

# RESEARCH BULLETIN

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Kathleen Lake Day Use Redevelopment, Kluane National Park Reserve - Archaeological Assessment Re: Screening Report K85-06

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## Introduction

An archaeological survey and collection program was conducted in the Kathleen Lake day use area in response to concerns expressed in the Environment Assessment and Review Process (EARP) screening report K85-06 regarding the possible impact on archaeological resources during lakeside redevelopment (see Figure 1)(Staley 1986:8-9; Environment Canada-Parks 1986:8-9, 15-16).

Staley (1986) provided a summary of the environmental features found at the Kathleen Lake day use area. He also summarized proposed developments and the potential impacts these could have on the various natural resources found there. As excavation is planned to provide building footings for a picnic site and washrooms, he requested that an archaeological assessment be done in these areas.

Although not mentioned by Staley, scarification of former picnic sites and roadways is also planned (Environment Canada-Parks 1986:9). The areas are known archaeological sites (Stevenson 1982:4-5; French 1980:35-36), and is the location Staley identified as the source of the obsidian artifact (Staley 1986:8 and pers. com.). The survey was conducted on July 3-5 and August 13 and 23, 1986.

## Methodology & Procedure

Three areas of construction impact were identified for sub-surface inspection. These were the picnic shelter, the new washroom site, and the storage shed and boat staging area.

The picnic shelter will be located on a hard-packed beach composed of pit run clay and gravel. It was impossible to penetrate the ground surface as the area has been used for parking, which probably accounts for the compacted ground surface. The beach is currently being used as a boat launch and this causes considerable ground disturbance at the water's edge. No archaeological resources were noted



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during a careful surface survey of the beach. Attempts to penetrate the hard-packed gravel pavement of the beach met with failure. However, based on the surface survey, I do not believe that any archaeological resources are present in the areas bounded by the proposed picnic shelter and associated structures.

At the washroom site, the ground appears to be undisturbed but it is littered with cans, broken bottles and ceramics. This is probably refuse from the nearby private cabins. Seven obsidian flakes, one rhyolite flake and one notched cobble were recovered from an abandoned roadway east of the washroom site. These artifacts were widely scattered and no features were noted.

Shovel tests were placed at paced 5.0 m. intervals with reference to Canada Lands Survey marker 2L82/G80 (not shown on Figure 1). The shovel tests were about 20 cm.<sup>2</sup> and extended approximately 30 cm. deep (Figure 2). No buried archaeological resources were noted.

In the storage shed and staging area, shovel tests were also placed at 5.0 m. intervals with reference to CLS marker 4L82/G803. Again no buried archaeological resources were found (Figure 3).

A ground surface survey of the adjacent areas revealed that archaeological resources were present, but not where construction is proposed. These sites are situated on the edge of a relic beach ridge or wave-cut cliff of an abandoned embayment of Kathleen Lake. Kindle (1952:17) noted that beach gravels from Glacial Lake Champaign occurred topographically above and east of the day use site. The wave-cut or beach feature may be a remnant of later strand lines occupied by a diminishing Lake Champaign.

One of these sites was an area of heat cracked rock and calcined bone exposed in the roadway behind the extant private cabin west of the staging area (Figures 1 and 4). Vehicle travel had eroded the ground surface away from the feature. Because the fire hearth was rapidly deteriorating from automobile traffic and natural erosion, the author excavated it to salvage what data there was. Using small hand tools, I cleared away the soil from around the feature, exposing an area about 1.0 m. in diameter. The various stages of the excavation were photographed (see Figure 5), but no artifacts were found. However, a small quantity of calcined and unburned bone was recovered, most from the west side of the rock feature where the clay had been reddened by the fire.

The hearth stones appeared to be resting on a level surface and the calcined bone was recovered from within and below the rock feature. The bone was well-preserved, suggesting that the feature was not very old. The acidic boreal forest floor will usually cause bone to disintegrate quickly.

Stevenson (1982:5) and French (1980) reported that obsidian and chert flakes were recovered from both sides of the access road. This site, 32Y100, contained two activity areas consisting of lithic scatters. The first was on the

south side of the access road behind the cabins. As mentioned previously, seven widely separated flakes were recovered from this area in 1986.

Across the access road to the north in an area designated for scarification, 29 obsidian flakes, two quartzite flakes, one chert flake, one basalt flake, one small fragment of a biface of obsidian, and one complete hafted biface of obsidian were recovered (Figures 6 and 7). This site was noted by French to be located "to the north of the road, ca. 10 m. along the old creek bed" - the shore line of the abandoned embayment. Today the recovery area consists of three picnic sites and a currently unused roadway. Directly across the access road from this area, I recovered one thick obsidian flake that has some unifacial retouch along one edge (Figure 7c).

An isolated projectile point was also recovered in the opposite corner of the day use area west of the road leading to the hiking trail and north of the road that circumscribes the southern boundary of the picnic area (Figure 7a and b).

#### Lithic Artifacts

All lithic artifacts were recovered from the surface on or above the wave-cut cliff beach ridge. Figure 1 shows the distribution of lithic artifacts.

#### Projectile Point (Figure 7a)

The base has been snapped off, but it was originally lanceolate. It is made from dark green-grey fine grained rhyolite or chert. The flaking is well executed, although both surfaces retain remnants of the original flake from which the artifact was made. Because the base is missing its type can not be determined.

#### Biface (Figure 7b)

This artifact is made from a flake of dark green translucent obsidian. Both surfaces retain unflaked areas. One lateral edge is slightly shouldered and the blade is asymmetrical. The stem lateral edges and base are lightly ground. The flake blank percussion bulb is located at the basal end and numerous thick randomly directed flakes have for the most part removed it. The blade lateral edges show some evidence of wear.

#### Biface Fragment (Figure 7d)

A small fragment from the edge of a fine biface or projectile point is made from opaque Hoodoo Mountain obsidian.

#### Notched Cobble (Figure 8)

An elongated, flat cobble of grey-green greywacke is notched

on one side and flaked on the opposite side. The cobble is polished to a low luster on one side and smooth on the other. It is impossible to determine if the polish and smoothing are the results of human endeavour.

#### Lithic Debitage

There are 40 pieces of lithic debitage: 35 obsidian, two quartzite, two rhyolite and one basalt. The obsidian specimens are not all the same: 28 are probably Hoodoo Mountain obsidian, three are smokey grey, three are translucent green (similar to the biface above), and one is almost clear grey with metallic inclusions. The sources for the final seven specimens are unknown.

#### Discussion

As mentioned above, artifacts have been previously recovered from the glacial lake beach ridge. However, none of them were diagnostic to any specific time period or task. Without direct association with remains that relate specifically to economic endeavour, it is impossible to understand what was happening at these sites. But given the location and some understanding of the geographic history of the area, it is possible to suggest how the sites in the day use area may have functioned.

It seems probable that the artifacts were left when Glacial Lake Champaign was still in existence. As the lake's level ranged from approximately 701-853 m. a.s.l. and the beach ridge in question is now around 734 m. a.s.l., the artifacts in the day use area could be encampment debris left by people during a period of lake level stability. It is believed that Lake Champaign drained between 9,000 and 10,000 years ago. This beach may have been occupied at that time.

With the lake level as high as the beach ridge, the contemporary embayment would have extended a considerable distance northwards, forming a shallow lagoon where fish could have been easily trapped. An artifact similar to the notched cobble from this site has been identified by MacNeish as a net sinker (1964:453). Based on this very tenuous evidence, it seems possible that the old beach ridges were used in prehistoric times as fishing camps.

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Figure 1: Kathleen Lake Day Use Area with archaeological sites indicated. Subsurface tests were conducted at the proposed site of the washroom, post and staging and storage structures. (Drawn by David Erick.)

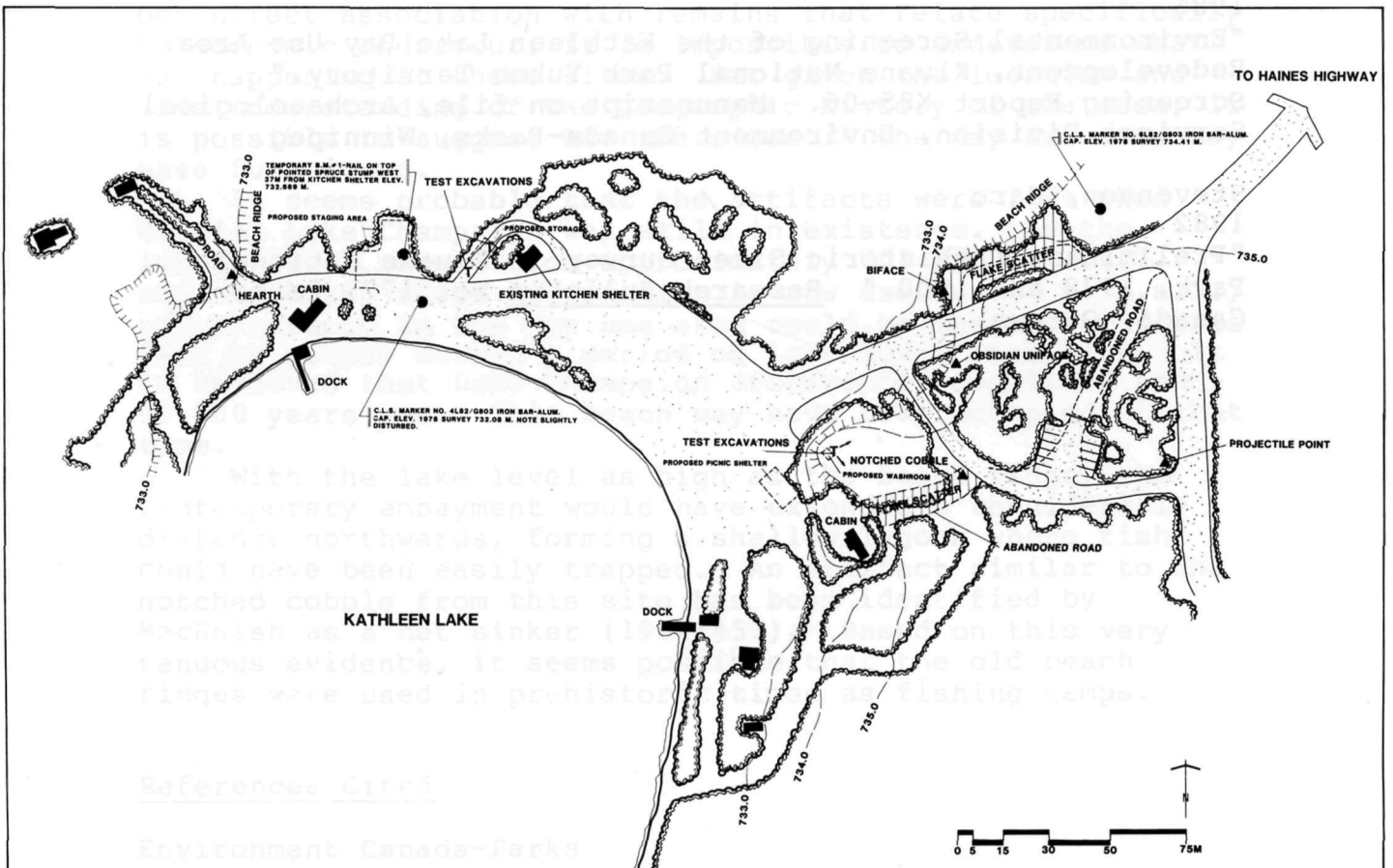


Figure 1. Kathleen Lake day use area with archaeological recovery areas indicated. Subsurface tests were conducted in proposed site of the washroom, boat staging and storage shelter areas. (Drawn by David Elrick.)

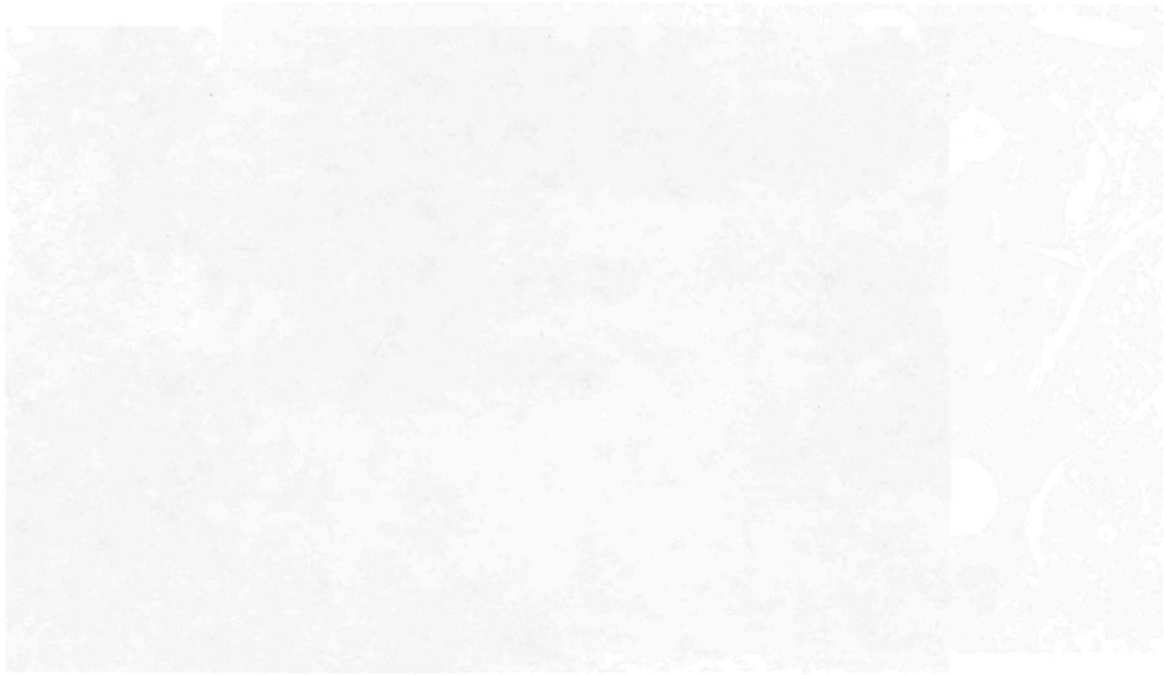


Figure 3. Test excavations located west of the present



Figure 2. Test excavations in the area of the proposed washroom. The book in the middle foreground marks the location of Canada Lands Survey marker 2L82/G80. The kit bag and shovel behind it marks the location of test excavations. (Photo by S.B. Ebell.)



Figure 3. Test excavations located west of the present kitchen shelter. (Photo by S.B. Ebell.)



Figure 4. The fire hearth is located in the right wheel track directly beside the kit bag. Kathleen Lake is in the background. (Photo by S.B. Ebell.)



A)



B)



Figure 5. Fire hearth on the beach ridge. North is to the top:  
a) vertical photo of fire hearth as found;  
b) excavation in progress. Note location of bone in both photos.  
(Photos by S.B. Ebell.)

A)



B)



Figure 6. Surface site 32Y100. Note beach ridge:  
 a) looking north, 32Y100 is on the left side of  
 the road between the spruce trees;  
 b) looking south towards Kathleen Lake, 32Y100 is  
 located in the open space on the right.  
 (Photos by S.B. Ebell.)

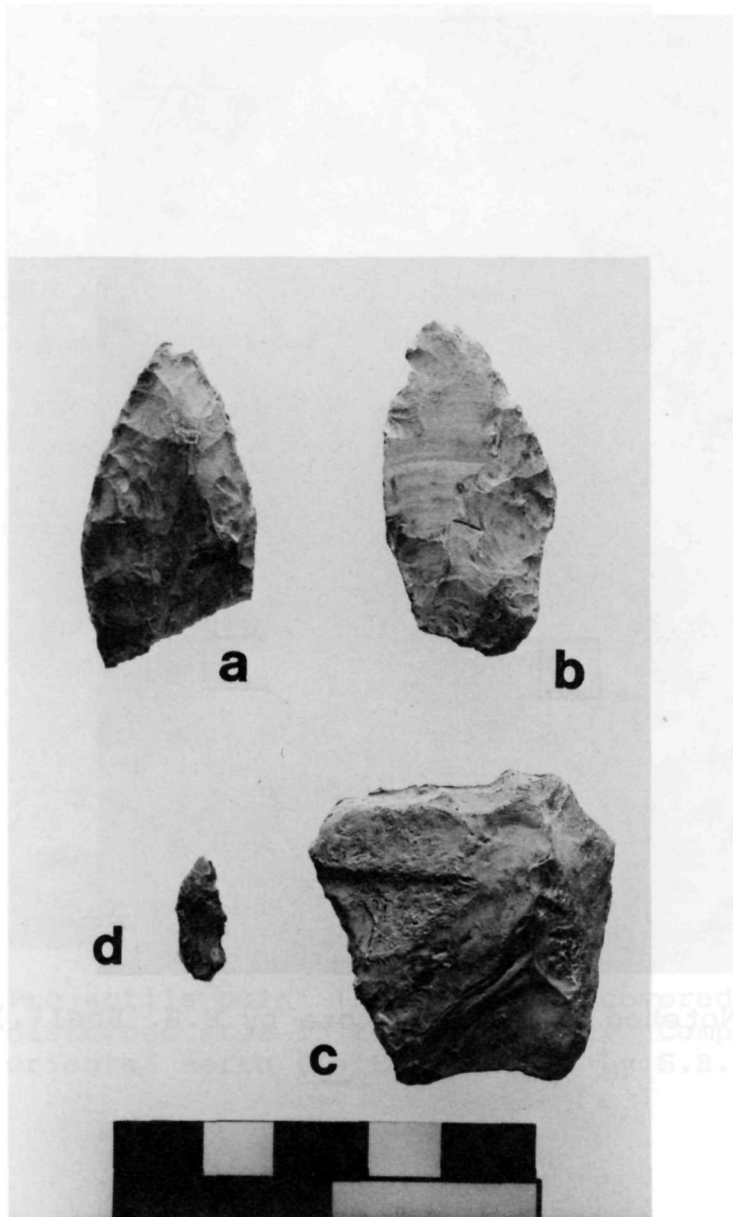


Figure 7. Artifacts recovered from the surface in the Kathleen Lake day use area: (a) lanceolate projectile point with base missing; (b) obsidian biface; (c) obsidian uniface; (d) obsidian biface fragment. (Photo by S.B. Ebell.)





Figure 9. Projectile point (Figure 7a) recovered from disturbed area in front of root. Compass oriented north (left). (Photo by S.B. Ebell.)

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