Section 110 Report
Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands, 2012

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List of Acronyms

AAL – Arctic Aero medical Laboratory
AFB – Air Force Base
ALSIB – Alaska Siberia
AHRS – Alaska Heritage Resources Survey
APE – Area of Potential Effect
ASRA – Alaska Summer Research Academy
BAX – Battle Area Complex
BP – Years before Present
BRTA – Black Rapids Training Area
CACTF –Command Action Center Tactical Facility
CEMML – Center for Environmental Management of Military Lands
cm - centimeters
cmbs – centimeters below surface
CRM – Cultural Resources Manager
CRREL – Cold Regions Research and Engineering Laboratory
CRTC – Cold Regions Test Center
DOE – Determination of Eligibility
DTA – Donnelly Training Area
FAI – Fairbanks
GRTA – Gerstle River Training Area
ICRMP – Integrated Cultural Resources Management Plan
m – meter
masl – meters above sea level
mm – millimeter
MOA – Memorandum of Agreement
NHPA – National Historic Preservation Act
NLUR– Northern Land Use Research, Inc.
NRHP – National Register of Historic Places
PA – Programmatic Agreement
PDZ – Potential Development Zone
SDZ – Surface Danger Zone
SHPO – State Historic Preservation Officer
STP – shovel test pit
TFTA – Tanana Flats Training Area
UAMN – University of Alaska Museum of the North

USACE – U. S. Army Corps of Engineers
USARAK – U. S. Army Alaska
USARAL – U. S. Army Alaska (historic)
USGS – U. S. Geological Survey
UTM – Universal Transverse Mercator
XBD – Big Delta
XMH – Mt. Hayes
YTA – Yukon Training Area

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Introduction

Section 110 of the National Historic Preservation Act (NHPA: 16 U.S.C. 470) states that every federal agency must establish a preservation program for the identification, evaluation, and nomination of sites to the National Register, and for protection of historic properties. Although Army Regulation 200-1 requires full compliance with federal law, most Section 110 inventories and evaluations in Army training lands take place in coordination with Section 106 reviews of project undertakings. In recent years, Fort Wainwright's Cultural Resources Manager (CRM) has begun a consultation process with Range Control at Fort Wainwright and Donnelly Training Area (DTA) to establish potential development zones (PDZs) based upon projected training needs. These PDZs are located in the large tracts of military managed land outside Fort Wainwright's Main Post cantonment area with no immediate undertakings, but regions that the Army plans to develop in the 2-10 year time range. Identification of PDZs has allowed the CRM to focus archaeological survey efforts, in addition to 106 projects, in the areas of Fort Wainwright's 1.6 million acres considered most critical.

The purpose of this report is twofold. First, it provides information on survey locations and archaeological site discoveries in Fort Wainwright and its training lands during 2012 that were not associated with Army undertakings and therefore not seen by the SHPO in Section 106 letters. Second, it summarizes all survey efforts by the Army's cooperative partner, Colorado State University's Center for Environmental Management of Military Lands (CSU-CEMML), since 2002 and lists all known sites managed by Fort Wainwright.

All archaeological fieldwork was conducted by CEMML employees under the direct supervision of Julie Esdale, Ph.D., an archaeologist meeting the professional standards outlined in the Secretary of the Interior's "Professional Qualifications Standards" as defined in 36 CFR §61. Three crews comprised of three to five archaeologists conducted the fieldwork. Architectural historians, Natalie Loukianoff, M.Sc., and historical archaeological archaeologist Mary Ann Sweeney, M.A, wrote and/or reviewed all of the material on historic cabins and historic artifacts.

Setting and Environment

Fort Wainwright consists of the Main Post cantonment area and associated training lands, which include three main areas: the Yukon Training Area (YTA), the Tanana Flats Training Area (TFTA), and the Donnelly Training Area (DTA). These are located in central Alaska, north of the Alaska Range in the Tanana River Valley (Figure 1). The post lies 120 miles south of the Arctic

Circle near the cities of Fairbanks and North Pole in the Fairbanks North Star Borough. Fort Wainwright has the northern continental climate of the Alaskan Interior, characterized by short, moderate summers; long, cold winters; and little precipitation or humidity. Average monthly temperatures in Fairbanks range from -11.5° F in January to 61.5° F in July, with an average annual temperature of 26.3° F. The record low temperature is -66° F and the record high is 98° F. Average annual precipitation is 10.4", most of which falls as rain during summer and early fall. Average annual snowfall is 67", with a record high of 168" during the winter of 1970-71 (Natural Resources Branch 2002).

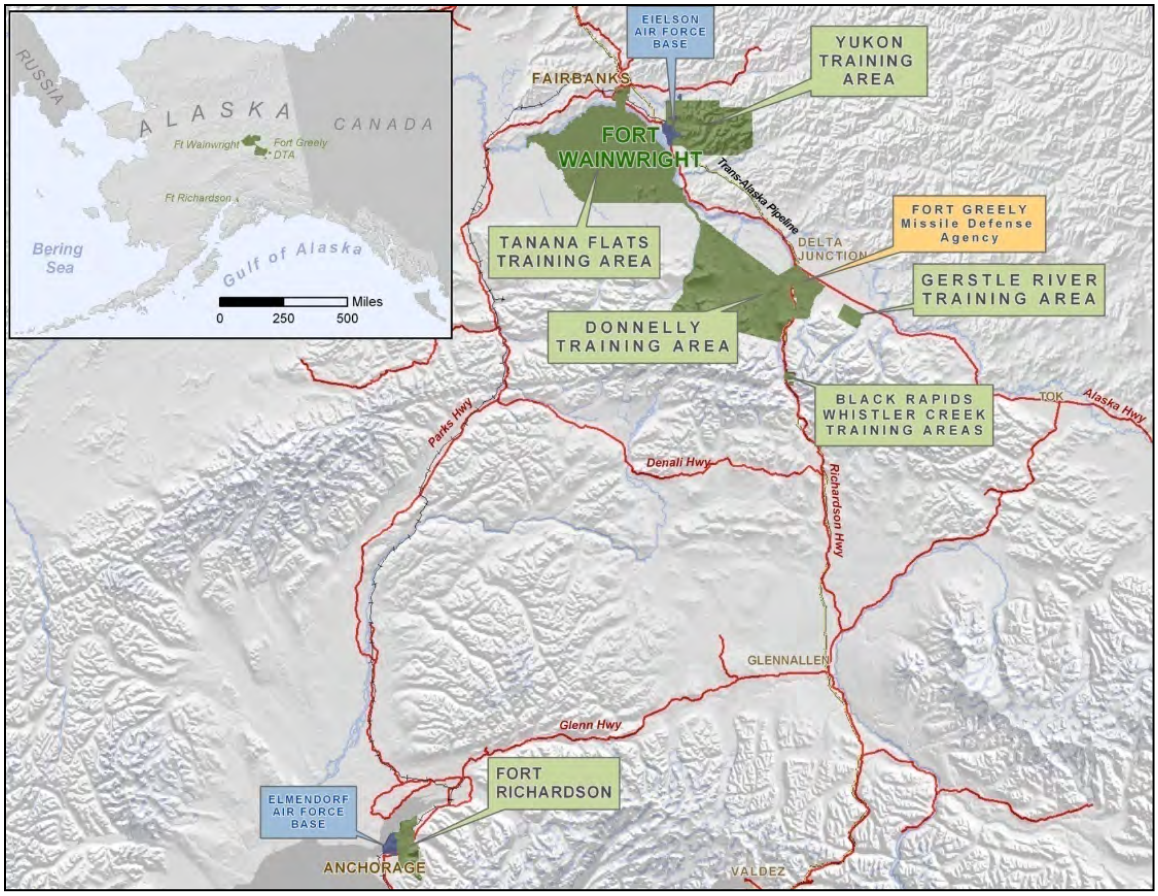

Figure 1. Fort Wainwright training lands.

Prehistoric Context

Interior Alaska has been continuously inhabited for the last 14,000 years, and evidence of this continuum of human activity has been preserved within and around Fort Wainwright's training lands. Interior Alaska's ice-free status during the last glacial period provided a corridor connecting the Bering Land Bridge and eastern Asia to North America. This allowed small bands of nomadic peoples to colonize Alaska and the rest of the continent and began a period of habitation in Interior Alaska that has persisted through the entire Holocene, the arrival of

European traders in the late 1810s, the Klondike Gold Rush of the late 19th and early 20th centuries, and the military development of the Interior during the middle of the 20th century. Fort Wainwright's cantonment and training lands comprise a vast and still relatively unsurveyed region with areas of high potential for yielding evidence of this activity.

Alaska has long been regarded as the gateway to the Americas and has held archaeological interest as the possible location for the oldest archaeological sites in the New World. This is due to more than Alaska's proximity to Asia and ice-free condition at the end of the Pleistocene. Similarities between archaeological assemblages in Siberia and Alaska and the discovery of lanceolate projectile points in the muck deposits around Fairbanks in the early 1900s (which bore a resemblance to Clovis points of some antiquity in the American Southwest) also sparked interest in Alaska as a source area for all Native Americans.

After initial colonization, archaeologists generally divide Interior Alaska's prehistory into three broad archaeological themes: the Paleoarctic Tradition (12,000-6,000 years ago[1]), the Northern Archaic Tradition (6,000-1,000 years ago), and the Athabaskan Tradition (1,300-800 years ago) (Potter 2008). Archeological materials from these cultures are generally limited to lithic artifacts such as projectile points, cutting tools, scrapers, waste flakes from tool manufacturing, faunal remains, and hearths.

Reconstructions of paleoecological evidence suggest that the end of the Pleistocene was marked by a warming trend in Interior Alaska that may have contributed to initial colonization of the area (Bigelow and Powers 2001). Several sites in areas surrounding Army lands demonstrate that people began living in Interior Alaska 14,000 years ago. Significant sites in the Tanana Valley dating between 14,000-12,000 years ago include Healy Lake (Cook 1996), Walker Road (Goebel et al. 1996), Swan Point (Holmes et al. 1996), Mead (Holmes 2001), and Broken Mammoth (Holmes 1996). There are no sites in Alaska, however, that predate the oldest sites in the contiguous United States, nor do Alaska's oldest sites resemble the Clovis culture (Bigelow and Powers 2001). The Younger Dryas cooling event from 13,000-12,000 years ago may have led to a temporary population decline (Potter 2008) in the Interior before permanent colonization.

The Paleoarctic Tradition is a term now generally used by archaeologists to refer to the earliest settled people known from all over Alaska. It was originally defined by Anderson[2] (Anderson 1968, 1970) as the earliest microblade-using tradition in the American Arctic, with a proposed relationship to northeast Asian, late Pleistocene cultures based on similarities in these distinctive artifact types. Archaeological evidence indicates that early settlers camped on

[1] All dates are given in calendar years *before present*.
[2] Anderson called it the "American Palaeoarctic Tradition," but most researchers use the shortened version.

terraces, lakeshores, buttes, and bluffs. By using these locations on high ground, they could locate and track prey that included large mammals such as mammoth and bison. Evidence from the Upward Sun River Site, located just 5 km southeast of TFTA, for example, demonstrates that hunter-gatherers in Interior Alaska were concentrating on bison and wapiti at the end of the Pleistocene (The Upward Sun River Site is also known for one of the earliest burials in the Americas [Potter 2008; Potter et al. 2008; Potter et al. 2011]). It is likely that the treeless environment and nomadic nature of these peoples had a direct impact on the kinds of tools they fashioned. Stone, bone, antler, and ivory provided the most abundant material for manufacturing weapons and cutting tools. Artifacts typically associated with this culture include small stone microblades, microblade cores, bifacial projectile points, and unifacial scraping tools.

In Interior Alaska, this tradition historically included two cultural divisions called the Nenana and Denali complexes. The Nenana Complex was identified by Powers and Hoffecker from sites in the Nenana Valley (Powers and Hoffecker 1989). This complex began approximately 11,000 years ago with an artifact assemblage that included triangular or teardrop-shaped, bifacially worked projectile points ("Chindadn" points [Cook 1969, 1975; Holmes and Cook 1999]); large unifacial chopper-like tools; and flake tools. The Nenana Complex is defined as lacking microblades, microblade cores, and burins, and was proposed to predate the microblade-rich Denali Complex. Many Nenana Complex archaeological sites are located in the Tanana Valley, adjacent to Fort Wainwright training lands (Broken Mammoth [Holmes 1996; Yesner et al. 1999], Chugwater [Lively 1996], Donnelly Ridge [West 1967, 1996; Donnelly Ridge is located in DTA], Healy Lake [Cook 1989], Mead [Holmes 2007] and Swan Point [Holmes et al. 1996; Holmes 1998, 2007]).

The Denali Complex, dated roughly to 10,500 to 8,000 years ago, was originally defined by West (West 1967, 1975) and includes distinctive wedge-shaped microblade cores, core tablets and their derivative microblades, large blades, biconvex bifacial knives, certain end-scraper forms, and burins. West later defined the Denali Complex as a regional variant of the American Paleoarctic Tradition (West 1981). Denali sites in the vicinity of Fort Wainwright's training lands include Mt. Hayes (West 1996), Swan Point (Holmes et al. 1996; Holmes 1998, 2007), and Gerstle River (Potter 2001). At least one site in TFTA (FAI-02043) has also been dated to this period.

The relationship between the proposed Nenana and Denali complexes is as of yet unresolved. As discussed above, some researchers view the Nenana Complex as a bifacial industry that predates the microblade-based Denali Complex. However, current research at sites such as Swan Point and Broken Mammoth indicates that microblades and burins were used by the earliest known cultures in Interior Alaska, with a later co-occurrence with Chindadn points—the

defining artifact type of the Nenana Complex. Although some archaeologists still believe that there is a cultural distinction between the Nenana and Denali complexes (e.g., Dumond 2001), the general understanding from Interior Alaskan archaeologists is that there is a behavioral explanation for the presence or absence of microblades in different assemblages (Holmes 2001; Potter 2008; Yesner and Pearson 2002). Moreover, both Nenana and Denali technology persist in central Alaska throughout the Holocene (Bever 2006).

Site density declined in the areas around Fort Wainwright in the early Holocene, suggesting a slight depopulation during a period of climate change that initiated the widespread establishment of spruce forests (Potter 2008). The boreal forest in Interior Alaska was established by 8,000 years ago (Bigelow and Powers 2001). Sites from this time period are less well publicized than the older sites, but include Houdini Creek (circa 8,600 years old), Hurricane Bluff (c. 9,800 years old), Lucky Strike (c. 8,500 years old), Gerstle River (c. 10,000 years old), and the Campus Site (c. 7,700 years old) (Pearson and Powers 2001; Potter et al. 2007; Potter 2008). Bison, wapiti, and birds were the most important subsistence game during this period (Potter 2007, 2008).

Site density increased again after about 6,000 years ago in Interior Alaska (Potter 2008). This population increase coincides roughly with the Northern Archaic Tradition and the appearance of side-notched projectile points. Anderson originally defined the Northern Archaic Tradition to specifically address notched point-bearing stratigraphic horizons that did not contain microblades at the Onion Portage site in northern Alaska (Anderson 1968). Alaskan notched points were generally similar to Archaic-age dart points in the contiguous United States. Time has shown middle Holocene assemblages in Alaska to be quite diverse, however, and it is questionable whether this trait is related to southern forms or if it is a reliable indicator of cultural affiliation (Clark 1992; Cook and Gillespie 1986). Artifact assemblages associated with this culture can vary but generally contain myriad tools ranging from bifacial knives and microblades to end scrapers and side-notched points. Middle Holocene hunter-gatherers had a subsistence economy focused on seasonally abundant game including caribou, fish, and moose (Potter 2008). Notched point assemblages occur in many sites in Interior Alaska, including over one dozen on Army lands (XBD-00277, XMH-00277, XMH-00283, XMH-00303, XMH-00309, XMH-00874, XMH-00950, XMH-01130, XMH-01168, XMH-01300.) Several sites (XBD-00270, XMH-00915, XMH-00925), including the excavated Banjo Lake site in DTA (XMH-00874), have also produced middle Holocene dates from hearth charcoal. The 6,300-6,700-year-old dates from Banjo Lake were also associated with a microblade component (Robertson et al. 2008).

Utilization of microblade and burin-based industries appears to continue through the middle and late Holocene in Interior Alaska (Esdale 2008; Potter 2004). By the late Holocene, archaeologists see a shift from seasonal large mammal hunting with a nomadic lifestyle to a

focus on seasonally over-abundant resources, use of storage, and more permanent settlements (Potter 2008b). Artifact assemblages do not drastically change until the last millennium of the Holocene when microblades disappear from the archaeological record (Potter 2008).

Linguistic evidence suggests that the Athabaskan culture may have appeared in the Tanana Valley as early as 2,500 years ago. Through ethnography, oral history, and a broad array of cultural items, much has been learned about Athabaskan culture and history in the region. Artifacts associated with the Athabaskan culture are exceptionally diverse and include bone and antler projectile points, fishhooks, beads, buttons, birch bark trays, and bone gaming pieces. In the Upper Tanana region, copper was available and used in addition to the traditional material types to manufacture tools such as knives, projectile points, awls, ornaments, and axes (Clark 1981). A late prehistoric Athabaskan occupation is recognized at several sites in and around Fort Wainwright's training lands (Andrews 1975; Andrews 1987; Cook 1989; Mishler 1986; Sheppard et al. 1991; Shinkwin 1979; Yarborough 1978). Of particular interest in this regard is a copper projectile point recently found in a buried context at DTA (XBD-00272) (Robertson et al. 2009).

The Athabaskan Tradition includes late prehistoric and proto-historic cultures generally believed to be the ancestors of Athabascan tribes who currently inhabit Interior Alaska. Excavated Athabaskan sites are rare, but the limited body of evidence allows for several generalizations. Raw material usage was reorganized in the Athabaskan Tradition, which de-emphasized stone tool-making and increased the emphasis on the manufacture of items from native copper and organic materials (Dixon 1985). Assemblages include ground and pecked stone artifacts and an increased use of expedient tools. There was a broadening and diversifying of the resource base at this time to include small mammal and freshwater marine animals such as fish and mollusks (McFadyen Clark 1981; McFadyen Clark 1996; Ream 1986; Sheppard et al. 1991; Shinkwin 1979). Athabaskan sites tend to occur in resource-rich areas near lakes, streams and rivers and are generally characterized by large house pit and cache pit features. Proto-historic Athabaskan assemblages include Euro-American trade goods such as glass beads and iron implements. Sites of this time period reflect an increased reliance on outside trade and include log cabins co-occurring with traditional house pits, as well as a change in site location to maximize trading opportunities (Andrews 1975; Andrews 1977; Andrews 1987; McFadyen Clark 1981; VanStone and Goddard 1981).

Athabascan settlement patterns depended greatly on the availability of subsistence resources, and Interior bands lived a nomadic lifestyle. They often traversed vast areas to support themselves and spent considerable time engaged in subsistence activities. It was often necessary for bands to divide into smaller groups to find game, and preserved fish were used as a staple of the diet in addition to fresh game (Andrews 1975).

Four Athabascan linguistic and geographic groups have inhabited the Tanana Valley: the Upper Tanana, Tanacross, Tanana and Koyukon. Each group is further distinguished according to geographic location. Bands of the Tanana and Tanacross groups are historically associated with the geographic area that embodies Forts Wainwright and Greely. Salcha, Chena, Wood River, Goodpaster, and Healy Lake bands have inhabited the region since protohistoric times and possibly even prehistoric times (Andrews 1975). Use of the region varied from one band to the next. The Salcha, Chena, Goodpaster, and Wood River bands of the Tanana Athabascans and the Healy Lake band of the Tanacross Athabascans used certain parts of what are now Forts Wainwright and Greely (McKennan 1981). Several villages have been reported on or near Fort Wainwright. One occupied by the Wood River band is said to have been located in the southern part of Fort Wainwright but has not been found (Dixon 1980; Reynolds 1986). The Blair Lakes Archaeological District (FAI-00335) on Fort Wainwright may relate to the prehistory of the Athabaskan Tradition. Euro-American historic archaeological sites are also present (Gamza 1995; Phillips 1984).

Historic Context

With the beginning of Euro-American contact in Interior Alaska in the early 19th century, trade influences and influxes of new populations began to change life in the region. Land use patterns shifted from traditional indigenous uses to activities based on Euro-American economic and political systems. Fort Wainwright's training lands fall within an area occupied at the time of Euro-American contact by Lower-Middle Tanana Athabascans, including bands described generally as the Salcha, Big Delta-Goodpaster, Wood River, and Chena bands (McKennan 1981; Andrews 1975; Mishler 1986). Historical accounts document traditional settlement patterns that were focused on a widely mobile seasonal round, with the fall caribou hunt playing a pivotal role in subsistence preparations for the winter and summer activities focused at fish camps, berry and root collecting, and in sheep hunting. These activities were frequently communal, with several local bands connected by common interest, geography, and intermarriage. Despite anthropological attempts to define boundaries for the peoples living in the lower Tanana River Valley, natural terrain served as the only definable boundary to settlement patterns (McKennan 1981).

As Euro-American traders, miners, missionaries, and explorers moved into the Tanana River Valley, the traditional life ways of local Athabascan groups were disrupted. Access to trade goods and the development of the fur trade not only affected traditional material culture, but also began to dramatically affect subsistence activities and settlement patterns. Similarly, the arrival of missionaries in the Alaskan Interior profoundly influenced traditional social organization. The introduction of mission schools for Native children and the doctrine of new religious beliefs contributed to an erosion of traditional practices (McKennan 1981).

Russian fur traders began settling Interior Alaska starting in the 1810s, establishing a post at Nulato on the Yukon River and one at Taral on the Copper River. British traders established Fort Yukon in 1847. Trade goods from these posts may have passed to Tanana Athabascans and Upper Tanana Athabascans through intra-Native trade networks. Direct contact between Tanana Athabascans and white traders increased after the 1860s. With the U.S. purchase of Alaska in 1867, control of trading stations and the fur trade passed to Americans. Through the 1880s, American traders established several additional posts on the Yukon and Tanana rivers, including locations at Nuklukayet (modern-day Tanana), Belle Isle (modern-day Eagle), and Fort Yukon.

Trade goods introduced by Euro-American settlers influenced the Native lifestyle. Clothing, staples, tools, and other necessities could be obtained through trade. Guns allowed hunters to obtain game with greater efficiency. Gradually, Athabascan Native groups began to alter their traditional nomadic patterns in favor of more permanent settlements. However, while significant, this contact would not have as dramatic an impact on the region as the discovery of gold in the Interior during the last decades of the 19th century. The towns established by Euro-American settlers at the turn of the 20th century, in response to the Klondike Gold Rush and the eventual military development of the region, would rapidly and permanently change the demography and economy of Interior Alaska.

Gold strikes in the Fortymile River region, Birch Creek area, and the Canadian Klondike began drawing miners and prospectors north in the 1880s and 1890s. In response to this gold rush, E.T. Barnette established a trading post on the Chena River in 1901. The following year, prospector Felix Pedro discovered gold nearby, and a new gold rush soon led to the founding of Fairbanks at the site of Barnette's original trading post. Most mining activities in the region occurred on creeks north of Fairbanks, with the town serving as a supply center. Agricultural and other commercial activities, such as logging, also developed to support mining activities in the Fairbanks area. Homesteads existed on parts of what is today the main post of Fort Wainwright as early as 1904.

In 1898, the discovery of gold in the Tanana uplands began a rush of Euro-American settlement into the Tanana River Valley. As the economic importance of the Tanana Valley increased, the need for reliable transportation routes and communication systems rose in tandem. Existing trails, such as the Bonnifield, Donnelly-Washburn, and Valdez-Fairbanks trails, saw increased use and development in the first decade of the 20th century. This increase in activity also resulted in the establishment of several roadhouses and posts. In 1906, Congressional appropriations led to improvement of the Valdez-Fairbanks Trail, crossing the Alaska Range south of Delta Junction, following the Tanana River to Fairbanks. Completion of the Alaska

Railroad in 1923 was followed two decades later by construction of the Alaska Highway in 1942, firmly tying the Alaskan Interior to the outside.

As Fairbanks grew in the first decade of the 20th century, several agricultural homesteads were developed on lands now encompassed by sections of the Fort Wainwright cantonment. These homesteads provided Fairbanks with a variety of agricultural products and wood for fuel but were subsumed when lands were withdrawn for the creation of Ladd Field, which later became Fort Wainwright (Price 2002).

Riverboats were the primary means of getting people and supplies into the Interior at the turn of the 20th century. The Fairbanks town site was located at the upper limit of navigation for stern-wheeler riverboats on the Chena River. Upriver from that point, residents navigated the river using shallow-draft boats in summer and sleds in winter. As commerce in the area increased, roads and trails were constructed, sometimes following earlier indigenous routes. The major overland route to the coast was the Valdez-Fairbanks Trail, which began as a military trail from Valdez to Eagle in 1899.

Transportation and communication networks, including the Alaska Railroad, were developed to serve new settlements in Interior Alaska. A branch of the railroad route was extended to Fairbanks in 1904. Roadhouses along the route catered to travelers. Some were located on what are now Fort Wainwright training lands. One property was on the Bonnifield Trail in TFTA, and two roadhouses and a seasonal tent operation existed along the Donnelly-Washburn Trail in the current DTA. Secondary routes connected Fairbanks to the surrounding mining districts.

By 1910, most of the easily accessible placer gold deposits were exhausted, and capital-intensive technologies became necessary to extract remaining deposits. These methods were not possible with the existing transportation infrastructure. The completion of the Alaska Railroad in 1923 expanded transportation options for the region, connecting Fairbanks to Seward and making large-scale dredging operations economically feasible. Aviation also became a key component of Interior transportation, beginning in earnest in the 1920s. However, it was not until 1931 that Weeks Field, originally constructed in 1923, was officially dedicated as an airfield. Industrialized corporate activity became the hallmark of the region's mining in the remaining years before World War II.

Development in the Alaskan Interior increased dramatically with the advent of World War II and subsequent military build-up in Alaska. Of particular significance was the development of airfields near Delta Junction (Fort Greely), Fairbanks (Ladd Field, later Fort Wainwright), and North Pole (Eielson Air Force Base). These locations began as Lend-Lease bases and cold

weather testing centers, but soon expanded with the increased need for military support during World War II and later during the Cold War.

Full historic contexts of early mining, transportation, and homesteads on Fort Wainwright have been completed. These studies have determined that there are no properties eligible for the National Register under these contexts. Several village sites associated with the early contact period have been reported near Fort Wainwright. One was reported near Wood River Buttes, two just northwest of the installation's boundary and one near Fairbanks (Reynolds 1986). None have been reported or located on the Main Post.

Ladd Field National Historic Landmark

In 1935, Ladd Field was authorized as a small cold weather testing station that was envisioned by General H. H. Arnold. Construction began in 1939, and, by 1940, Ladd Field was operational.

Cold weather testing at Ladd Field helped to improve the aircraft and equipment used by front-line aircrews. The Cold Weather Test Detachment's experimental tests contributed to the development of aircraft design, ground procedures and personnel equipment with stateside research agencies and manufacturers. After the start of World War II, Ladd Field also served as the transfer point for the Alaska Siberia (ALSIB) Lend-Lease aid to the Soviet Union. From 1942 to the end of the war in 1945, Ladd Field saw 7,926 aircraft and associated cargo change hands. Though it was controversial, the Lend-Lease aid to the Soviet Union played some part in the eventual defeat of Nazi Germany. Ladd Field also served as an air depot for the repair and supply of aircraft under the Air Transport Command, processing thousands of passengers as well as tons of cargo and mail.

In 1984, Ladd Field was listed on the National Register of Historic Places. Ladd Field was listed as significant for three main themes: (1) cold weather testing; (2) aircraft repair, supply depot and air transfer hub; and (3) as the transfer point for aircraft and cargo transiting the ALSIB route to the Soviet Union.

Ladd Air Force Base Cold War Historic District

In 1947, the Air Force became a separate service, and Ladd Field became known as Ladd Air Force Base (AFB). Missions flown out of Ladd AFB played a significant role in the early years of the Cold War confrontation with the Soviet Union. Early in the Cold War, military planners decided on a heartland concept for Alaskan defense, concentrating on bases near Anchorage and Fairbanks as the strategic anchor points. Ladd AFB became the Northern Sector Headquarters for the Alaskan Air Command, and its foremost missions during the Cold War were air defense, strategic reconnaissance and arctic research.

Ladd AFB's air defense mission was part of the plan to deter the Soviet Union from taking Alaskan territory and using it as a base from which to threaten the continental United States. Ladd AFB hosted tactical fighter intercept squadrons and combat alert cells. An Air Defense Command Center located on Ladd AFB was responsible for directing air battles in Alaska's northern sector. It also provided support to segments of the Distant Early Warning Line. In the earliest years of the Cold War, Ladd AFB hosted some of the first long-range strategic aerial reconnaissance units.

Ladd AFB was also the scene of significant Cold War arctic research. The cold weather equipment testing, begun during World War II, continued through the Cold War and expanded to include the Arctic Aeromedical Laboratory (AAL). The AAL studied human adaptation to arctic and sub-arctic climates with an eye toward military applications.

In 2001, the Ladd AFB Cold War Historic District was determined eligible for the National Register of Historic Places. It was determined to be significant for its role in the early Cold War missions of the 46th/72nd Air Reconnaissance unit and for the fighter intercept squadrons stationed here.

Fort Wainwright

In 1960, Ladd AFB was transferred to the Army and was renamed Fort Jonathan Wainwright on January 1, 1961. In Alaska, Cold War missions were predominately under the command of the Air Force, with the Army providing ground force defense and logistical supply. The Army also carried out cold weather training tactics and cold weather equipment testing. The onset of the Vietnam War and its high costs drained the Army's resources; troops at Wainwright were reassigned or deployed, causing a significant decrease in the post's population. In 1986, the mission of the post changed once again with the assignment of the 6th Light Infantry Division to Fort Wainwright. Since 1986, Fort Wainwright's mission has been to support worldwide deployment.

Status of Archaeological Resources

Archaeological research on Fort Wainwright training areas has resulted in numerous technical reports (Bacon 1979; Bacon and Holmes 1979; Dixon et al. 1980; Esdale and Robertson 2007; Esdale et al. 2012a, 2012b, 2012c; Espenshade 2010; Bradley et al. 1973; Gaines 2009; Gaines et al. 2010, 2010; Hedman et al. 2003; Higgs et al. 1999; Holmes 1979a, 1979b; Johnson and Bozarth 2008; Marshal 2007; Potter 2005; Potter et al. 2000; Rabich and Reger 1978; Raymond-Yakoubian 2006; Raymond-Yakoubian and Robertson 2005; Robertson 2009, 2010; Robertson et al. 2004, 2006, 2007, 2008, 2009; Staley 1993) and several scientific papers (Holmes and Anderson 1986; West 1967, 1975).

Fort Wainwright and its training lands contain 640 known archaeological sites and 4 archaeological districts. Fifty-nine sites are eligible for the National Register of Historic Places (NRHP), 509 sites have not been evaluated, and 72 additional sites have been determined ineligible for the NRHP. Of the eligible or un-evaluated sites, 11 are historic sites and 557 are prehistoric sites.

Archaeological surveys of the Fort Wainwright Main Post area began in 1979. Jim Dixon surveyed the north side of the Chena River and Birch Hill area, discovering and relocating several prehistoric archaeological sites (FAI-00040, 00041, 00042, 00043, 00199, and 00200) (Dixon et al. 1980). Surveys of the Main Post building areas continued in the 1980s by Julia Steele (Steele 1992, 1983) and Georgeanne Reynolds (Reynolds 1983, 1985). No sites were found in these previously disturbed areas. John Cook surveyed the River Road pond in 1996 and found one site (FAI-50009), which has failed to be relocated in subsequent attempts. In 2001, the Army began partnering cultural resources surveys and evaluations with Colorado State University's Center for Environmental Management of Military Lands (CEMML). Surveys by several different principal investigators have targeted areas of construction undertakings. Two historic sites (FAI-01603 and 01604) and one additional prehistoric site (FAI-01990) were found in these investigations. In 2011 and 2012, CEMML completed survey of the entire cantonment, north and south of the Chena River, discovering three additional historic sites (FAI0-2117, FAI-02197, and FAI-02198). Of the 13 archaeological sites known from the Fort Wainwright cantonment, 4 (FAI-00043, FAI-01603, 01604, FAI-02197) have been determined not eligible. The remaining sites have not yet been evaluated.

Archaeological sites were first identified in the Tanana Flats Training Area (TFTA) in 1973 by Zorro Bradley and others who conducted a survey in the Blair Lakes area (Bradley et al. 1973). James Dixon continued surveys for archaeological district designations in the regions of Blair Lakes (District FAI-00335), Clear Creek Butte (District FAI-00336), and Wood River Buttes (District FAI-00337) (Dixon et al. 1980). In 1993, proposed work in the Clear Creek Butte area prompted a contract to relocate several archaeological sites (Staley 1993.) These three districts have been revisited by CEMML archaeologists a few times over the last decade, and, notably, 92 new sites were found in 2009-2010 during survey of the Wood River Buttes, Salmon Loaf, and north and east of Blair Lakes. In total, archaeologists have identified 144 archaeological sites in TFTA. Of these sites, 11 have been determined eligible for inclusion in the National Register (FAI-00044, 00045, 00046, 00048, 00049, 00054, and 00194 to 00198), one is not eligible (FAI-01607), and 132 remain to be evaluated for eligibility.

The road system in the Yukon Training Area (YTA) was the first of many areas to be investigated. Charles Holmes discovered eight sites in a 1978 road survey (Holmes 1979). John Cook conducted a Determination of Eligibility (DOE) evaluation on one of these sites in 1979

(Cook 1979.) Michael Kunz surveyed the Stuart Creek area in 1992 but discovered no archaeological sites, and Northern Land Use Research's 1999 survey of Stuart Creek and the YTA road system uncovered one historic site (Higgs et al. 1999). CEMML archaeologists have been surveying portions of YTA in conjunction with construction projects on an annual basis since 2001. Currently, North Beaver Creek, Skyline, Johnson, Quarry, Brigadier, and Manchu roads in YTA are almost entirely surveyed, as is the area east of Skyline Road outside of the Stuart Creek Impact Area, McMahon Trench, the Manchu Range, and the majority of Training Areas 307 and 310, north and south of Manchu and Quarry roads. Twenty archaeological sites have been identified in YTA. Ten of the sites have been determined not eligible for listing in the National Register (FAI-00157, XBD-00093, 00094, 00095, 00103, 00104, 00186, 00260, 00264, and 00266) and ten have not been evaluated. XBD-00162 will not be evaluated due to its location in a heavily used portion of the Stuart Creek Impact Area.

Archaeological investigations in what is now the Donnelly Training Area began in the 1960s, when Frederick West was searching for sites related to the first Americans (West 1967). He excavated the Donnelly Ridge site (XMH-00005) in 1964 and found an assemblage containing microblade core technology similar to early Holocene Denali Complex sites. Several surveys of Fort Greely and adjacent training lands in the late 1970s documented 64 new sites (Rabich and Reger 1977; Bacon 1979; Holmes 1979; Bacon and Holmes 1979). Julia Steele surveyed various locations in DTA from 1980-1983, finding four additional new sites (Steele 1980, 1980, 1982, 1982, 1983, and 1983), and Georgeanne Reynolds surveyed the Donnelly Dome area in 1988, locating one more (Reynolds 1988). Investigations in DTA from 1992-2002 were by D. Staley (Staley 1993), T. Gamza (Gamza 1995), A. Higgs (Higgs et al. 1999), and D. Odess (Odess 2002). Sixteen new sites were found during this decade of fieldwork and attempts were made to relocate old sites.

Concentrated efforts to expand survey coverage of DTA East began with CEMML archaeologists in 2002. Over 200 new sites were located in the Texas Range, Donnelly Drop Zone, and Eddy Drop Zone in the first half of the decade. In 2007, one site was found in the northernmost portion of DTA West by Ben Potter and others during survey for the Alaska Railroad Northern Rail Extension Project (Potter et al. 2007). In recent years, CEMML research aimed to evaluate many known archaeological sites in DTA for inclusion in the National Register in conjunction with use of the Battle Area Complex (BAX) and its surface danger zone (SDZ). Sites have also been discovered during surveys for road and trail maintenance. Potential expansions into DTA West, west of the Delta River, prompted 2011 and 2012 surveys into new areas such as Molybdenum Ridge, where 21 new sites were discovered in 2011. Because of its remote setting, however, the archaeology of Donnelly West is still poorly understood and represents a gap in USAG Fort Wainwright's inventory of cultural properties. The Cold Regions Test Center

(CRTC) has also contracted with CEMML and others since the last Integrated Cultural Resources Management Plan (ICRMP) to survey areas in DTA West, east of the Little Delta River, and many new archaeological sites have been recorded (Espenshade 2010).

To date, 453 archaeological sites have been identified within DTA. Forty-eight sites have been found to be eligible for the National Register, and 53 were found not eligible. An additional 352 sites remain to be evaluated. Historic archaeology sites are poorly represented in this region, with only six currently known to exist. The Donnelly Ridge District (XMH-00388) encompasses Denali sites identified by Frederick West, south and west of Donnelly Dome. Future archaeological studies in DTA will concentrate on completing survey of 100% of the land in DTA East, conducting DOEs on archaeological sites in high traffic areas, and exploring parts of DTA West that are opening up for expansion of military training activities.

Despite its incomplete nature, the archaeological record known from DTA represents all of the currently recognized prehistoric cultures of the Alaskan Interior. Of significance is the role played by sites located on DTA in the definition of the Denali Complex of the American Paleoarctic Tradition (Anderson 1970; West 1967, 1981). The oldest date for human habitation at DTA is roughly 10,100 years at site XBD-00167 (Higgs et al. 1999); however, undisturbed stratigraphic deposits 12,800-12,930 years old indicate the potential for intact archaeological occupations of this age. Sites yielding Northern Archaic side-notched points are common (Robertson et al. 2004, 2005; Raymond-Yakoubian and Robertson 2005). At DTA, site XMH-00874 yielded an accelerator mass spectrometer radiocarbon date of 5720 +/- 50 BP from hearth charcoal associated with a microblade component (Robertson et al. 2008). A late prehistoric Athabaskan occupation is recognized at several sites (e.g., Andrews 1975, 1987; Cook 1989; Mishler 1986; Sheppard et al. 1991; Shinkwin 1979; Yarborough 1978). Of particular interest in this regard is a copper projectile point recently found in a buried context at DTA at site XBD-00272 (Robertson et al. 2009). Euro-American historic archaeological sites are also present (Gamza 1995; Phillips 1984).

The Gerstle River and Black Rapids Training Areas (GRTA and BRTA), also managed by Fort Wainwright, have been infrequently utilized for training activities, and very few surveys or identification of archaeological sites have occurred in these areas. CEMML archaeologists surveyed small portions of GRTA in 2011 and 2012. Two prehistoric sites (XMH-01359 and XMH-01494) are known from this training area. Two sites, which have not been evaluated for the NRHP, have been discovered in BRTA (XMH-00317, 00318). Future research is planned for GRTA where military activities are planned to take place in the next five years.

The Army also owns property west of Tok, Alaska, called the Tok Terminal Pump Station. Six sites were discovered here by John Cook in the early 1980s. Three of these sites have been

found ineligible for the NRHP (TNX-00006, 00007, 0008). The other three sites were relocated in 2012. DOEs for these sites have not been completed.

2012 Surveys

Cantonment Surveys

Pedestrian survey of the entire cantonment area was completed in 2011. No further surveys of this area took place in 2012.

Yukon Training Area (YTA) Surveys

Archaeological surveys in YTA are most commonly associated with road maintenance projects. Approximately 32,000 acres have been surveyed in this area since 2002 (Figure 2).

During the 2012 field season, 990 acres were surveyed in YTA by CEMML crews under the direction of Julie Esdale for two road maintenance projects and two timber sale areas (Figure 2). The surveys along Transmitter Road and Beaver Creek Trail in the northwest portions of the training area were reported in a letter to the SHPO who concurred with a finding of No Historic Properties Affected on January 23, 2013. Surveys of timber sale areas off of Quarry Road and Johnson Road did not locate any archaeological sites, and the SHPO concurred with a finding of No Historic Properties Affected on January 4, 2013. The final, small triangular parcel of land along Transmitter Road was surveyed to connect two previously surveyed areas, although there are no plans for development or timber sales in that area at this time. No archaeological sites were located during the pedestrian survey of this area on June 27, 2012. Pedestrian survey by four individuals walking 20 m transects and shovel testing in high probability areas uncovered no archaeological sites.

Donnelly Training Area (DTA) Surveys

Archaeological surveys in DTA have been guided by Section 106 undertakings and PDZs. Over 83,000 acres have been surveyed in DTA East and West since 2002 (Figure 3, Figure 4).

In 2012, CEMML crews investigated 5,400 acres in DTA East and West. The majority of this survey covered the DTA West winter trail (Figure 4) and a possible future all seasons route from the Delta River to Molybdenum Ridge. Pedestrian transects and shovel tests in elevated locations covered the entire route. Additional survey took place in DTA East in areas on the outskirts of 2003 survey areas in the northeast corner of the BAX SDZ and the southern part of the BAX SDZ expansion (see Esdale and McLaren 2013).

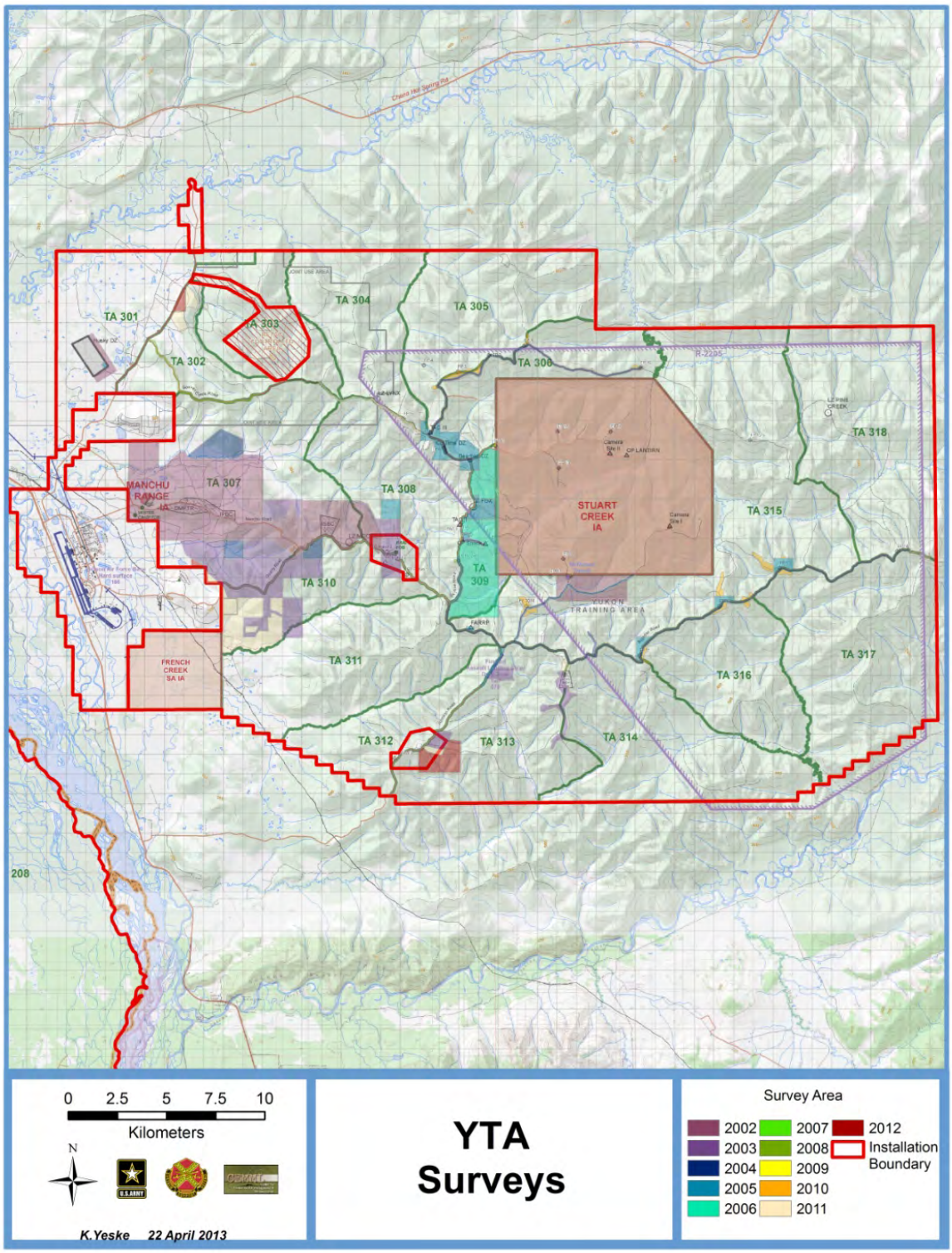

Figure 2. YTA survey areas, 2002-2012.

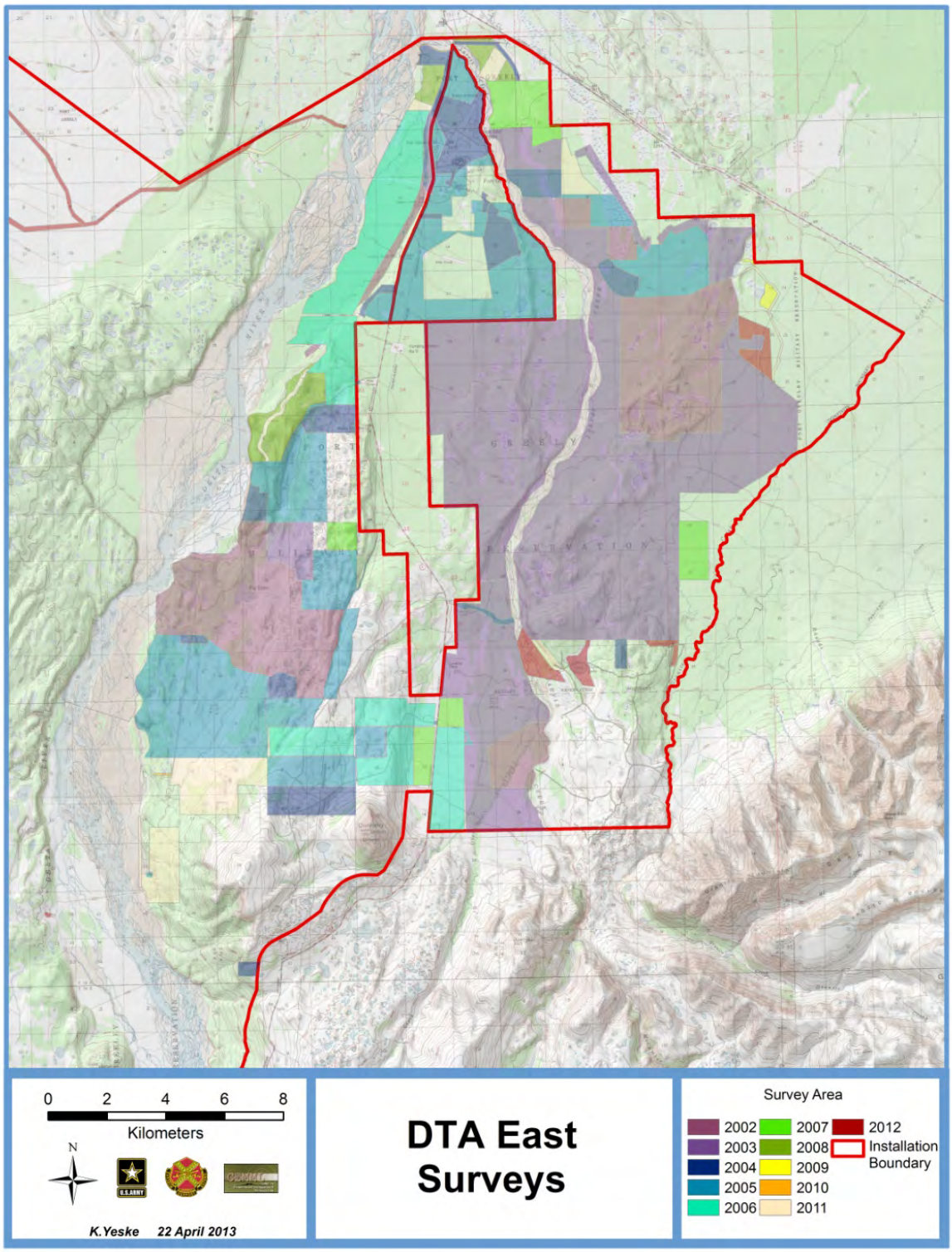

Figure 3. DTA East survey areas, 2002-2012.

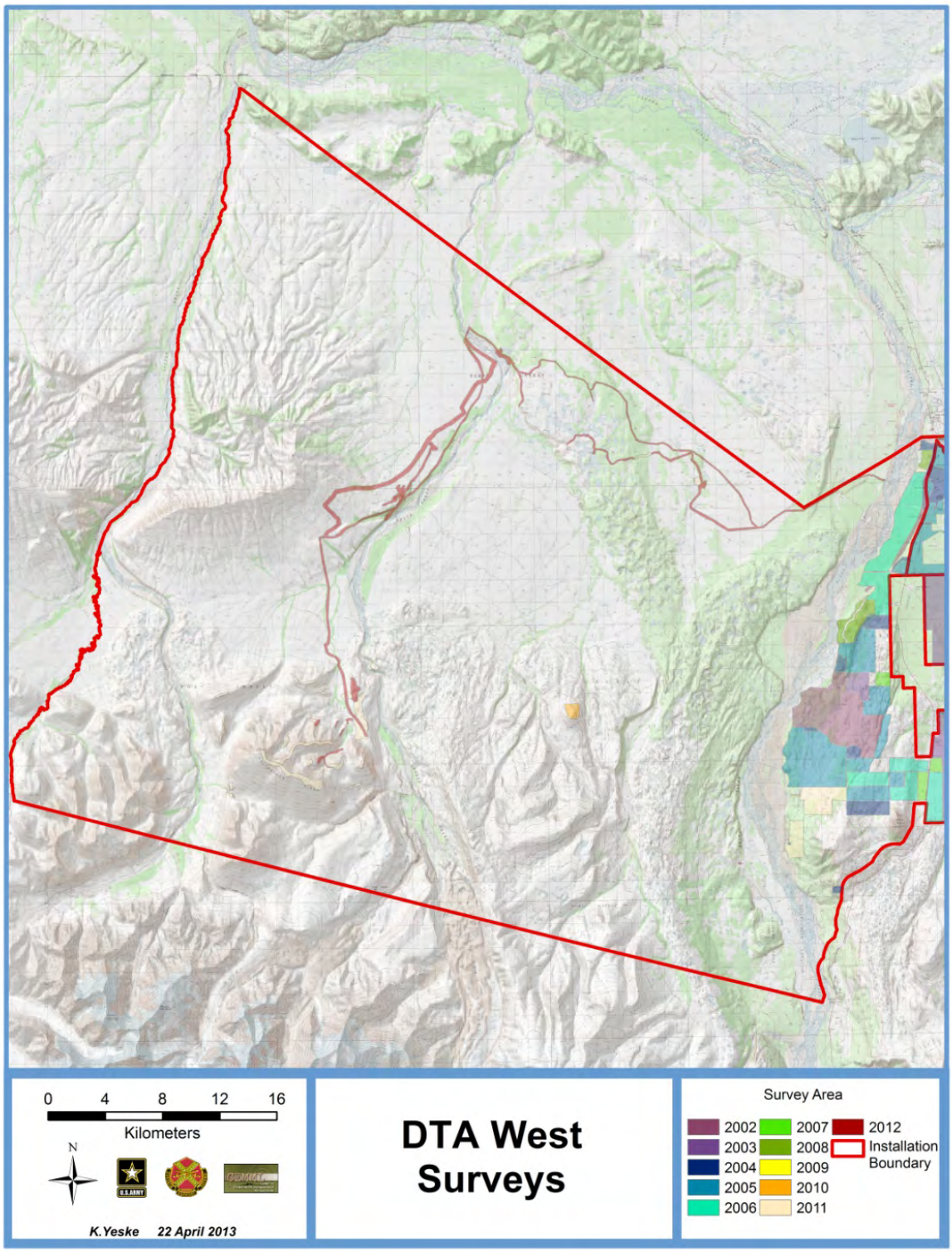

Figure 4. DTA West survey areas, 2002-2012.

Tanana Flats Training Area (TFTA) Surveys

Systematic survey of upland portions of TFTA did not begin until 2008. Only 1137 acres have been surveyed in this training area which is largely covered in wetland bogs and marshes. The upland areas of Clear Creek Buttes, Salmon Loaf Butte, Blair Lakes Hills, an alluvial terrace edge north of Blair Lakes Hills, and dune deposits in the western portion of the training area, provide higher ground and have shown to contain deep deposits housing archaeological sites from the late Pleistocene to the late Holocene (see Esdale et al. 2012b; Gaines et al. 2010).

Only six acres of land was surveyed in TFTA during the 2012 field season (Figure 5). A one acre possible helicopter landing zone in the central portion of Clear Creek Buttes was investigated by a CEMML pedestrian survey on June 12, 2012. Two shovel tests uncovered one archaeology site (see Tanana Flats Training Area Sites section).

Five acres in the southern portion of Salmon Loaf Butte was systematically surveyed by a CEMML crew of four people on June 14, 2012, in conjunction with site testing at several known archaeological sites located along the butte. This survey area was reported to the SHPO in an August 7, 2012, letter. Artifacts were located on the surface between FAI-01889, 01888, and 01357, but no new sites were designated.

Black Rapids Training Area (BRTA) Surveys

A total of 550 acres in BRTA have been surveyed by CEMML over a period of three years, 2003, 2009, and 2012 (Figure 6). Prior to 2012, most military training had been restricted to a small artillery range in the northern portion of the training area (surveyed in 2003). In 2012, archaeological survey was conducted in advance of a new high angle marksmanship range in the southeast portion of BRTA. Pedestrian surveys and shovel testing, which took place July 24-26 2012, discovered no archaeological sites in the 300-acre target area and SDZ. The range development undertaking was reported to the SHPO who concurred with a finding of No Historic Properties Affected on August 10, 2012.

Gerstle River Training Area (GRTA) Surveys

Archaeological survey has only covered 235 acres in GRTA (Figure 7). The majority of that survey (206 acres) took place July 4-6 and August 2-8 2012. CEMML archaeologists investigated a small portion of GRTA in advance of timber sales in the area. One site, XMH-01494, was discovered during the survey. Subsequent testing at the site for a DOE found the site not eligible for the NRHP. The SHPO concurred with this finding and the results of the archaeological survey on January 4, 2013.

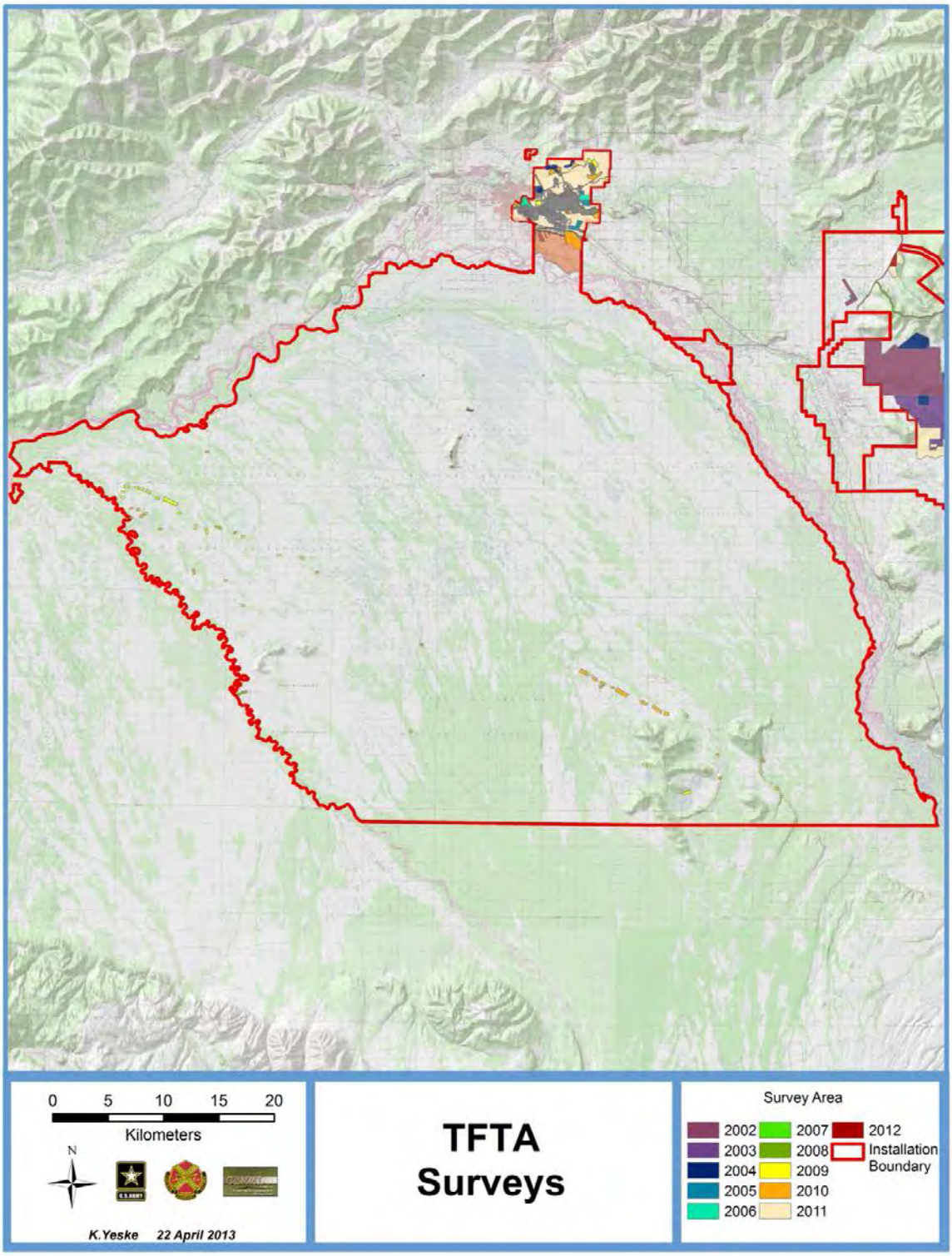

Figure 5. TFTA survey areas, 2002-2012.

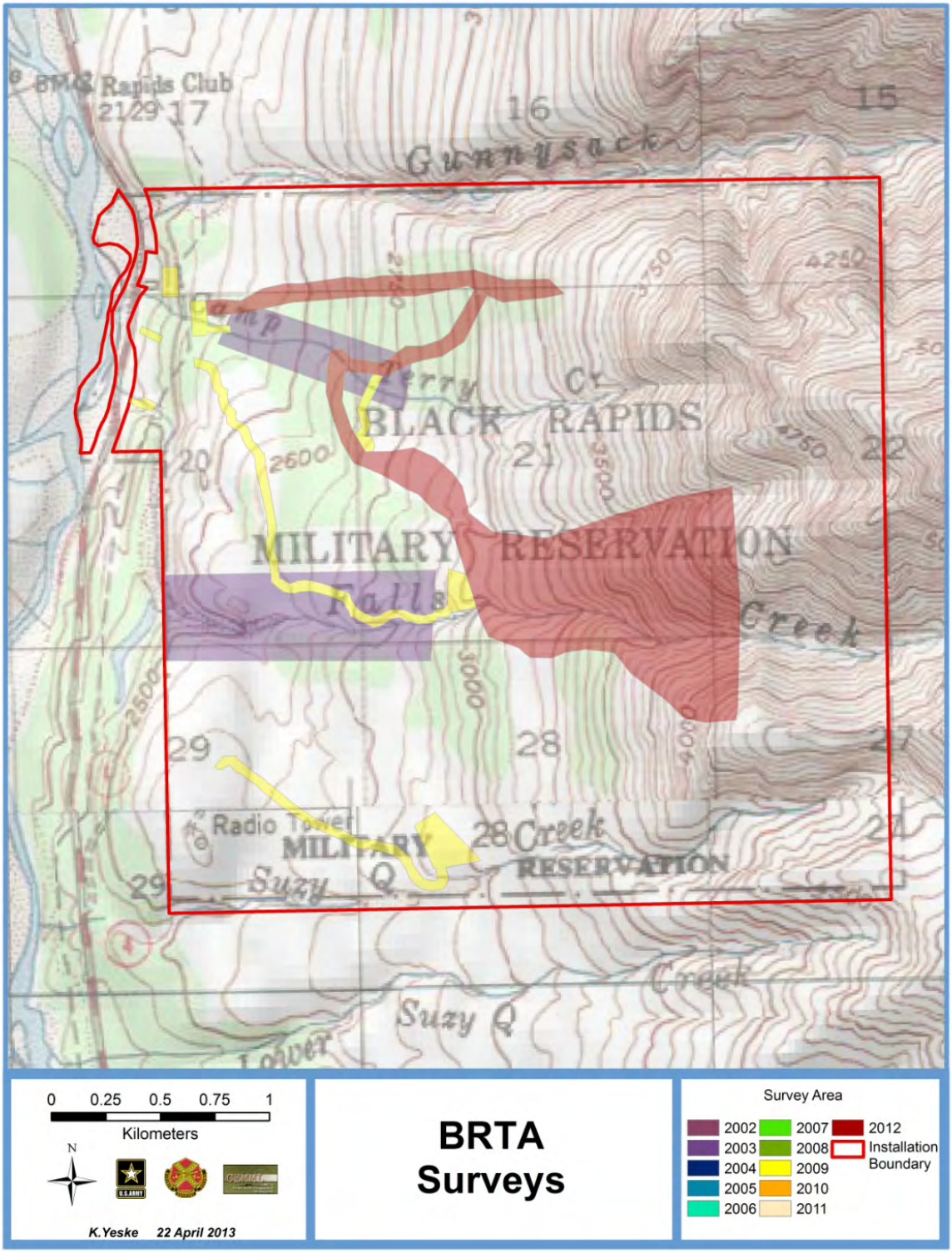

Figure 6. BRTA survey areas, 2002-2012.

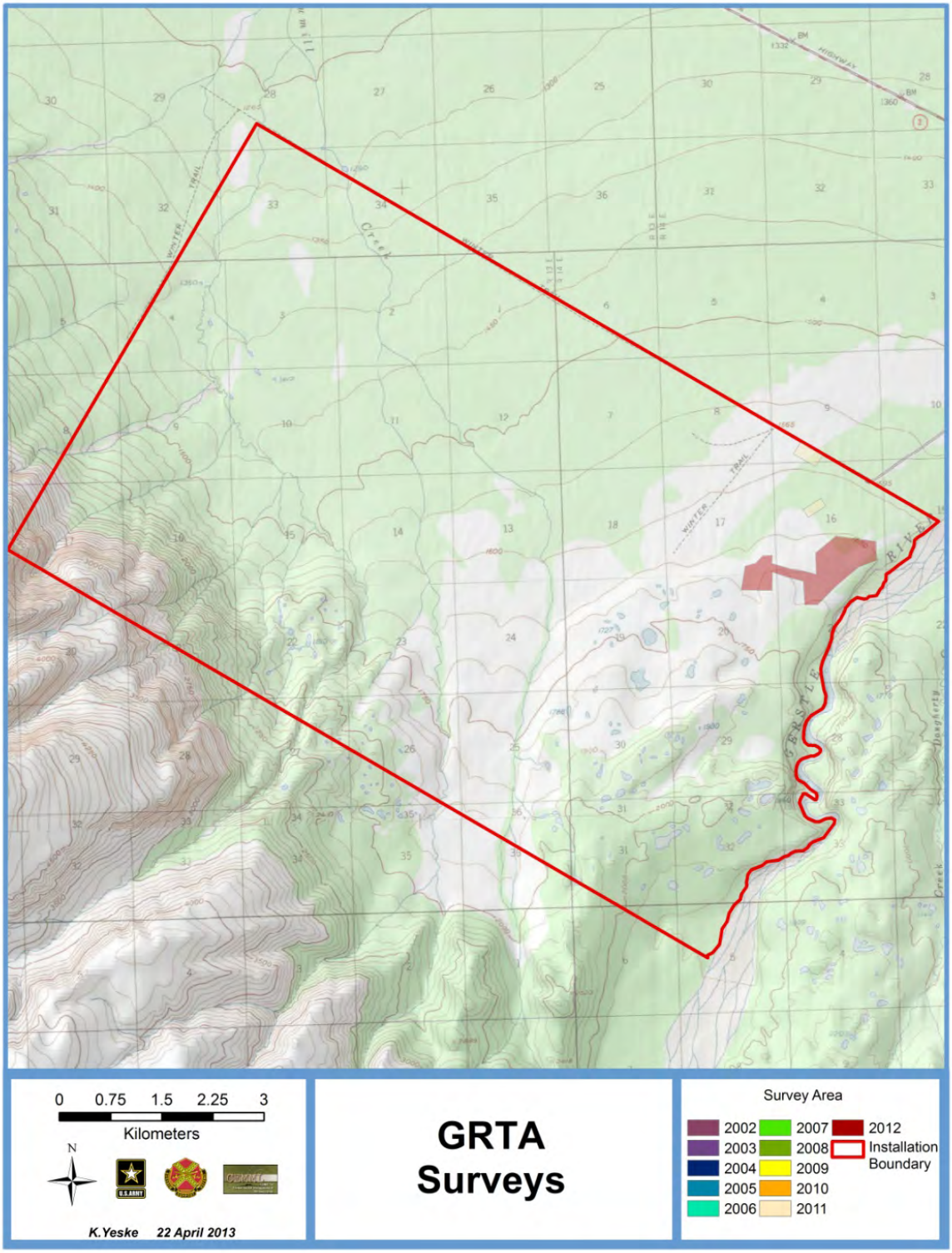

Figure 7. GRTA survey areas, 2002-2012.

Tok Terminal Pump Station Surveys

The Tok Terminal Pump Station is located off of the Alaska Highway, approximately 10km west of Tok, Alaska. This area was surveyed by John Cook in the 1980s. All archaeological sites are located on the ridge at the north end of the property (Figure 8). Six sites (TNX-00006, 00007, 00008, 00009, 00010, and 00023) were identified by John Cook in 1981. The area between the highway and ridge at the north end of the property was highly disturbed when the fuel tanks were installed. Although Tok Terminal Pump Station has not been systematically surveyed by CEMML, the entire ridge outside the disturbed area has been examined, and no further survey is expected to uncover any other archaeology. The ridge itself is a popular recreation area being the only elevated area in the vicinity of Tok.

In 2012, CEMML archaeologists revisited Tok Terminal to relocate all eligible or unevaluated sites. Investigations took place on September 20-21, 2012. Sites TNX-00008, 00010, and 00023 were relocated. Updated coordinates for the sites are found in Table 1. Updated site descriptions follow in the archaeological site section of this report.

Table 1. Tok Terminal archaeological site relocations.

Site	Eligibility Status	Relocated	UTM E (WGS 84)	UTM N (WGS 84)	Latitude (NAD 83)	Longitude (NAD 83)
TNX-00006	not eligible	no				
TNX-00007	not eligible	no				
TNX-00008	not evaluated	yes	390355	7027583	63.360054	-149.192007
TNX-00009	not eligible	no				
TNX-00010	not evaluated	yes	389810	7027633	63.360334	-149.202929
TNX-00023	not evaluated	yes	389875	7027689	63.360857	-149.201667

Figure 8. Tok Terminal survey areas 2002-2012.

2012 Newly Discovered Archaeological Sites

Cantonment Sites

Two new archaeological sites were identified on the Fort Wainwright cantonment and nearby Cold Regions Research and Engineering Laboratory (CRREL) property off of the Steese Highway near the town of Fox (Figure 9) during the 2012 field season. These two historic sites were a wood cabin at the northern edge of the cantonment (FAI-02198) and some dredging equipment located on a bluff overlooking the CRREL permafrost tunnel (FAI-02197). FAI-02197 is described in detail in the DOE section below.

FAI-02198

[redacted]

FAI-02198 is a cabin located along the northern border of the Fort Wainwright cantonment, south of Chena Hot Springs Road. It originally came to the attention of Fort Wainwright's Department of Public Works Environmental Division and visited in January of 2002. Although a draft report was written, it does not seem to have ever been submitted to the SHPO. The site was visited again by post archaeologist Julie Esdale and historic archaeologist Mary Ann Sweeney on August 26, 2012. The site consists of a building, an outhouse, and scattered cultural materials. The main building is rectangular, constructed from milled lumber, has a brick fireplace and the gable roof is collapsed inward (Figure 10, Figure 11, Figure 12, Figure 13). The outhouse is two-sided with two seats on each side (Figure 14). This site is not described in detail in this report because a DOE is being currently submitted elsewhere by Fort Wainwright's Architectural Historian.

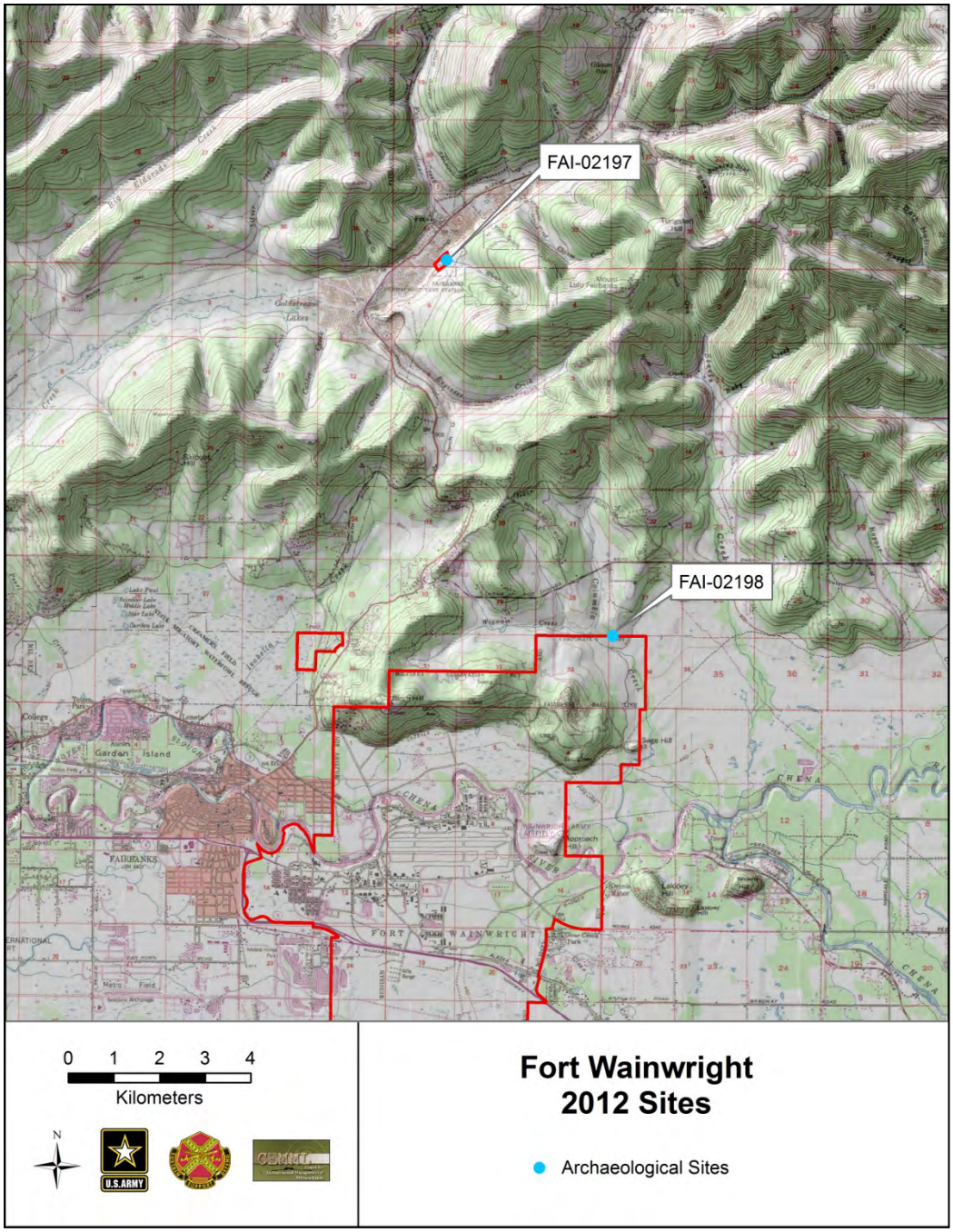

Figure 9. Fort Wainwright archaeological sites documented in 2012.

Figure 10. FAI-02198 cabin southeast corner detail.

Figure 11. FAI-02198 cabin south wall and doorway.

Figure 12. FAI-02198 collapsed wall and interior panel board.

Figure 13. FAI-02198 fireplace with brick layered with mortar and natural rock.

Figure 14. FAI-02198 outhouse, north section.

Yukon Training Area (YTA) Sites

No new archaeological sites were found in YTA in 2012. A DOE of one site, XBD-00387, is provided in the YTA DOE section (Figure 15).

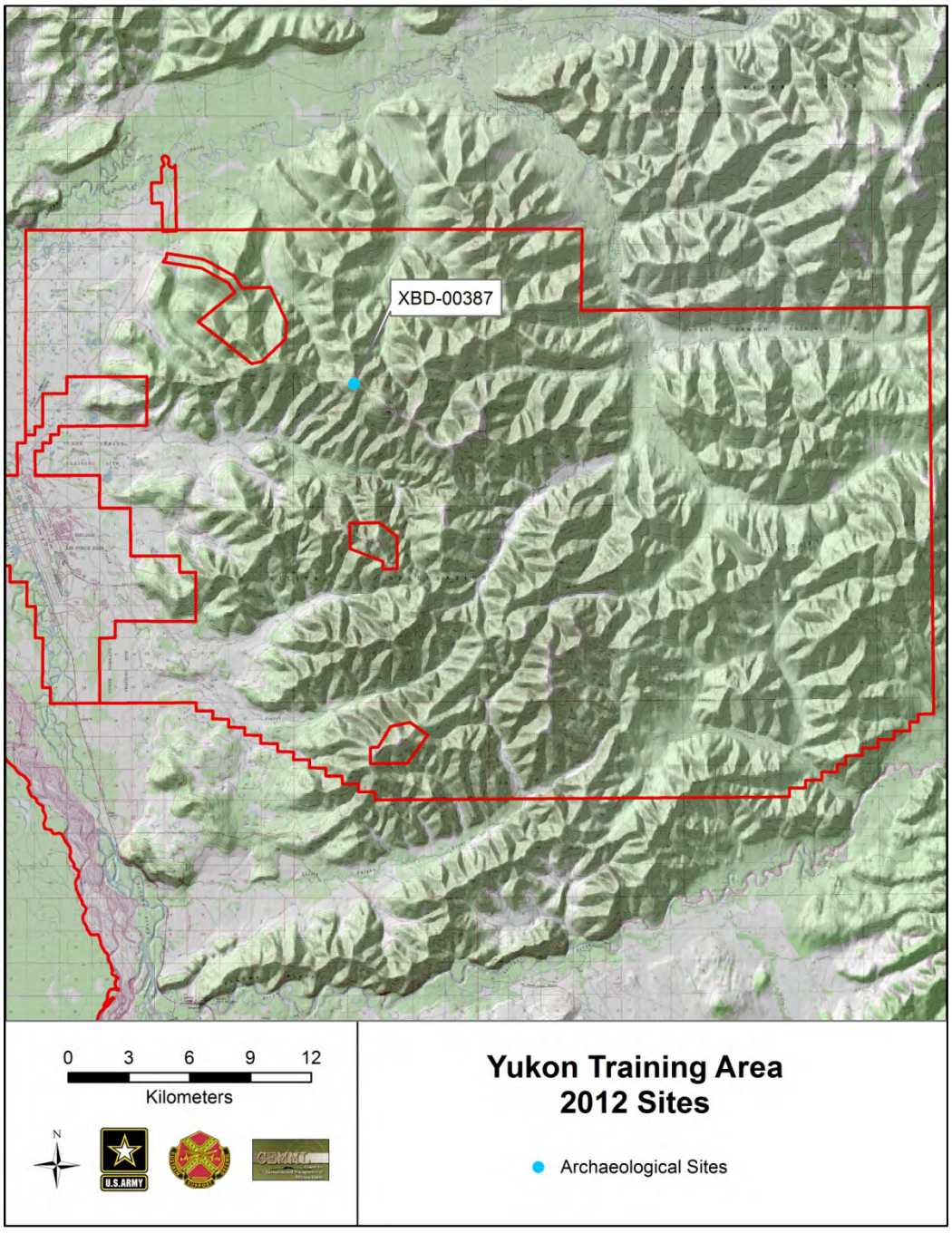

Figure 15. YTA sites from 2012 archaeological surveys.

Donnelly Training Area (DTA) Sites

One new archaeological site was found in DTA East during the 2012 field season. Site XMH-01493 was found in the southeast portion of the training area during a survey of the expanded surface danger zone (SDZ) of the Battle Area Complex (BAX) military training range (Figure 16).

Two archaeological sites were found in DTA West during the 2012 field season (Figure 17). These sites (XMH-01491, 01492) were discovered during surveys related to the DTA West all-seasons trail project and the Molybdenum Ridge range project.

XMH-01491

[redacted]

Determination of Eligibility: Not Evaluated

XMH-01491 is located east on the western edge of Delta Creek, 4.5 km northeast of Hillbilly Hill in DTA West (Figure 17). The site was discovered when four red and gray chert artifacts were found in a test pit on a terrace overlooking Delta Creek to the east. The terrace is loess covered and generally covered with tussocks, but the terrace edge is slightly elevated and drier (Figure 18, Figure 19).

Surrounding vegetation includes birch, spruce, alder and low scrub in patches on the terrace edges, as well as dwarf birch, moss, lichen, low bush cranberries and grasses (Figure 22). Dinosaur Ridge is visible to the west, and Molybdenum Ridge is visible to the south. Delta Creek is 750m to the east, but visibility is restricted by spruce and birch vegetation.

Two localities were tested at this site. Ten shovel tests were excavated in Locality 1 (at the coordinates) (Figure 18). Two of these contained subsurface flakes, one contained a gray chert scraper, and one contained a dark gray chert tested cobble (Table 2). Locality 2 is located 100 m southwest of Locality 1 (Figure 19). Thirteen light-grey chert flakes were found in one of five shovel tests in this area (Table 2). Flakes were found under the organic root mat, 12-33 cm below the surface (Figure 21, Figure 22). The test pit ended at glacial till, 33cm below surface.

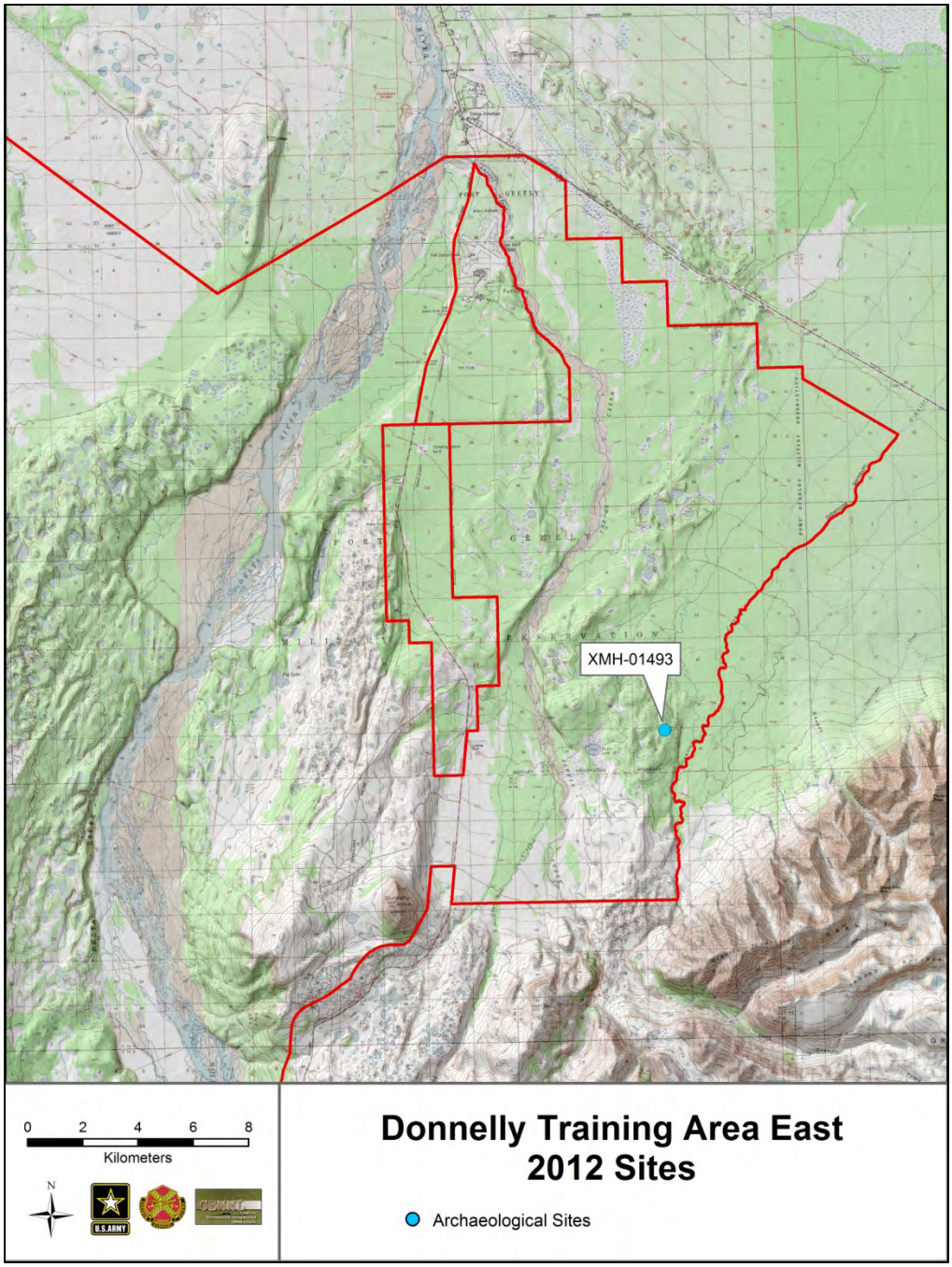

Figure 16. DTA East sites from 2012 archaeological surveys.

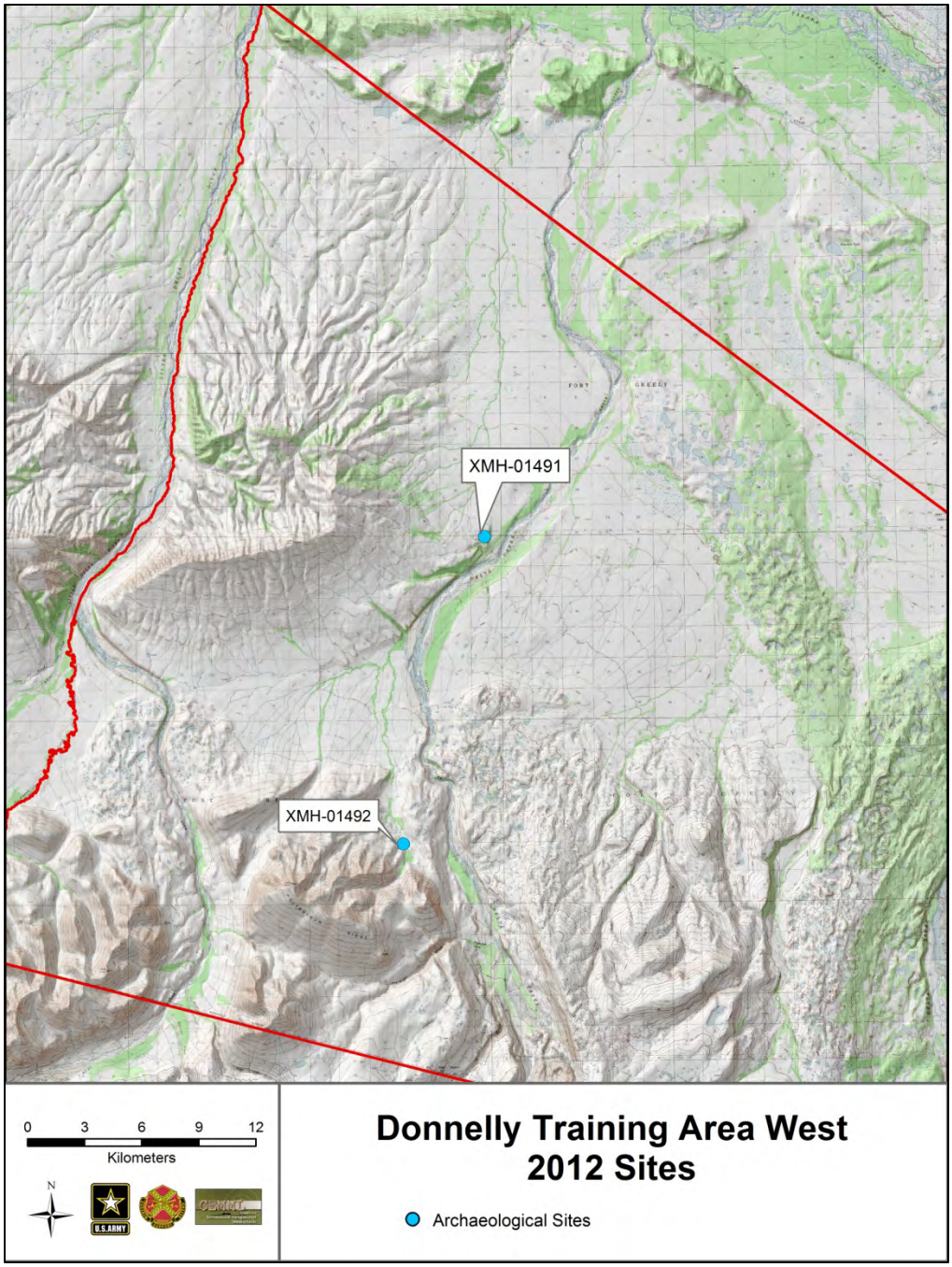

Figure 17. DTA West sites from 2012 archaeological surveys.

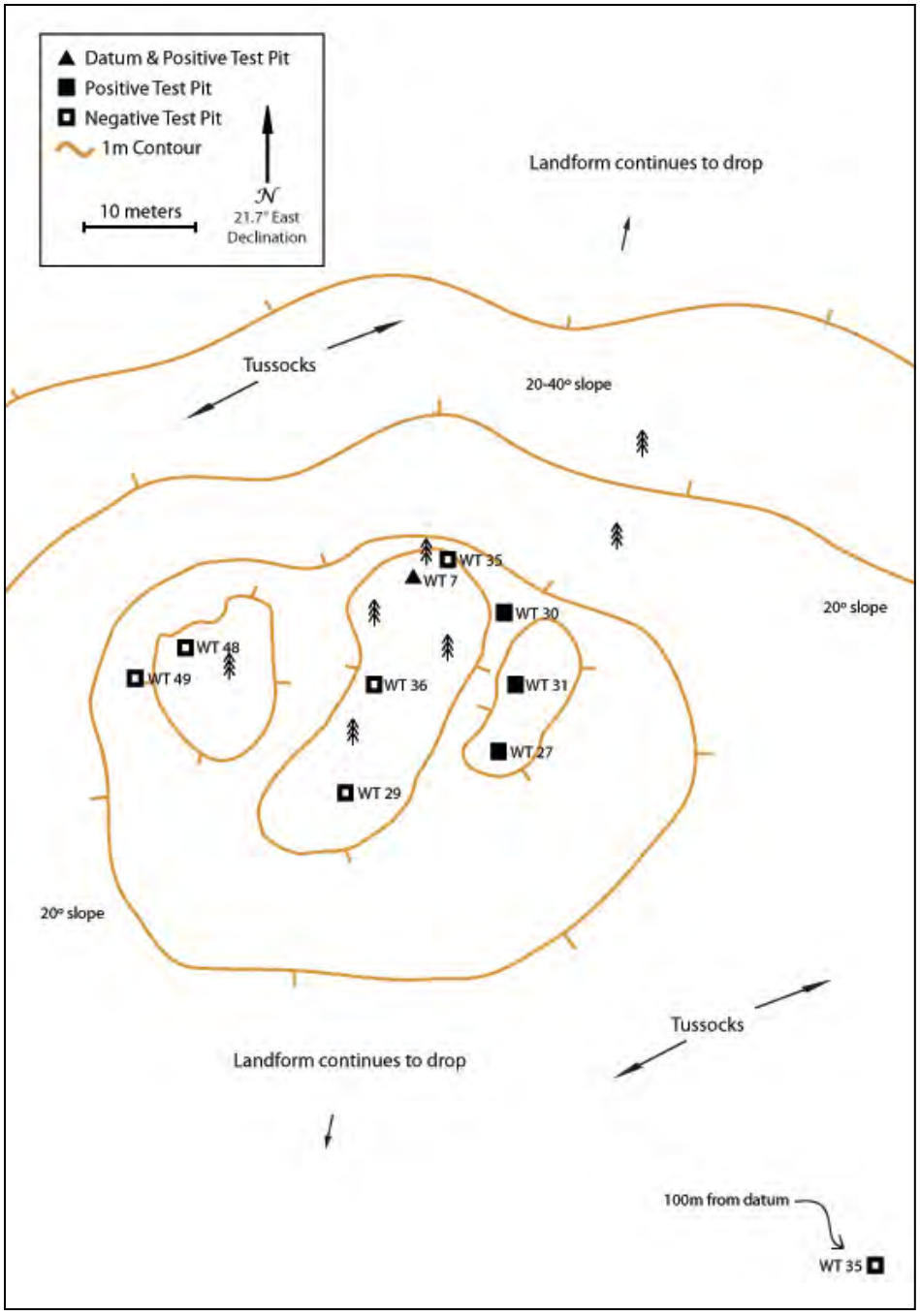

Figure 18. XMH-01491 site map, Locality 1.

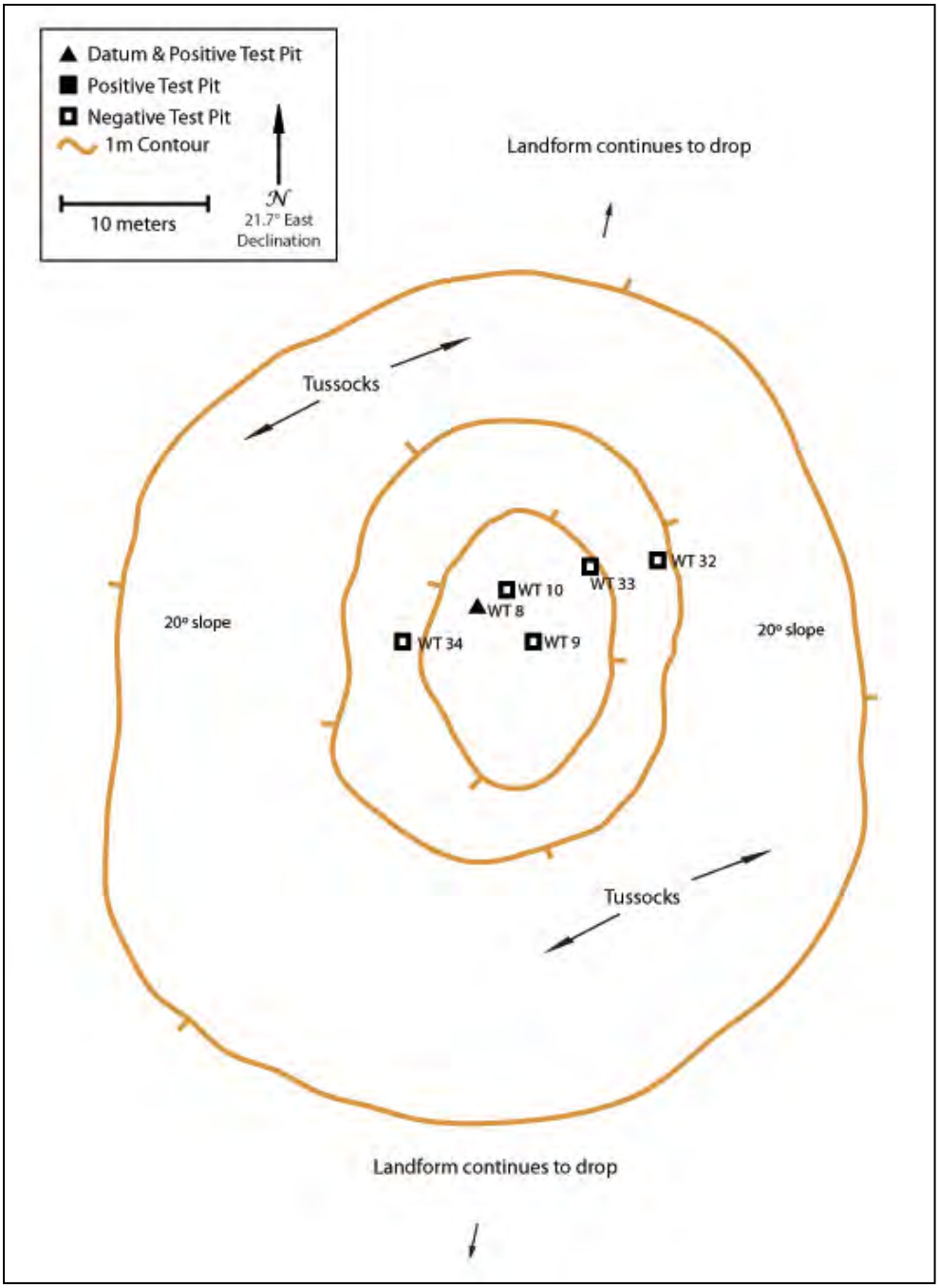

Figure 19. XMH-01491 site map, Locality 2.

Figure 20. XMH-01491 overview.

Table 2. XMH-01491 artifact accession log.

UA Accession #	FS#	Quantity	Depth (cm BS)	Material	Artifact Type	Collected
UA2012-101-0001	1	1	0-10	chert	flake	yes
UA2012-101-0002	2	1	0-20	chert	flake	yes
UA2012-101-0003	3	1	5-30	chert	scraper	yes
UA2012-101-0004	4	1	0-20	chert	flake	yes
UA2012-101-0005	5	13	10-20	chert	flakes	yes
UA2012-101-0006	6	1	surface	chert	biface fragment	yes

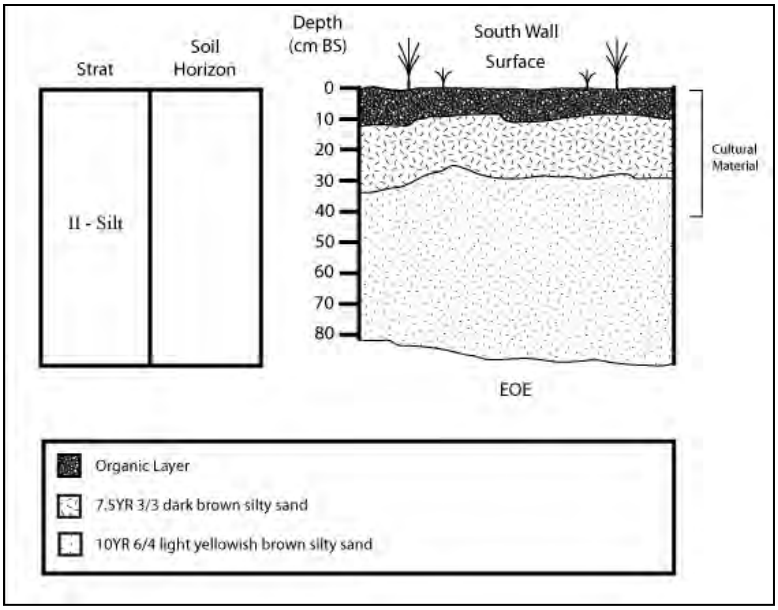

Figure 21. XMH-01491 stratigraphy.

Figure 22. XMH-01491 test pit stratigraphy.

XMH-01492

[redacted]

Determination of Eligibility: Not Evaluated

XMH-01492 is located on a low-lying moraine west of Gold Pan Creek and 1.5 km northeast of Molybdenum Ridge in Donnelly Training Area West (Figure 17). The site is situated on a northeast-southwest trending moraine approximately 0.5 m above the surrounding area (Figure 23). The landform has three small rocky rises and is surrounded by tussocks and wetland. Site slope is 0°-1° and drops at a slope of 3° to the surrounding area.

Vegetation consists of moss and lichen, berries, grasses, small black spruce, and dwarf birch (Figure 24). The creek that flows north into Gold Pan Creek is approximately 70 m northeast of datum. Molybdenum Ridge is approximately 1.5 km southwest. The site consists of two light gray rhyolite scraper fragments that refit (UA2012-116-0001). They were found on the surface in the only surface exposure on the landform (Figure 25). One fragment is 4x4x0.5 cm with evidence of sharpening on dorsal surface along one lateral margin. The other fragment is 1.5x1x0.5 cm with evidence of sharpening on the dorsal surface along one lateral margin. Nine shovel test pits were excavated along the entire length of the landform, all of which were negative for cultural material.

Stratigraphy consists of organic matter to 4cm below surface overlying gleyed silt and mottled dark and light brown silt to 20cm below surface (Figure 26).

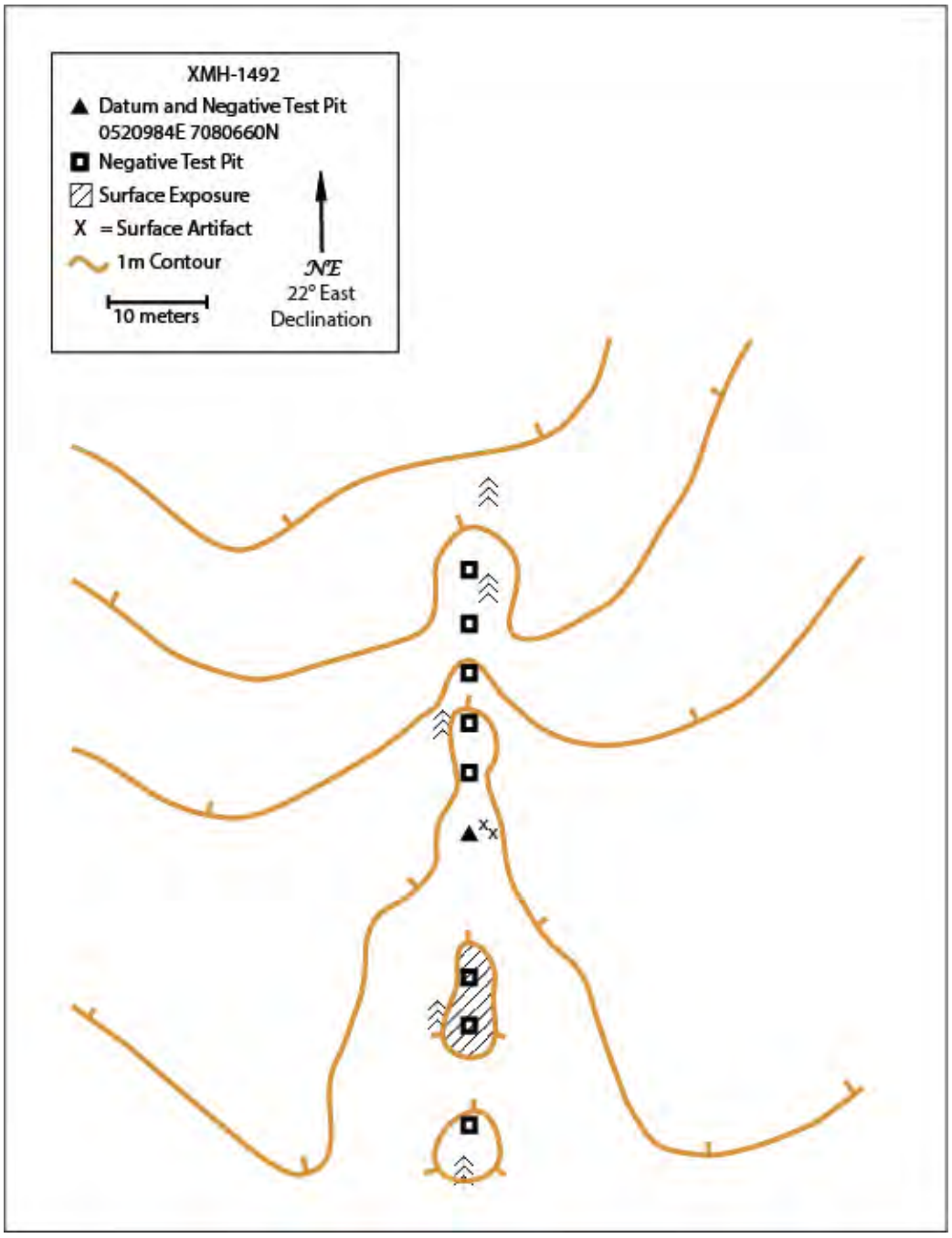

Figure 23. XMH-01492 site map.

Figure 24. XMH-01492 overview.

Figure 25. XMH-01492 scraper on exposed ground surface.

Figure 26. XMH-01492 test pit stratigraphy.

XMH-01493

[redacted]

Determination of Eligibility: Not Evaluated

XMH-01493 is located east of the Delta River in the southern portion of DTA East (Figure 16). A gray rhyolite biface fragment, a rhyolite flake, and a dark gray chert flake were found on the surface of a moraine, which rises 5m above the surrounding terrain (Figure 27). Surface visibility is high (80%), and no vegetation obstructs the view in any direction (Figure 28). The Granite Mountains are visible to the east, and Donnelly Dome is visible to the southeast. Only the biface fragment was collected (UA2012-102-0001).

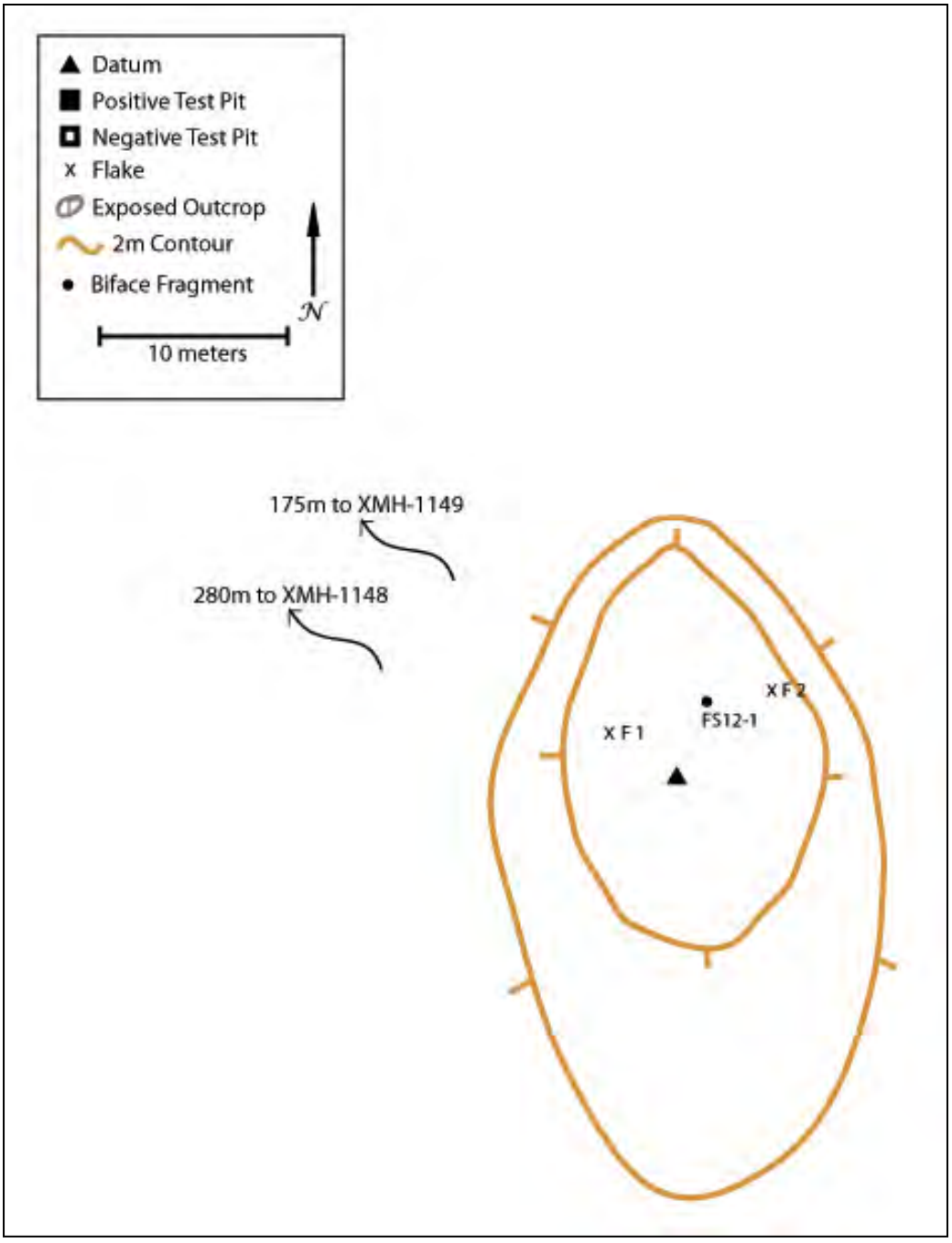

Figure 27. XMH-01493 site map.

Figure 28. XMH-01493 overview.

Tanana Flats Training Area (TFTA) Sites

From June 12-14, 2012, a CEMML archaeology crew travelled to Clear Creek Buttes and Salmon Loaf Butte in TFTA to assist Fort Wainwright's Integrated Training and Maintenance (ITAM) crews in safely removing vegetation in helicopter landing zones near archaeological sites on Clear Creek Buttes and to conduct Phase II site testing for DOEs on Salmon Loaf Butte. As part of this project, a one acre clearing in the middle of the Clear Creek Buttes was surveyed for archaeological sites. One flake was found in a shovel test (FAI-02199). A known historic site that had never been documented for the Alaska Heritage Resources Survey (AHRS) on Salmon Loaf Butte was also relocated and photographed (FAI-02200).

FAI-02199

[redacted]

Determination of Eligibility: Not Evaluated

FAI-02199 is located on a small bedrock knoll south of a helicopter landing zone in the middle of Clear Creek Buttes. Two shovel tests were excavated on a small bedrock knoll. In the first, bedrock was encountered immediately below the sod. No artifacts were found. One grey chert flake was found in a second test pit that encountered bedrock 18 cm below surface (UA2012-

106-0001). The surrounding area slopes gently to the south and is covered with mixed hardwood (birch and poplar) forest with a low scrub understory (Figure 29).

Figure 29. FAI-02199 overview.

FAI-02200

[redacted]

Determination of Eligibility: Not Evaluated

A collapsed cabin structure (Figure 30) and associated debris was documented on the eastern edge of Salmon Loaf Butte. A historic mink farm owned and occupied by George P. Nelson from 1925-1955 is known from an area north of this site along Clear Creek. In his homestead location, Nelson had a two story cabin, a woodshed, an outhouse, and 50 wire mink pens (Fort Wainwright Cultural Resources files accumulated by Kathy Price). Nelson also had three trap lines with cabins near the homestead. This collapsed cabin fits the description of one of the trap line cabins.

The cabin was dug into the side of the hill, which slopes at 30° eastward, toward Clear Creek at the base of the butte. The cabin is log sided and has a tin roof. The roof and parts of the walls are collapsed. Dirt banks are on three sides of the structure. Debris is scattered down the slope in front of the house. Trails are located perpendicular to the slope and run across the front of the house. Bottles, fuel tins, and Hills Bros coffee cans were among the debris in front of the cabin. No artifacts were collected. The Hills Bros coffee cans date somewhere between 1945 and 1963 (Lanford and Mills 2006).

Figure 30. FAI-02200 collapsed cabin.

Black Rapids Training Area (BRTA) Sites

No new archaeological sites were located in BRTA in 2012.

Gerstle River Training Area (GRTA) Sites

One archaeological site, XMH-01494, was discovered during survey work in GRTA. A full description of this site is located in the DOE section of this report.

Tok Terminal Pump Station Sites

Three archaeological sites were relocated in the Tok Terminal Pump Station area, TNX-00008, TNX-00010, and TNX-00023 (Figure 31) (see Tok Terminal survey section).

Figure 31. Tok Terminal archaeological sites relocated in 2012.

TNX-00008

[redacted]

Determination of Eligibility: Not Evaluated

One black chert and two grey chert flakes were found in a shallow test pit (JKTOK3) 116 m north of the original coordinate for TNX-00008 (Figure 32) (UA2012-104). The site description from the original AHRS card, however, matches the new coordinates.

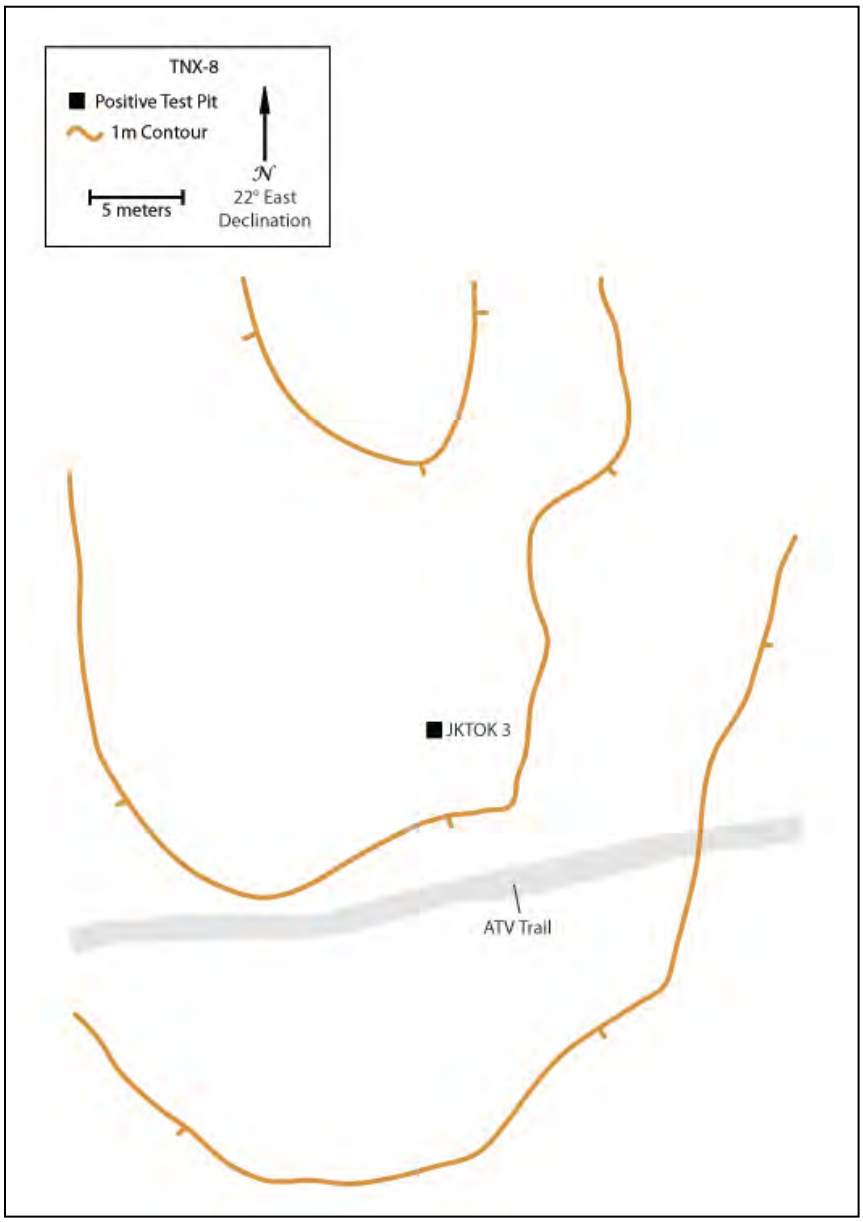

Figure 32. TNX-00008 site map.

The site is located on the south-facing slope of a high bedrock knoll on the eastern end of the military property (Figure 32, Figure 33). The knoll reaches 535 masl and slopes gently to the south (<5°). This part of the ridge is eroded by recreation, and vegetation cover is thin on the silts overlying bedrock (Figure 34, Figure 35).

Figure 33. TNX-00008 site overview.

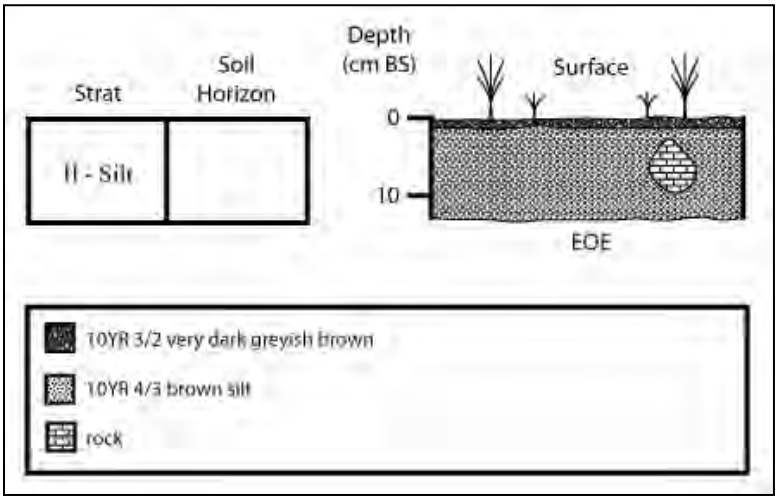

Figure 34. TNX-00008 test pit stratigraphy.

Figure 35. TNX-00008 test pit.

TNX-00010

[redacted]

Determination of Eligibility: Not Evaluated

TNX-00010 is located on a prominent bedrock knoll on the northern boundary of Tok Terminal, 50m north of the terminal fencing, 567 masl (Figure 31, Figure 36). The ridge is covered with spruce trees and low scrub vegetation. There is a vehicle trail that leads up from the terminal to the archaeological site (Figure 37). This location appears to be a popular camping spot. Fire rings are located in several areas. There is a prominent view to the south and west from the highest portion of the knoll (Figure 38). Although the surface of the site is disturbed, it is not covered with fill. Two basalt and eight black chert flakes were found scattered on the surface of the site (Figure 36). Two of the flakes were bifacial pressure flakes, and the remainders were flake fragments. These flakes were in disturbed context and not collected. Surface vegetation is absent in this area due to foot and vehicle traffic and silt overlies bedrock, which is exposed in some areas.

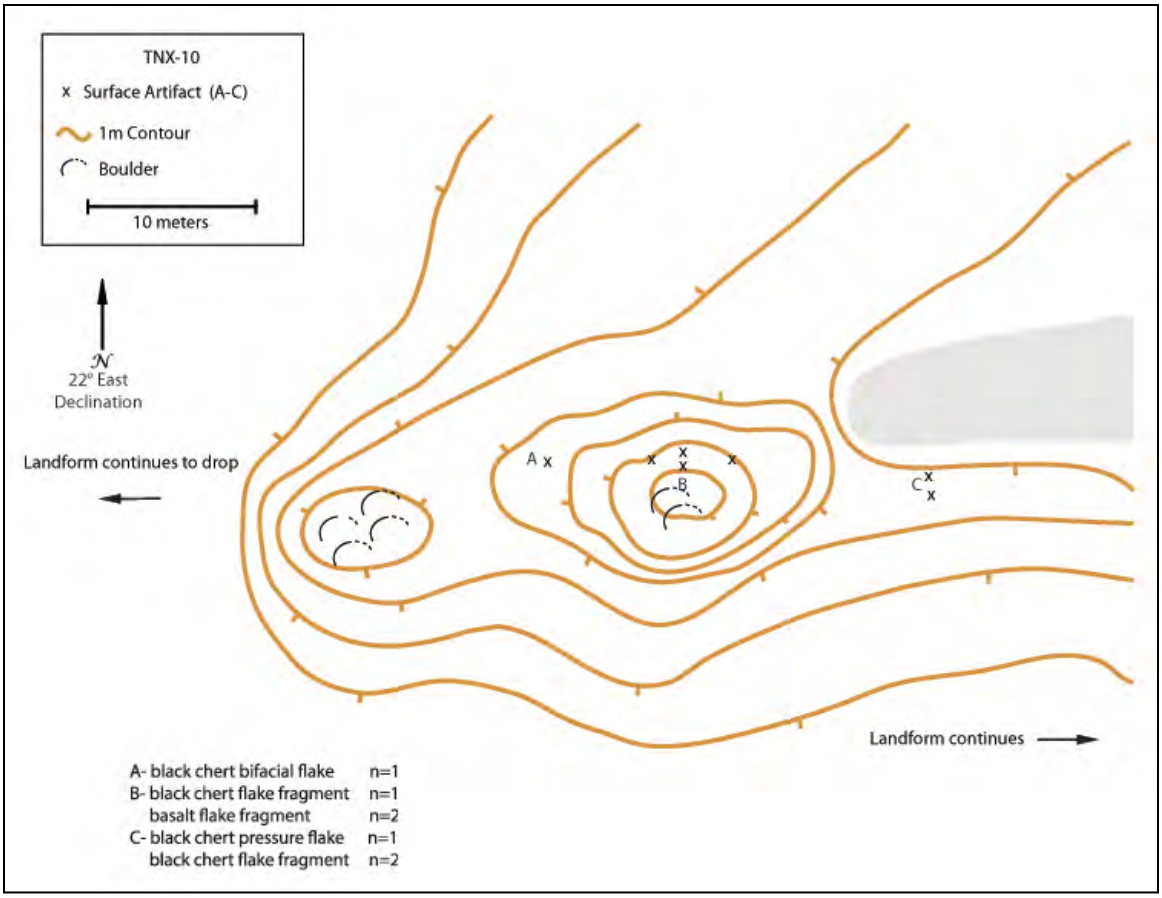

Figure 36. TNX-00010 site map.

Figure 37. TNX-00010 site overview.

Figure 38. Prominent lookout at TNX-00010.

TNX-00023

[redacted]

Determination of Eligibility: Not Evaluated

TNX-00023 was easily relocated along the vehicle path that reaches the highest and flattest portion of the ridge, 576 masl (Figure 39). The site is surrounded by spruce and small aspen. The topsoil around the site has been significantly disturbed by vehicles, camping, and previous excavations for a telephone pole (Figure 40). Some of the sediment from the pole excavation overlies the original site surface. No artifacts were found in shovel tests, but 15 flakes and one biface fragment were found across the surface of the clearing. None of the artifacts were collected. Flakes were made from basalt, grey chert, red chert, grey and white chert, and brown chert. The majority of these specimens were flake fragments or bifacial pressure flakes. One flake was retouched, and one flake was a possible platform rejuvenation flake, although no other microblade technology was indicated by the small sample. The shovel tests near the telephone pole uncovered approximately 13 cm of sandy silt (10YR 4/3 brown) overlying 2.5 Y 4/4 and 10YR 4/4 dark yellowish brown) sandy silt to bedrock at 36cm (Figure 41). The sediment was very compact, and rocks were found throughout. Little of the sediment is likely *in situ*.

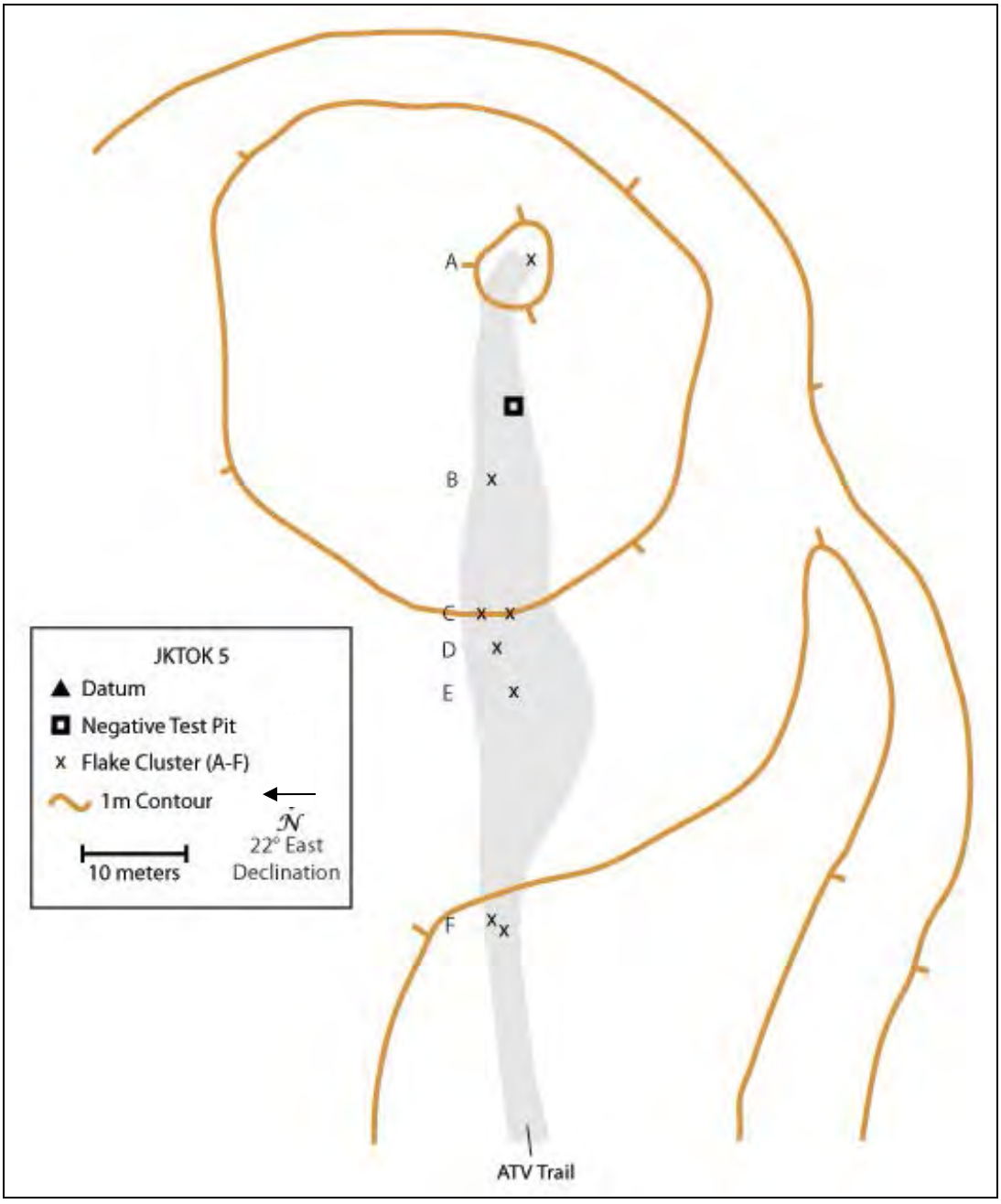

Figure 39. TNX-00023 site map.

Figure 40. TNX-00023 overview.

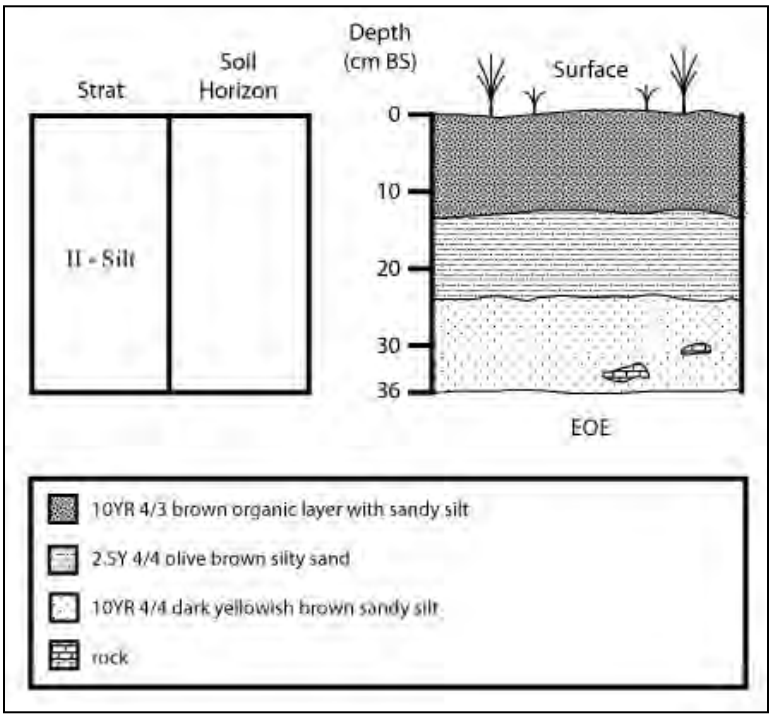

Figure 41. TNX-00023 test pit stratigraphy.

2012 Determinations of Eligibility

Phase II evaluations of archaeological sites on Fort Wainwright were conducted during the 2012 field season in order to determine the eligibility of sites for the NRHP. The determinations for 21 sites with evidence from phase II investigations and for three sites that were not relocated are presented in this section.

Cantonment DOEs

Six sites on the Fort Wainwright cantonment (Figure 42) and one site on Army lands north of Fairbanks were evaluated for their eligibility.

FAI-00040

[redacted]

Determination of Eligibility: Eligible

FAI-00040 is located on a disturbed bluff edge overlooking the Chena River floodplain, upslope and 90 m northeast of FAI-00041 and 150 m south of FAI-00043 (Figure 42, Figure 43). The northeast-southwest trending bluff rises approximately 150m above the floodplain and has just over a 180° view shed, showing Birch Hill, Ladd Airfield, Chena Valley floor, and Yukon Training Area. The closest water source is Columbia Creek, 1.5 km to the east. The surrounding ecosystem is an upland moist mixed forest, with only low scrub and grasses growing on the site proper (Figure 44). Site vegetation includes young aspen, scattered spruce, wild roses, grasses, strawberries, Artemisia, pasque, bear berry, and cranberry. Surface exposure is minimal except where military activity has disturbed the vegetation. The main site area has deep tire ruts, partially overgrown with vegetation while an area to the north, approximately 15 m x 40 m in size, was stripped to bedrock. The area is actively used for recreation and impacted by erosion on exposed surfaces.

FAI-00040 was originally discovered during a 1979 survey by James Dixon and others (Dixon et al. 1980) and consisted of 26 flakes found on the surface and in subsurface testing. Material types included chert, rhyolite, quartz and obsidian. When the site was relocated in 2006, 36 flakes of chert, quartz and obsidian were noted. The obsidian was collected along with a quartz biface fragment and black chert scraper. No subsurface testing was performed. In 2012, surface artifacts were relocated, mapped, and tools were collected. In total 132 flakes of quartz, rhyolite, basalt, obsidian and chert (black and banded) were recorded, while a basalt tci-tho, rhyolite uniface fragment and banded chert uniface were collected. An obsidian flake was mapped but lost before it could be collected.

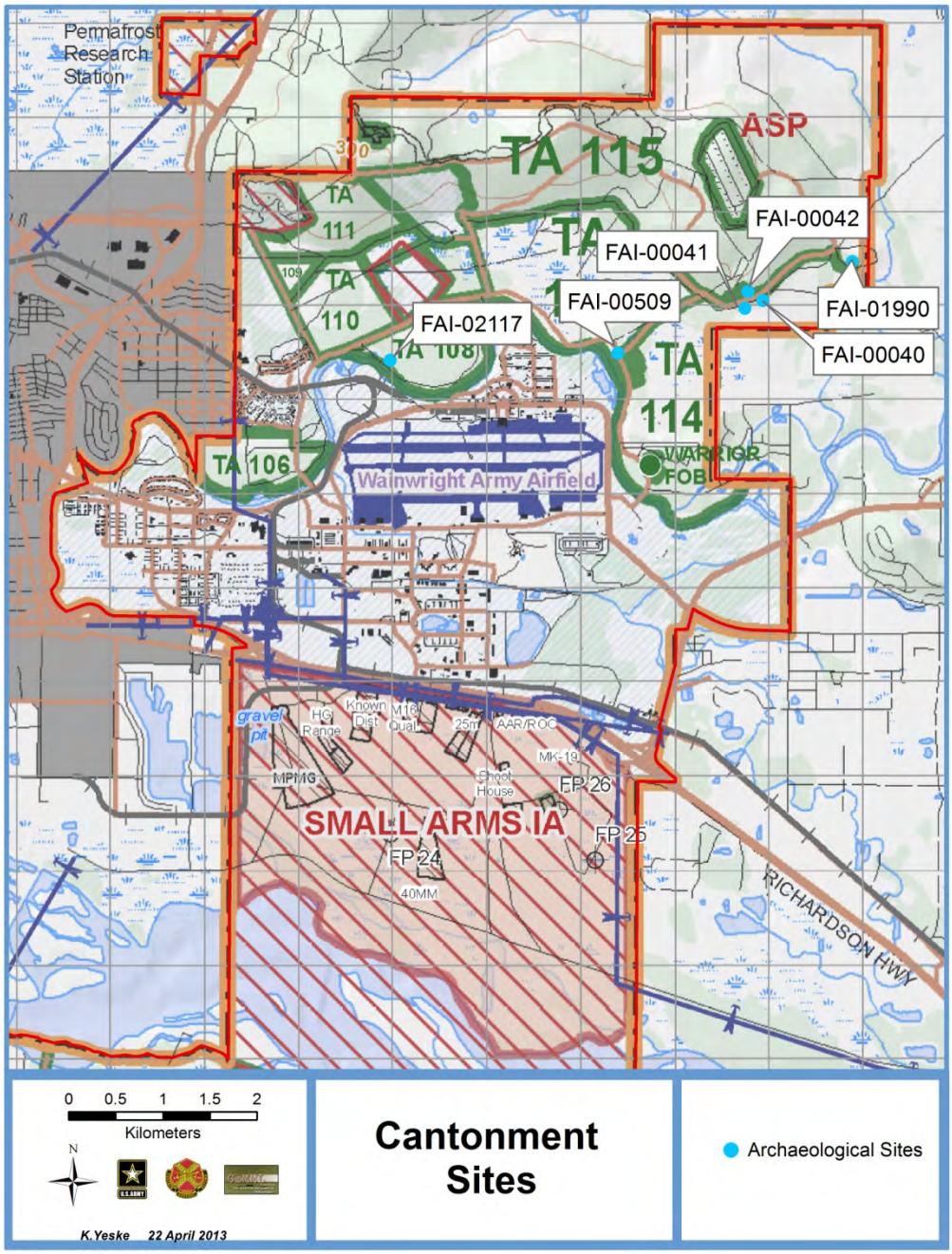

Figure 42. Locations of cantonment sites with DOE evaluations.

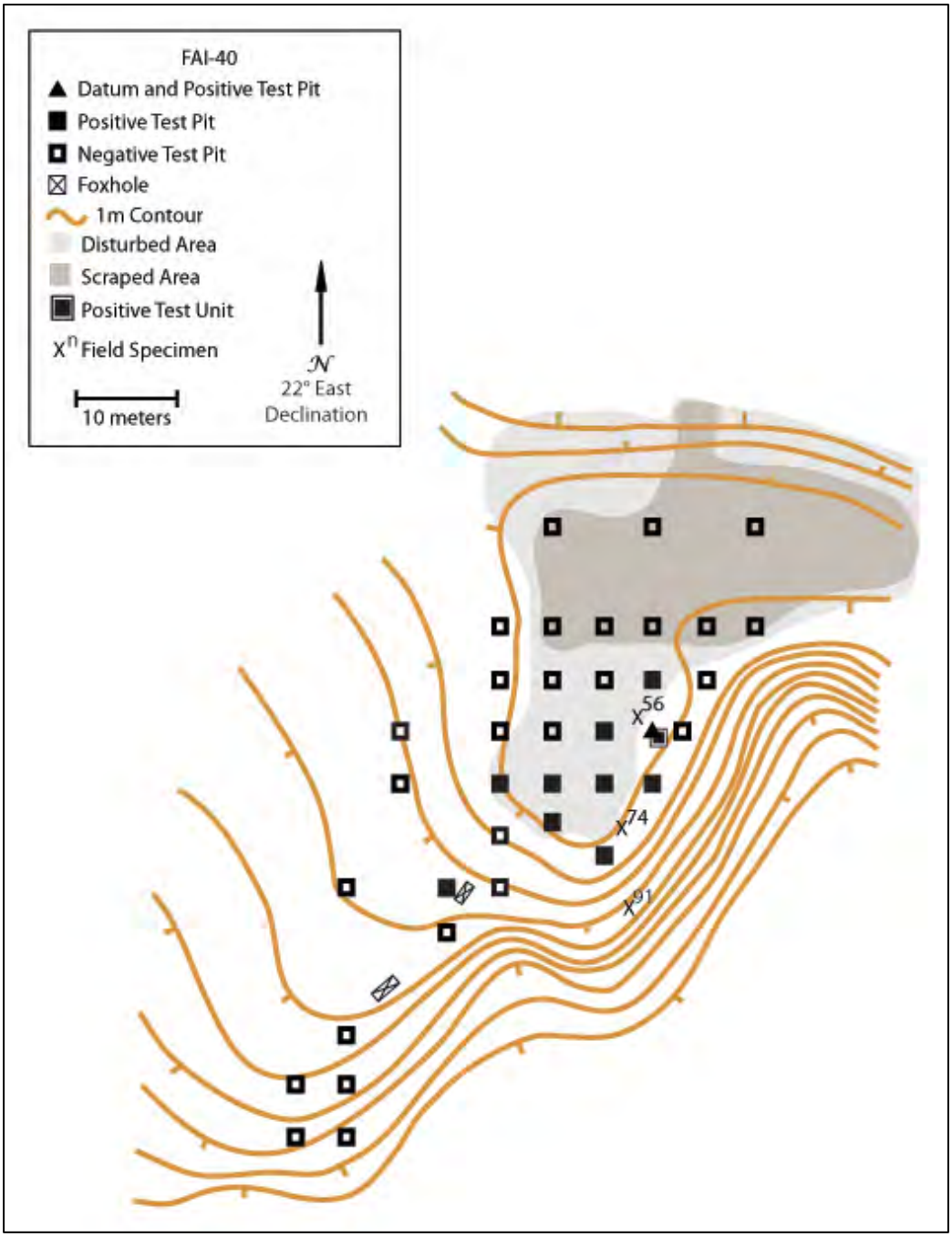

Figure 43. FAI-00040 site map.

A shovel test grid was placed over the site to determine site boundaries, subsurface concentrations and site integrity. The grid was established at 5 m intervals over the area of surface artifact distribution and at 10 m intervals around the site borders and into adjacent stripped areas. A total of 37 shovel tests were excavated to decomposing bedrock gravels. Ten

shovel tests were positive, containing 16 bone samples, 2 charcoal samples, a quartz biface, and 35 flakes of quartz, chert (banded, greys, red and black), obsidian and rhyolite.

A 1 m² unit was excavated southeast of datum in 10cm levels and terminated at degrading schist bedrock (Figure 45). Cultural materials were found from 4-37 cmbs, comprising an obsidian projectile point fragment, a quartz biface, and 745 flakes of quartz, chert (banded, greys, red and black), obsidian and chalcedony (Table 3).

Shovel tests ranged in depth from 10-96 cmbs. Shovel tests on the southwestern bluff edge had 20 cm of fill above a buried root mat. Stratigraphy in the excavation unit consisted of 7.5YR3/3 dark brown silt above 10YR3/2 very dark greyish brown silty gravel followed by 7.5YR4/6 strong brown silty gravels, then decomposing schist bedrock. Artifacts were found in all three stratigraphic layers. While modern activity has removed soil layers and added fill above existing deposition, the remaining soil appears to be intact as originally deposited (Figure 46).

Figure 44. FAI-00040 site overview.