

Appendix C. Cultural Resources Coordination

Cultural Resource Survey of the CrossTimbers Project, Skiatook Lake Area, Osage County
Oklahoma

Letter to the State Historic Preservation Officer

Letters to the Tribes

Letter from the Oklahoma Archeological Survey, State Archaeologist

Letter from the Oklahoma Historical Society, Preservation Officer

**CULTURAL RESOURCE SURVEY OF THE CROSS TIMBERS PROJECT,
SKIATOOK LAKE AREA**

OSAGE COUNTY, OKLAHOMA

**Conducted for :
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12 May 2002

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Management Summary

An archaeological and cultural resource survey of ca. 550 acres (194 acres intensively surveyed) and a 10-20m wide swath along 1.9 miles (3.2km) of shoreline was conducted at the request of Mr. Ron Howell, Statesource L.L.C., 320 South Boston, Suite 1030, Tulsa , Oklahoma 74103. The surveyed areas rest on U.S. Army Corps of Engineers property and have been proposed for development.

The investigation was undertaken on-foot over a five day period (7-11 May 2002) by Donald O. Henry, PhD and Nancy A. Henry, MLS. The cultural resources recorded in the survey are limited to the natural sandstone monolith (the *Healing Rock*) that is thought to hold cultural and religious significance for local Native American groups (see Appendix A). The monolith was moved from its original location in 1986 and relocated near the Skiatook Lake Project Office. It is in a protected area and will not be impacted by the proposed development.

The absence of cultural resources in the surveyed areas is thought to stem from a combination of factors including a steep, heavily dissected topography, erosional processes, and lack of nearby natural surface water. Most of the areas surveyed would have been unsuitable for prehistoric or historic occupations. Moreover, these settings are largely exposed to erosional and colluvial processes that would have acted to remove and disperse any evidence of ephemeral, specialized encampments (e.g., hunting or collecting stations) that may have been established.

Previous surveys of the area have shown sites to be situated along and within the alluvial terraces of Hominy Creek and its side-streams and within rockshelter/cave deposits. The terraces are presently some 50-70 feet below lake level in the lower reaches of the old Hominy Creek channel. The absence of rockshelters in the surveyed areas further reduces the chances for the presence of prehistoric sites.

Given that, with exception to the *Healing Rock*, cultural resources are not on record within the areas proposed for development and none was observed in the course of the survey, it is recommended that clearance be given for development.

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Appendix A

NATURE AND DESCRIPTION OF PROJECT

An archaeological and cultural resource survey of ca. 550 acres (194 acres intensively surveyed) and a 10-20m wide swath along 1.9 miles (3.2km) of shoreline was conducted at the request of Mr. Ron Howell, Statesource L.L.C., 320 South Boston, Suite 1030, Tulsa, Oklahoma 74103. The surveyed areas rest on U.S. Army Corps of Engineers property and have been proposed for development.

The survey was conducted in order to inventory and evaluate archaeological, historic, and cultural resources found in the study areas. The investigation was undertaken over a five day period (7-11 May 2002) by Donald O. Henry, PhD and Nancy A. Henry, MLS.

PREFIELD INVESTIGATION

No archaeological or historic sites were on record within the permit area with the Oklahoma Archeological Survey or the Oklahoma Historical Society. Preston Hunter, Project Manager, Corps of Engineers, Skiatook Lake also indicated that he was unaware of any archaeological or historic sites being in the study areas other than a sandstone monolithic, the *Healing Rock*, which has been moved from its original setting to its present location in the Skiatook Point Public Use Area.

REGIONAL CULTURAL HISTORY

The study area rests within the extreme southeastern corner of Region #2 (Mixed Grass-Tall Grass Prairie) as defined in the state plan (Wyckoff and Brooks 1983:34-40). Although the region encompasses an environmental boundary separating the woodlands of the western Ozarks from grassland, its cultural historic bias appears to have been a western orientation throughout most of prehistory. Excellent regional syntheses are provided in Wyckoff and Brooks (1983), Bell (1984), Hofman and Brooks (1989), Sabo *et al.* (1990), and Winchell (1998).

Prehistory

Although PaleoIndian and Early-Middle Archaic Period materials have been recovered within the region as isolated or surface finds out of primary context, buried occupations dating to these early periods have yet to be found (Wyckoff and Brooks 1983:38, Wyckoff and Rippey 1998, Neal and Drass 1998). The Late Archaic Period is only slightly better understood by evidence acquired through excavation of thin, generally sparse occupations of buried open sites (Reid and Artz 1984 191-192) and a few thicker, richer rockshelter deposits (Haury 1984, Henry 1984).

By far the greatest prehistoric representation in the region belongs to the Plains Woodland and Plains Village periods, falling within the last 2,000 years. Although a few knapping stations and quarries belonging to these periods have been identified in upland settings, these are confined to the western portion of the region where flint outcrops occur. Similarly, the only true village sites occur in this western portion along the Arkansas River. Further to the east, near the study area, Plains Woodland and Plains Village period occupations occur principally as small to medium sized open sites situated on alluvial terraces and as small rockshelter/cave sites (Henry 1998, Drass 1985, Reid and Artz 1984).

A climatic change appears to have occurred during the interval with the relative moist setting of the Plains Woodland being replaced by drier, modern conditions after ca. 1,100 bp near the beginning of the Plains Village period. Despite certain technological changes in weaponry (i.e., gradual replacement of atlatl cast spear by bow and arrow), hafting style (corner to side-notched arrow heads), and ceramic fabrication (sand/bone temper to shell temper), the overall settlement pattern and subsistence strategy remained little changed between the local Woodland and Plains Village periods (Henry 1998). Although substantial macrobotanic evidence has been recovered from both open site and sheltered contexts, these data indicate a foraging rather than horticultural economy. Site distributions are remarkably uniform with open sites situated on 1st and 2nd terraces (Artz 1984, Reid and Artz 1984, Henry 1984, Drass 1985) and typically not beyond 500m from permanent water (Henry et al 1980). The great majority of rockshelter/cave settings have south-west exposures. In combination, subsistence and settlement data trace an annual cycle of upstream-downstream migrations. These would have taken groups from fall-winter occupations of protected sites in the Cross-Timbers upstream to grassland settings in the late spring-early summer. With the downstream retreat of headwater settings during the heat of the summer, groups would have again returned to the better watered Cross Timbers. Beyond site settings another interesting feature of the Woodland-Plains Village sheltered sites is the common co-occurrence of pictographs and petroglyphs (Neel and Sampson 1986).

Proto - History and History

General synthesis of the region's proto-historic and early historic periods are provided in Good (1979), Dickerson *et al.* (1991), Odell(1998), Bailey(1998), and O'Brien (1998). A broader survey is provided in Gibson (1980). European influence in the region began in the late 17th and early 18th centuries led by the French fur trade. Local archaeological evidence of this proto-historic period comes from the Lasley Vore and Hampton sites, south of Tulsa (Odell 1998).

The historic period largely begins with the establishment of the Indian Territory (The Indian Removal Bill) in 1830, preceded by the acquisition of land by treaty from the Osage and Quapaw for relocation of the five eastern tribes. The on-set of the Civil War triggered

hostilities between Union Loyalists, led by the Creek Opothleyahola, and Confederate forces. Locally, the battle of Custenahlah, located just east of the study area on Quapaw Creek, saw the end of the Loyalists in their decisive defeat by Confederate forces under the command of Colonel James McIntosh in December of 1861 (O'Brian 1998:142). The Indian Allotment period (Curtis Bill 1889) coupled with the growth of the cattle industry and expansion of railroads dominated the end of the 19th century with an influx of Euro-Americans into Indian Territory. The culmination of the integration of Indian Territory into the rest of the nation was driven by the oil boom of the early 1900's and statehood in 1907.

PREVIOUS INVESTIGATIONS

Prompted by the construction of Skiatook Lake, several cultural resource investigations were conducted in the area from 1969 to 1983. These included surveys undertaken by Rohrbaugh and Wyckoff (1969), Perino (1972), and Henry (1978) that resulted in the discovery of 41 sites. Eighteen of these (see Table 1.1 in Haury 1984) were subsequently test excavated and/or mitigated through excavation (Gettys *et al.* 1976, Henry 1978a, 1978b, Henry 1980, Henry 1982, Haury 1984).

The site distributions, coupled with geomorphic investigations along Hominy Creek and other drainages of the Verdigris Basin, revealed a distinct pattern in terms of site setting, landform, and alluvial context (Henry 1980:56, Artz 1984:5-23, Henry 1998:71-73). In the lower section of Hominy Creek, which encompasses the study areas of this report, late Prehistoric (Woodland/Plains Village) sites were exclusively found within the fill of second terraces composed of silty clay loam classified in the Wynona series (Artz 1984:8,9; (Bourlier *et al.* 1979). Although the the litho- and pedo-stratigraphic succession of the terrace formation offers information of climate and geomorphic forces, what is important in the present study is to simply observe that the T-2 terrace tread rests at about 650' elevation or some 70' below lake level. Even deflated Late Archaic occupations (34OS92, 34OS105) that are out of primary context on a high, cut terrace or bench, rest at ca. 670' or some 50' below the lake level.

Sites that were identified in the surveys of Hominy Creek Valley that might be present above the modern lake level are rockshelters and caves, but even these are likely to be inundated because of cultural and natural constraints. The cultural factor relates to the threshold distance of ca. 500m from permanent water (former stream channels) within which occupations were established. The natural factor relates to formation of caves and rockshelters in the area at the contact of the Vamoosa and Talant sandstone formations due to differential weathering. This contact is known to occur below lake level at 34OS85 and 34OS98 and is likely to be inundated elsewhere, as well.

LEGAL & MAP LOCATIONS

Legal:

Skiatook Point Area, Parcels A-D - Portions of Sections 26 & 27, T22N/R11E, Osage County, Oklahoma.

Hiking Trail, Parcel E - Portions of Sections 26 & 35, T22N/R11E, Osage County, Oklahoma.

Marina, Parcel F - Portions of Sections 2 & 3, T21N/R11E and Sections 34 & 35, T22N/R11E Osage County, Oklahoma.

Map:

See Figure 1.

METHODOLOGY

In general, the study areas rest on the steep slopes that formed the upland ridges and flanks of Hominy and Tall Chief creeks prior to the construction of Skiatook Lake. The slopes are heavily eroded as evidenced by extensive bedrock outcrops, thin colluvial sediments and a mantle of sandstone scree. Surface sediments are composed of thin, stony, sandy and clayey loams formed on sandstone and shale, classified in the Niotaze-Darnell Soil Association (Bourlier *et al.* 1979).

Given the paucity of level ground that would have attracted prehistoric groups to establish encampments in these areas and the geomorphic conditions that have acted against site preservation, the study areas are unlikely to contain prehistoric evidence, especially in primary context. There are, however, limited settings that display nearly level to gently sloping terrain. Additionally, shoreline erosion provides extensive subsurface exposures. From a relative perspective, these settings were thought to have a much higher probability of holding archaeological evidence than the heavily eroded, steep slopes of the remainder of the study areas. In light of this, these more level settings (designated as parcels A-D, G & H) and the shoreline erosional zone (designated as parcels E and F) were intensively surveyed on-foot (see Figure 1).

Areas designated for intensive survey were walked along transects spaced at 20-30m wide intervals. Shovel probes were excavated if surface visibility was obscured beyond distances of 30m. The shoreline parcels E and F were walked one way along a single meandering swath. The remainder of the study area was surveyed with widely spaced (90-120m) transects as well as specific spot checks of areas suspected of holding rockshelters (e.g., western margin of Skiatook Point Area).

ENVIRONMENTAL DESCRIPTION AND SURVEY METHODS

Parcel A occupies the crest of a N-S oriented ridge with a paved road roughly dividing the parcel along its long axis. The vegetation consists of a mosaic of scrub oak

and grassland. Road cuts and drainage ditches along the road provide extensive areas of subsurface exposure (Figure 2a). A recently excavated (and filled) trench parallels the road to the east, furnishing additional surface-subsurface exposures (Figure 2b). Irregular, but extensive patches of bare ground, reveal very thin surface sediments consisting of 0-5cm of grayish brown sandy clay overlying 0-5cm of red sandy clay which in turn rests on sandstone bedrock (Figure 3a). This is classified as Niotaze-Darnell, 3-15% slope soil series ((Bourlier *et al.* 1979). Very large clasts of sandstone and/or bedrock are regularly exposed and bedrock outcrops increase in density downslope.

Survey transects principally followed the contours of slopes at 30m intervals, although when observed, patches of bare ground and erosional features were examined regardless of location relative to the transects. Shovel probes were rarely needed, but when excavated they typically encountered rock within 0-5cm below surface. Surface visibility varied from good (50-75%) to excellent (75-100%).

Parcel B includes a narrower, western extension of the ridge holding Parcel A. Vegetation is composed of post and blackjack oak interspersed with short grasses and forbes. Road cuts, roadside drainage ditches, and erosional zones furnish extensive, wide-spread exposures of subsurface sediments. These consist of 0-5cm of grayish brown sandy clay overlying 0-5cm of red sandy clay which in turn rests on sandstone bedrock. This is classified as Niotaze-Darnell 3-15% slope soil series ((Bourlier *et al.* 1979). Very large clasts of sandstone and/or bedrock are regularly exposed and bedrock outcrops increase in density downslope.

Survey transects followed the contours of slopes at 30m intervals, although patches of bare ground and erosional features were examined regardless of location relative to the transects. Shovel probes were rarely needed, but when excavated they typically encountered rock within 0-5cm below surface. Surface visibility varied from good (50-75%) to excellent (75-100%).

Parcel C occupies a small hillock forming a toe of the dominant, central ridge in the Skiatook Point area. Vegetation is dominated by scrub oak and grassy areas. Much of the area is maintained. Some terrain smoothing of the area is associated with paved access roads, a turnaround, and a parking area.

Survey transects followed the contours of slopes at 30m intervals. Due to exposures of bare ground, shovel probes were rarely needed. Rock was normally encountered within 0-5cm below surface. Surface sediments are classified as Niotaze-Darnell 3-15% slope soil series ((Bourlier *et al.* 1979). Surface visibility varied from good (50-75%) to excellent (75-100%).

Parcel D, located at the foot of the northern flank and on a high terrace and a 2nd terrace of the Hominy Creek floodplain. The western upslope section of the parcel is in

scrub oak woodland, but the T-2 tread is covered in high, dense grass and forbes. East-west transects were walked from the road on the east to the edge of the slope on the west. The surface visibility of the parcel was poor, requiring that it be intensively shovel probed at 30m intervals. Sediments of the western upslope section are of the Niotaze-Darnell 15-25% slopes soil series. The 2nd Terrace consists of a very dark gray silty-fine sandy, clay loam classified in the Wynona series. Along the western edge of the parcel, the Wynona soil interfingers with colluvium from the adjacent slopes. Small (pea-fist sized) sandstone clasts and reddish clay increase from east to west. The dispersed sandstone indicates the area may have been plowed in the past. Also, small fragments of concrete and asphalt suggest that a road or construction depot may have been positioned in the area before being plowed and overgrown with grasses.

Parcel E, representing a proposed hiking trail, follows the shoreline of the lake running roughly parallel to the old Hominy Creek channel. Shoreline erosion has created a nearly level erosional tread (some 2-6m wide) adjacent to a 1-3m high cut bank that is incised into a steep slope (Figures 3b and 3c). The erosional tread is armored by tabular sandstone plates and larger blocks. The cut bank exposures reveal colluvium, composed of red sandy clay interspersed with various sized sandstone clasts, and in some settings bedrock. These sediments are classified as the Niotaze-Darnell, 25-45% slopes soil series. The cut bank exposures show that the shoreline erosion is incising the old valley flank rather than younger alluvium associated with the valley fill and terrace sequence known to hold archaeological sites.

The shoreline was walked (climbed) one way along a meandering 5-10m -wide swath in an effort to observe cut bank exposures when present. Surface visibility was excellent and shovel probes were only rarely needed.

Parcel F, representing the proposed marina area, largely resembles the geomorphic features described for Parcel E except that the cut bank height is more variable and the erosional tread less rock laden in spots. Erosional exposures reveal colluvial sediments representing the valley flank composed of a sandy clay, shale, and sandstone bedrock outcrops. The vegetation covering the steep slopes above the shoreline erosion consists of post and blackjack oak interspersed with grassy areas. The sediments are classified as the Niotaze-Darnell, 25-45% soil series.

A meandering swath (5-10m wide) was walked one way along the eroded shoreline. Wave erosion has created extensive areas of bare ground and excellent surface visibility and shovel probes were rarely dug.

Parcel G consists of a gently sloping bench footing a NE-SW trending ridge in the Tall Chief Cove area. The vegetation is composed of scrub oak woodland and prominent open grassy areas. Surface sediments are thin, consisting of red sandy clay, and display a high density of tabular and platelet sandstone clasts. Bedrock exposures increase with

gradient. The sediments are classified as the Niotaze-Darnell, 25-45% and 5-15% slopes soil series.

Transects were walked parallel to the contours of the slope separated by 30m intervals, looping the western end of the ridge. Thin surface sediments (Niotaze-Darnell, 25-45% and 5-15% slopes) provided extensive areas of bare ground and excellent surface visibility, especially in the wooded areas. High grasses and forbes, however, created poor to moderate surface visibility and required shovel probes in the more open areas. Rock was generally encountered in the probes within 10cm of the surface.

Parcel H, dominated by open grassland, occupies a south-north oriented ridge toe in the SW corner of the Tall Chief Cove area. As in the other areas, surface sediments are thin and accompanied by a high density of sandstone and occasional bedrock outcrops. Patchy erosional areas provide widespread surface exposures. The sediment consists of a grayish brown silty loam with a high density of angular, fist-sized sandstone clasts classified as the Steedman Series.

Transects were walked from east to west following contours around the northern edge of the ridge toe. Surface visibility ranged from moderate to excellent, requiring only occasional shovel probes.

CULTURAL RESOURCES

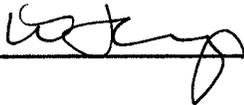
The cultural resources recorded in the survey are limited to the natural sandstone monolith (the *Healing Rock*) that is thought to hold cultural and religious significance for local Native American groups (see Appendix A). The monolith was moved from its original location in 1986 and relocated near the Skiatook Lake project office. It is in a protected area and will not be impacted by the proposed development.

The absence of cultural resources in the surveyed areas stems from all but one of these areas being located in the uplands and on steep slopes generally well removed from dependable sources of water. Such areas would not have been attractive for prehistoric or historic groups to establish camps. Moreover, these settings are largely exposed to erosional and colluvial processes that would have acted to remove and disperse any evidence of ephemeral, specialized encampments (e.g., hunting or collecting stations) that may have been established. Previous surveys of the area have shown sites to be situated along and within the alluvial terraces of Hominy Creek and its side-streams. These terraces are presently some 50-70 feet below lake level in the lower reaches of the old Hominy Creek channel. Here it is important to note, however, that due to the gradient or thalweg of the valley's old floodplain, such terraces rest above lake level upstream as observed along Wildhorse Creek. The absence of rockshelters in the surveyed areas further reduces the chances for the presence of prehistoric sites.

Given the above cultural and geomorphic constraints on site presence, the area most likely to have contained a site is Parcel D. It is situated on the 2nd Terrace of Hominy Creek, but in resting below the dam it is not inundated. Moreover, the structure of the valley at that point would have protected the terrace from subsequent erosion. Why a camp was not established there is hard to say, although it may have been because the channel, with dependable water, was simply too distant (>800m) from the location as it is today.

RECOMMENDATIONS

Given that, with exception to the *Healing Rock*, cultural resources are not on record within the areas proposed for development and none was observed in the course of the survey, I recommend that clearance be given for development.

Donald O. Henry  _____ 11 June 2002

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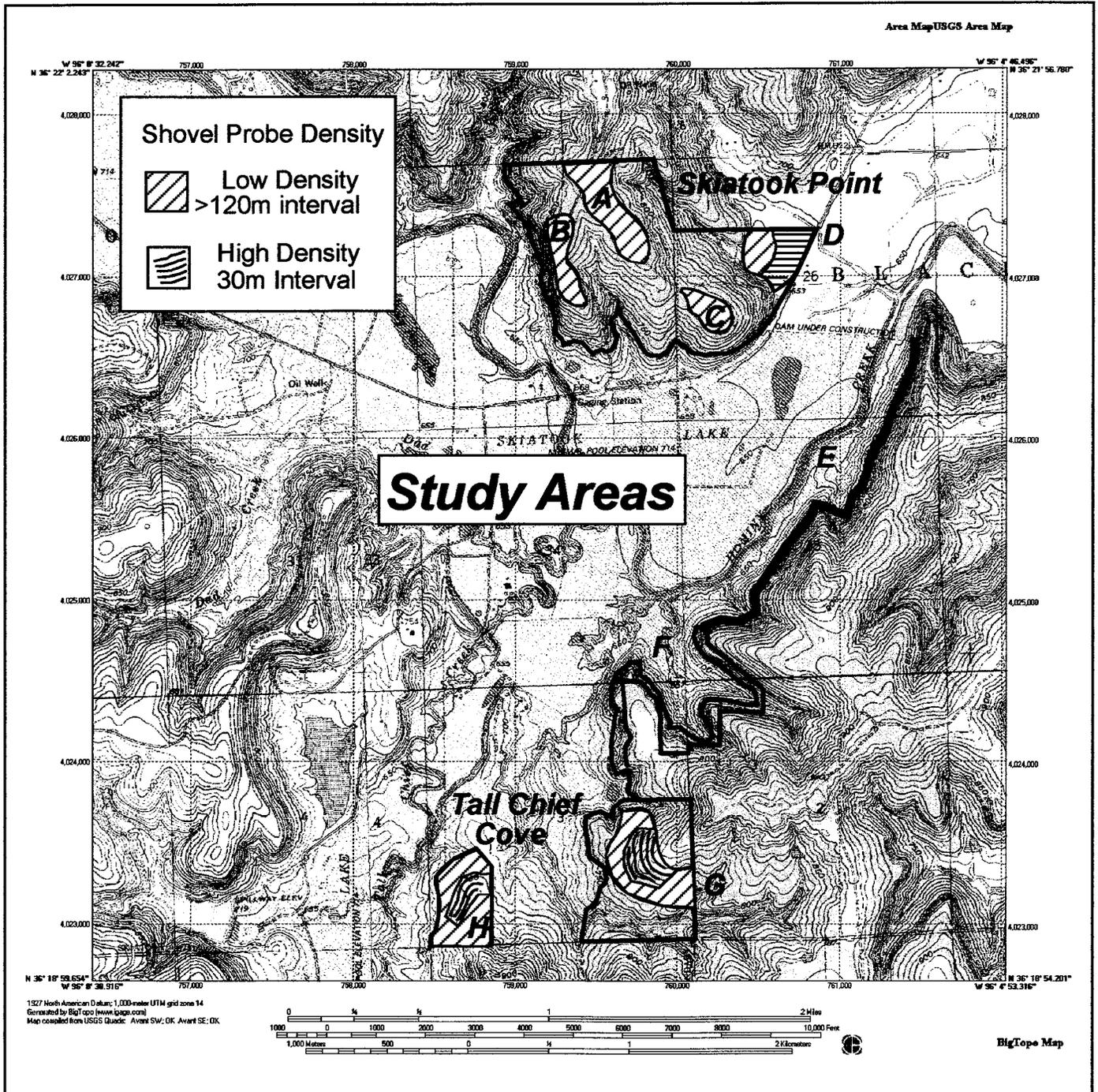


Figure 1:

Map of study areas showing the eight parcels (A-H) that were intensively surveyed (portions of map taken from USGS, 7.5' quads - Avant SW & Avant SE). Note that due to steep slopes and erosion, extensive patches of bare ground obviated the need for close interval shovel probes in many of the investigated areas. High density probes required in those areas obscured by vegetation are shown along the approximate transects of the on-foot survey undertaken in these parcels.

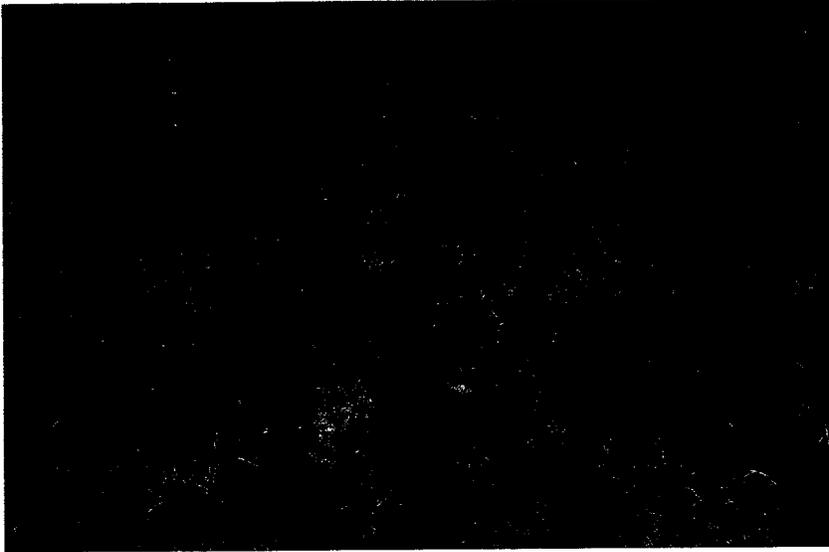


Figure 3a:

Grassy area in Parcel A.
Note patches of bare ground,
sandstone clasts on surface,
and bedrock



Figure 3b:

Shoreline erosional zone in
Parcel E. Note 2m high cut
bank and exposed bedrock.



Figure 3c:

Eroded cut bank in Parcel E.
Note sandstone clasts in
colluvial deposit.