly 5 km, is 200-800 m in width, and rises as high as 45 m above the surrounding flats. This represents the most obvious feature in the dune complex, and has received the most attention from the limited research in the area (e.g. Dixon et al. 1980: 215). This feature and a few of the larger dunes to the south and west appear on USGS geologic (Péwé et al. 1966) and topographic maps of the area. Low-speed, low-elevation overflights of the area conducted by CSU CEMML during 2009 revealed the presence of several dozen additional linear, parabolic, and ovate sand dunes diffusely spread over a 40 km2/16,900 acre area to the south and west of the linear dune complex. In many places the dunes surround undrained depressions, old ponds and relict stream channels.

Geologically, the dune field remains relatively unstudied, and there is much to learn in terms of dune morphology, timing of and paleoenvironmental factors influencing dune formation and stabilization. The existing literature (e.g. Péwé 1975; Péwé et al. 1966; Hopkins 1982; Lea and Waythomas 1990) tends to associate this dune field with the extensive Nenana Dune field located more than 35 km to the west (Collins 1985). The dunes were probably formed from sands derived from the Tanana River during full to late glacial times. Some researchers (e.g. Lea and Waythomas 1990) hypothesize late glacial to early Holocene dune formation from existing full-glacial sand sheets throughout much of central Alaska. Given large areas of reworked sand deposits on the margins of the dunes in Tanana Flats, such a scenario might account for dune formation here. Final dune formation likely occurred during the latest Pleistocene, with subsequent early Holocene dune stabilization and vegetation. This notion is supported by an inferred terminal Pleistocene increase in wind intensity in central Alaska during the Younger Dryas (Bigelow et al. 1990).

Lithologically the dunes consist of very fine to medium aeolian sand, and reworked organic silty sand. Both deposits are capped by aeolian silt from 1 to 3.5 m thick. Vegetation in the dunes is dominated by broadleaf, and mixed broadleaf-needleleaf forests associated with better drained soils. The dunes are surrounded by abandoned flood plain alluvium on the north and west, swamp deposits on the east and Healy-aged outwash in the south and central portions.

The dunes were subject to archaeological survey during 1979 (Dixon et al. 1980: 33, 48, 217-218). No sites were identified at the time, despite the fact that over 495 shovel test pits were excavated.

2009 Field Survey

The dune field was targeted for archaeological survey during 2009 as part of a long range planning and feasibility assessment related to potential range development at the TFTA. Fieldwork was conducted by a team of five CSU CEMML archaeologists under the direct supervision of Edmund Gaines, M.A., R.P.A., during August 15 to 19, and October 5 to 9, 2009.

Field methods consisted of rotary-wing aerial reconnaissance to select high-probability locations for ground survey. Twenty-nine testing locations were selected. Ground survey consisted of visual inspection of the dune surfaces, and subsurface testing. In total, 155 shovel test pits were excavated. Shovel test pits were 50 x 50 cm and screened through ¼" mesh. In order to ensure comprehensive site identification efforts, and to adequately sample for deeply buried cultural remains, nearly all of the test pits were excavated to a depth of 140 cm BS—the maximum excavation depth possible with a standard shovel.

Results

Twenty-five of the 29 testing locations (86%) were positive for cultural remains resulting in the identification of 25 prehistoric archaeological sites. All of these contain buried remains and were discovered through subsurface testing. Of the 155 total test pits excavated in the dune field, 55 (35%) yielded archaeological remains. The following is a description of the sites:

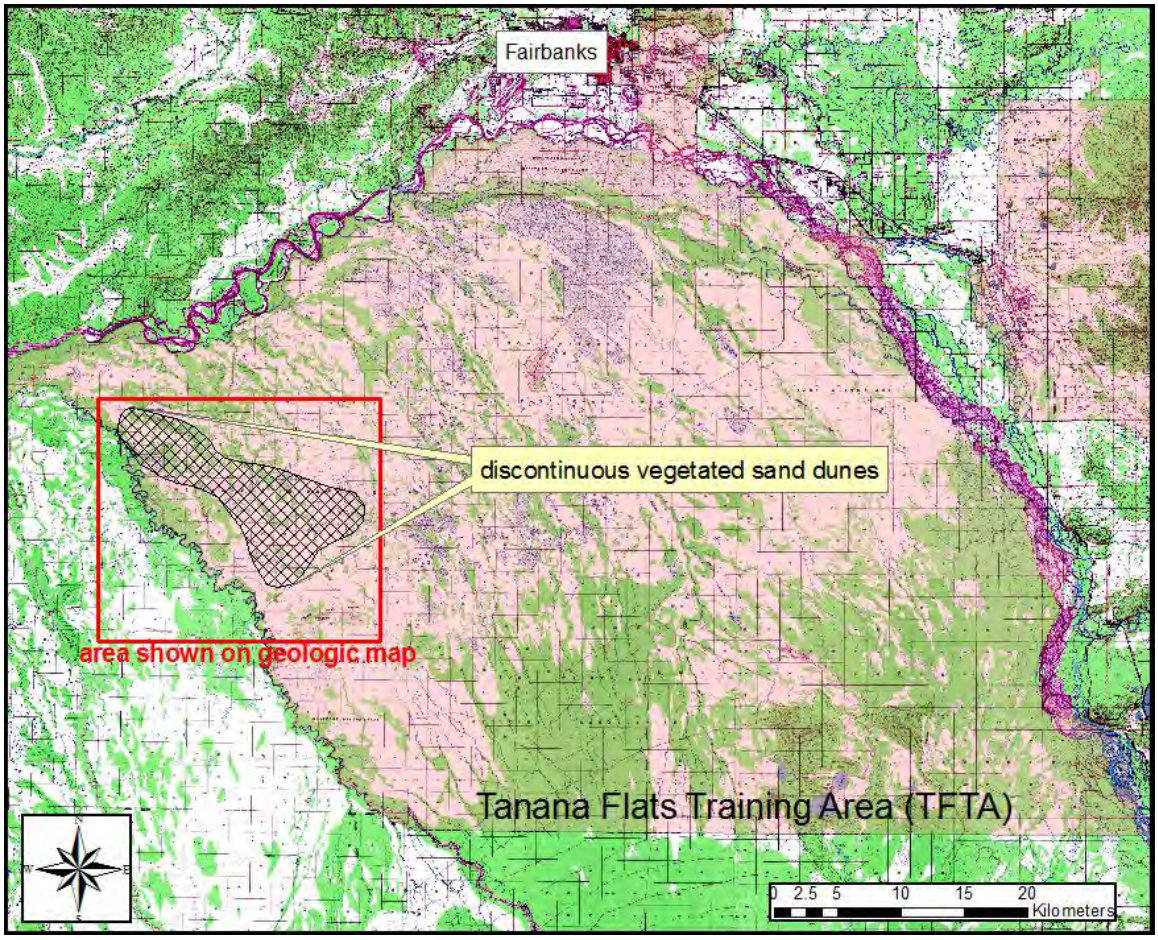

Figure 157. Location of stabilized dune field in TFTA

FAI-02004
Determination of Eligibility: Not evaluated

Site FAI-02004 is located on the crest of a large, northwest-southeast (120°) trending, vegetated sand dune (Figure 158). Site elevation is 172 masl. The crest of the dune is roughly 70-90 m wide, with a slope of 0-3°. The southwest and northeast sides of the dune slope at 40-60° dropping 20-30 m to the valley floor below. The location provides a commanding view of the Tanana flats to the east, while the view to the north, south, and west is obscured by thick vegetation. The ecosystem is characterized as an open upland dry broadleaf forest. The site area is dominated by burnt aspen and spruce trunks and deadfall, with some standing live aspen, and isolated white spruce (Figure 159). The understory consists of alders, fireweed, rose hips and high-bush cranberries.

Site FAI-02004 was found through subsurface testing. Cultural material was recovered from two of five test pits excavated. Two flakes were recovered from depths of 5-13 cm BS. The first of these is a flake fragment between 10-20 mm, made of light yellowish brown (10 YR6/4) rhyolite.

The second is a broken flake 10-20 mm in diameter, made of brown (10 YR5/3) rhyolite.
Site stratigraphy consists of aeolian silts more than 350 cm thick overlying aeolian dune sands (Figure 160). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon 4-14 cm BS, and a reddish brown silt Bw horizon at 14-33 cm BS. Yellow silt extends from 33-50 cm BS, which is, in turn, underlain by unaltered gray silt (C horizon) to depths of more than 350 cm BS.

Figure 158. FAI-02004 aerial overview (view to northeast)

Figure 159. FAI-02004 overview (view to east)

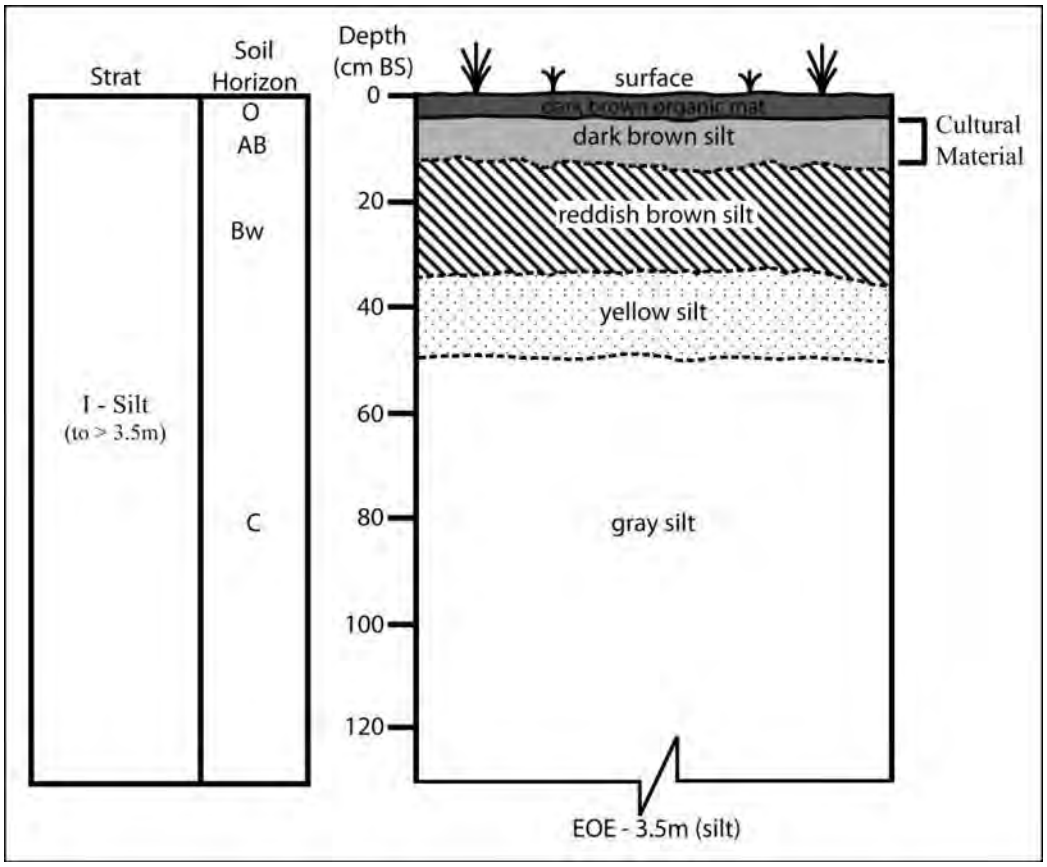

Figure 160. FAI-02004 stratigraphy

FAI-02005
Determination of Eligibility: Not evaluated

Site FAI-02005 is located on a high flat spot on the southern lobe of a large dune (Figure 161). The location is at the southern end of an extensive northwest-southeast trending (120°) vegetated dune complex. Site elevation is 157 masl. The flat area on the crest of the dune is roughly 175 m long north-south, and 100 m east-west with a slope of 0-3°. The south, east, and west sides of the dune slope at 20-60° dropping 15-20 m to the valley floor below. The location provides a 270° view shed, with open view to the south, east and west. The ecosystem is characterized as an open upland dry broadleaf forest. The site area is dominated by burnt aspen and deadfall, with some standing live aspen, and an understory consisting primarily of fireweed (Figure 162).

Site FAI-02005 was found through subsurface testing. Cultural material was recovered from one of six test pits excavated. Two flakes were recovered from depths of 20-30 cm BS. Both of these are between 10-20 mm and made of dark gray (10 YR 4/1-2) rhyolite. One is a complete tertiary flake; the other is a broken flake.

Site stratigraphy consists of aeolian silts 45-50 cm thick overlying aeolian dune sands (Figure 163). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon 4-15 cm BS. Unaltered yellow silt (1C horizon) extends from

15-28 cm BS. A brown silt Ab horizon occurs at 28-30 cm BS, with an underlying reddish silt Bwb1 horizon at 30-48 cm BS. Very well sorted, very fine sands extend from 48 cm BS to where test pit excavation was terminated at 140 cm BS. The upper 10 cm of the sands exhibit reddish staining due to soil development from the Bwb1 horizon, while the lower portions are an unaltered light gray 2C horizon.

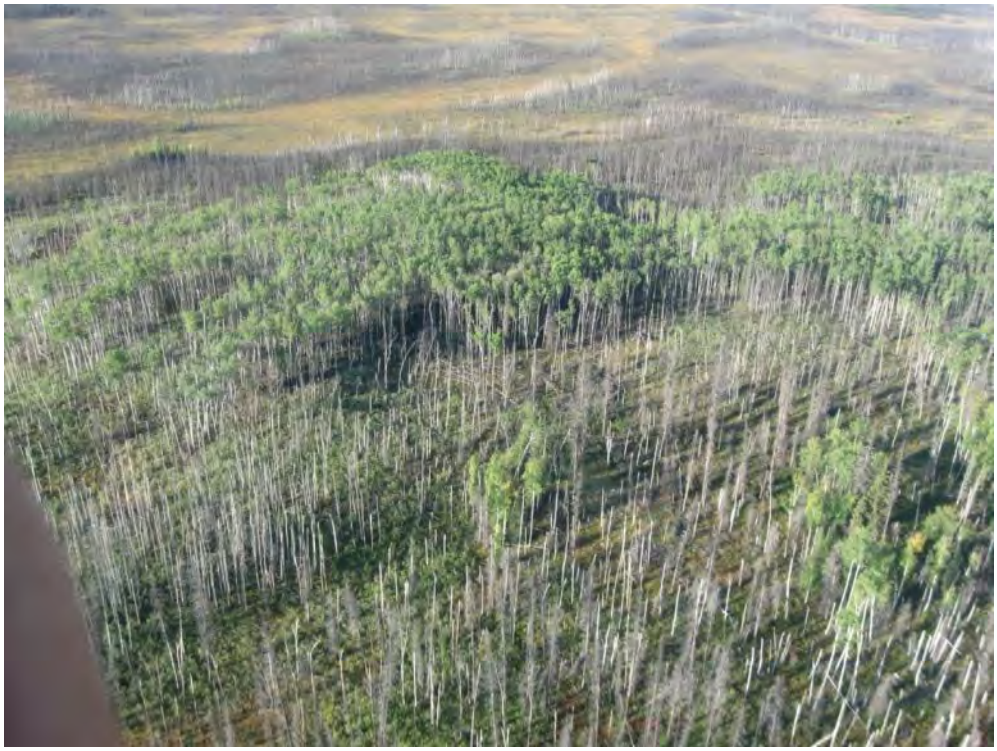

Figure 161. FAI-02005 aerial overview (view to west)

Figure 162. FAI-02005 overview (view to east)

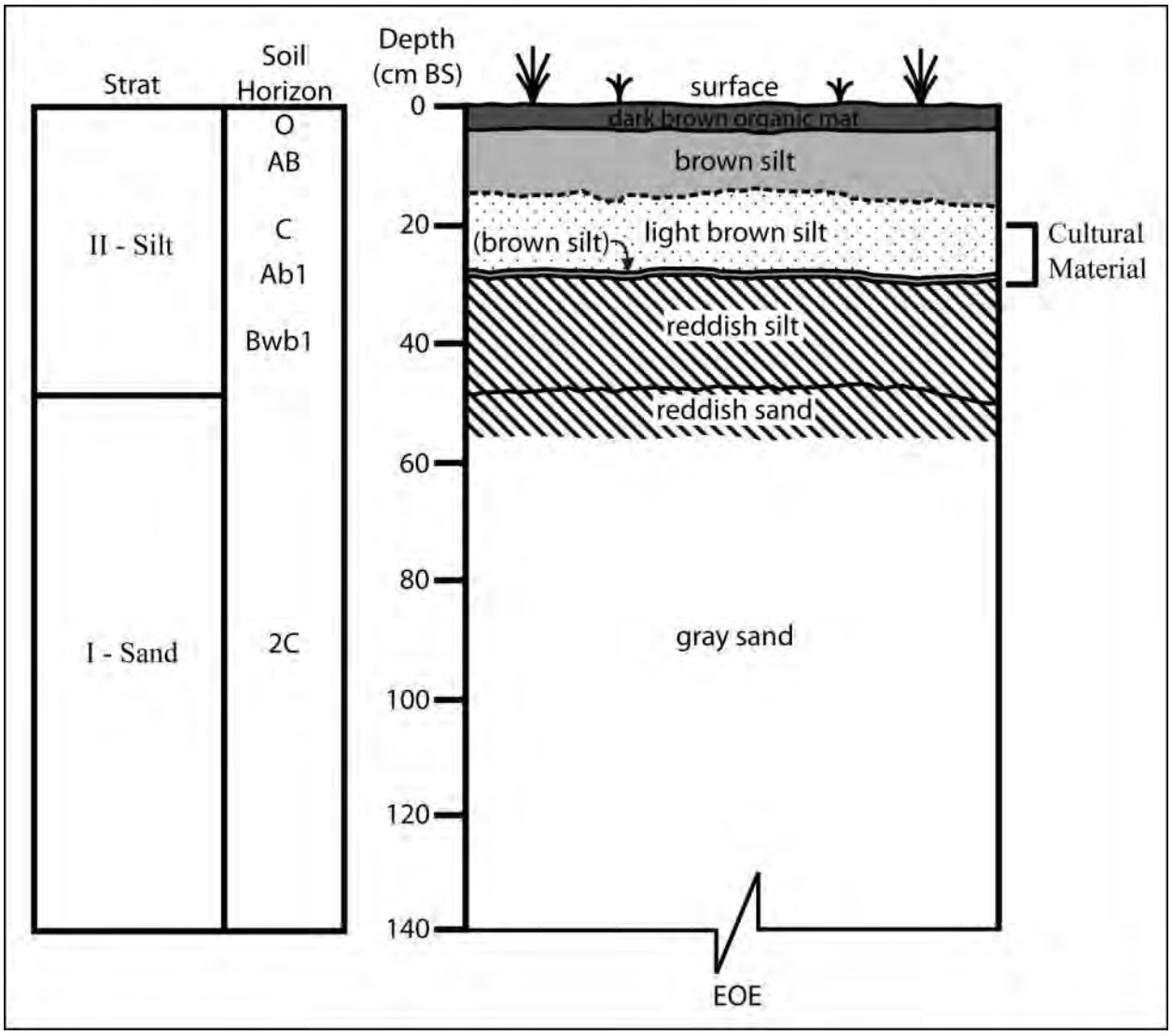

Figure 163. FAI-02005 stratigraphy

FAI-02006
Determination of Eligibility: Not evaluated

Site FAI-02006 is located on the crest of a large dune (Figure 164) within a northwest-southeast trending dune complex. Site elevation is 155 masl. The flat area on the crest of the dune is roughly 100 m x 75 m with a slope of 0-3°. The dune slopes at a 30-40° grade on all sides, dropping 15-20 m to the valley floor below. The location provides a commanding 360° view of the surrounding Tanana Flats. The ecosystem is characterized as an open upland dry broadleaf forest. Vegetation consists of burnt aspen and deadfall, with some standing live aspen, and a thick understory consisting of young aspen, small white spruce, and fireweed (Figure 165).

Site FAI-02006 was found through subsurface testing. Cultural material was recovered from one of six test pits excavated. One complete flake, measuring between 5-7.5 mm in diameter and made of light yellowish brown rhyolite (10 YR 6/4) was recovered from depths of 15-25 cm BS.

Site stratigraphy consists of aeolian silts more than 140 cm thick overlying aeolian dune sands (Figure 166). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon 4-16 cm BS. Unaltered tan silt (C1 horizon) extends from 16-24 cm BS. A brown silt Ab1 horizon occurs at 24-26 cm BS, with an underlying reddish silt Bwb1 horizon at 26-50 cm BS. Light gray silt (C2 horizon) extends to at least 140 cm BS—the depth that test pit excavations were terminated.

Figure 164. FAI-02006 aerial overview (view to north)

Figure 165. FAI-02006 overview (view to north)

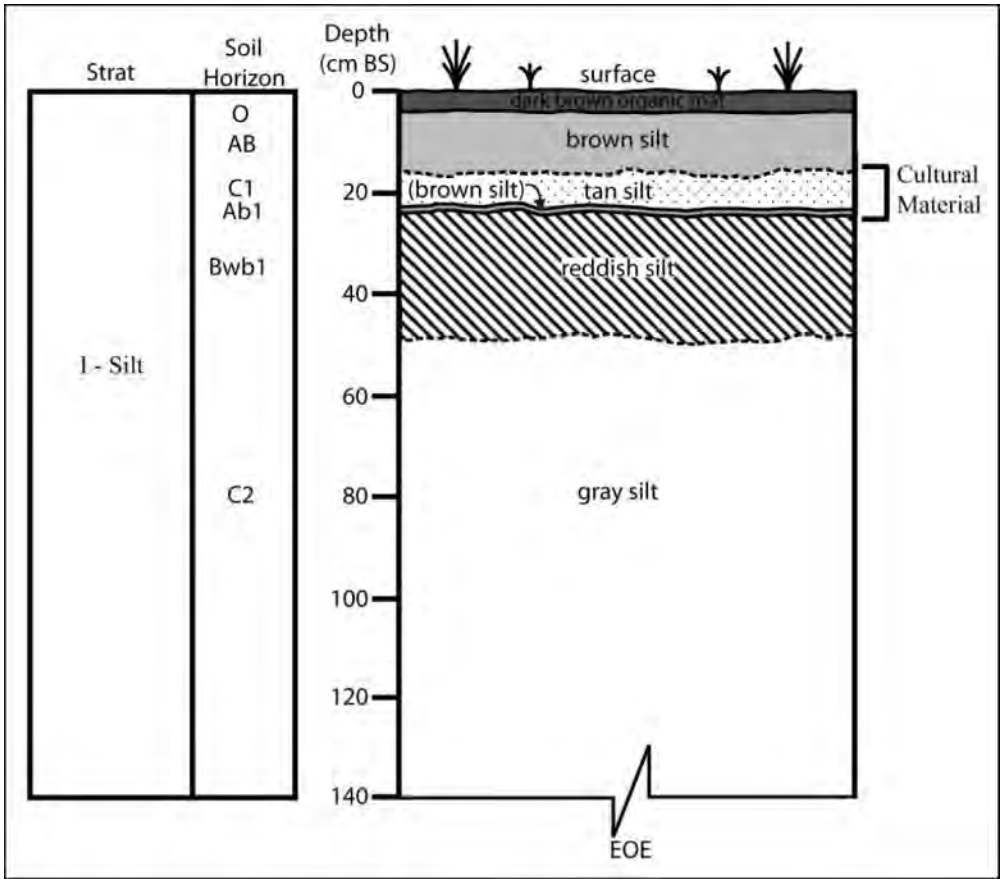

Figure 166. FAI-02006 stratigraphy

FAI-02007
Determination of Eligibility: Not evaluated

Site FAI-02007 is located on a high, flat spot of a large dune (Figure 167) within northwest-southeast trending dune complex. Site elevation is 155 masl. The flat area on the crest of the dune is roughly 250 m x 125 m with a slope of 0-3°. The dune slopes at a 30-40° grade on all sides, dropping 20-25 m to the valley floor below. The location provides a commanding 360° view of the surrounding Tanana Flats. The ecosystem is characterized as an open upland dry broadleaf forest. Vegetation consists of burnt aspen and deadfall, with thick stands of young aspen, grasses and fireweed (Figure 168).

Site FAI-02007 was found through subsurface testing. Cultural material was recovered from two of five test pits excavated. One speckled gray (2.5 Y 4/1) chert microblade medial fragment (Figure 169) was found in one test pit at a depth of 20-35 cm BS. The microblade fragment is 13.3 mm long, with a maximum width of 5.9 mm, and thickness of 2.3 mm. The other positive test pit yielded two flakes from a depth range of 15-40 cm BS. Both of these are broken tertiary flakes, size class 5-7.5 mm. One is made of brown (7.5YR 5/2) rhyolite, while the other is made of light gray (2.5 Y 7/2) chert, that exhibits some reddish brown (2.5 YR 4/4) oxidation indicative of burning.

Site stratigraphy consists of aeolian silts 70 cm thick overlying aeolian dune sands (Figure 170). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon at 4-14 cm BS. A reddish silt Bw horizon extends from 14-46 cm BS. A thin, dark brown, clay and iron-rich lamella extends through the Bw horizon from depths of 16-22 cm BS, while a buried dark brown silt Ab horizon is evident at 36-38 cm BS. Unaltered gray silt (1C horizon) extends from 48-100 cm BS, and the lower portions (70-100 cm BS) contain discontinuous very fine sand lenses. Very fine, well-sorted dune sands (2C horizon) begin at 100 cm BS and extend to at least 140 cm BS—the depth at which test pit excavations were terminated.

Figure 167. FAI-02007 aerial overview (view to north)

Figure 168. FAI-02007 overview (view to north)

Figure 169. FAI-02007 microblade fragment

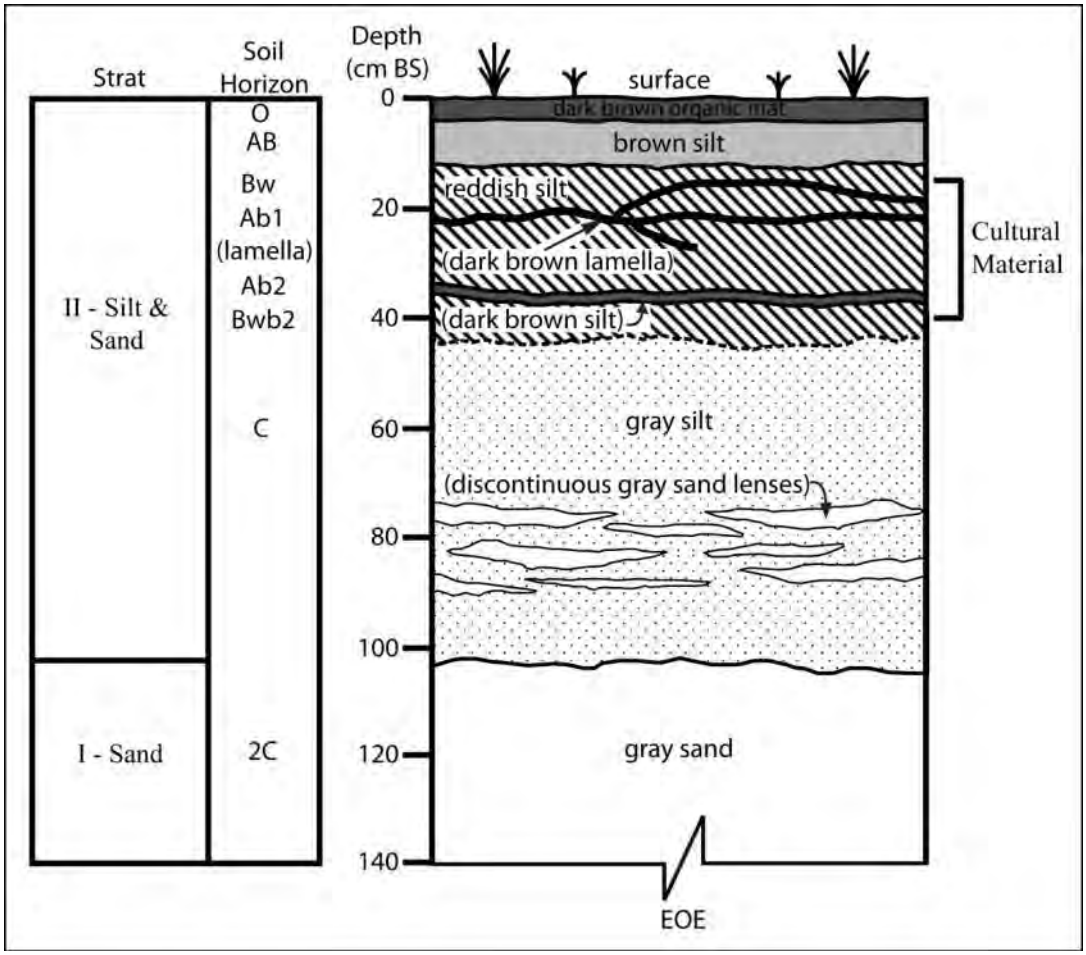

Figure 170. FAI-02007 stratigraphy

FAI-02008
Determination of Eligibility: Not evaluated

Site FAI-02008 is located on the ovate crest of a low dune (Figure 171) on the northwestern end of a northwest-southeast trending dune complex. Site elevation is 145 masl. The flat area on the crest of the dune is roughly 100 m x 90 m with a slope of 0-5°. The dune slopes at a 25-30° grade on all sides, dropping 20-25 m to the valley floor below. The location provides a commanding 360° view shed of the surrounding Tanana Flats. The ecosystem is characterized as an open upland dry broadleaf forest (Figure 172). Vegetation consists of burnt aspen and deadfall, with thick stands of young aspen, grasses and fireweed.

Site FAI-02008 was found through subsurface testing. Cultural material was recovered from five of five test pits excavated. Fifty-six lithic artifacts, all of which are characterized as lithic debitage (

Table 17), were recovered from depths of 5-45 cm BS. In situ flakes were found at depths of 30, 33, 36 and 41 cm BS within and directly beneath the Ab1 horizon described below.

Site stratigraphy consists of aeolian silts more than 140 cm thick overlying aeolian dune sands (Figure 173). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon 4-30 cm BS. A reddish silt Bw horizon extends from 30-42 cm BS. A dark brown silt Ab1 horizon is evident at 30-32 cm BS. Unaltered gray silt (C1 horizon) begins at 42 cm BS extends to at least 140 cm BS—the depth at which test pit excavations were terminated.

Figure 171. FAI-02008 aerial overview (view to northwest)

Figure 172. FAI-02008 overview (view to northeast)

Table 17. FAI-02008 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
23	0-15	debris	10-20 mm	rhyolite	pale brown	10YR 6/3
23	15-25	flake fragment	20-30 mm	basalt	dark brown	7.5YR 3/2
23	15-25	flake fragment	5-7.5 mm	basalt	very dark gray	5Y 3/1
23	15-25	broken flake	7.5-10 mm	chert	yellowish brown	10YR 5/4
23	15-25	broken flake	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
23	15-25	flake fragment	7.5-10 mm	rhyolite	light yellowish brown	10YR 6/4
23	15-25	broken flake	7.5-10 mm	chert	reddish brown	5YR 4/3
23	15-25	flake fragment	5-7.5 mm	chert	very dark gray	10YR 3/1
23	25-35	broken flake	10-20 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	10-20 mm	chert	very dark gray	5Y 3/1
23	25-35	flake fragment	10-20 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	10-20 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	7.5-10 mm	basalt	dark gray	2.5Y 4/1
23	25-35	flake fragment	10-20 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	7.5-10 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	7.5-10 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	7.5-10 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	7.5-10 mm	basalt	very dark gray	5Y 3/1
23	25-35	flake fragment	5-7.5 mm	rhyolite	gray	10YR 5/1
23	25-35	flake fragment	10-20 mm	chert	black	2.5Y 2.5/1
23	25-35	flake fragment	7.5-10 mm	chert	black	2.5Y 2.5/1
23	25-35	broken flake	10-20 mm	chert	black	2.5Y 2.5/1
23	33	flake fragment	10-20 mm	basalt	dark gray	2.5Y 4/1
23	33	flake fragment	7.5-10 mm	basalt	dark gray	2.5Y 4/1
23	35-45	flake fragment	10-20 mm	basalt	dark gray	2.5Y 4/1
23	35-45	debris	10-20 mm	chert	black	2.5Y 2.5/1
23	35-45	flake fragment	10-20 mm	chert	black	2.5Y 2.5/1
23	35-45	flake fragment	10-20 mm	basalt	very dark gray	5Y 3/1
23	35-45	broken flake	10-20 mm	chert	very dark gray	5Y 3/1
23	35-45	flake fragment	7.5-10 mm	chert	very dark gray	5Y 3/1
23	35-45	flake fragment	7.5-10 mm	rhyolite	gray	10YR 6/1
23	35-45	flake fragment	10-20 mm	rhyolite	gray	2.5Y 6/1
23	35-45	broken flake	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
23	36	flake fragment	20-30 mm	basalt	very dark gray	5Y 3/1
23	41	broken flake	10-20 mm	basalt	very dark gray	5Y 3/1
23	45-55	broken flake	20-30 mm	chert	very dark gray	5Y 3/1
23	45-55	flake fragment	10-20 mm	basalt	dark gray	2.5Y 4/1
23	45-55	flake fragment	10-20 mm	basalt	dark gray	2.5Y 4/1
23	45-55	flake fragment	7.5-10 mm	basalt	very dark gray	5Y 3/1
23	45-55	broken flake	10-20 mm	chert	dark gray	10YR 4/1
23	45-55	broken flake	10-20 mm	chert	very dark gray	5Y 3/1
23	45-55	broken flake	7.5-10 mm	chert	gray	10YR 5/1
23	65-75	broken flake	10-20 mm	chert	dark gray & olive gray	2.5Y 4/1 & 5Y 5/2
24	0-15	broken flake	10-20 mm	chert	very dark gray	5Y 3/1
24	20-30	flake fragment	10-20 mm	chert	dark gray & (transl.) white	5Y 3/1 & 2.5Y 8/1
24	20-30	broken flake	10-20 mm	chert	very dark gray	5Y 3/1
24	0-30	flake fragment	7.5-10 mm	chert	very dark gray	5Y 3/1
24	0-30	broken flake	10-20 mm	chert	(transl.) light gray	5Y 7/1
24	30	debris	5-7.5 mm	quartz	translucent	translucent
24	30	debris	5-7.5 mm	quartz	translucent	translucent
25	16-26	flake fragment	7.5-10 mm	rhyolite	strong brown	7.5YR 5/6
26	10-20	broken flake	20-30 mm	rhyolite	light yellowish brown	10YR 6/4
26	30-40	flake fragment	10-20 mm	rhyolite	light yellowish brown	2.5Y 6/4
26	30-40	flake fragment	30-40 mm	basalt	very dark gray	5Y 3/1
27	10-20	flake fragment	10-20 mm	chert	dark gray	2.5Y 4/1
27	30-40	flake fragment	7.5-10 mm	chert	dark gray	2.5Y 4/1

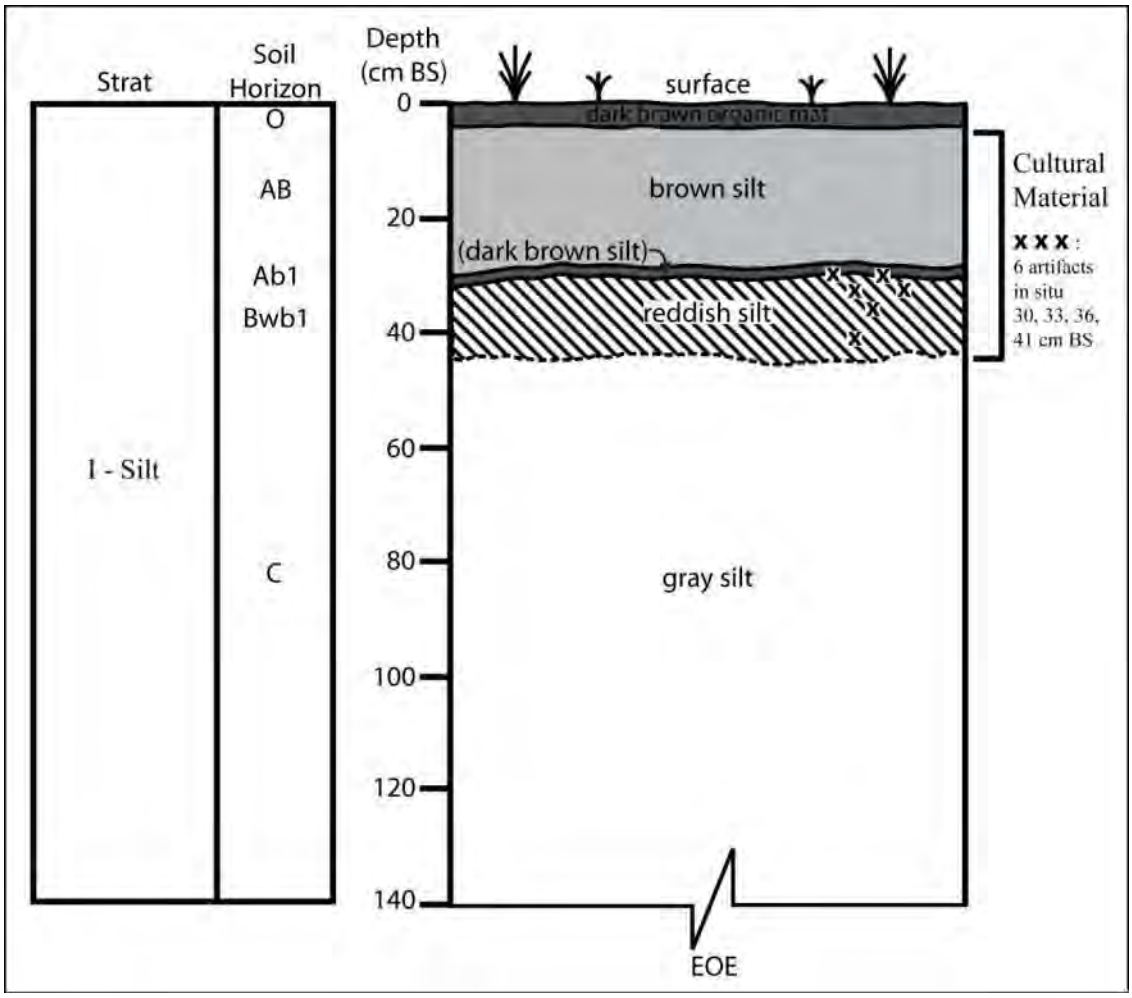

Figure 173. FAI-02008 stratigraphy

FAI-02009
Determination of Eligibility: Not evaluated

Site FAI-02009 is located on the crest of a high dune (Figure 174) on the southeastern end of a northwest-southeast trending dune complex. Site elevation is 163 masl. The flat area on the crest of the dune is roughly 120 m x 60 m with a slope of 2-10°. The dune slopes at a 30-40° grade on all sides, dropping 25-30 m to the valley floor below. The location provides a commanding 360° view shed of the surrounding Tanana Flats. The ecosystem is characterized as an open upland dry broadleaf/needleleaf forest. The site area is dominated by burnt aspen and spruce trunks, and deadfall, with an understory of high-bush cranberries, shrubs, ferns, grasses and moss (Figure 175).

Site FAI-02009 was found through subsurface testing. Cultural material was recovered from five of five test pits excavated. Fifty-four lithic artifacts, all of which are characterized as lithic debitage (Table 18) were recovered from depths of 0-40 cm BS, including four flakes found in situ at 15-17 cm BS. An additional piece of flakestone debitage was found at a depth of 60-70 cm BS.

Site stratigraphy consists of aeolian silts roughly 50 cm thick overlying aeolian dune sands (Figure 176). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon at 4-18 cm BS. Unaltered, light brown silt (C1 horizon) extends from 18-24 cm BS. Thin, dark brown, clay and iron-rich, braided lamellae extend from depths of 22-26 cm BS, with an underlying reddish brown silt Bwb1 horizon from 24-34 cm BS. Unaltered yellow silt (C2 horizon) extends from 34-50 cm BS. Underlying this are yellow and gray very fine, well-sorted sands which extend to the end of excavation at 140 cm BS.

Figure 174. FAI-02009 aerial overview (view to north)

Figure 175. FAI-02009 overview (view to south)

Table 18. FAI-02009 lithic debitage

Test Pit	Depth	Debitage Type	Size Class	Material Type	Color	Munsell Code
28	0-5	flake fragment	7.5-10 mm	rhyolite	light brown	7.5YR 6/3
28	0-5	flake fragment	10-20 mm	chert	brown	7.5YR 4/2
29	0-5	flake fragment	10-20 mm	chert	dark gray	2.5Y 4/1
29	0-5	broken flake	10-20 mm	chert	very dark gray	7.5YR 3/1
29	5-10	broken flake	7.5-10 mm	chert	very dark gray	5Y 3/1
29	15	flake fragment	10-20 mm	quartz	(translucent) white	5Y 8/1
29	15	flake fragment	20-30 mm	quartz	(translucent) white	5Y 8/1
29	15-20	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
29	60-70	flake fragment	7.5-10 mm	quartz	(translucent) white	5Y 8/1
30	0-10	flake fragment	20-30 mm	rhyolite	brown	7.5YR 5/3
30	10-20	flake fragment	7.5-10 mm	rhyolite	light brown	7.5YR 6/4
30	10-20	flake fragment	7.5-10 mm	rhyolite	brown	7.5YR 5/4
30	10-20	flake fragment	10-20 mm	rhyolite	brown	7.5YR 5/4
30	10-20	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/4
30	10-20	broken flake	10-20 mm	rhyolite	light brown	7.5YR 6/4
30	10-20	broken flake	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
30	20-30	flake fragment	10-20 mm	rhyolite	light gray	2.5Y 7/1
30	20-30	flake fragment	10-20 mm	rhyolite	light gray	2.5Y 7/1
30	20-30	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
31	0-10	complete flake	20-30 mm	chert	gray	2.5Y 5/1
31	0-10	flake fragment	20-30 mm	rhyolite	light brown	7.5YR 6/4
32	0-20	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/4
32	0-20	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
32	0-20	broken flake	10-20 mm	rhyolite	very pale brown	10YR 7/3
32	0-20	flake fragment	10-20 mm	rhyolite	light gray	10YR 7/2
32	0-20	flake fragment	7.5-10 mm	rhyolite	light gray	10YR 7/2
32	0-20	complete flake	7.5-10 mm	rhyolite	very pale brown	10YR 7/3
32	0-20	broken flake	7.5-10 mm	rhyolite	very pale brown	10YR 7/4
32	0-20	flake fragment	7.5-10 mm	rhyolite	very pale brown	10YR 7/4
32	0-20	flake fragment	7.5-10 mm	rhyolite	light brown	7.5YR 6/4
32	0-20	flake fragment	10-20 mm	rhyolite	light brownish gray	10YR 6/2
32	0-20	broken flake	7.5-10 mm	rhyolite	very pale brown	10YR 7/3
32	0-20	flake fragment	7.5-10 mm	rhyolite	light brownish gray	10YR 6/2
32	0-20	flake fragment	7.5-10 mm	rhyolite	brown	7.5YR 5/3
32	0-20	flake fragment	7.5-10 mm	rhyolite	light brownish gray	10YR 6/2
32	0-20	flake fragment	7.5-10 mm	rhyolite	grayish brown	10YR 5/2
32	0-20	flake fragment	10-20 mm	chert	very pale brown	10YR 7/3
32	0-20	broken flake	7.5-10 mm	chert	dark gray	2.5Y 4/1
32	0-20	broken flake	10-20 mm	chert	dark gray	2.5Y 4/1
32	0-20	broken flake	10-20 mm	chert	dark gray	2.5Y 4/1
32	0-20	flake fragment	10-20 mm	basalt	grayish brown	2.5Y 5/2
32	0-20	broken flake	10-20 mm	chert	dusky red	10R 3/2
32	0-20	flake fragment	10-20 mm	chert	dusky red	10R 3/2
32	0-20	flake fragment	10-20 mm	rhyolite	light brownish gray	10YR 6/2
32	16	broken flake	10-20 mm	basalt	dark gray	2.5Y 4/1
32	17	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
32	20-40	broken flake	20-30 mm	rhyolite	grayish brown	2.5Y 5/2
32	20-40	flake fragment	10-20 mm	rhyolite	light brown	7.5YR 6/4
32	20-40	broken flake	10-20 mm	rhyolite	light brown	7.5YR 6/3
32	20-40	flake fragment	10-20 mm	rhyolite	light brown	7.5YR 6/4
32	20-40	flake fragment	10-20 mm	chert	very dark gray	5Y 3/1
32	20-40	flake fragment	7.5-10 mm	rhyolite	grayish brown	2.5Y 5/1
32	20-40	flake fragment	10-20 mm	chert	black	2.5Y 2.5/1
32	20-40	flake fragment	10-20 mm	chert	dark gray	5Y 4/1

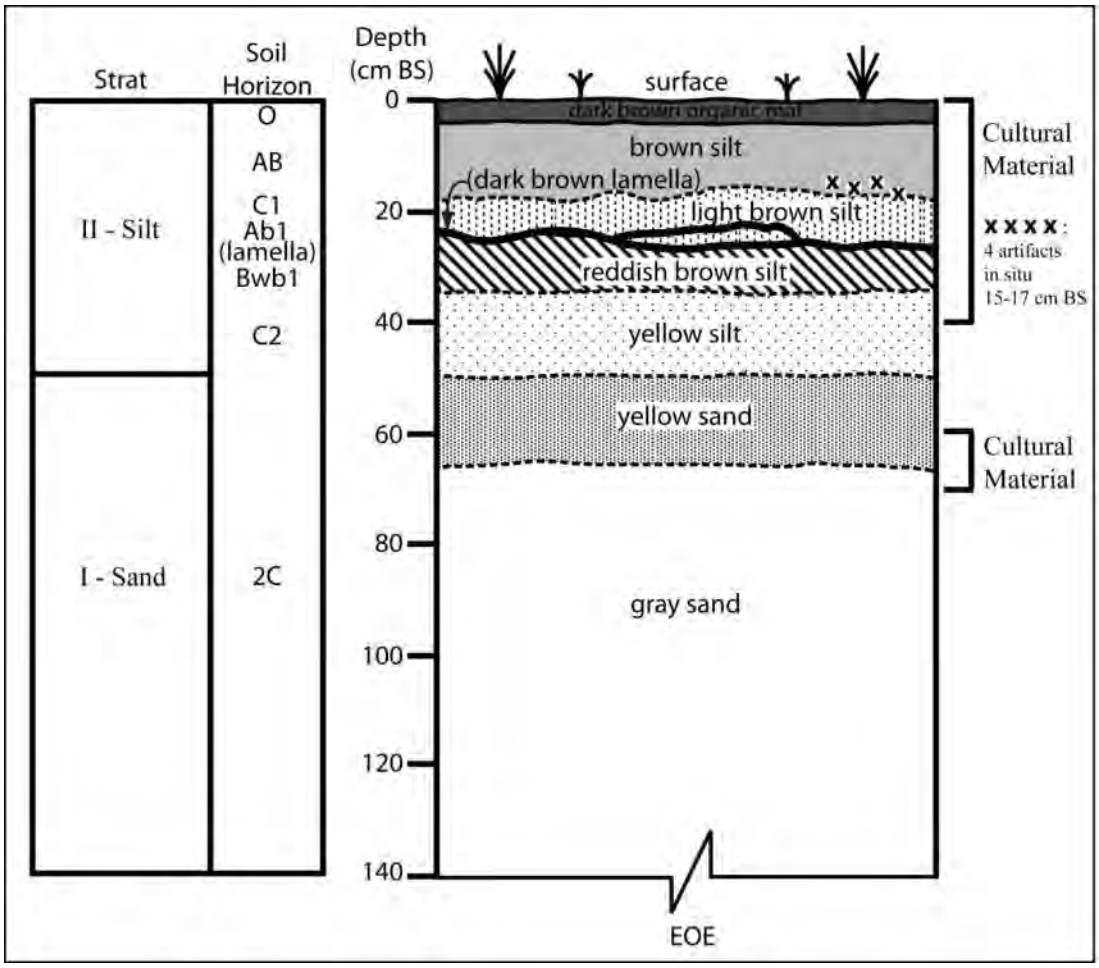

Figure 176. FAI-02009 stratigraphy

FAI-02010
Determination of Eligibility: Not evaluated

Site FAI-02010 is located on the northern lobe of a high dune (Figure 177) in the central portions of a northwest-southeast trending dune complex. Site elevation is 149 masl. The crest of landform is 30 m north-south, and roughly 200 m east-west, with a slope of 3-10°. The sides of the dune slope at a 30-40° grade on all sides, dropping 25-30 m to the valley floor below. The location provides a commanding 360° view shed of the surrounding Tanana Flats. The ecosystem is characterized as an open upland dry broadleaf/needleleaf forest. Vegetation consists of burnt aspen and spruce trunks, and deadfall, with an understory of high-bush cranberries, shrubs, ferns, grasses and moss (Figure 178).

Site FAI-02010 was found through subsurface testing. One test pit, of three excavated, yielded a single piece of flakestone debitage from directly beneath the root mat. The artifact is a flake fragment made of very dark gray (5 Y3/1) basalt between 10-20 mm in diameter.

Site stratigraphy consists of aeolian silts roughly 40 cm thick overlying aeolian dune sands (Figure 179). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon at 4-14 cm BS. Thin, dark brown, clay and iron-rich, braided lamellae extend from 22-26 cm BS. Yellowish silt (C1 horizon) extends from 22-40 cm BS. Underlying this are yellow very fine, well-sorted sands, which are in turn underlain by gray, very fine, very well-sorted sands (2C horizon) that extend to at least 140 cm BS—the depth that test pits were terminated.

Figure 177. FAI-02010 aerial overview (view to north)

Figure 178. FAI-02010 overview (view to north)

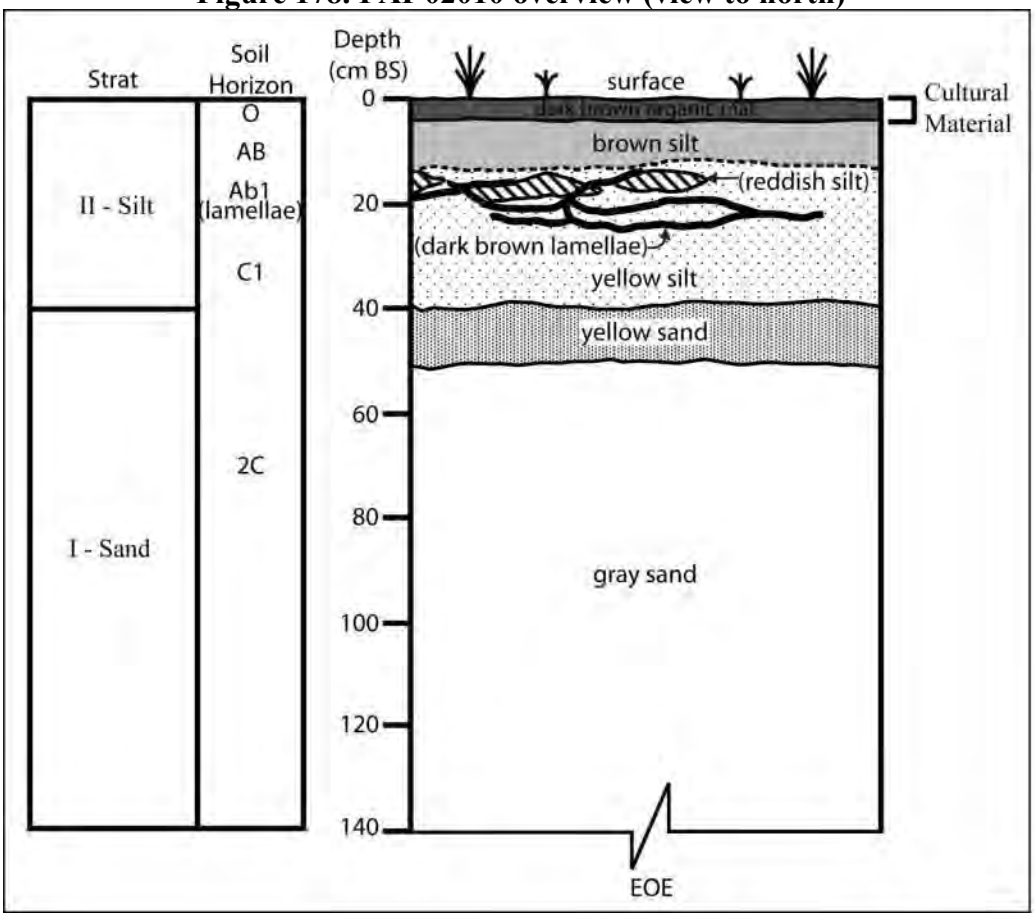

Figure 179. FAI-02010 stratigraphy

FAI-02011
Determination of Eligibility: Not evaluated

Site FAI-02011 is located on the western lobe of a long, linear east-west trending dune (Figure 180) in the central portions of a northwest-southeast trending dune complex. Site elevation is 143 masl. The landform is 30 m north-south, and more than 250 m east-west, with a slope of 3-10° The dune slopes at a 30-40° grade on all sides, dropping 25-30 m to the valley floor below. The location provides an excellent view of the Tanana River and Fairbanks Hills to the north. The ecosystem is characterized as an open upland dry broadleaf/needleleaf forest. Vegetation consists of burnt aspen and spruce trunks, and deadfall, with some live aspen and spruce, and an understory of high-bush cranberries, shrubs, ferns, grasses and moss (Figure 178).

Site FAI-02011 was found through subsurface testing. Cultural material was recovered from one of eight test pits excavated. One burnt, pot lidded, and heat crazed, reddish chert broken flake between 20-30 mm in diameter, was found directly beneath the root mat at a depth of 0-5 cm BS.

Site stratigraphy consists of aeolian silts at least 50 cm thick overlying aeolian dune sands (Figure 182). Soil development consists of dark brown, charcoal-rich organic mat at 0-5 cm BS, with an underlying brown silt AB horizon at 5-19 cm BS. A strong brown silt Ab1 horizon extends from 19-24 cm BS, which is underlain by yellowish brown very fine sandy silts (C1 horizon) from 24-39 cm BS. The basal unit is olive very fine, very well-sorted sands (C2 horizon) from 40 cm BS to the end of excavation at 60 cm BS.

Figure 180. FAI-02011 aerial overview (view to north)

Figure 181. FAI-02011 overview (view to northeast)

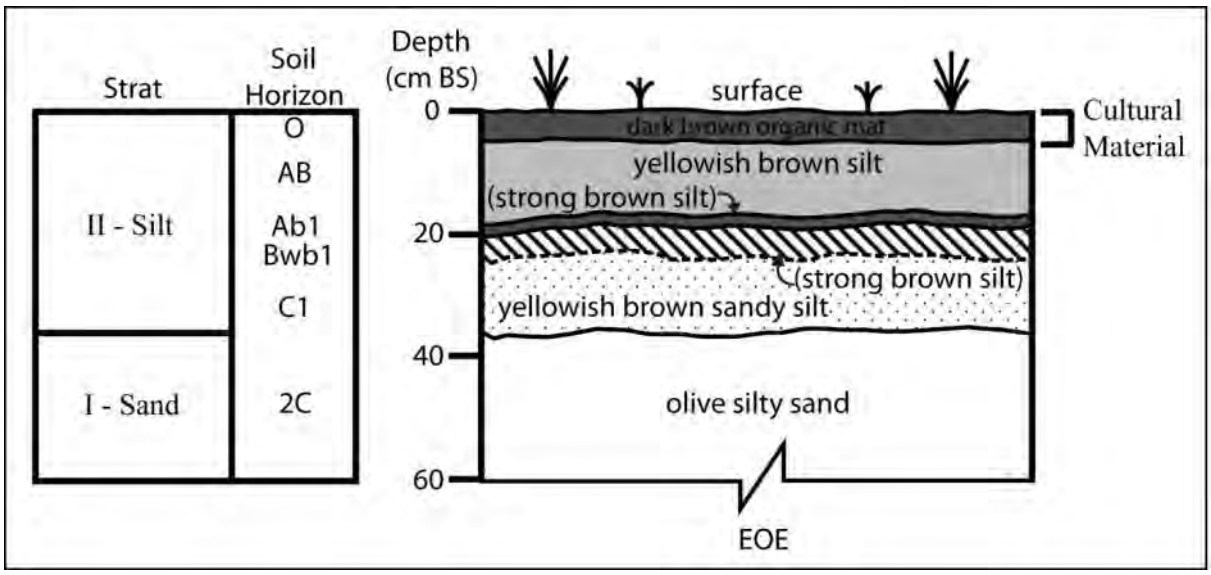

Figure 182. FAI-02011 stratigraphy

FAI-02012
Determination of Eligibility: Not evaluated

Site FAI-02012 is located on the crest of a long linear east-west trending vegetated dune (Figure 183) in the central portions of a northwest-southeast trending dune complex. Site elevation is 146 masl. The long, narrow landform is roughly 120 m east-west, and 5-10 m north-south, with a crest that has a slope of 0-5° The dune slopes at a 30-40° grade on its north and south sides, dropping 30 m to the valley floor below. The location provides an excellent view of the Tanana River and Fairbanks Hills to the north, while thick vegetation obscures the view to the south, east and west. The ecosystem is characterized as an open upland dry broadleaf/needleleaf forest. Vegetation consists of large aspen and white spruce, and an understory of high-bush cranberries, shrubs, ferns, grasses and moss (Figure 184).

Site FAI-02012 was found through subsurface testing. Cultural material was recovered from two of five test pits excavated. Six flakes, all of which are characterized as lithic debitage (Table 19) were recovered from depths of 10-30 cm BS.

Site stratigraphy consists of aeolian silts roughly 34 cm thick overlying aeolian dune sands (Figure 185). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt AB horizon 4-18 cm BS. A reddish silt Bw horizon extends from 18-34 cm BS, which is underlain by reddish and gray very fine, very well sorted sands (C1 horizon) from 34-46 cm BS. A clay and iron-rich lamella extend from 18-24 cm BS. The basal unit is gray very fine, very well-sorted sands (2C horizon) from 46 cm BS to the end of excavation at 140 cm BS. The upper portions of the basal sand layer exhibit reddish staining characteristic of a buried soil horizon and likely represent a Bwb2 horizon.

Figure 183. FAI-02012 aerial overview (view to northwest)

Figure 184. FAI-02012 overview (view to north)

Table 19. FAI-02012 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
64	20-30	broken flake	7.5-10 mm	chert	reddish brown	2.5YR 4/3
64	20-30	flake fragment	10-20 mm	basalt	very dark gray	10YR 3/1
64	20-30	broken flake	10-20 mm	basalt	very dark gray	10YR 3/1
64	20-30	broken flake	10-20 mm	basalt	very dark gray	10YR 3/1
64	20-30	debris	10-20 mm	basalt	dark gray	10YR 4/1
65	10-20	flake fragment	7.5-10 mm	chert	dark gray	2.5Y 4/1

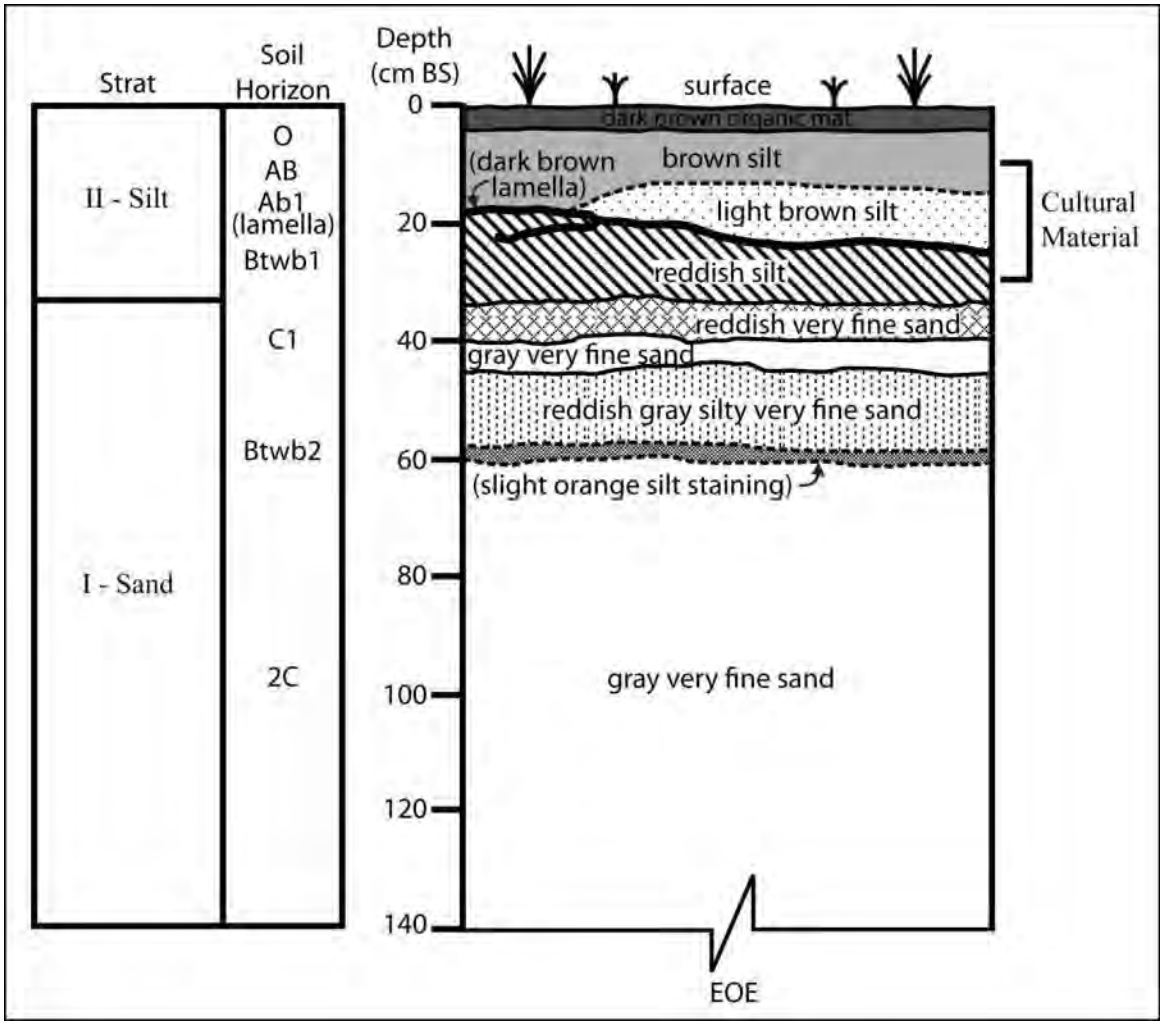

Figure 185. FAI-02012 stratigraphy

FAI-02013
Determination of Eligibility: Not evaluated

Site FAI-02013 is located on the northwestern lobe of an east-west trending dune (Figure 186) in the central portions of an extensive dune. Site elevation is 152 masl. The crest of the dune lobe has an 80 m x 10 m flat spot with a slope of 0-5°. The dune slopes at a 15-25° grade on its north, west and south sides, dropping 20-25 m to the valley floor below. The location provides an excellent view of the Tanana River and Fairbanks Hills to the north, while thick vegetation obscures the view to the south, east and west. The ecosystem is characterized as an open upland dry broadleaf/needleleaf forest. Vegetation consists of large aspen and white spruce, and an understory of high-bush cranberries, shrubs, ferns, grasses and moss (Figure 187).

Site FAI-02013 was found through subsurface testing. Cultural material was recovered from three of five test pits excavated. Forty two flakes, all of which are characterized as lithic debitage (Table 20) were recovered from depths of 13-50 cm BS. These include thirteen flakes found in situ at specific depths of 13, and 22-24 cm BS.

Site stratigraphy consists of aeolian silts roughly 40 cm thick overlying aeolian dune sands (Figure 188). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying reddish brown silt AB horizon at 4-20 cm BS. The lower portions of the AB horizon contain a clay and iron-rich lamella that extends from 18-24 cm BS. Unaltered yellow silts (C1 horizon) extend from 20-40 cm BS. The basal unit is gray, very fine, very well-sorted sand (2C horizon) that extends from 40 cm BS to the end of test pit excavation at 140 cm BS.

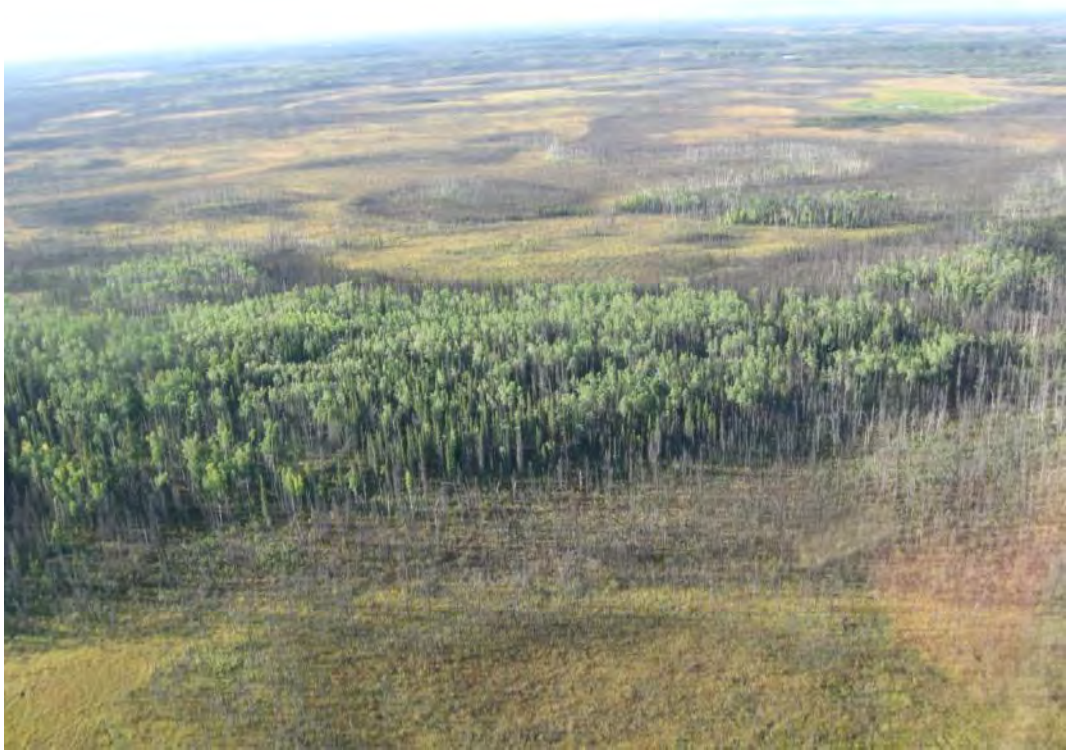

Figure 186. FAI-02013 aerial overview (view to west)

Figure 187. FAI-02013 overview (view to north)

Table 20. FAI-02013 lithic debitage

Test Pit	Depth	Debitage Type	Size Class	Material Type	Color	Munsell Code
66	30-50	flake fragment	10-20 mm	chert	dark gray	2.5Y 4/1
66	30-50	flake fragment	20-30 mm	chert	dark gray	2.5Y 4/1
66	30-90	broken flake	10-20 mm	chert	(translucent) gray	5Y 5/1
68	0-10	flake fragment	20-30 mm	basalt	black	2.5Y 2.5/1
68	0-10	broken flake	10-20 mm	basalt	black	5Y 2.5/1
68	0-10	broken flake	10-20 mm	chert	very dark gray	5Y 3/1
68	0-10	flake fragment	7.5-10 mm	chert	very dark gray	5Y 3/1
68	0-10	flake fragment	10-20 mm	chert	very dark gray	5Y 3/1
68	0-10	flake fragment	10-20 mm	chert	(transl.) light gray	2.5Y 7/1
68	13	broken flake	10-20 mm	chert	(transl.) light gray & dark gray	2.5Y 7/1 & 4/1
68	20-23	complete flake	10-20 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
68	20-23	debris	10-20 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
68	20-23	broken flake	7.5-10 mm	chert	dark gray	2.5Y 4/1
68	20-23	flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	7.5-10 mm	chert	black	2.5Y 2.5/1
68	20-23	flake fragment	7.5-10 mm	chert	black	2.5Y 2.5/1
68	20-23	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	5-7.5 mm	chert	dark gray	2.5Y 4/1
68	20-23	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	5-7.5 mm	chert	very dark gray	2.5Y 3/1
68	20-23	flake fragment	10-20 mm	chert	(transl.) light gray & dark gray	2.5Y 7/1 & 4/1
68	20-23	flake fragment	7.5-10 mm	chert	(transl.) light gray & dark gray	2.5Y 7/1 & 4/1

68	20-23	flake fragment	7.5-10 mm	chert	(transl.) light gray & dark gray	2.5Y 7/1 & 4/1
68	20-23	broken flake	10-20 mm	basalt	dark brown	10YR 3/3
68	20-25	complete flake	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	20-25	broken flake	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	20-25	flake fragment	7.5-10 mm	chert	(transl.) light gray	2.5Y 7/1
68	20-25	broken flake	10-20 mm	chert	(transl.) light gray	2.5Y 7/1
68	22	flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
68	22	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	23	flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
68	23	flake fragment	10-20 mm	chert	very dark gray	2.5Y 3/1
68	23	flake fragment	2.5-5 mm	chert	very dark gray	2.5Y 3/1
68	23	flake fragment	10-20 mm	chert	very dark gray & light gray	2.5Y 3/1 & 7/1
68	23	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	23	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1
68	24	flake fragment	7.5-10 mm	chert	very dark gray	2.5Y 3/1

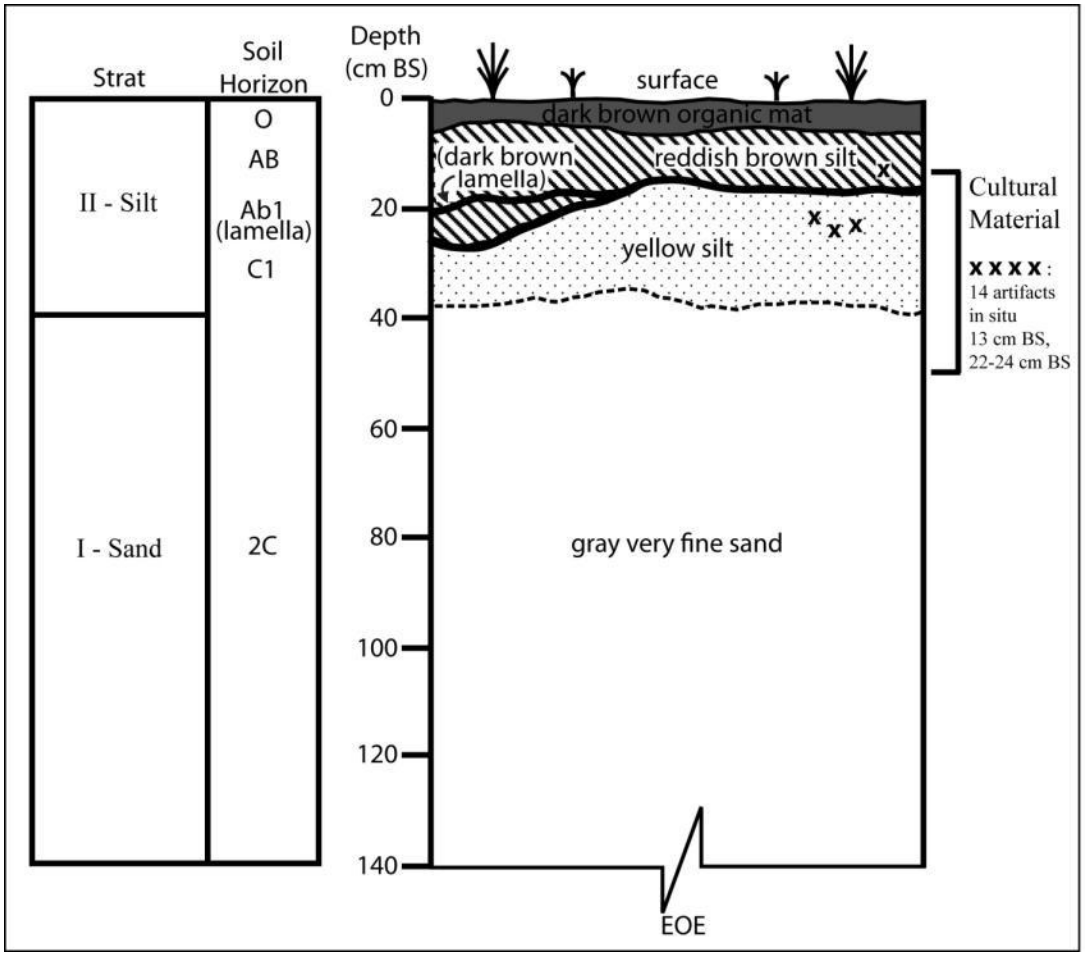

Figure 188. FAI-02013 stratigraphy

FAI-02014
Determination of Eligibility: Not evaluated

Site FAI-02014 is located on the ridge of a linear dune (Figure 189) in a vegetated dune complex. Site elevation is 142 masl. The site area along the top of the dune has a slope of 0-3°. The ridge trends north-south for approximately 60 m, and is 30-40 m east-west. It rises 10-15 m

above the surrounding Tanana flats at a slope of 20-25°. The location provides a clear view of Chena Ridge to the north and other hills surrounding Fairbanks. The ecosystem is described as an open upland dry broadleaf forest. Vegetation includes dense young aspen with a thick understory of rose, fireweed, grasses, and scattered moss cover (Figure 190). Thick deadfall covers the majority of the site area, with standing dead spruce dotting the knoll.

Site FAI-02014 was found through subsurface testing. One of four test pits excavated yielded one mottled very dark gray (5Y3/1)/pale translucent yellow (2.5Y 7/3) chert flake fragment, between 7.5 to 10 mm in diameter, from 15-30 cm BS.

Site stratigraphy is comprised of aeolian silts overlying aeolian dune sands (Figure 191). Soil development consists of a black organic mat 0-5 cm BS, which is underlain by a reddish brown silt to brown silt AB horizon at 5-20 cm BS. A prominent dark brown silt horizon extends from 20-22 cm BS. This horizon has characteristics typical of a buried Ab soil horizon; however, it also has several looping tendrils of clay and iron rich lamellae. Underlying this is a dark yellowish brown silt Bwb horizon 20-50 cm BS. The basal unit is unaltered grayish brown sandy silt (C horizon) from 50-130 cm BS.

Figure 189. FAI-02014 aerial overview (view to west)

Figure 190. FAI-02014 overview (view to north)

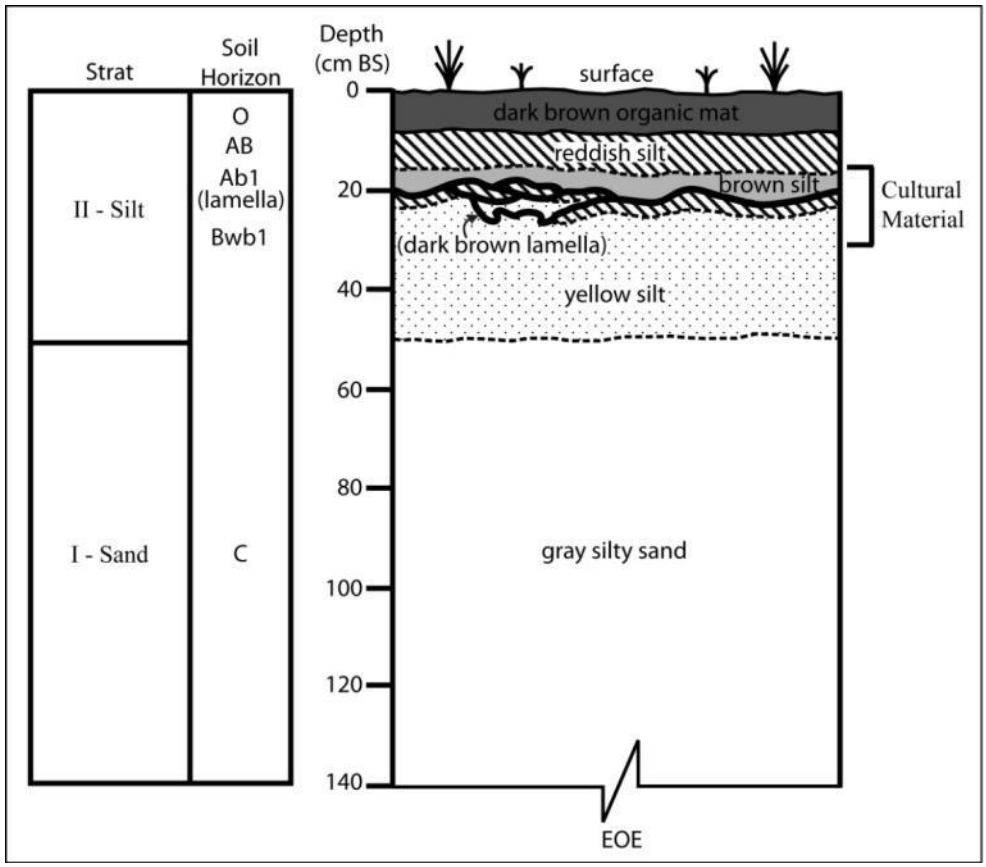

Figure 191. FAI-02014 stratigraphy

FAI-02020
Determination of Eligibility: Not evaluated

Site FAI-02020 is located on the crest of an ovate northeast-southwest trending vegetated sand dune (Figure 192). Site elevation is 159 masl. The crest of the dune is roughly 110 m x 20 m with a slope of 0-7°. The dune slopes at 20-35° on all sides dropping roughly 10-14 m to the valley floor below. The location provides an excellent 360° viewshed, with open views of the Tanana River and Fairbanks Hills to the north, and Wood River Buttes and Alaska Range to the south. The ecosystem is characterized as an open upland dry broadleaf/needleleaf forest. Vegetation consists of scattered burnt spruce and birch stumps, with an understory of young spruce and birch, mosses and forbs (Figure 193).

Site FAI-02020 was found through subsurface testing. Cultural material was recovered from two of two test pits excavated. One hundred forty four flakes, including two microblade fragments (Figure 194), and ten fragments of calcined bone were recovered from depths of 0-30 cm BS. An additional 13 pieces of flakestone were recovered from depths of 40-130 cm BS, including one flake found in situ at the depth of 66 cm BS. The attributes of lithic debitage are detailed in Table 21 while the microblade attributes are listed in
Table **22**. The calcined bone fragments were all too small (<7 mm in diameter) for species or element identification; however, their association with lithic artifacts and entirely calcined nature indicate they are of cultural origin.

Site stratigraphy consists of aeolian silts more than 140 cm thick overlying aeolian dune sands (Figure 195). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt loam AB horizon 4-16 cm BS. A dark reddish brown silt loam Ab1 horizon extends from 18-21 cm BS, underneath which is a reddish silt Bwb1 horizon from 21-40 cm BS. Unaltered gray silt (C horizon) extends from 40 cm BS to the end of excavation at 140 cm BS

Figure 192. FAI-02020 aerial overview (view to northwest)

Figure 193. FAI-02020 overview (view to north)

Table 21. FAI-02020 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Munsell Code
N/A	surface tree throw	flake fragment	10-20 mm	rhyolite	10YR 6/2
N/A	surface tree throw	flake fragment	10-20 mm	chert	5Y 3/1
N/A	surface tree throw	flake fragment	10-20 mm	chert	5Y 4/1 & 5Y 3/1
N/A	surface tree throw	flake fragment	10-20 mm	chert	5Y 5/1 & 5Y 3/1
N/A	surface tree throw	flake fragment	5-7.5 mm	chert	5Y 5/1 & 5Y 3/1
N/A	surface tree throw	flake fragment	5-7.5 mm	chert	5Y 4/1
N/A	surface tree throw	complete flake	7.5-10 mm	chert	5Y 4/1
N/A	surface tree throw	flake fragment	5-7.5 mm	chert	2.5Y 2.5/1
101	0-3	broken flake	10-20 mm	rhyolite	10YR 6/3
101	0-3	flake fragment	10-20 mm	rhyolite	10YR 6/2
101	0-3	broken flake	10-20 mm	chert	5Y 3/1
101	0-3	flake fragment	7.5-10 mm	chert	5Y 3/1
101	0-3	flake fragment	7.5-10 mm	chert	2.5Y 2.5/1
101	0-3	flake fragment	7.5-10 mm	chert	2.5Y 4/1
101	0-3	flake fragment	7.5-10 mm	chert	5Y 3/1
101	0-3	flake fragment	7.5-10 mm	chert	5Y 3/1
101	3-5	broken flake	10-20 mm	chert	10YR 5/4
101	3-5	flake fragment	10-20 mm	chert	5Y 2.5/1
101	3-5	flake fragment	7.5-10 mm	chert	5Y 2.5/1 & 5Y 7/2
101	3-5	flake fragment	10-20 mm	chert	2.5Y 4/1
101	3-5	flake fragment	7.5-10 mm	rhyolite	10YR 6/4
101	3-5	flake fragment	7.5-10 mm	chert	5Y 3/1
101	3-5	broken flake	7.5-10 mm	chert	5Y 3/1
101	3-5	broken flake	5-7.5 mm	chert	2.5Y 2.5/1
101	3-5	flake fragment	5-7.5 mm	chert	10 YR 4/3
101	5-10	complete flake	7.5-10 mm	chert	2.5Y 4/1
101	5-10	broken flake	10-20 mm	chert	5Y 4/1
101	5-10	flake fragment	10-20 mm	rhyolite	10YR 5/3
101	5-10	flake fragment	7.5-10 mm	rhyolite	10YR 5/3
101	5-10	flake fragment	7.5-10 mm	rhyolite	10YR 6/4
101	5-10	flake fragment	7.5-10 mm	rhyolite	10YR 7/1
101	5-10	flake fragment	10-20 mm	rhyolite	10YR 6/4
101	5-10	broken flake	10-20 mm	rhyolite	10YR 6/3
101	5-10	flake fragment	7.5-10 mm	rhyolite	10 YR 5/4
101	5-10	flake fragment	5-7.5 mm	chert	2.5Y 5/1
101	5-10	broken flake	10-20 mm	chert	5Y 2.5/1
101	5-10	flake fragment	10-20 mm	chert	5Y 2.5/1
101	5-10	flake fragment	7.5-10 mm	rhyolite	10YR 5/3
101	5-10	flake fragment	10-20 mm	rhyolite	7.5YR 5/4
101	10-15	flake fragment	30-40 mm	rhyolite	10YR 6/4
101	10-15	flake fragment	7.5-10 mm	chert	5Y 3/1
101	10-15	flake fragment	10-20 mm	chert	2.5Y 4/1
101	10-15	flake fragment	10-20 mm	rhyolite	10YR 5/3
101	10-15	broken flake	10-20 mm	rhyolite	10YR 6/4
101	10-15	flake fragment	10-20 mm	basalt	2.5Y 3/1
101	10-15	complete flake	7.5-10 mm	chert	10YR 5/1 & 5/3
101	10-15	flake fragment	10-20 mm	chert	10YR 4/1
101	10-15	flake fragment	10-20 mm	basalt	2.5Y 4/1
101	10-15	flake fragment	10-20 mm	basalt	2.5Y 5/2
101	10-15	flake fragment	7.5-10 mm	basalt	2.5Y 4/1
101	10-15	broken flake	7.5-10 mm	chert	10YR 3/1
101	10-15	broken flake	10-20 mm	rhyolite	10YR 7/3
101	10-15	flake fragment	7.5-10 mm	rhyolite	10YR 6/3
101	10-15	broken flake	10-20 mm	chert	10YR 6/3
101	10-15	broken flake	7.5-10 mm	chert	7.5YR 3/1
101	10-15	flake fragment	7.5-10 mm	chert	10YR 3/1
101	10-15	flake fragment	7.5-10 mm	basalt	2.5Y 2.5/1
101	10-15	flake fragment	10-20 mm	basalt	2.5Y 2.5/1
101	10-15	flake fragment	10-20 mm	rhyolite	10YR 6/4
101	10-15	flake fragment	7.5-10 mm	rhyolite	10YR 6/4
101	10-15	flake fragment	7.5-10 mm	rhyolite	7.5YR 5/4

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Munsell Code
101	10-15	flake fragment	10-20 mm	rhyolite	10RY 5/3
101	10-15	flake fragment	7.5-10 mm	rhyolite	10RY 6/4
101	10-15	flake fragment	10-20 mm	rhyolite	10RY 6/4
101	10-15	flake fragment	7.5-10 mm	rhyolite	10YR 5/3
101	10-15	complete flake	7.5-10 mm	rhyolite	10YR 5/3
101	10-15	flake fragment	7.5-10 mm	rhyolite	10YR 5/2
101	10-15	flake fragment	10-20 mm	basalt	10YR 4/2
101	10-15	flake fragment	10-20 mm	basalt	10YR 5/3
101	10-15	flake fragment	7.5-10 mm	basalt	10YR 4/1
101	10-15	flake fragment	7.5-10 mm	basalt	2.5Y 4/1
101	10-15	flake fragment	10-20 mm	basalt	10YR 4/1
101	10-15	flake fragment	5-7.5 mm	basalt	10YR 4/1
101	10-15	flake fragment	7.5-10 mm	basalt	10YR 4/1
101	10-15	flake fragment	7.5-10 mm	basalt	10YR 5/3
101	15-30	flake fragment	10-20 mm	rhyolite	10YR 4/3
101	15-30	flake fragment	10-20 mm	chert	10YR 4/1
101	15-30	flake fragment	7.5-10 mm	basalt	2.5Y 3/1
101	15-30	flake fragment	10-20 mm	chert	5Y 4/1
101	15-30	flake fragment	5-7.5 mm	rhyolite	10YR 6/3
101	15-30	flake fragment	10-20 mm	basalt	2.5Y 3/1
101	15-30	broken flake	10-20 mm	chert	5Y 3/1
101	15-30	flake fragment	10-20 mm	rhyolite	10YR 6/4
101	15-30	flake fragment	10-20 mm	chert	5Y 3/1
101	15-30	flake fragment	10-20 mm	chert	5Y 3/1
101	15-30	broken flake	7.5-10 mm	basalt	2.5Y 2.5/1
101	15-30	flake fragment	7.5-10 mm	chert	5Y 3/1
101	15-30	flake fragment	10-20 mm	basalt	2.5Y 4/1
101	15-30	complete flake	7.5-10 mm	chert	7.5YR 3/1
101	15-30	flake fragment	7.5-10 mm	chert	2.5Y 2.5/1
101	15-30	flake fragment	7.5-10 mm	chert	2.5Y 2.5/1
101	15-30	flake fragment	10-20 mm	chert	5Y 3/1
101	15-30	broken flake	20-30 mm	basalt	2.5Y 4/1
101	15-30	flake fragment	10-20 mm	basalt	2.5Y 4/1
101	15-30	flake fragment	10-20 mm	basalt	2.5Y 4/1
101	15-30	broken flake	10-20 mm	basalt	10YR 5/4
101	15-30	broken flake	10-20 mm	rhyolite	10YR 6/4
101	15-30	flake fragment	7.5-10 mm	rhyolite	10YR 5/4
101	15-30	flake fragment	10-20 mm	rhyolite	10YR 6/4
101	15-30	flake fragment	7.5-10 mm	basalt	2.5Y 2.5/1
101	15-30	flake fragment	10-20 mm	basalt	2.5Y 4/2
101	15-30	flake fragment	7.5-10 mm	rhyolite	10YR 5/3
101	15-30	flake fragment	7.5-10 mm	rhyolite	10YR 6/3
101	15-30	flake fragment	7.5-10 mm	rhyolite	10YR 8/4
101	15-30	flake fragment	.1-2.5 mm	rhyolite	10YR 7/3
101	30-68	flake fragment	30-40 mm	chert	5Y 6/2
101	30-68	flake fragment	10-20 mm	rhyolite	10YR 7/3
101	30-68	flake fragment	10-20 mm	basalt	5Y 4/1
101	30-68	flake fragment	10-20 mm	chert	2.5Y 4/1
101	30-68	broken flake	10-20 mm	rhyolite	10YR 6/4
101	30-68	broken flake	10-20 mm	chert	5Y 3/1
101	30-68	broken flake	10-20 mm	chert	2.5Y 4/1
101	30-68	broken flake	10-20 mm	basalt	5Y 3/1
101	60-68	broken flake	10-20 mm	chert	2.5Y 2.5/1
101	68-72	flake fragment	10-20 mm	rhyolite	5Y 5/1
101	90-120	broken flake	10-20 mm	basalt	5Y 3/1
101	120-130	broken flake	7.5-10 mm	chert	5Y 4/1
102	0-5	flake fragment	10-20 mm	chert	2.5Y 2.5/1
102	0-5	broken flake	10-20 mm	rhyolite	10YR 6/3
102	0-5	flake fragment	10-20 mm	chert	2.5YR 4/1
102	0-5	flake fragment	10-20 mm	chert	2.5YR 5/1
102	0-5	flake fragment	7.5-10 mm	chert	2.5Y 2.5/1
102	0-5	flake fragment	7.5-10 mm	chert	2.5Y 6/2
102	0-5	flake fragment	10-20 mm	rhyolite	10YR 5/4

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Munsell Code
102	0-5	flake fragment	7.5-10 mm	chert	5Y 2.5/1
102	0-5	flake fragment	5-7.5 mm	chert	5Y 2.5/1
102	0-5	complete flake	10-20 mm	chert	10YR 4/1
102	0-5	complete flake	7.5-10 mm	basalt	5Y 4/1
102	0-5	flake fragment	7.5-10 mm	chert	2.5Y 2.5/1
102	0-5	flake fragment	10-20 mm	chert	2.5Y 5/1
102	0-5	debris	30-40 mm	chert	2.5Y 4/1
102	5-20	flake fragment	10-20 mm	basalt	5Y 3/1
102	5-20	broken flake	10-20 mm	basalt	2.5Y 2.5/1
102	5-20	flake fragment	10-20 mm	chert	2.5YR 4/1
102	5-20	flake fragment	10-20 mm	rhyolite	10YR 6/3
102	5-20	flake fragment	10-20 mm	rhyolite	10YR 7/3
102	5-20	flake fragment	10-20 mm	chert	7.5YR 5/4
102	5-20	flake fragment	10-20 mm	chert	5Y 3/1
102	5-20	broken flake	10-20 mm	rhyolite	10YR 6/4
102	5-20	broken flake	10-20 mm	chert	7.5YR 4/3
102	5-20	broken flake	10-20 mm	chert	2.5Y 5/2
102	5-20	flake fragment	10-20 mm	rhyolite	10YR 5/3
102	5-20	broken flake	10-20 mm	chert	2.5Y 2.5/1
102	5-20	flake fragment	7.5-10 mm	basalt	2.5Y 2.5/1
102	5-20	flake fragment	7.5-10 mm	chert	10YR 3/2
102	5-20	broken flake	7.5-10 mm	rhyolite	10YR 6/3
102	5-20	flake fragment	7.5-10 mm	chert	5YR 3/1
102	5-20	complete flake	7.5-10 mm	rhyolite	7.5YR 5/3
102	5-20	flake fragment	10-20 mm	rhyolite	10YR 6/3
102	5-20	flake fragment	5-7.5 mm	basalt	2.5Y 3/1
102	5-20	complete flake	7.5-10 mm	basalt	2.5Y 4/1
102	5-20	broken flake	10-20 mm	rhyolite	10YR 6/4
102	5-20	broken flake	7.5-10 mm	rhyolite	7.5YR 6/4
102	5-20	debris	10-20 mm	chert	5Y 3/1
102	20-30	flake fragment	10-20 mm	rhyolite	2.5Y 7/2
102	40-75	broken flake	7.5-10 mm	chert	5Y 3/1

Table 22. FAI-02020 microblade attributes

TP	Depth (cm BS)	L (mm)	W (mm)	T (mm)	# of Arrises	Segment	RT	Material Type	Color	Munsell Code
101 a	10	14.1	8.8	2.4	1	prox	N	rhyolite	Lt yellowish brown	10YR 6/4
101 b	10-15	19.3	5.4	1.4	2	prox	N	chert	gray	5Y 5/1

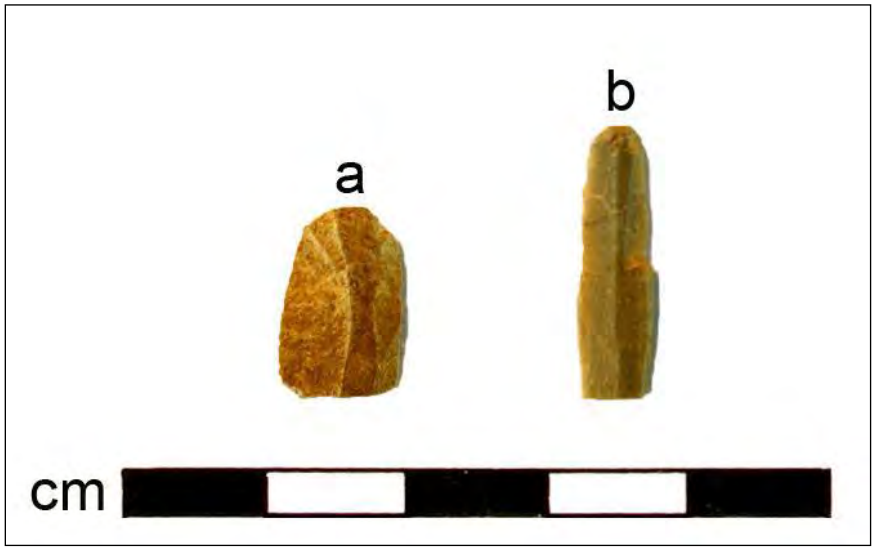

Figure 194. FAI-02020 microblades

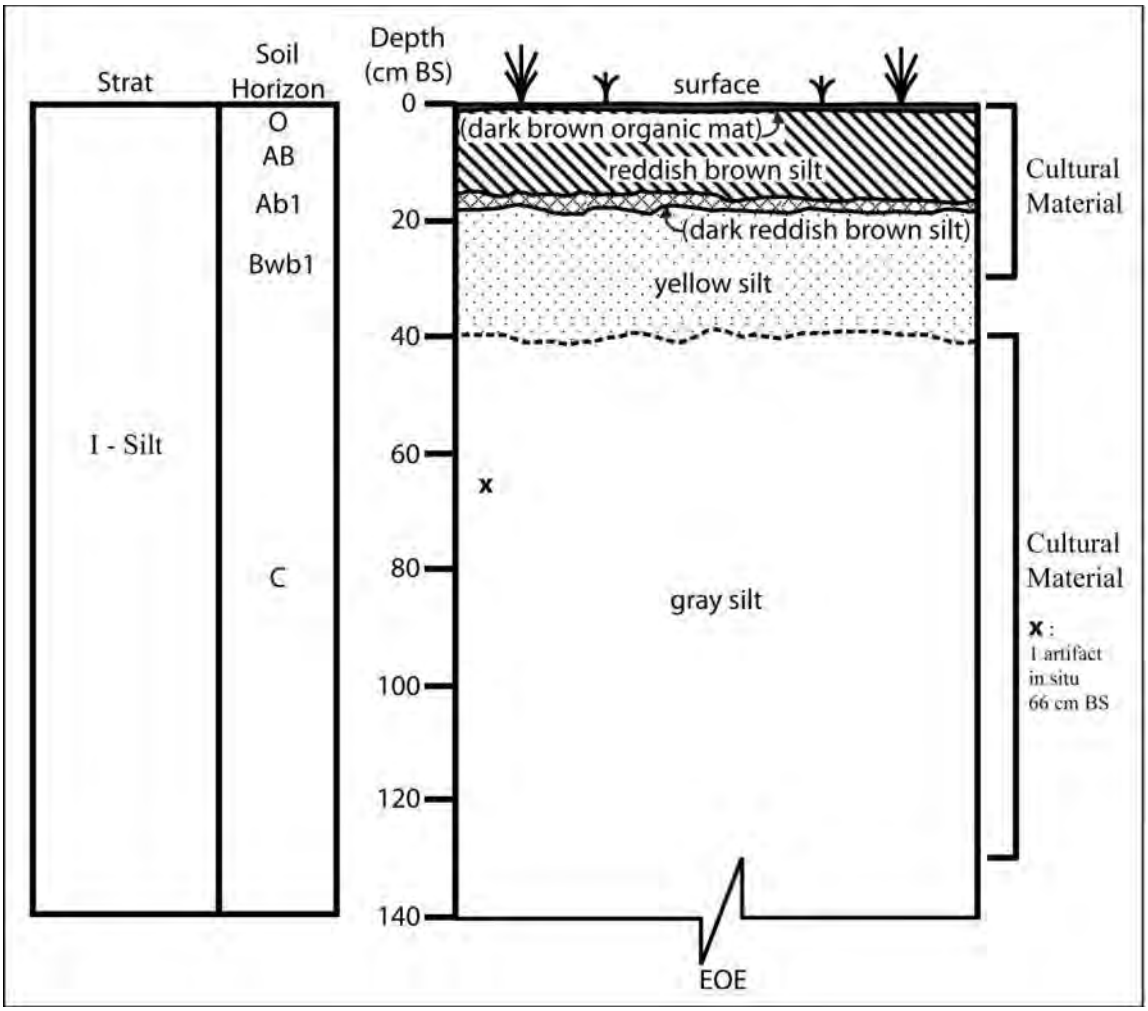

Figure 195. FAI-02020 stratigraphy

FAI-02021
Determination of Eligibility: Not evaluated

Site FAI-02021 is located on the southern edge of a linear northwest-southeast trending vegetated sand dune (Figure 196). Site elevation is 164 masl. The dune is roughly 250 m x 60 m. The site is located on a flat spot on the southern portion of the dune that has a slope of 3-10°. The site area is situated adjacent to the edge of the dune, directly above a 50-60° slope that drops 12-14 m to the valley floor below. This location provides an excellent 180° viewshed, with open views of the Alaska Range and Wood River Buttes to the south. The east, west and northern sides of the dune slope at 10-20°. The ecosystem is characterized as an open upland dry broadleaf/needleleaf forest. Vegetation consists of scattered white spruce and birch, with an understory of low-bush cranberries, grasses, dwarf birch, and forbs (Figure 196).

Site FAI-02021 was found through subsurface testing. Cultural material was recovered from two of five test pits excavated. Five pieces of flakestone debitage (Table 23) and three bone fragments were recovered from depths of 0-60 cm BS. The bone fragments were not calcined

and were too small for species or element identification. They were, however, found in association with lithic artifacts and are likely of cultural origin.

Site stratigraphy consists of aeolian silts roughly 125 cm thick overlying aeolian dune sands (Figure 197). Soil development consists of a dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying brown silt loam AB horizon 4-22 cm BS. A dark reddish brown silt loam Ab1 horizon extends from 22-25 cm BS, underneath which is a reddish silt Bwb1 horizon from 25-40 cm BS. An unaltered light brown silt horizon extends from 40-125 cm BS, the middle portions of which contain discontinuous sand lenses. The basal unit is light brown very well-sorted sands from 125 cm BS to the end of excavation at 140 cm BS.

Table 23. FAI-02021 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
106	0-5	flake fragment	10-20 mm	basalt	brown	10YR 5/3
107	10-20	flake fragment	7.5-10 mm	chert	dark gray	10YR 4/1
107	10-20	flake fragment	7.5-10 mm	chert	dark gray	2.5Y 4/1
107	30-40	broken flake	7.5-10 mm	rhyolite	pale brown	10YR 6/3
107	50-60	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3

Figure 196. FAI-02021 overview (view to east)

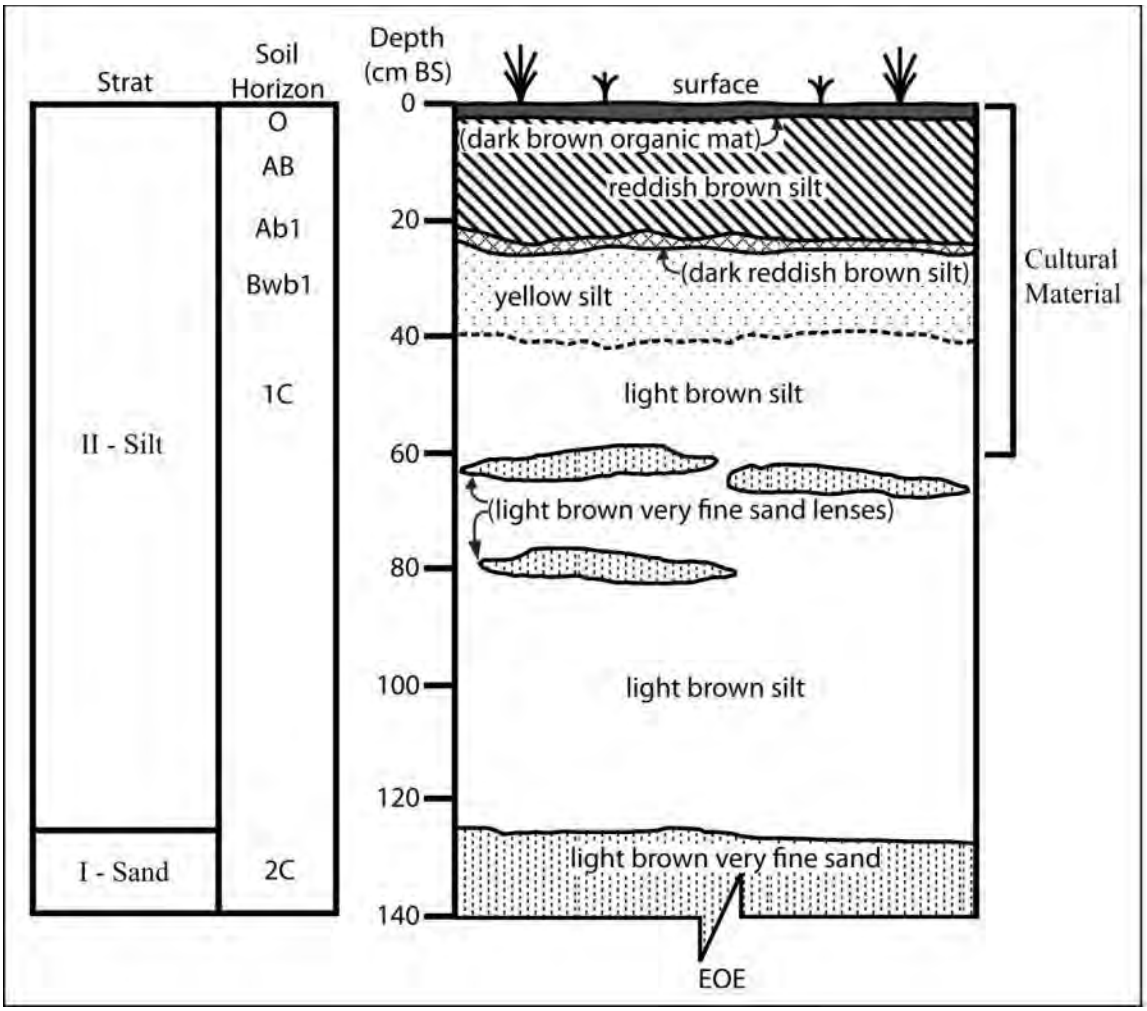

Figure 197. FAI-02021 stratigraphy

FAI-02022
Determination of Eligibility: Not evaluated

Site FAI-02022 is located on a vegetated sand dune (Figure 198). Site elevation is 156 masl. The dune is roughly 200 m long x 30-40 m wide. The site is located on a flat spot on the crest of the dune that has a slope of 3-10°. The dune slopes at a 15-20° on all sides dropping 8-10 m to the valley floor below. The location would offer 360° view; however, thick vegetation in the form of white spruce, birch, and dwarf birch obscures the viewshed (Figure 199).

Site FAI-02022 was found through subsurface testing. Cultural material was recovered from two of three test pits excavated. Eighteen flakes (Table 24) were recovered from depths of 0-40 cm BS; two flakes were recovered from depths of 40-80 cm BS. One biface fragment (Figure 200) was found at a depth range of 0-20 cm BS.

The biface fragment consists of an incomplete lateral and basal margin. It measures 47.8 mm long, 31.3 mm wide, and 15.8 mm maximum thickness. Large percussion flake scars cover both

intact faces. The flake scars are worn and weathered indicating the artifact spent substantial time on the surface prior to burial. The fractured surfaces are very rough in texture consistent thermal fracturing. The artifact is constructed of basalt that is oxidized and stained dark reddish brown (5 YR3/3), further evidence that the artifact was subjected to very high temperatures. It seems likely that, after discard, the artifact spent a long time on the ground surface and was affected and fractured by one or more forest fires before burial.

Site stratigraphy consists of aeolian silts at least 125 cm thick overlying aeolian dune sands (Figure 201). Soil development consists of dark brown, charcoal-rich organic mat at 0-6 cm BS, with an underlying brown silt loam AB horizon 6-18 cm BS. A reddish silt Bw horizon extends from 18-24 cm BS. A dark reddish brown silt loam Ab1 horizon extends from 24-30 cm BS. Unaltered yellow and light brown silt (C horizon) extends from 30 cm BS to the end of excavation at 125 cm BS.

Figure 198. FAI-02022 aerial overview (view to west)

Figure 199. FAI-02022 overview (view to west)

Figure 200. FAI-02022 biface fragment

Table 24. FAI-02022 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
108	0-20	broken flake	7.5-10 mm	chert	very dark gray	10YR 3/1
108	0-20	flake fragment	10-20 mm	basalt	very dark gray	10YR 3/1
108	0-20	flake fragment	7.5-10 mm	rhyolite	pale brown	10YR 6/3
108	0-20	flake fragment	10-20 mm	chert	gray	5Y 5/1
108	0-20	flake fragment	7.5-10 mm	rhyolite	light brownish gray	10YR 6/2
108	0-20	broken flake	7.5-10 mm	rhyolite	light brownish gray	10YR 6/2
108	0-20	flake fragment	10-20 mm	chert	very dark gray	5Y 3/1
108	0-20	broken flake	10-20 mm	rhyolite	pale brown	10YR 6/3
108	0-20	flake fragment	10-20 mm	Rhyolite`	light reddish brown	5YR 6/4
108	0-20	debris	10-20 mm	rhyolite	weak red	2.5YR 5/2
108	0-20	broken flake	10-20 mm	rhyolite	light brownish gray	10YR 6/2
108	0-20	flake fragment	10-20 mm	basalt	very dark gray	5Y 3/1
108	20-40	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
108	20-40	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
108	20-40	flake fragment	10-20 mm	chert	yellowish brown	10YR 5/4
108	20-40	broken flake	10-20 mm	chert	dark gray	2.5Y 4/1
108	40-80	broken flake	10-20 mm	chert	olive gray	5Y 5/2
108	40-80	flake fragment	10-20 mm	basalt	dark gray	2.5Y 4/1
109	5-15	flake fragment	5-7.5 mm	basalt	dark gray	2.5Y 4/1
109	15-25	flake fragment	10-20 mm	chert	very dark gray	5Y 3/1

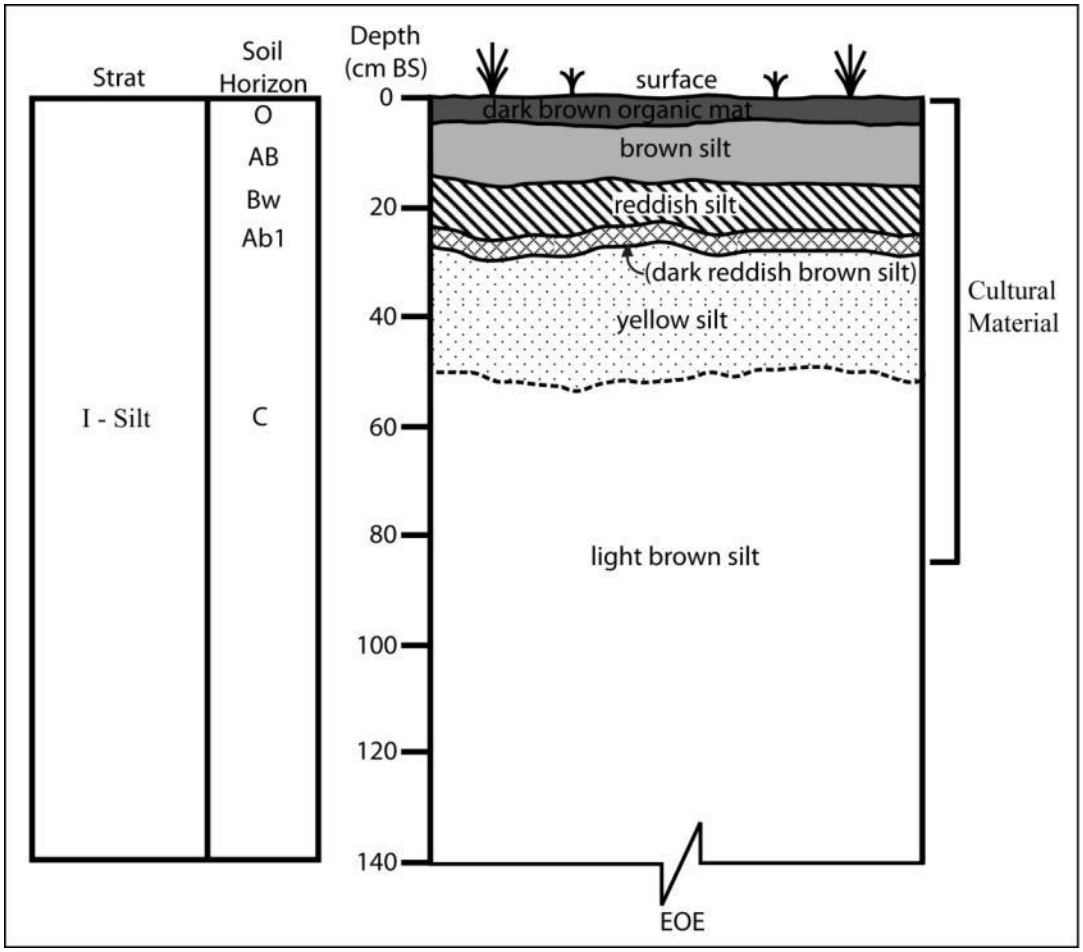

Figure 201. FAI-02022 stratigraphy

FAI-02023
Determination of Eligibility: Not evaluated

Site FAI-02023 is located on the southern portion of a vegetated sand dune. Site elevation is 149 masl. The dune is roughly 300 m long x 100 m wide with the site located on the crest of lobe that is 20 m wide and extends 40 m to the south of the main dune. Site area has a slope of 3-15°. The south, east and west slopes of the dune lobe drop at 20-40° roughly 15-20 m to the flats below. The dune slopes at a 15-20° on all sides dropping 8-10 m to the valley floor below. The location offers 180° view, with open views to the south of the Wood River Buttes and Alaska Range in the distance. The ecosystem is characterized as a dry needleleaf-broadleaf forest. Vegetation consists of burnt aspen and spruce stumps with an understory of heavy dead fall, young aspen and forbs (Figure 202).

Site FAI-02023 was found through subsurface testing. Cultural material was recovered from two of three test pits excavated. Fifteen flakes were recovered from depths of 0-35 cm BS. All of the recovered artifacts are characterized as lithic debitage (Table 25).

Site stratigraphy consists of aeolian silts between 35-50 cm thick overlying aeolian dune sands (Figure 203). Soil development consists of dark brown, charcoal-rich organic mat at 0-3 cm BS, with an underlying brown silt AB horizon at 3-16 cm BS. Unaltered light brown silt (C1 horizon) extends from 16-22 cm BS, underneath which is a dark reddish brown silt Ab horizon from 23-25 cm BS. A reddish silt Bwb horizon extends from 25-34 cm BS, underneath which is yellowish fine sandy silt (C2 horizon) from 34-48 cm BS. Unaltered light brown very well-sorted, very fine sands (2C horizon) extend from 48 cm BS to the end of excavation at 115 cm BS.

Figure 202. FAI-02023 overview (view to north)

Table 25. FAI-02023 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
111	0-10	flake fragment	10-20 mm	rhyolite	light brown	7.5YR 6/4
112	0-5	flake fragment	10-20 mm	rhyolite	brown	7.5YR 5/3
112	0-5	broken flake	10-20 mm	rhyolite	brown	10YR 5/3
112	5-15	broken flake	10-20 mm	basalt	dark gray	2.5Y 4/1
112	5-15	broken flake	7.5-10 mm	rhyolite	light yellowish brown	10YR 6/4
112	5-15	broken flake	7.5-10 mm	chalcedony	light gray (transl.)	2.5Y 7/1
112	15-25	broken flake	10-20 mm	rhyolite	grayish brown	2.5Y 5/2
112	15-25	flake fragment	10-20 mm	rhyolite	light gray	10YR 7/1
112	15-25	broken flake	10-20 mm	rhyolite	gray	10YR 6/1
112	15-25	broken flake	7.5-10 mm	rhyolite	light brownish gray	10YR 6/2
112	15-25	flake fragment	7.5-10 mm	rhyolite	pale brown & black	10YR 6/3
112	25-35	flake fragment	10-20 mm	rhyolite	grayish brown	10YR 5/2
112	25-35	flake fragment	7.5-10 mm	rhyolite	light gray	2.5Y 7/2
112	25-35	flake fragment	7.5-10 mm	rhyolite	light gray	10YR 7/2
112	25-35	broken flake	5-7.5 mm	chert	very pale brown	10YR 7/4

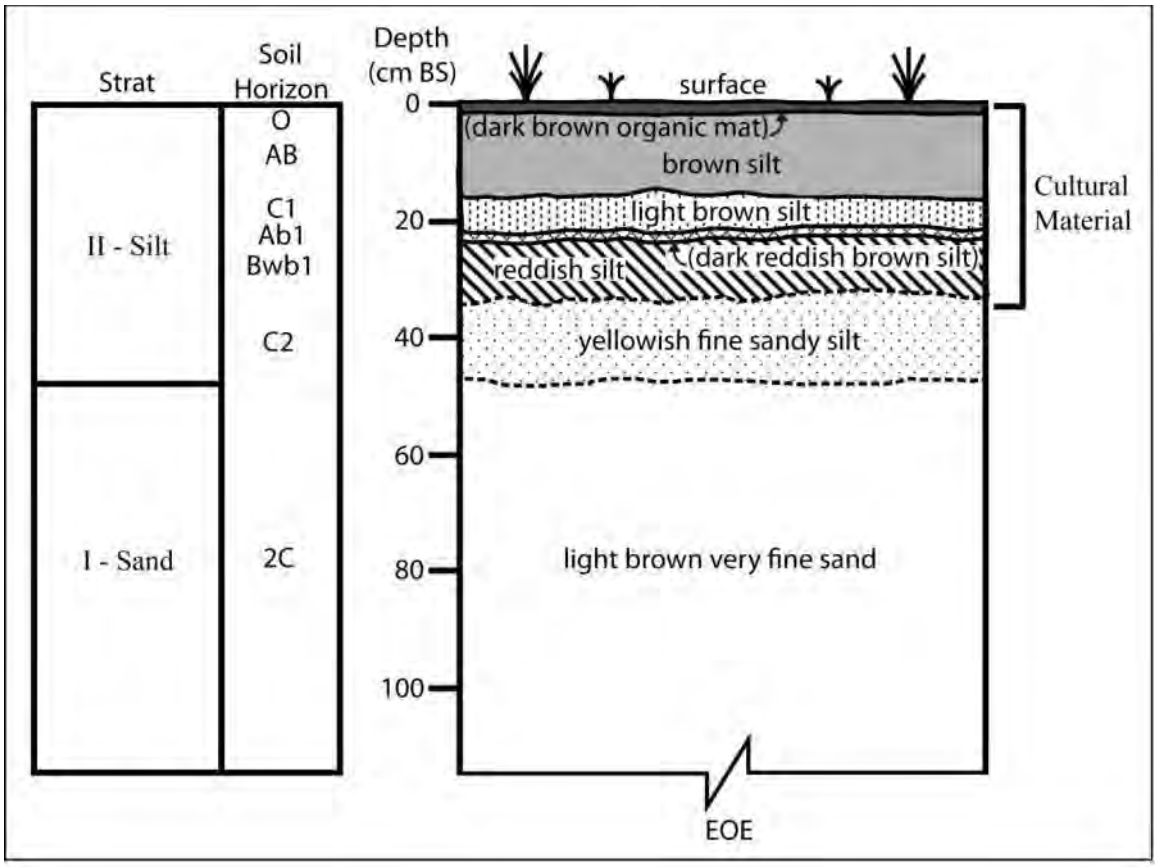

Figure 203. FAI-02023 stratigraphy

FAI-02024
Determination of Eligibility: Not evaluated

Site FAI-02024 is located on the crest of a vegetated sand dune (Figure 204). Site elevation is 148 masl. The dune is roughly 120 m x 40 m. The site is located on the crest of lobe that is 20 m wide and extends 40 m to the south of the main dune. The site area has a slope of 3-15°. The south, east and west slopes of the dune lobe drop at 20-40° roughly 15-20 m to the flats below. The location offers 180° view, with open views to the south of the Wood River Buttes and Alaska Range in the distance. The ecosystem is characterized as a broadleaf-needleaf forest. Vegetation consists of burnt aspen and spruce stumps with an understory of heavy dead fall, young aspen and forbs (Figure 205).

Site FAI-02024 was found through subsurface testing. Two chert flakes were recovered from one of five test pits excavated. The first of these is a flake fragment, made of light yellowish brown (10YR 6/4) chert between 20-30 mm in diameter, found at depths of 5-15 cm BS. The second is a flake fragment, made of dark gray (5Y 4/1) chert 10-20 mm in diameter, recovered from depths of 30-60 cm BS.

Site stratigraphy consists of aeolian silts 40 cm thick overlying aeolian dune sands (Figure 206). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an

underlying pale brown silt AB horizon at 4-18 cm BS. A strong brown silt Ab horizon extends from 18-28 cm BS, underneath which is yellowish brown silt Bwb1 horizon from 28-40 cm BS. The basal unit identified is light grayish brown fine sandy silt (C horizon) from 40 cm BS to the end of excavation at 120 cm BS.

Figure 204. FAI-02024 aerial overview (view to north)

Figure 205. FAI-02024 overview (view to west)

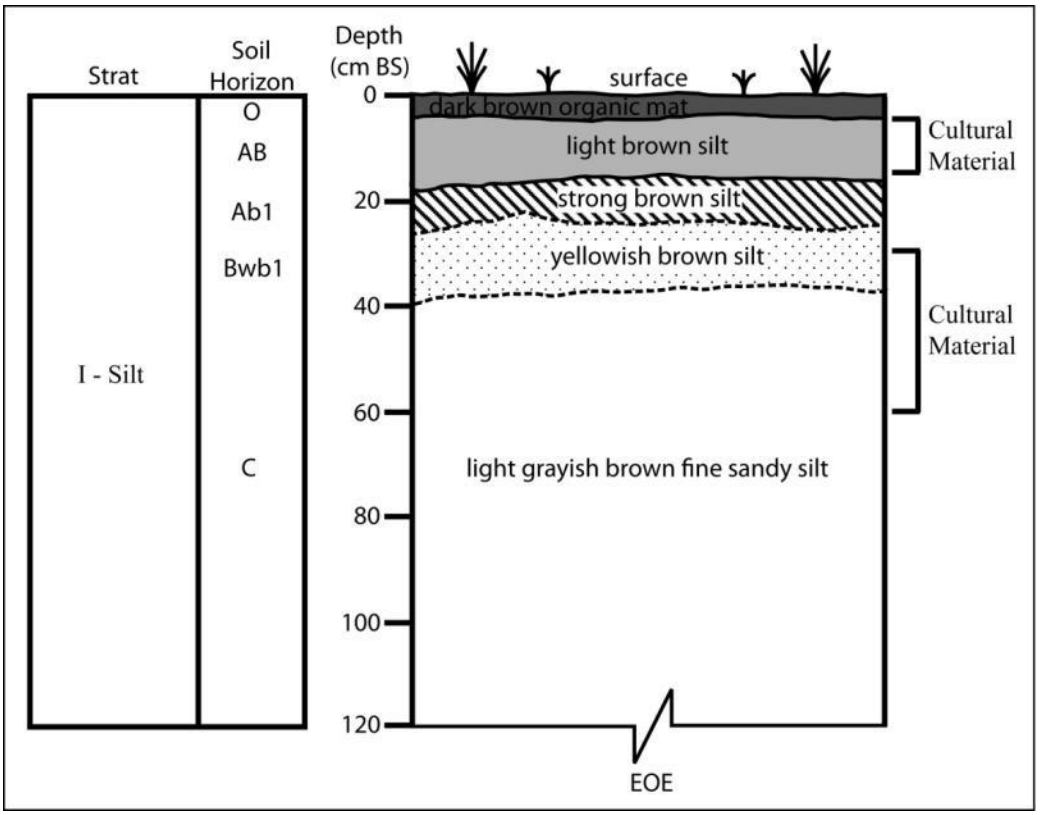

Figure 206. FAI-02024 stratigraphy

FAI-02025
Determination of Eligibility: Not evaluated

Site FAI-02025 is located on a vegetated sand dune. Site elevation is 153 masl. The dune is ovate, roughly 150 m x 75 m. The site is located on the crest of the dune in an area that has a slope of 0-15°. The dune slopes at 20-35° on all sides dropping 12-16 m to the flats below. The vantage point provides a commanding 360° view, with views of the Wood River Buttes and Alaska Range to the south, Clear Creek Butte to the east, and the Fairbanks hills to the north. Vegetation over most of the site consists of burnt aspen and spruce stumps with an understory of heavy dead fall, young aspen and forbs (Figure 207); a stand of living spruce and aspen grows on the western side of the site.

Site FAI-02025 was found through subsurface testing. Cultural material was recovered from three of six test pits excavated. Ten flakes were recovered from depths of 0-25 cm BS. All of the recovered artifacts are characterized as lithic debitage (Table 26). One of the flakes is made of obsidian that has been sourced via XRF elemental analysis to the Batza Tena source on the Koyukuk River more than 400 km to the north (Appendix 1).

Site stratigraphy consists of aeolian silts at least 120 cm thick overlying aeolian dune sands (Figure 208). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying strong brown silt AB horizon at 4-10 cm BS, underneath which is a reddish brown silt Bw horizon from 10-18 cm BS. A strong brown silt Ab horizon extends from 18-21 cm BS, underneath which is reddish brown silt Bwb horizon from 21-30 cm BS. Unaltered yellow and light brown silts (C horizon) were encountered from 30 cm BS to the end of excavation at120 cm BS.

Figure 207. FAI-02025 overview (view to south)

Table 26. FAI-02025 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
124	0-5	flake fragment	10-20 mm	obsidian	black	2.5Y 2.5/1
124	0-5	broken flake	10-20 mm	chert	grayish brown	2.5Y 5/2
124	5-15	complete flake	10-20 mm	chert	gray	2.5Y 5/1
124	5-15	debris	10-20 mm	chert	gray	2.5Y 5/1
124	5-15	flake fragment	10-20 mm	chert	gray	2.5Y 5/1
124	5-15	broken flake	7.5-10 mm	chert	gray & reddish brown	2.5Y 5/1 & 5YR 5/3
124	5-15	flake fragment	7.5-10 mm	chert	grayish brown	2.5Y 5/2
124	5-15	broken flake	7.5-10 mm	chert	grayish brown	2.5Y 5/1
125	10-25	flake fragment	7.5-10 mm	rhyolite	light gray	10YR 7/2
126	0-20	flake fragment	5-7.5 mm	chert	dark gray	5Y 4/1

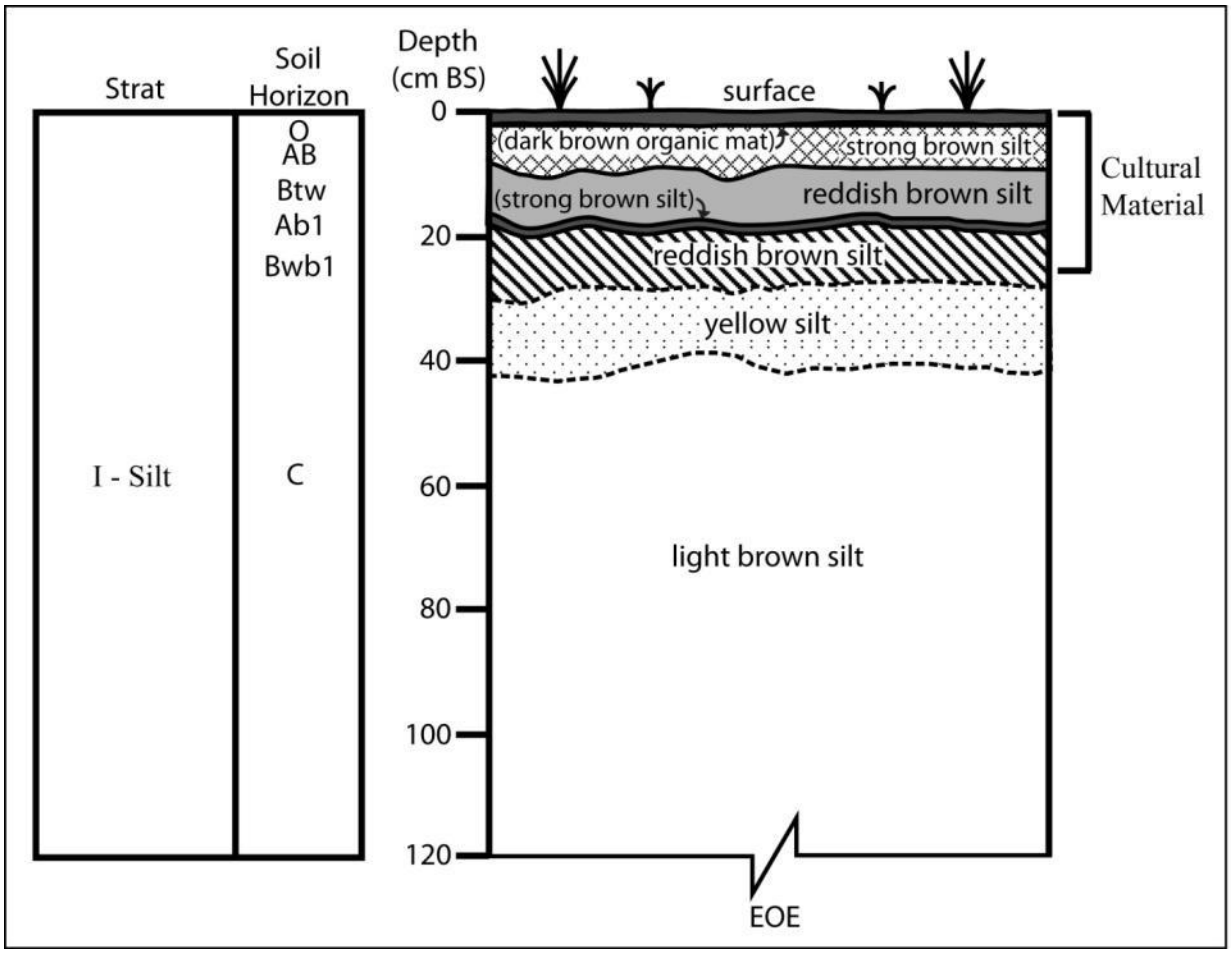

Figure 208. FAI-02025 stratigraphy

FAI-02026
Determination of Eligibility: Not evaluated

Site FAI-02026 is located on a vegetated sand dune. Site elevation is 154 masl. The dune is ovate, roughly 250 m x 150 m. The site is located on the crest of the dune in an area that has a slope of 0-10°. The dune slopes at 20-30° on all sides dropping 12-16 m to the flats below. The vantage point provides a commanding 360° view, with views of the Wood River Buttes and Alaska Range to the south, Clear Creek Butte to the east, and the Fairbanks hills to the north. Vegetation consists of burnt aspen and spruce stumps with an understory of thick deadfall, young aspen and forbs (Figure 209).

Site FAI-02026 was found through subsurface testing. Cultural material was recovered from five of six test pits excavated. Sixty-six flakes (Table 27) were recovered from depths of 0-40 cm BS; two microblades (Table 28; Figure 210) were recovered from depths of 0-20 cm BS; and one projectile point medial fragment (Figure 211) was recovered from 5-18 cm BS. The projectile point is a medial fragment made of light yellowish brown (2.5Y 6/3) and dark gray (4/N) rhyolite. It measures 15.8 mm long, 23.1 maximum width, and 6 mm maximum thickness.

Site stratigraphy consists of aeolian silts at least 130 cm thick overlying aeolian dune sands (Figure 212). Soil development consists of dark brown, charcoal-rich organic mat at 0-2 cm BS, with an underlying strong brown silt AB horizon at 2-18 cm BS. Underlying this is a strong reddish brown silt Ab horizon, which is in turn underlain by a reddish silt Bwb horizon extending from 22-30 cm BS. Unaltered light brown and yellow silt (C horizon) extends from 30 cm BS to the end of excavation at 130 cm BS.

Figure 209. FAI-02026 overview (view to north)

Table 27. FAI-02026 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
130	0-20	broken flake	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	flake fragment	20-30 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	broken flake	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	flake fragment	7.5-10 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	flake fragment	20-30 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	flake fragment	7.5-10 mm	rhyolite	pale brown	10YR 6/3
130	0-20	complete flake	5-7.5 mm	rhyolite	pink	7.5YR 7/3
130	0-20	flake fragment	10-20 mm	rhyolite	light brown	7.5YR 6/4
130	0-20	broken flake	10-20 mm	rhyolite	light brownish gray	10YR 6/2
130	0-20	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	complete flake	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	0-20	broken flake	10-20 mm	rhyolite	light brown	7.5YR 6/4
130	20-40	flake fragment	7.5-10 mm	rhyolite	very pale brown	10YR 7/3
130	20-40	flake fragment	10-20 mm	rhyolite	light gray	10YR 7/2
130	20-40	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
130	20-40	flake fragment	10-20 mm	rhyolite	light gray	10YR 7/2
130	20-40	flake fragment	5-7.5 mm	rhyolite	light gray	10YR 7/2
130	20-40	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
130	20-40	flake fragment	7.5-10 mm	rhyolite	light gray	10YR 7/2
130	20-40	flake fragment	7.5-10 mm	rhyolite	light gray	10YR 7/2
130	20-40	flake fragment	7.5-10 mm	rhyolite	light gray	10YR 7/2
130	40-55	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
131	0-5	flake fragment	10-20 mm	chert	black	2.5/N
131	0-5	flake fragment	10-20 mm	chert	very dark gray	3/N
131	5-15	flake fragment	7.5-10 mm	basalt	dark gray	5Y 4/1
131	5-15	flake fragment	7.5-10 mm	basalt	dark gray	4/N
131	15-20	flake fragment	7.5-10 mm	chert	dark gray	4/N
131	15-20	flake fragment	7.5-10 mm	chert	(translucent) dark gray	4/N
131	15-20	flake fragment	7.5-10 mm	chert	very dark gray	3/N
131	20-25	flake fragment	10-20 mm	chert	dark gray	4/N
131	20-25	flake fragment	10-20 mm	chert	very dark gray	3/N
131	20-25	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
131	25-30	broken flake	7.5-10 mm	chert	very dark gray	3/N
131	25-30	broken flake	7.5-10 mm	chert	very dark gray	3/N
131	25-30	broken flake	7.5-10 mm	chert	very dark gray	3/N
131	25-30	flake fragment	5-7.5 mm	chert	very dark gray	3/N
131	25-30	flake fragment	10-20 mm	chert	dark gray	4/N
131	25-30	flake fragment	10-20 mm	rhyolite	gray	2.5Y 6/1
131	25-30	flake fragment	7.5-10 mm	rhyolite	light brownish gray	2.5Y 6/2
131	25-30	broken flake	10-20 mm	chert	reddish brown	5YR 4/3
132	5-15	flake fragment	7.5-10 mm	chert	dark gray	4/N
132	15-25	broken flake	7.5-10 mm	rhyolite	grayish brown	10YR 5/2
133	0-10	broken flake	7.5-10 mm	chert	very dark gray	3/N
133	15-25	flake fragment	10-20 mm	rhyolite	light brownish gray	10YR 6/2
133	15-25	flake fragment	10-20 mm	chert	brown	7.5YR 4/2
133	15-25	broken flake	7.5-10 mm	basalt	gray	5Y 5/1
134	0-10	flake fragment	10-20 mm	chert	gray	5Y 5/1
134	0-10	flake fragment	10-20 mm	chert	dark gray	5Y 4/1
134	0-10	broken flake	10-20 mm	rhyolite	gray	5/N
134	0-10	complete flake	7.5-10 mm	chert	gray	5Y 5/1
134	0-10	flake fragment	7.5-10 mm	chert	pale brown	10YR 6/3
134	10-20	flake fragment	7.5-10 mm	rhyolite	light yellowish brown	10YR 6/4
134	10-20	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
134	10-20	flake fragment	7.5-10 mm	rhyolite	light yellowish brown	10YR 6/4
134	10-20	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
134	10-20	broken flake	10-20 mm	chert	reddish brown	5YR 5/3
134	20-30	flake fragment	7.5-10 mm	rhyolite	light gray	2.5Y 7/2
134	20-30	flake fragment	5-7.5 mm	rhyolite	light brownish gray	2.5Y 6/2
134	20-30	broken flake	7.5-10 mm	rhyolite	pale brown	10YR 6/3

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
134	20-30	broken flake	7.5-10 mm	chert	(translucent) black	2.5/N
134	20-30	flake fragment	7.5-10 mm	chert	(translucent) black	2.5/N
134	30-40	flake fragment	10-20 mm	rhyolite	pale brown	10YR 6/3
134	30-40	broken flake	5-7.5 mm	chert	gray	5Y 5/1

Table 28. FAI-02026 microblade attributes

TP	Depth (cm BS)	Material Type	L (mm)	W (mm)	T (mm)	# of Arrises	Segment	RT	Color	Munsell Code
130 (a)	0-20	rhyolite	15.7	5.0	1.3	2	med	N	pale brown	10YR 6/3
133 (b)	18-20	chert	16.0	6.7	1.6	2	prox	N	reddish brown	5YR 4/3

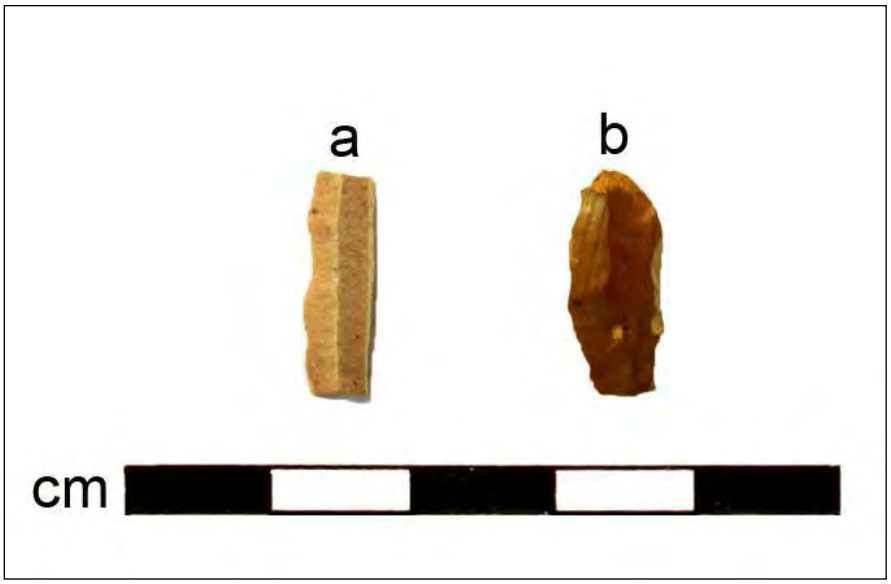

Figure 210. FAI-02026 microblades

Figure 211. FAI-02026 projectile point fragment

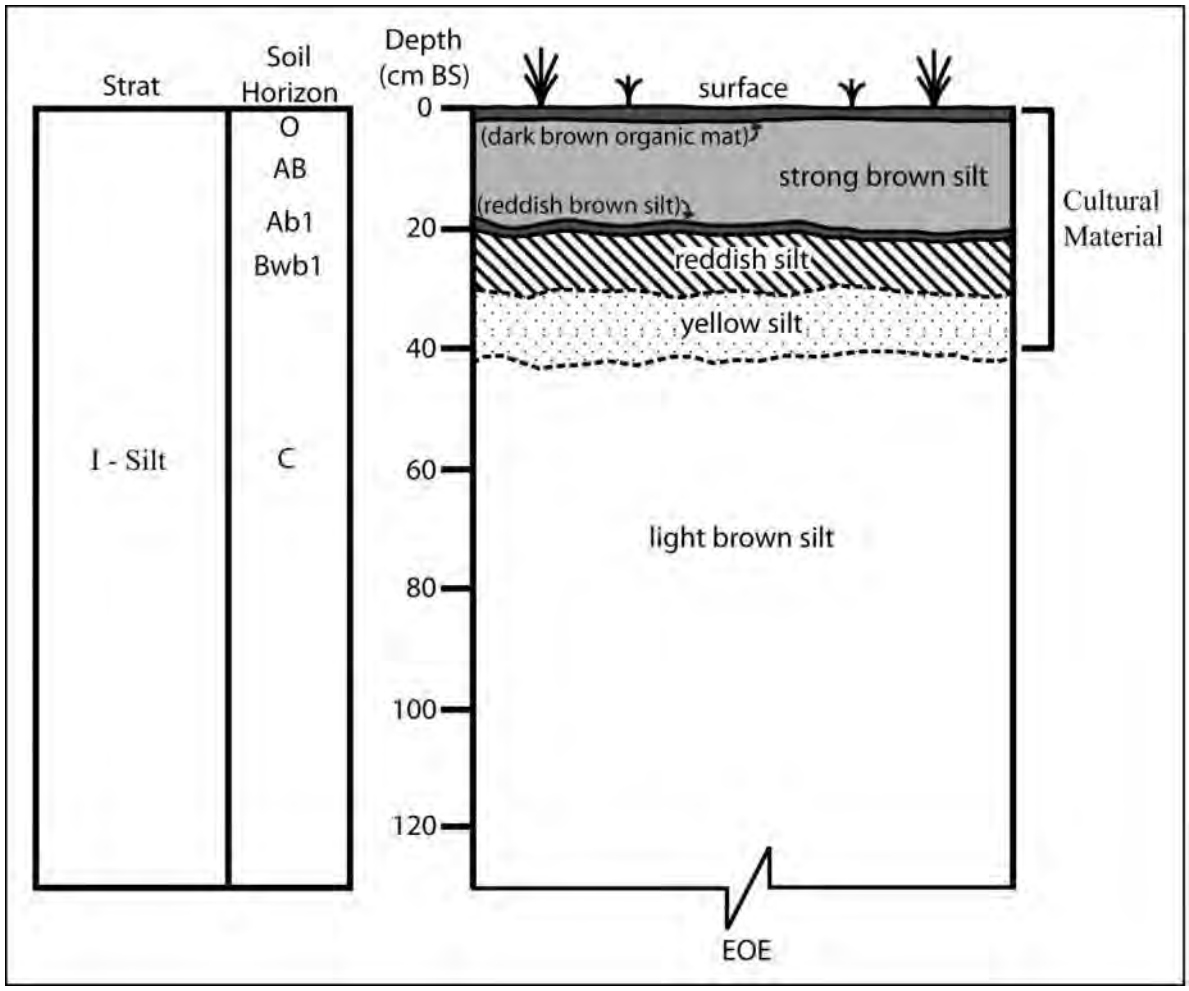

Figure 212. FAI-02026 stratigraphy

FAI-02027
Determination of Eligibility: Not evaluated

Site FAI-02027 is located on a vegetated sand dune (Figure 213). Site elevation is 153 masl. The dune is circular in shape, with a very flat (0-2° slope) plateau-like top that extends roughly 175 m x 175 m, and sides that slope at 25-40° dropping roughly 6 m to the flats below. The site is located on the western portion of the dune top. The vantage point provides a good 180° viewshed of the flats to the west. Site vegetation consists of burnt spruce and aspen stumps, with small stands of living spruce and aspen, and an understory of young aspen, grasses and forbs (Figure 214).

Site FAI-02027 was identified through subsurface testing. Cultural material was recovered from two of three test pits excavated. Two grayish brown (2.5Y 5/2) chert flake fragments were

recovered from depths of 15-30 cm BS. One of these is between 5-7.5 mm in diameter; the other is 7.5-10 mm.

Site stratigraphy consists of aeolian silts at least 70 cm thick overlying aeolian dune sands (Figure 215). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying strong brown silt loam AB horizon at 4-8 cm BS. A reddish silt Bw horizon extends from 8-21 cm BS. The lowest 8 cm of the Bw exhibit reddish brown staining that probably represents a buried Ab horizon. Underlying this is unaltered light brown to gray silts (C horizon) extending to the end of excavation at 70 cm BS.

Figure 213. FAI-02027 aerial overview (view to southwest)

Figure 214. FAI-02027 overview (view to north)

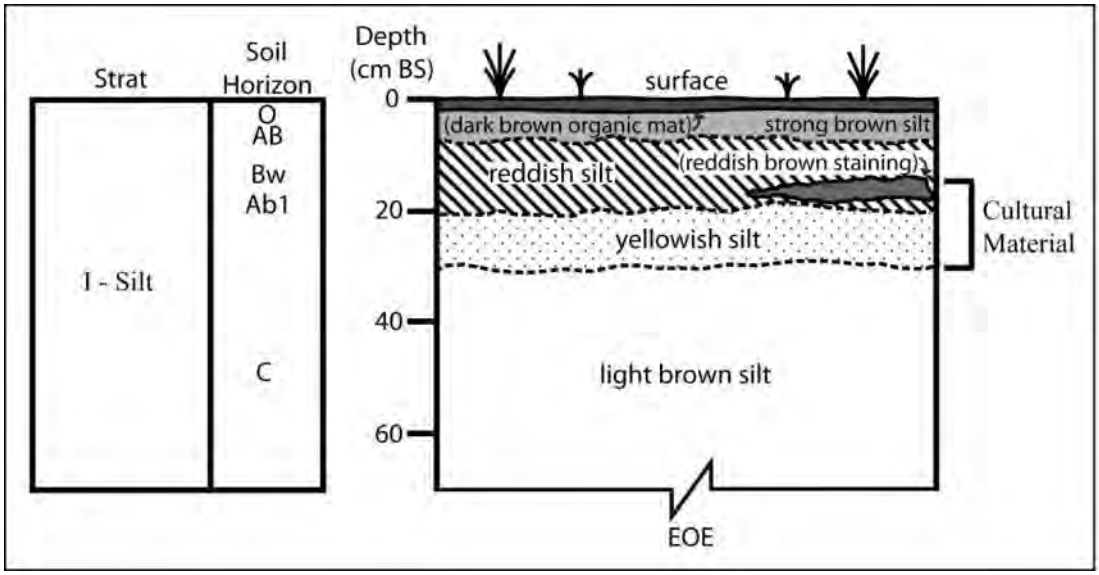

Figure 215. FAI-02027 stratigraphy

FAI-02028
Determination of Eligibility: Not evaluated

Site FAI-02028 is located on a vegetated sand dune (Figure 216). Site elevation is 135 masl. The dune is roughly 200 m on its north-south axis, and 70 m east-west. The site located on the crest of the linear portion of the dune in an area that is has a slope of 3-10°. The dune slopes at 30-40° on all sides dropping 15-20 m to the flats below. The site area has a prominent 360° view, with views of the Wood River Buttes and Alaska Range to the south, Clear Creek Butte to the east, and the Fairbanks hills to the north. The ecosystem is characterized as a broadleaf-needleleaf forest. Vegetation consists of burnt aspen and spruce stumps, with an understory of grasses and forbs (Figure 217).

Site FAI-02028 was found through subsurface testing. Cultural material was recovered from one of three test pits excavated. One broken flake made of gray (2.5Y 5/1) chert was found directly beneath the root mat at a depth of 0-5 cm BS; two light gray (2.5Y 7/2) to light brownish gray (2.5Y 6/2) flake fragments were recovered from depths of 30-60 cm BS. All of the recovered debitage was between 10 to 20 mm in diameter.

Site stratigraphy consists of aeolian silts at least 130 cm thick overlying aeolian dune sands (Figure 218). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying strong brown silt AB horizon at 4-29 cm BS. Dark reddish brown silt extends from 29-31 cm BS; this has characteristics of an Ab horizon, but also exhibits looping tendrils, sharp edges and clay and iron-rich laminations. Underlying this is a reddish silt Bwb horizon from 31-44 cm BS. Unaltered yellow and light brown silt (C horizon) extends from 44 cm BS to the end of excavation at 130 cm BS.

Figure 216. FAI-02028 aerial overview (view to northwest)

Figure 217. FAI-02028 overview (view to west)

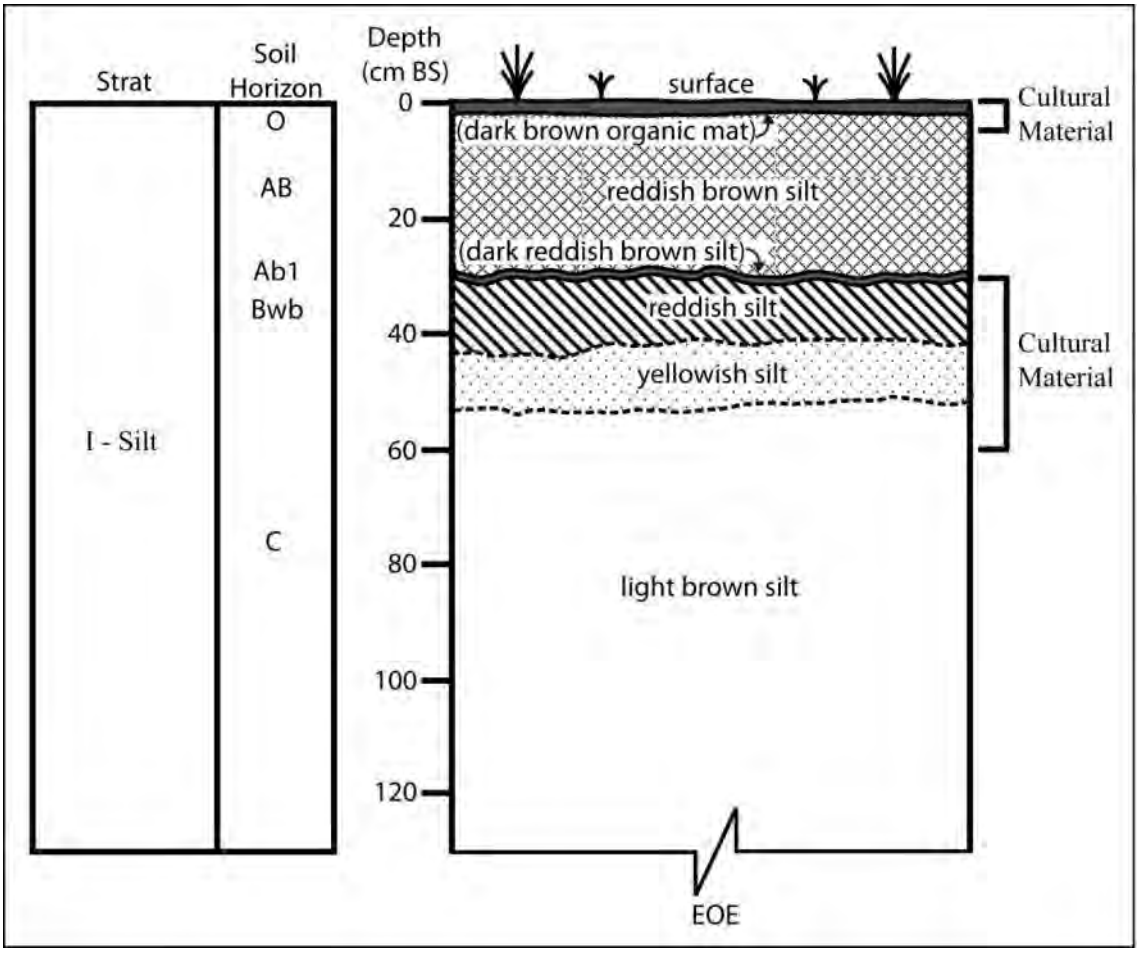

Figure 218. FAI-02028 stratigraphy

FAI-2029
Determination of Eligibility: Not evaluated

Site FAI-02029 is located on the crest of a vegetated sand dune (Figure 219). Site elevation is 140 masl. The dune extends roughly 140 m x 90 m. The site is located on the crest of the dune in an area that is has a slope of 2-10°. The dune slopes at 20-30° on all sides dropping 14-18 m to the flats below. The site area has a prominent 360° view, with views of the Wood River Buttes and Alaska Range to the south, Clear Creek Butte to the east, and the Fairbanks hills to the north. Vegetation consists of burnt aspen and spruce stumps and thick deadfall (Figure 220), with a small stand of living spruce on the northern area of the site.

Site FAI-02029 was found through subsurface testing. Cultural material was recovered from one of three test pits excavated. Thirteen artifacts including ten pieces of lithic debitage (Table 29) and three fragmentary microblades (Table 30; Figure 222) were found at depths of 0-25 cm BS. Two of the flakes are made of obsidian that has been sourced via XRF elemental analysis to the Batza Tena source on the Koyukuk River more than 400 km to the north (Appendix 1).

Site stratigraphy consists of aeolian silts at least 120 cm thick overlying aeolian dune sands (Figure 222). Soil development consists of dark brown, charcoal-rich organic mat at 0-5 cm BS, with an underlying strong brown silt AB horizon at 5-15 cm BS. A dark reddish brown silt Ab horizon extends from 15-18 cm BS, underneath which is a yellowish silt Bwb horizon from 18-30 cm BS. The basal unit is unaltered light brown silt (C horizon) from 30 cm BS to the end of excavation at 110 cm BS.

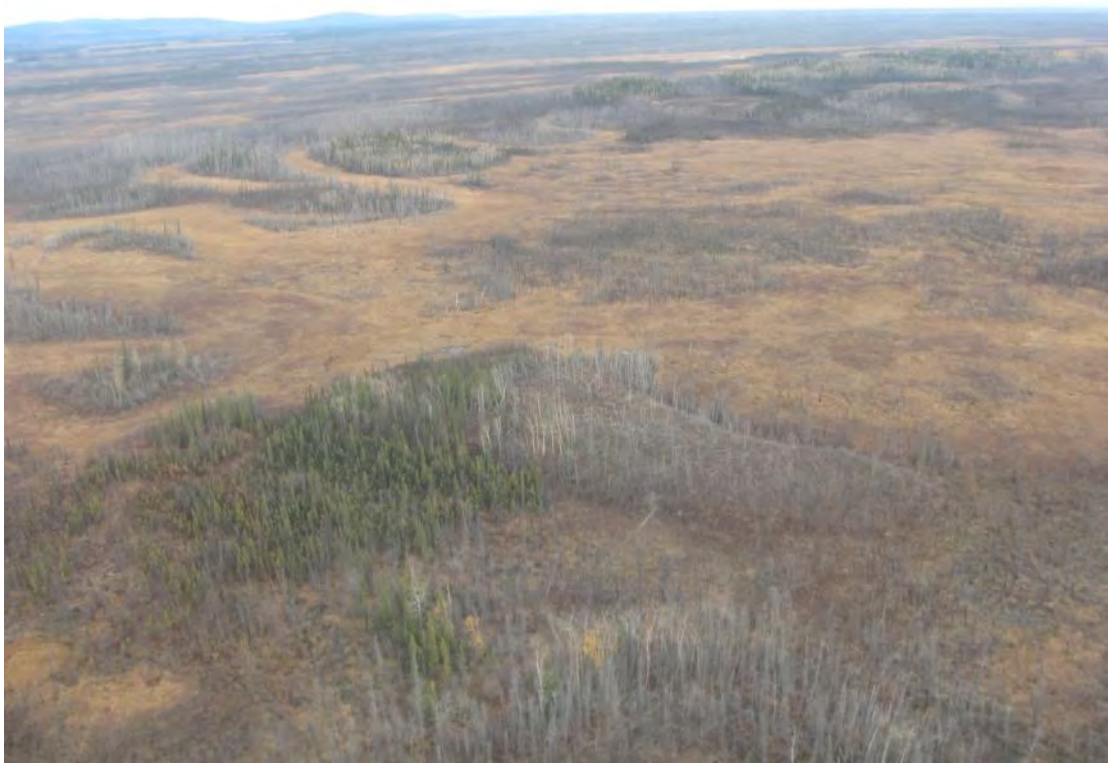

Figure 219. FAI-02029 aerial overview (view to northeast)

Figure 220. FAI-02029 overview (view to north)

Table 29. FAI-02029 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
144	0-10	complete flake	10-20 mm	basalt	black	2.5Y 2.5/1
144	10-20	flake fragment	10-20 mm	rhyolite	light brownish gray	10YR 6/2
144	0-20	broken flake	7.5-10 mm	basalt	very dark gray	2.5Y 3/1
144	0-20	flake fragment	7.5-10 mm	basalt	very dark gray	3/N
144	0-25	flake fragment	10-20 mm	rhyolite	very pale brown	10YR 7/3
144	0-25	broken flake	7.5-10 mm	rhyolite	gray	10YR 5/1
144	10-20	flake fragment	20-30 mm	rhyolite	light yellowish brown	10YR 6/4
144	10-20	broken flake	10-20 mm	rhyolite	light brownish gray	10YR 6/2
146	0-5	flake fragment	7.5-10 mm	obsidian	clear	clear
146	12-24	flake fragment	10-20 mm	obsidian	clear	clear

Table 30. FAI-02029 microblades

Test Pit	Depth (cm BS)	Material Type	L (mm)	W (mm)	T (mm)	# of Arrises	Segment	RT	Color	Munsell Code
144 (a)	10-20	rhyolite	15.5	8.5	2.1	2	medial	N	gray	10YR 5/1
144 (b)	20-25	rhyolite	13.5	5.7	2.5	1	prox.	N	pale brown	10YR 6/3
144 (c)	0-25	rhyolite	17.9	8.5	2.7	2	medial	N	gray	10YR 5/1

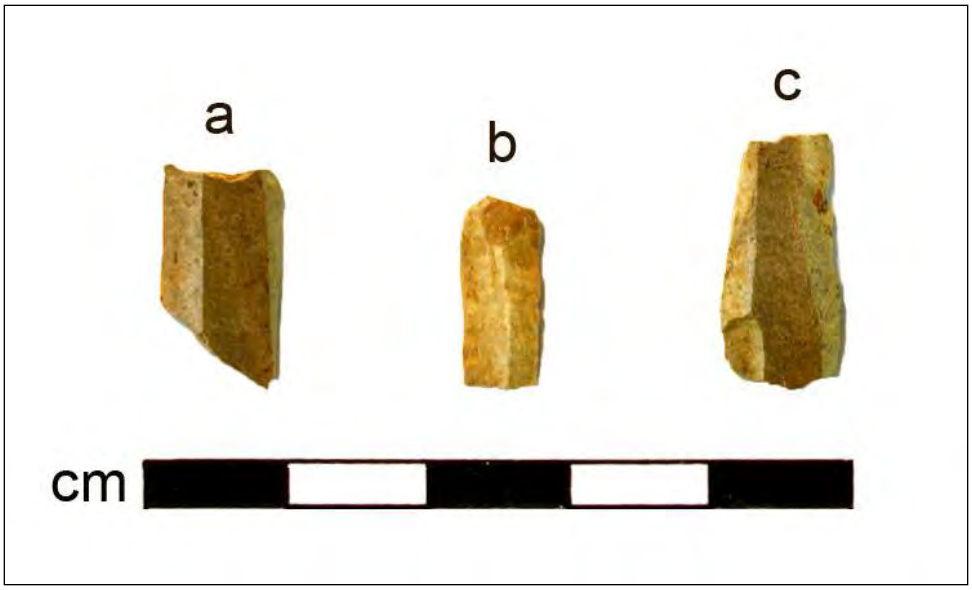

Figure 221. FAI-02029 microblades

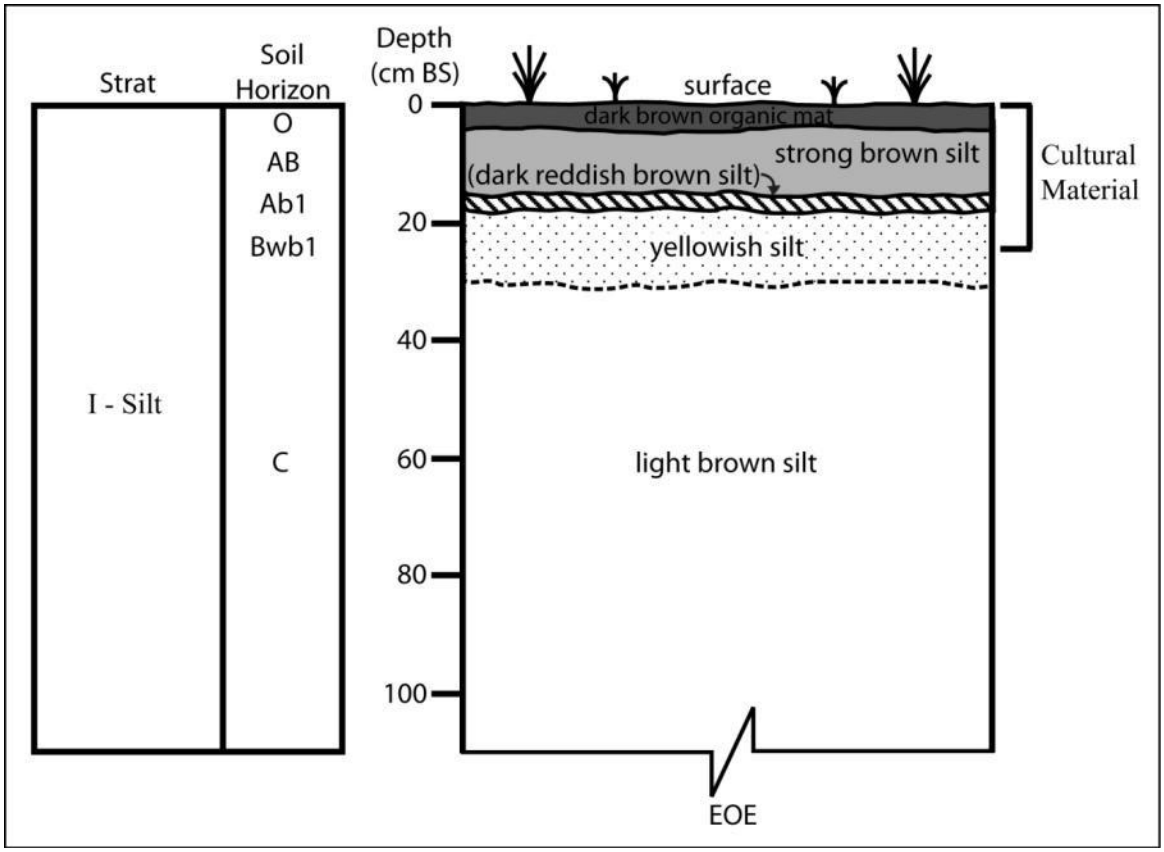

Figure 222. FAI-02029 stratigraphy

FAI-02030
Determination of Eligibility: Not evaluated

Site FAI-02030 is located on the southern lobe of a vegetated sand dune (Figure 223). Site elevation is 148 masl. The dune is roughly 250 m x 100 m. The site is located on high flat (2-10° slope) on the southern edge of the dune that is roughly 16 m above the flats below. On its east and west sides, the dune slopes at 30-40°, on its south side it slopes at a 20°. The site area has a good 180° view, with open views of the Wood River Buttes, Alaska Range and flats to the south. The site is covered with thick burnt aspen and spruce deadfall, with only a few scattered stumps still standing (Figure 224). The understory is comprised of young aspen, grasses and forbs.

Site FAI-02030 was found through subsurface testing. Cultural material was recovered from two of six test pits excavated. Seven flakes were found at depths of 5-40 cm BS; one flake was found in situ directly beneath the root mat at a depth of five cm BS. All of the recovered artifacts are lithic debitage (Table 31).

Site stratigraphy consists of aeolian silts at least 100 cm thick overlying aeolian dune sands (Figure 225). Soil development consists of dark brown, charcoal-rich organic mat at 0-6 cm BS, with an underlying strong brown silt AB horizon at 6-14 cm BS. A dark reddish brown silt Bw horizon extends from 14-32 cm BS. The Bw horizon is punctuated by a dark reddish brown clay and iron rich lamella, roughly 1-2 cm thick at depths of 21-23 cm BS. This lamella is in a similar stratigraphic position as the Ab1 horizon seen at other sites in the dune complex, presenting the possibility that it represents a buried surface. The silt beneath the lamella is much more compact than the overlying strata. The underlying strata consists of yellowish silt from 23-40 cm BS, which is underlain by unaltered light brown and grayish silt (C horizon) from 40 cm BS to the end of excavation at 100 cm BS.

Figure 223. FAI-02030 aerial overview (view to north)

Figure 224. FAI-02030 overview (view to north)

Table 31. FAI-02030 lithic debitage

Test Pit	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
147	15-30	flake fragment	10-20 mm	rhyolite	pale brown	10YR 6/3
147	15-30	flake fragment	10-20 mm	rhyolite	pale brown	10YR 6/3
147	15-30	flake fragment	10-20 mm	rhyolite	yellowish brown	10YR 5/4
147	30-40	complete flake	10-20 mm	chert	dark gray	10YR 4/1
147	30-40	flake fragment	10-20 mm	rhyolite	light gray	10YR 7/2
147	30-40	complete flake	10-20 mm	chert	dark gray	10YR 4/1
151	5	flake fragment	30-40 mm	rhyolite	light gray	10YR 7/2
151	10-25	broken flake	20-30 mm	basalt	grayish brown	2.5Y 5/2

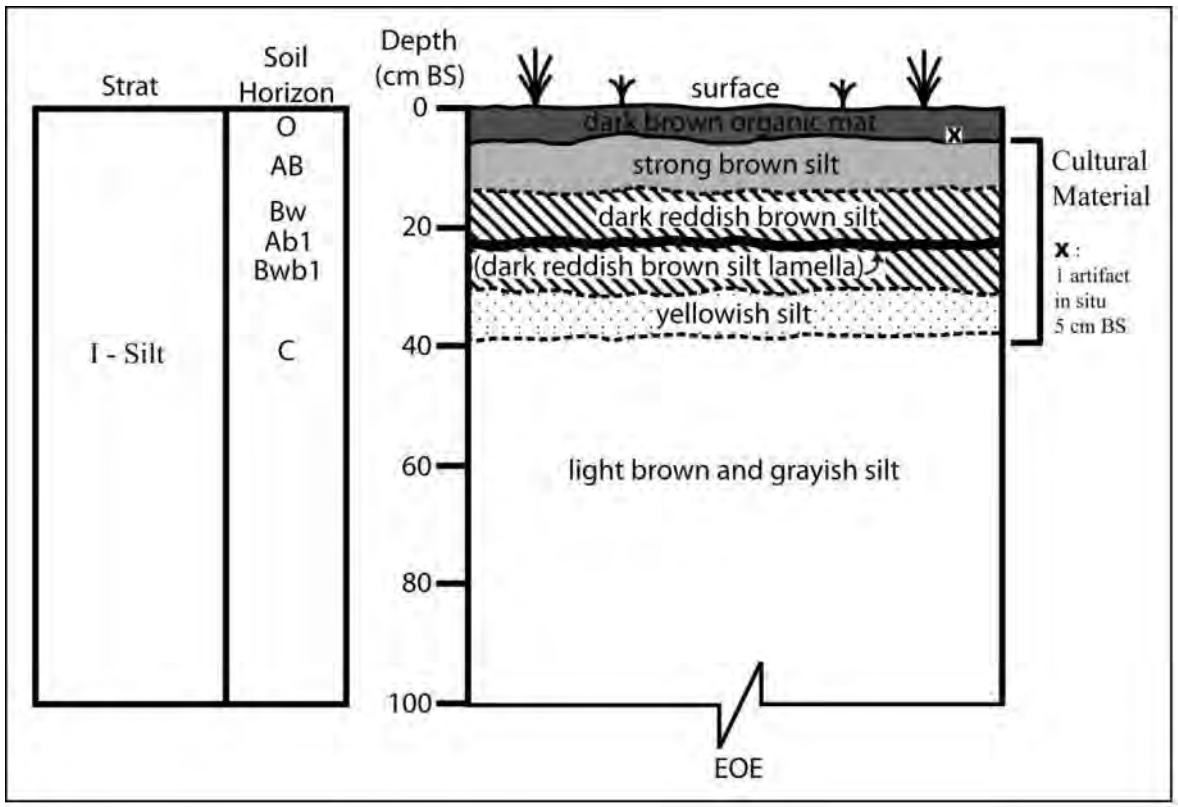

Figure 225. FAI-02030 stratigraphy

FAI-02031
Determination of Eligibility: Not evaluated

Site FAI-02031 is located on the western portion of a low, linear vegetated sand dune (Figure 226). Site elevation is 141 masl. The dune is roughly 75 m east-west, and 30 m north-south in size. The test pit yielding cultural material is situated around 20 m from the western edge of the dune and 3 m from the northern edge in a flat spot that has a slope of roughly 0-3°. The dune slopes steeply (60-70°) on all sides dropping 4-6 m to the flats below. The site area has a good 180° view, with open views of the Wood River Buttes, Alaska Range and flats to the south. The site is covered with thick burnt aspen and spruce deadfall, with only a few scattered stumps still standing (Figure 227). The understory is comprised of mosses, grasses, sedges and forbs.

Site FAI-02031 was found through subsurface testing. Cultural material was recovered from one of two test pits excavated. One dark gray (5Y 4/1) basalt flake fragment, 20-30 mm in diameter was recovered from at depths of 10-20 cm BS. Two small flakes, both of dark gray (2.5Y 3/1 to 5Y 4/1) basalt were recovered from depths of 20-30 cm BS. One of these is a flake fragment, 5-7.5 mm in diameter; the other is a piece of debris 2.5-5 mm in diameter.

Site stratigraphy consists of aeolian silts at least 70 cm thick overlying aeolian dune sands (Figure 228). Soil development consists of dark brown, charcoal-rich organic mat at 0-5 cm BS, with an underlying dark brown silt AB horizon at 5-17 cm BS. A dark reddish brown silt Bw horizon extends from 17-30 cm BS. Unaltered (C horizon) light yellowish gray very fine sandy silt extends from 30 cm BS to the end of excavation at 70 cm BS.

Figure 226. FAI-02031 aerial overview (view to northeast)

Figure 227. FAI-02031 overview (view to north)

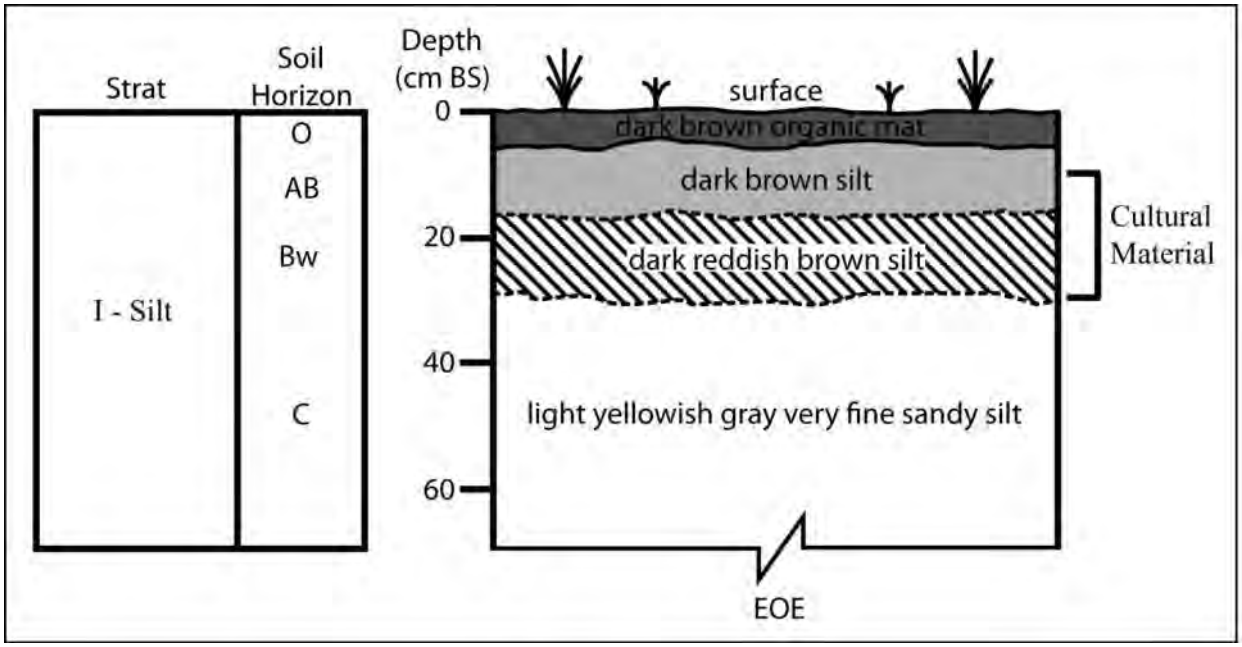

Figure 228. FAI-02031 stratigraphy

FAI-02032
Determination of Eligibility: Not evaluated

Site FAI-02032 is located on the northern portion (Figure 229) of an extensive vegetated compound dune complex. Site elevation is 173 masl. The dune complex extends for roughly 525 m east-west and 225 m north to south, while the site-containing lobe is roughly 140 m east-west, and 60 m north-south in size. Site slope is 3-10°; the northern edge of the landform drops at a 50-60° slope roughly 20 m to the flats below. The site area has a good 180° view, with open views of the flats and Fairbanks hills to the north. Site vegetation consists of mixed needleleaf/hardwood forest with white spruce and aspen and an understory of moss on and low-bush cranberries (Figure 230).

Site FAI-02032 was found through subsurface testing. Cultural material was recovered from three of three test pits excavated. Forty-five pieces of lithic debitage (

Table **32)** and one burin spall (Figure 231) were found at depths of 1-67 cm BS. The burin spall is made of light brown (7.5Y 6/4) rhyolite. It measures 16.1 mm long, 4.8 mm maximum width, and 1.6 mm maximum thickness. It displays two arises, and has no indication of retouch or edge damage.

Site stratigraphy consists of aeolian silts at least 50 cm thick overlying aeolian dune sands (Figure 232). Soil development consists of dark brown, charcoal-rich organic mat at 0-4 cm BS, with an underlying dark brown silt AB horizon at 4-10 cm BS. A dark reddish brown silt Bw horizon extends from 10-19 cm BS. The lower portions of the Bw horizon have a braided, clay and iron-rich lamella that extends from 18-21 cm BS. A dark reddish brown Ab horizon is evident at 21-22 cm BS, with an underlying Bwb at 22-31 cm BS. Unaltered yellow silts (C1) extend from 31-36 cm BS, underneath which are light brown fine sandy silts (C2) from 36-50 cm BS. Yellowish brown, well-sorted medium sands with lenses of well-sorted very fine sands extend from 50-82 cm BS. The basal unit consists of gray well-sorted medium sands (2C) from 80 cm BS to the end of excavation at 130 cm BS.

Figure 229. FAI-02032 aerial overview (view to west)

Figure 230. FAI-02032 overview (view to west)

Figure 231. FAI-02032 burin spall

Table 32. FAI-02032 lithic debitage

TP	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
163	0-10	broken flake	10-20 mm	chert	dark reddish gray	2.5YR 3/1
163	0-10	broken flake	7.5-10 mm	chert	dark reddish gray	2.5YR 3/1
163	0-10	flake fragment	10-20 mm	chert	dark reddish gray	2.5YR 3/1
163	0-10	broken flake	7.5-10 mm	chert	dark reddish gray	2.5YR 4/1
163	0-10	flake fragment	7.5-10 mm	chert	dark reddish gray	2.5YR 4/1
163	0-10	flake fragment	10-20 mm	chert	dark reddish gray	2.5YR 4/1
163	0-10	flake fragment	7.5-10 mm	transl. chert	clear with light gray	2.5Y 7/1
163	10-20	flake fragment	10-20 mm	chert	dark reddish gray	2.5YR 3/1
163	10-20	flake fragment	10-20 mm	chert	dark reddish gray	2.5YR 3/1
163	10-20	flake fragment	10-20 mm	chert	dark reddish gray	2.5YR 4/1
163	10-20	broken flake	5-7.5 mm	chert	dark reddish gray	2.5YR 3/1
163	10-20	broken flake	10-20 mm	rhyolite	light brown	7.5YR 6/4
163	10-20	flake fragment	7.5-10 mm	rhyolite	light gray	10YR 7/2
163	10-20	flake fragment	10-20 mm	rhyolite	light gray	10YR 7/2
163	10-20	flake fragment	10-20 mm	rhyolite	light brown	7.5YR 6/4
163	10-20	broken flake	5-7.5 mm	rhyolite	light yellowish brown	10YR 6/4
163	10-20	flake fragment	5-7.5 mm	rhyolite	very pale brown	10YR 7/4
163	10-20	broken flake	7.5-10 mm	rhyolite	light brownish gray	10YR 6/2
163	10-20	flake fragment	7.5-10 mm	rhyolite	very pale brown	10YR 7/4
163	10-20	broken flake	7.5-10 mm	chert	dark gray	4/N
163	10-20	flake fragment	7.5-10 mm	chert	dark gray	4/N
163	10-20	broken flake	10-20 mm	transl.chert	clear with dark gray	4/N
163	10-20	complete flake	7.5-10 mm	transl.chert	clear with dark gray	4/N
163	10-20	flake fragment	5-7.5 mm	transl.chert	clear with dark gray	4/N
163	10-20	broken flake	7.5-10 mm	transl.chert	clear with dark gray	4/N
163	20-30	flake fragment	5-7.5 mm	rhyolite	light yellowish brown	10YR 6/4
163	30-40	broken flake	10-20 mm	chert	dark gray	2.5Y 4/1
164	0-5	flake fragment	10-20 mm	chert	grayish brown	2.5Y 5/2
165	0-15	complete flake	10-20 mm	rhyolite	brown	10YR 4/3
165	0-15	broken flake	10-20 mm	rhyolite	light brown	7.5YR 6/3
165	0-15	broken flake	10-20 mm	rhyolite	light brownish gray	10YR 6/2
165	15-40	broken flake	30-40 mm	rhyolite	pale brown	10YR 6/3
165	15-40	broken flake	7.5-10 mm	rhyolite	light yellowish brown	10YR 6/4
165	15-40	flake fragment	10-20 mm	rhyolite	brown	10YR 5/3

TP	Depth (cm BS)	Debitage Type	Size Class	Material Type	Color	Munsell Code
165	15-40	flake fragment	10-20 mm	rhyolite	light brown	7.5YR 6/3
165	15-40	broken flake	7.5-10 mm	rhyolite	pale brown	10YR 6/3
165	15-40	complete flake	10-20 mm	chert	very dark gray	3/N
165	15-40	flake fragment	20-30 mm	chert	grayish brown	2.5Y 5/1
165	40-60	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
165	40-60	flake fragment	30-40 mm	chert	gray	5Y 6/1
165	40-60	flake fragment	10-20 mm	chert	gray	5Y 6/1
165	40-60	flake fragment	7.5-10 mm	chert	very dark gray	3/N
165	60-80	flake fragment	10-20 mm	rhyolite	light yellowish brown	10YR 6/4
165	65-67	flake fragment	>40 mm	chert	gray	5Y 5/1
165	unk.	broken flake	10-20 mm	chert	gray	5Y 5/1

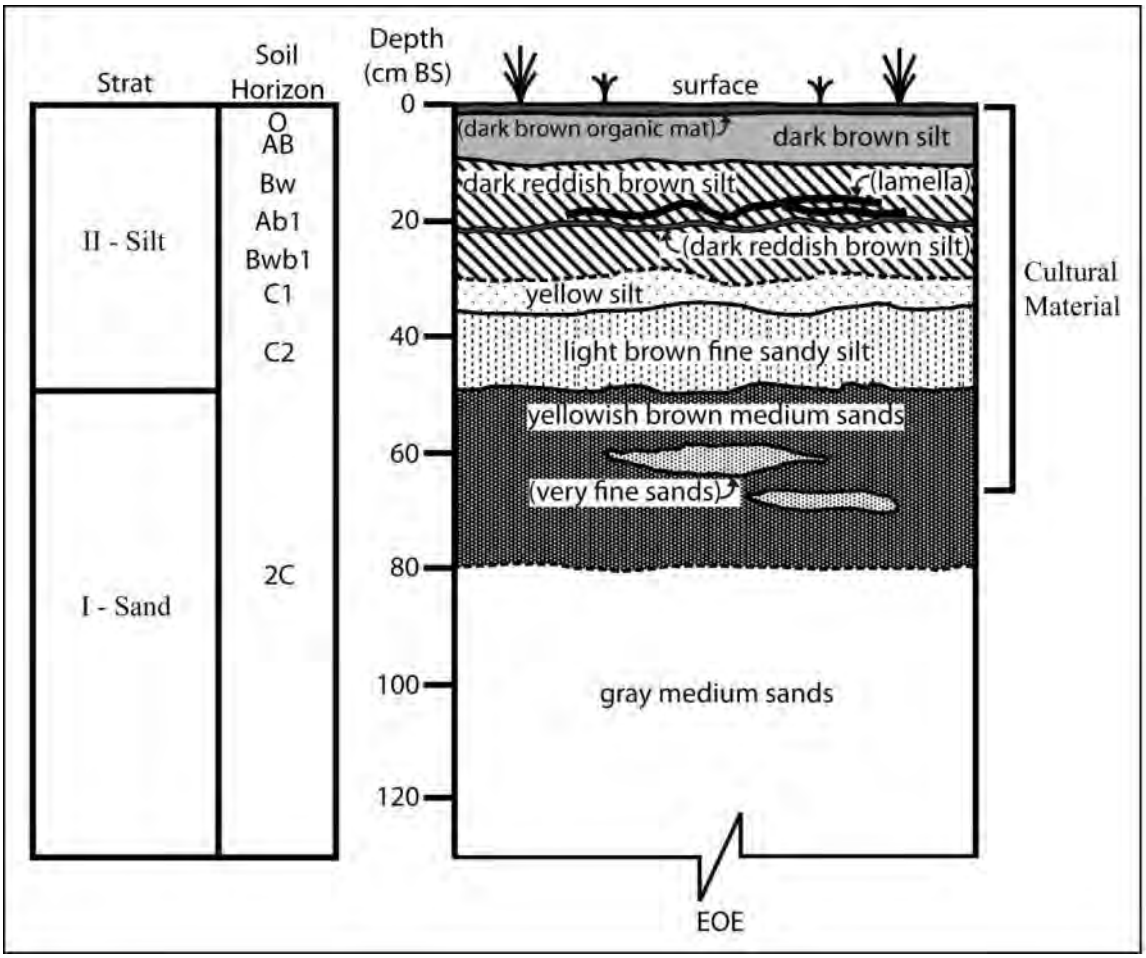

Figure 232. FAI-02032 stratigraphy

FAI-02033
Determination of Eligibility: Not evaluated

Site FAI-02033 is located on a low circular dune (Figure 233) on the southeastern edge of an extensive vegetated compound dune complex. Site elevation is 150 masl. The dune complex extends for roughly 525 m east-west and 225 m north to south, while the site-containing dune has a diameter of roughly 50 m. The site is located on the crest of the dune in a flat area that has a slope of 2-7°. The slopes of the dune drop at roughly 20°, falling round 6-8 m to the flats below. The site area has a good 180° view, with open views of the flats to the east. Site vegetation consists of mixed needleleaf/hardwood forest with white spruce and aspen and an understory of moss on and low-bush cranberries (Figure 234).

Site FAI-02033 was found through subsurface testing. Unequivocal cultural material was recovered from two of six test pits excavated. One very dark gray (3/N) broken chert flake, between 7.5-10 mm in diameter, was found at depths of 20-60 cm BS from one test pit; while a separate test pit yielded a dark gray (5Y 4/1) basalt flake fragment, 10-20 mm in diameter, from depths of 20-30 cm BS. Two additional test pits yielded faunal remains from depths of 5-20 cm BS; however, these were not associated with lithic artifacts, nor did they display and evidence of burning. It remains uncertain if the bones are of a cultural origin.

AMS radiocarbon dating of stratigraphic charcoal found in association (Figure 235) with the artifacts yielded an uncalibrated date of 3960 ± 40 BP (Beta-271219).

Site stratigraphy consists of aeolian silts at least 60 cm thick overlying aeolian dune sands (Figure 235). Soil development consists of dark brown, charcoal-rich organic mat at 0-8 cm BS, with an underlying dark brown silt AB horizon at 8-18 cm BS. A dark reddish brown silt Bw horizon extends from 18-30 cm BS. The lower portions of the Bw horizon have a braided, clay and iron-rich lamella that extends from 24-31 cm BS. A dark reddish brown Ab horizon is evident at 31-34 cm BS, with an underlying Bwb at 34-41 cm BS. Unaltered yellow silts (C1 horizon) extend from 41-49 cm BS. Underlying this is poorly expressed reddish staining indicative of a Bwb2 horizon from 49-52 cm BS. Unaltered light brown silt (C2 horizon) extends from 52-60 cm BS, which is in turn underlain by light brown fine sandy silt from 60-68 cm BS. The basal unit (2C horizon) is a sand layer that extends from 60 cm BS to the end of excavation at 125 cm BS, and is characterized as gray very well-sorted medium sands with lenses of very well-sorted, very fine sands.

Figure 233. FAI-02033 aerial overview (view to northwest)

Figure 234. FAI-02033 overview (view to south)

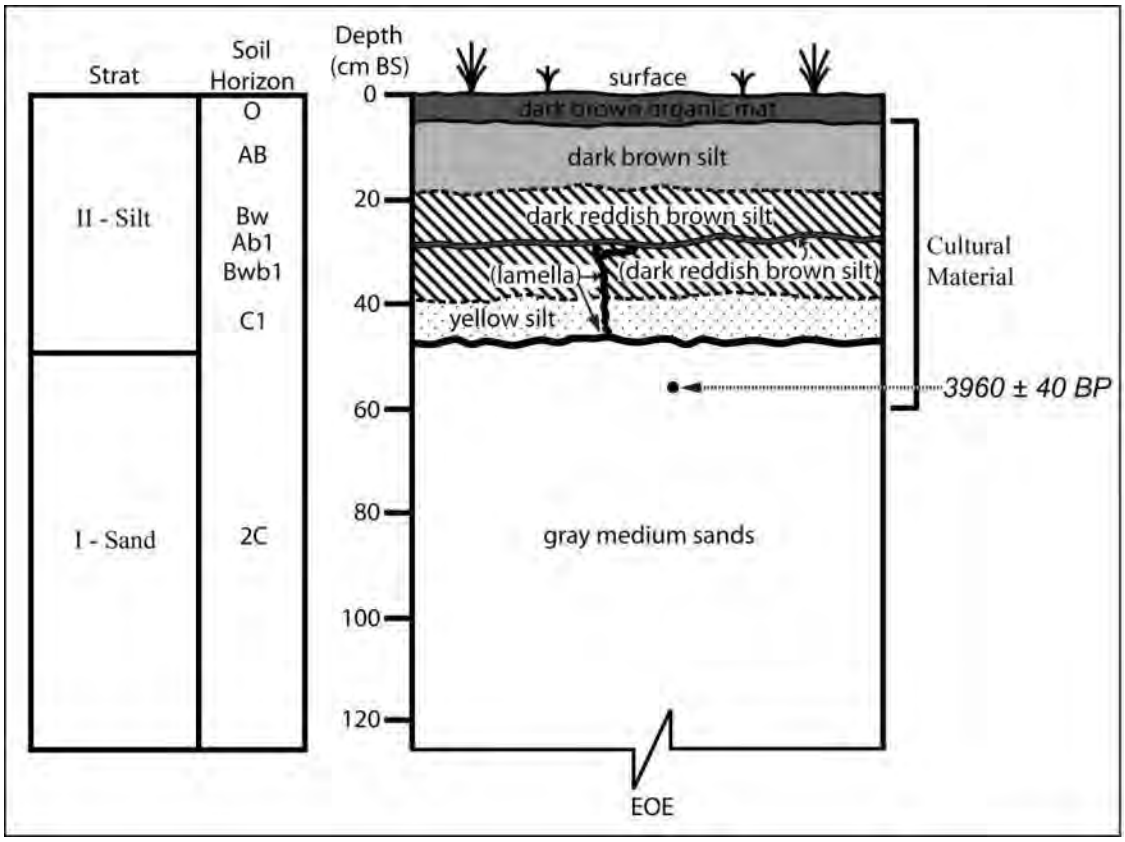

Figure 235. FAI-02033 stratigraphy

Discussion

The 2009 field effort was an initial reconnaissance, guided by an arbitrary strategy designed to obtain a sample of sites across the dune field. Accordingly, the results presented here represent a very limited body of evidence related to the prehistoric occupation of the dunes. Despite its limited nature, the data recovered allows several inferences in terms of prehistoric human behavior, timing of occupation and geologic context of archaeological sites in the dune field.

All of the sites were found in intact, undisturbed buried contexts. Stratigraphy at sites across the dune field is generally uniform and consists of aeolian silts, ranging from 30 to 350 cm thick, overlying aeolian sands. Soil development is characterized by modern OAB horizons to depths of 20 cm. Nearly all (n=22; 88%) of the sites except for three—FAI-02004, FAI-02024, and FAI-02031—exhibit evidence of a buried surface within the upper silt layer. At fourteen sites this comes in the form of an Ab horizon generally found near the base of the modern Bw horizon at depths of 10-30 cm BS. At eight of the sites clay and iron rich lamellae occupy this stratigraphic position. While the genesis of such lamellae in the Tanana Valley is poorly understood (Dilley 1998), recent studies indicate that these represent a buried surface (Johnson and Bozarth 2008) with differential compaction that impedes post-depositional clay and iron translocation. As the clay and iron accumulate on the buried surfaces they then form braided

lamellae. Sands encountered as the basal unit at all of the sites are massively bedded, with no observable evidence of soil formation.

At all of the sites across the dune field, artifacts were found within the upper silt layer. Twenty of the sites yielded artifacts in association with the buried surface described above. Late Holocene ages for these components are estimated based on their stratigraphic position. One radiocarbon date at site XMH-02033 from stratigraphic charcoal found directly below the lamella produced results of 3960 ± 40 BP. Two of the sites—FAI-02010 and FAI-02011—yielded remains from the surface to 5 cm BS, indicating a late prehistoric age. Three sites also produced remains from the basal sand layers. If models for the age and timing of sand deposition and dune formation in the Tanana Valley (e.g. Dilley 1998, Potter et al. 2008) and adjacent Nenana Valley (e.g. Bigelow et al. 1990) hold true for the dunes here, then these components might date to the late Pleistocene or early Holocene.

In terms of technology, the overwhelming majority of lithic flakes (n=452; 87.77%) are small (7.5-20 mm) tertiary pressure flakes (Table 33), indicating that tool maintenance and repair were the major prehistoric flintknapping activities. Microblades were found at four (16%) of the sites—FAI-02007, FAI-02020, FAI-02026, FAI-02029. All of these were either proximal fragments (n=4; 50%) or medial fragments (n=5; 50%) (Table 34). No complete microblades, distal fragments, or cores were found. Bifacial reduction strategies are present in the form of one biface fragment found at FAI-02022, and a fragmentary projectile point from FAI- 02026. Chert (n=231; 43.92%) and rhyolite (n=204; 38.78%) are the predominate raw materials present in the entire sand dune assemblage (Table 35). Other materials present include basalt (n=83; 15.78%), quartz (n=5, .95%), and obsidian (n=3; .57%). All of the obsidian has been sourced to the Batza Tena source on the Koyukuk River more than 400 miles to the north (Appendix 1).

Table 33. Sand dune assemblage flake size classes

size	count	%
0-2.5 mm	1	0.19%
2.5-5 mm	2	0.39%
5-7.5 mm	32	6.21%
7.5-10 mm	177	34.37%
10-20 mm	275	53.40%
20-30 mm	20	3.88%
30-40 mm	7	1.36%
> 40 mm	1	0.19%
total	515	100.00%

Table 34. Sand dune assemblage microblade segments

segment	count	%
proximal	4	50.00%
medial	4	50.00%
distal	0	0.00%
complete	0	0.00%
total	8	100.00%

Table 35. Sand dune assemblage raw materials

material type	count	%
chert	231	43.92%
rhyolite	204	38.78%
basalt	83	15.78%
quartz	5	0.95%
obsidian	3	0.57%
total	526	100.00%

Summary

A total of 25 prehistoric archaeological sites were identified in the vegetated dune field in the northwestern portion of the TFTA. All of these are intact buried sites, with demonstrated integrity, and undisturbed stratigraphy. All of these can yield data for addressing a number of important regional questions, and can provide significant information pertaining to the prehistory of interior Alaska. They are all potentially eligible for inclusion in the NRHP. Sites from dune contexts are relatively rare in the interior of Alaska, underscoring the significance of the sites reported here. If development is planned that will include any portion of the dune field, application of 36CFR800.5 indicates a finding of ~~"h~~historic properties affects." These sites will be avoided through design modification whenever possible. If avoidance is not feasible, consultation with the SHPO and interested Tribal governments will ensue to identify appropriate mitigation measures, prior to the advent of any future construction.

It should be noted that the field efforts conducted during 2009 represent initial reconnaissance and a judgmental sample survey of the area. The overwhelming majority of the vegetated dune field and northwestern portion of the TFTA remains un-surveyed. The recent efforts should not be construed as representing a systematic effort sufficient to meet Section 106 NHPA considerations, or satisfy historic property identification efforts stipulated in 36CFR800.4. In order to meet these legal requirements, full-coverage, systematic archaeological survey of project areas must be factored into future range development plans. This point is underscored by the high number of known sites in the area, and density of archaeological remains identified as part of the recent survey. The sample of sites obtained as part of these efforts demonstrates the likelihood of a large number of additional significant archaeological sites in the area.

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APPENDIX 1: Obsidian Analysis

Obsidian is an exotic lithic material, the particular characteristics of which allow for chemical source determinations. During May 2009, USAG FWA submitted six samples from four separate sites (FAI-00197; FAI-02001; FAI-02025; FAI-02029;) for source analyses. Analyses consisted of X-ray fluorescence (XRF) spectrometer (for a full discussion of the methods employed see Slobodin and Speakman 2008). The analyses were conducted at the University of Alaska Museum of the North by Chris Houlette.

Table 36. Obsidian source characterization 2009

AOD_Number	Site Number (AHRS)	Catalog Number	K	Mn	Fe	Zn	Ga	Th	Rb	Sr	Y	Zr	Nb	Source_Provisional
AOD-06573	FAI-00197	FAI-00197 1	41518	520	5012	17	19	27	183	4	38	91	23	Batza Tena
AOD-06574	FAI-00197	FAI-00197 2	36002	331	7503	15	15	13	93	81	22	134	10	Wiki Peak
AOD-06575	FAI-02001	FAI-02001 1	55139	590	5497	29	22	33	202	3	36	90	23	Batza Tena
AOD-06576	FAI-02025	FAI-02025 1	54936	504	6229	19	19	24	183	8	31	95	18	Batza Tena
AOD-06577	FAI-02029	FAI-02029 1	55418	460	6272	28	20	27	184	9	29	92	18	Batza Tena
AOD-06578	FAI-02029	FAI-02029 2	55419	554	6936	36	21	29	201	5	34	93	22	Batza Tena