

COQUIHALLA HIGHWAY PROJECT
MERRITT TO SURREY LAKE

DETAILED HERITAGE RESOURCE INVENTORY AND
IMPACT ASSESSMENT

Prepared for:

THE HERITAGE CONSERVATION BRANCH
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and Government Services

and

MINISTRY OF TRANSPORTATION
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Victoria, B.C.

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AND IMPACT ASSESSMENT

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MANAGEMENT SUMMARY

In the fall of 1984 Arcas Associates undertook a detailed heritage resource inventory and impact assessment for the proposed Coquihalla Highway between Merritt and Surrey Lake, British Columbia. This study was conducted in accordance with the Heritage Conservation Branch's (1982) "Guidelines for Heritage Resource Impact Assessment in British Columbia", under provincial permit number 1984-37. The objectives of this study were:

1. To identify and record all heritage sites within the proposed development study area;
2. To evaluate the significance of all heritage sites in the study area;
3. To identify and assess all impacts by the proposed development on heritage sites; and
4. To recommend viable options for the management of any adverse impacts which may take place as a result of the proposed development.

In addition, an impact assessment was undertaken at archaeological site DiRi 7 near Hope at the southern terminus of the Coquihalla Highway.

Ten heritage sites--nine prehistoric surface lithic scatters and one historic sawmill--were located within the highway right-of-way. These sites are listed and described in section 4.2. and Table 1. In addition, one surface lithic scatter was located outside of the study area in a B.C. Hydro right-of-way; for management purposes this site is also described in section 4.2. and Table 1. Twenty-six Native resource areas and landmarks were recorded in the vicinity of the study corridor in ethnohistoric research conducted by Randy Bouchard and Dorothy Kennedy of the B.C. Indian Language Project. These areas are described in Appendix I.

There were 151 artifacts collected during the investigation of sites on the new right-of-way. Most of these artifacts (n=126) were obtained in surface collections, although test pit artifacts (n=25) were recovered at one site. The distribution of recovered artifacts is presented in Table 2; selected artifacts are illustrated in Figure 8.

Each site in the right-of-way was assessed as to its scientific, public, ethnic, historical, and economic significance. A fourfold rating

scheme was used with sites given a high, high-moderate, low-moderate, or low rating for each category. The significance evaluation is described in section 5 and summarized in Table 3. Eight of the ten study area sites are considered to have low significance values for all significance categories and have been assigned an overall low significance rating. Two sites possess low-moderate scientific significance (with low values in the other four categories) and have been assigned an overall low to low-moderate rating. The 26 identified Native resource areas and landmarks possess ethnic significance, and possibly other significance values, although none of these areas is in direct conflict with the development project.

Results of the impact assessment are presented in section 6. Six sites are located entirely within the 100 m-wide highway corridor, and these sites will be completely destroyed by highway construction. Three sites are partially within the highway corridor, and face partial (50%) to almost total (90%) destruction. One site is on the right-of-way periphery in the vicinity of the Merritt Interchange, and will be destroyed by the construction of this interchange. The 26 Native resource areas and landmarks will not be directly impacted by the proposed development. These areas could, however, be subject to indirect impacts as a result of improved access and increased population density. It is not possible to assess the effect of these indirect impacts at this time. Lastly, a detailed reconnaissance of the area containing archaeological site DiRi 7 near Hope, revealed that this site is well outside the Coquihalla highway right-of-way and will not be affected by the development project (see section 3).

Three recommendations are presented in section 7. These recommendations identify any protective or mitigative measures needed for the heritage resources in the Merritt to Surrey Lake section of the proposed Coquihalla Highway:

1. That no further archaeological research be undertaken at any of the recorded heritage sites within the highway study corridor. This includes sites EaRe 10, EaRe 12, EaRe 14, EaRe 15, EaRe 16, EaRe 17, EaRe 18, EaRe 19, EbRe 1, and EbRd 7;
2. That site EaRe 20 be monitored in case of development of the B.C. Hydro right-of-way near km 3.8 of the highway corridor. If disturbance of this site is unavoidable then a systematic surface collection and brief test pitting program similar to that used on other sites in this study would adequately document site content; and

3. That any future highway design changes or ancillary developments be monitored to assess their impact on identified Native resource areas and landmarks, and that these developments be properly inventoried if there is potential for finding unrecorded heritage resource sites.

ACKNOWLEDGEMENTS

The principals of Arcas Associates would like to thank the Ministry of Transportation and Highways and the Heritage Conservation Branch of the Ministry of Provincial Secretary and Government Services for supporting this study. In particular we would like to acknowledge the assistance provided by Mr. Brian Apland of the Heritage Conservation Branch, and Mr. Darcy Byers, District Manager of the Ministry of Transportation and Highways, Merritt.

We would also like to thank our field, laboratory, and support staff. These persons are named in section 1.3. of this report.

All errors, omissions, and other shortcomings in this report are, of course, ours alone.

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1.0. INTRODUCTION

In the fall of 1984 Arcas Associates undertook, on behalf of the B.C. Ministry of Transportation and Highways and the Heritage Conservation Branch of the B.C. Ministry of Provincial Secretary and Government Services, a detailed heritage resource inventory and impact assessment for the proposed Coquihalla Highway between Merritt and Surrey Lake, British Columbia. This report presents the results of that study.

1.1. BACKGROUND AND DEFINITIONS

The B.C. Ministry of Transportation and Highways is presently designing a new highway link between Hope and Kamloops via Merritt and the Coquihalla Valley (Figure 1). Construction of the Hope to Merritt section of the highway is underway and is scheduled for completion by 1986. With the completion of this portion of the route, an upgraded Highway 5 and the Logan Lake Road will serve as alternative routes to Kamloops prior to the completion of the Merritt to Kamloops section. Construction between Merritt and Kamloops has not yet begun, although preliminary logging and clearing has commenced on the southern portion of this route. The Merritt to Kamloops portion of the Coquihalla Highway is scheduled for completion sometime in 1987.

The Hope to Merritt section of the highway corridor has been examined by the Heritage Conservation Branch (HCB) of the Ministry of Provincial Secretary and Government Services and was found to be primarily of low heritage potential. A heritage overview study of the Merritt to Kamloops section of the corridor concluded, however, that several heritage sites could be expected in that section and recommended that an inventory survey be undertaken prior to construction start-up. On 9 July 1984 the HCB issued a call for proposals for a detailed heritage resource inventory and impact assessment study of the southern portion (Figure 2) of the Merritt to Kamloops corridor. The northern portion of the Merritt to Kamloops corridor was not included in this study as a decision on the final route within this section had not yet been made. In addition, the HCB requested that an impact assessment be undertaken at archaeological site DiRi 7 near Hope (Figure 1). The exact location of this site is uncertain, but it was included in the study as, based on the best available evidence, the site is in the vicinity of the proposed highway.

A detailed heritage resource inventory and impact assessment study is concerned with the identification and evaluation of heritage resources within a proposed development area. Heritage resources consist of archaeological, historical, architectural, and palaeontological sites and objects (Heritage Conservation Branch 1982). Archaeological and historical sites consist of the detectable physical evidence left on the landscape by

past human occupations, and can be either prehistoric or historic in age. Prehistoric cultures are preliterate cultures and prehistoric sites predate the arrival of European goods and influences. Historic sites can be either Indian or non-Indian and date to the period after European contact. In the Merritt area the period between A.D. 1770 and A.D. 1830 marks the transition from the prehistoric to the historic period.

Arcas Associates was awarded the contract to undertake the Coquihalla Highway study in August of 1984. This contract was subsequently modified in October of 1984 to include a heritage resource inventory and impact assessment of a tote (construction access) road planned to provide access to the northern portion of the study corridor on the upper reaches of Clapperton Creek. The inventory of a 5 km-long portion of a B.C. Hydro right-of-way was also to be conducted as part of this revised contract. This work was not undertaken, however, because of mapping delays and weather conditions, and will be completed at a later date.

1.2. SCOPE AND OBJECTIVES

As stated in the Call for Proposals, and as subsequently modified by the HCB, this project consists of:

1. A detailed heritage resource inventory and impact assessment study of the southern portion of the Merritt-Kamloops section of the proposed Coquihalla Highway (Figure 2). The highway study area begins at the Coldwater Interchange (km 0) just southeast of Merritt and extends to Surrey Lake (km 38.5) on the Nicola Plateau. To ensure that heritage sites on the periphery of the right-of-way are located, a corridor 100 m-wide was to be examined even though the highway right-of-way may be somewhat smaller;
2. A detailed heritage resource inventory and impact assessment study of the proposed tote road. This road begins at Shuta Creek (km 14.7) at the mouth of Clapperton Creek Valley (Figure 2) and continues for about 20 km to the Surrey Lake area. It parallels and occasionally crosses the highway right-of-way and will consist of upgraded logging roads connected by sections of new road. A 30 m-wide right-of-way was to be examined for this road; and
3. An impact assessment at site DiRi 7, a small pithouse site near Hope at the southern terminus of the Coquihalla Highway.

The study was to be conducted in accordance with the requirements of a Detailed Impact Assessment as defined in the "Guidelines for Heritage Resource Impact Assessment in British Columbia" issued by the HCB (1982).

These guidelines identify 4 objectives for an inventory and impact assessment study (p. 18-19), and these objectives have been adopted for this study, as follows:

1. To identify and record all heritage sites within the proposed development study area;
2. To evaluate the significance of all heritage sites in the study area;
3. To identify and assess all impacts by the proposed development on the heritage sites; and
4. To recommend viable alternatives for the management of any adverse impacts which may take place as a result of the proposed development.

1.3. SCHEDULE AND PERSONNEL

The Coquihalla Highway detailed heritage resource inventory and impact assessment study was conducted according to the following schedule:

1. Assessment of DiRi 7: August 24-25, 1984.
2. Ethnohistoric research: September 20-October 5, 1984.
3. Highway right-of-way heritage resource inventory and impact assessment: September 7-October 21, 1984.
4. Tote road right-of-way heritage resource inventory and impact assessment: October 18-21, 1984.
5. Data processing: October 22-23, December 10-14, 1984.
6. Report preparation: January 2-21, 1985.

The relocation and assessment of site DiRi 7 was undertaken by Arcas principal Arnoud Stryd with the assistance of Morley Eldridge. Randy Bouchard and Dorothy Kennedy of the B.C. Indian Language Project conducted the ethnohistoric research. The results of the ethnohistoric research are presented in Appendix I.

A 2-person field crew directed by Arcas principal Stephen Lawhead undertook the inventory and impact assessment of the highway and tote road right-of-ways. The field assistant was Geordie Howe. Additional field assistance (2 days each) was provided by Lisa Millar and Jerry Pettyjohn.

Data processing (site form completion, artifact classification and cataloguing, data tabulation, etc.) took place at the Arcas office in Kamloops. The site forms (Appendix II) were completed by Geordie Howe, with the exception of the form for DiRi 7 which was completed by Richard Brolly. Data tabulation and artifact classification was the responsibility of Stephen Lawhead, whereas the artifact cataloguing was undertaken by Lisa Millar. Information concerning the sawmill site (EbRd 7) in the Clapperton Creek valley was provided by Pat Lean of the Nicola Valley Historical Society and Keith Blom of the B.C. Forest Service.

Preparation of the final report was the responsibility of Stephen Lawhead. Project supervisor, Arnoud Stryd, assisted with report editing. The report maps and artifact illustrations are the work of Arcas draftsman Jerry Pettyjohn. Photographs were taken by Stephen Lawhead, and the report was typed by Mary MacGregor.

1.4. REPORT ORGANIZATION

This report begins with a brief MANAGEMENT SUMMARY which presents a synopsis of the project objectives, results, and recommendations. This summary is intended for those who wish an overview of the study.

The main body of the report consists of seven sections and contains a detailed description of the objectives, methods, and results of the study. The first section provides background to the project, identifies the scope and objectives of the study, defines certain basic terms, and gives the schedule of the activities and personnel involved. Section 2 describes the natural environment as well as the ethnographic and archaeological setting of the study area. The results of the assessment at DiRi 7 and the heritage resource inventory are presented in sections 3 and 4, respectively. The significance of heritage sites within the study area is evaluated in section 5, and section 6 presents an assessment of possible impacts on the heritage sites as a result of the proposed road construction. Study recommendations are presented in the final section, section 7.

The tables and illustrations are placed together at the end of the text. A list of references and two appendices conclude the report.

1.5. CURATION

All notes, records, artifacts, and photographs generated by this study are on deposit with the Archaeology Division of B.C. Provincial Museum,

Victoria. They can be accessed by contacting the Director of the Archaeology Division, B.C. Provincial Museum, 601 Belleville Street, Victoria, B.C. V8V 1X4, telephone (604) 387-6512.

2.0. STUDY AREA: NATURAL AND CULTURAL SETTING

The study area consists of the proposed right-of-way for the Merritt to Surrey Lake section of the Coquihalla Highway. The right-of-way begins at the Coldwater Interchange just southeast of Merritt and extends 38.5 km to Surrey Lake on the Nicola Plateau. For the purposes of this study, a right-of-way width of 100 m is being used. In addition, the study area contains a 30 m-wide tote road designed to provide access to the highway right-of-way by logging and construction crews. This road begins at the lower end of the Clapperton Creek Valley near Shuta Creek, and extends north over 20 km to Surrey Lake. For most part, the tote road parallels the highway right-of-way, although in several places the road occurs within the right-of-way.

The highway right-of-way begins near Godey Creek on the south side of the Nicola River Valley. From here the right-of-way heads north for 5 km to the base of the steep northern valley side. In crossing the valley bottom the road passes over a variety of terrain including the level floodplain and gullied till, glaciolacustrine, and glaciofluvial landforms. From the crossing to Shuta Creek, about 10 km to the northeast, the road traverses the base of the steep valley side. Much of this portion of the route consists of moderately to steeply-sloping terrain subject to considerable colluvial activity. Occasional level or gently-sloping landforms include remnant outwash terraces, till benches and ridges, and alluvial fans.

As the right-of-way enters the Clapperton Creek Valley, it crosses three major creek gullies--Shuta, Rorison, and Kirby. Within the Clapperton Creek Valley, the route follows the western side of the creek for about 13 km, then crosses the creek and passes east of Hellmer Lake. Five km after the first crossing of Clapperton Creek, the road crosses the creek again and follows the west bank of the creek passing by the western edges of Kent, Sussex, and Surrey Lakes. Within much of the Clapperton Valley, the right-of-way occurs predominantly on moderately to steeply sloping landforms made up of till, glaciofluvial gravels, and colluvium. At Hellmer Lake the route enters the more level Nicola Plateau. In this area the right-of-way passes over till, glaciofluvial gravels, moraine, and organics. The latter occur in association with bogs and swamps, and consist of peat and rotted organic materials to depths of one meter or more (Ministry of Transportation and Highways 1983).

The bedrock geology in the study area has been described by Cockfield (1948). Information on the glacial and post-glacial geologic history of the Nicola Valley and Nicola Plateau is available from a number of

sources including Fulton (1967, 1969, 1975) and Ryder (1976). A detailed landform mapping of the highway right-of-way and vicinity at a scale of 1:20,000 has been undertaken by the Ministry of Transportation and Highways and is available in their "Highway Location Study, Merritt to Kamloops, Preliminary Terrain Evaluation" (1983).

The elevation of the proposed highway study area varies from 590 m a.s.l. as it crosses the Nicola River floodplain at its southern end, to elevations of over 1,400 m at its northern end near Surrey Lake. In the lower sections the study area is characterized by hot summers, moderately cold winters, and low annual precipitation. With increasing altitude there is a corresponding decrease in temperature and increase in annual precipitation. These temperature and precipitation changes are significant enough to affect local vegetation patterns and, as a result, the proposed highway right-of-way passes through three different biogeoclimatic zones.

The Nicola Valley bottom and lower valley slopes (Figure 3) are within the Ponderosa pine-bunchgrass zone which occurs at elevations up to 900-1,000 m. Grasses, notably bluebunch wheatgrass (Agropyron spicatum) and needleandthread grass (Stipa comata), shrubs such as sagebrush (Artemesia tridentata) and rabbitbush (Chrysothamnus nauseosus), and cactus (Opuntia fragilis) dominate the steppe-like plant communities. Ponderosa pine (Pinus ponderosa) occurs in open, parkland-like stands.

At a slightly higher elevation, increased precipitation and lower temperatures favour forest rather than grassland development, and the Douglas-fir zone predominates. The climax tree throughout this zone is Douglas-fir (Pseudotsuga menziesii var. glauca). Pinegrass (Calamagrostis rubescens) is the characteristic ground cover in combination with kinnikinnick (Arctostaphylos uva-ursi), flat-topped spirea (Spirea lucida), and several other low-lying shrubs.

The Interior Douglas-fir zone occurs in the study area only near the entrance of the Clapperton Creek Valley between 900-1,100 m a.s.l. When the steep-sided valley of Clapperton Creek is entered, the decrease in direct sunlight and the increase in altitude results in an Engelmann Spruce-Subalpine fir community (Figure 4). This zone occurs above 1,100 m and has two climax trees: Engelmann spruce (Picea engelmannii) and subalpine fir (Abies lasiocarpa). Associated climax shrubs include white-flowered rhododendron (Rhododendron albiflorum) and Sitka mountain-ash (Sorbus sitchensis). Lodgepole pine (Pinus contorta) stands also occur in this zone in old burns and logged areas.

A wide variety of wildlife occurs within these three biogeoclimatic zones. A summary of faunal resources in the study area can be found in Archer (1981:12-15). Food resources available to the Native inhabitants of the study area are discussed in Appendix I of this report.

Prior to about A.D. 1850 the main inhabitants of the study area were the Athapaskan-speaking Nicola-Similkameen Indians. During the ethnographic period (i.e., at the time of contact with the Europeans early in the 19th century), the area began to be used by the Salish-speaking Thompson and Okanagan Indians who moved in from the west and east, respectively. A combination of intermarriage and warfare led to the disappearance of the Nicola-Similkameen, and by the early 1900s only the Thompson and Okanagan made use of the area. A detailed discussion of the history of Indian occupation of the Nicola Valley is presented in Appendix I. This report is based on archival research and informant interviews conducted by Randy Bouchard and Dorothy Kennedy of the British Columbia Indian Language Project. The primary ethnographic sources for the study area are presented in this appendix.

The first European to journey through the Nicola Valley was A.C. Anderson who came in 1847 (Lean 1977). Permanent European occupation of the Merritt-Nicola Lake area began in the late 1860s with the first land pre-emptions. Ranching was the main economic activity for the first settlers, and this was later augmented by logging and mining. One of the first sawmills in the Nicola Valley was begun in the 1880s in Lot 573 near Clapperton Creek, and it is from this mill that Clapperton Creek received its original name of Mill Creek (P. Lean, personal communication 1985). With the arrival of the railroad in the Nicola Valley in 1906 (Lean 1979), coal mining became an important activity, and other types of mines were also opened. Between 1900 and at least 1916, copper and gold were mined in the Clapperton Creek canyon (Archer 1981:52). A summary of the history of mining in the study area can be found in Cockfield (1948), and ranching history is presented in Weir (1964). Further historical data on this area is available in the journals of the Nicola Valley Historical Society (1977-present).

Archaeological activity in the vicinity of the study area began in 1888 when geologist George M. Dawson, on a mapping expedition in the Nicola Valley, collected two "chipped points of glassy basalt" from "Clapperton's Creek" (Smith n.d.). Further investigations took place about ten years later, between 1897-1899, when Harlan I. Smith (1899, 1900) located and tested archaeological sites in the Kamloops area and in the Nicola Valley.

A hiatus in archaeological research in the Nicola Valley of almost 70 years followed, only to end in the late 1960s and early 1970s, when David Wyatt conducted a site inventory and test excavation program (Wyatt 1969, 1970, 1972). At about the same time, Archer (1971) conducted excavations at the Monck Park site on Nicola Lake. Since the early 1970s, archaeological research in the vicinity of the study area has consisted primarily of linear corridor studies for B.C. Hydro transmission lines (Mohs and Hoy 1973, Weber and Seymour 1976, Warner 1980, Aresco Ltd. 1981, Bussey 1982), highways (Robinson and St. Pierre 1973, Bates and McMath 1976, Rousseau and Richards 1980, Brolly 1984), and pipelines (Bernick and Eldridge 1978). Exceptions to these corridor studies include the excavation of a single human burial west of Merritt in 1976 (Carfantan 1976), and an industrial development assessment near Godey Creek in 1978 (Rousseau and Howe 1978). In addition, the work of Stryd and Lawhead (1983) in the nearby Highland Valley has demonstrated a long history of use of the upper elevation lakes on the Thompson and Nicola plateaux.

Two heritage resource overview studies have been conducted for the Merritt to Kamloops section of the proposed Coquihalla Highway. In the most recent study, Bussey (1984) evaluated the potential impact of a highway route that approximately follows the present Merritt to Kamloops highway (Highway 5). This route includes the proposed Merritt bypass which crosses the Nicola River near Merritt. Bussey (1984:18) evaluated the Merritt to Nicola Lake portion of the route as having a moderate potential for containing heritage sites. At Nicola Lake the route evaluated by Bussey diverges from the Clapperton Creek route examined in the 1984 Arcas inventory.

The earlier heritage resource overview study (Archer 1981) evaluated the heritage resource potential of the highway right-of-way as defined in the present study. Using data from previous surveys in the area, Archer (1981:44-45) estimated that about 10 new sites could be expected within the highway corridor between Merritt and Kamloops. As about sixty percent of this route and most of the lower valley areas are included in the present study area, this estimate is equivalent to about 6-8 new sites. Archer (1981:60) also made several recommendations concerning historical resources in or near the study area including investigating possible conflicts with a coal mine site near Merritt, an early mine in the Clapperton Creek canyon, a sawmill site on Clapperton Creek (Lot 573), and the site of log buildings along a wagon road (Lot 4211). These possible conflicts are discussed in section 6.0.

3.0. ASSESSMENT OF DiRi 7

3.1. PURPOSE AND METHOD

Archaeological site DiRi 7 was recorded in 1956 as "2 small pit house villages about 1,000 ft apart on wooded slopes" (Borden and Baldwin, Archaeological Site Inventory Form 1956). The site has not been revisited since that time and its exact location is uncertain, although it is recorded as being just east of Hope on the property of T.L. Thacker on the west slope of Thacker Mountain. The purpose of the impact assessment was to relocate the site and determine whether it would be impacted by the proposed construction of the Coquihalla Highway.

The impact assessment was conducted by Arnoud Stryd and Morley Eldridge. John Bolleman, District Highways Manager in Hope, was contacted and he was able to identify the property formerly farmed by Mr. Thacker. A thorough reconnaissance of this property was undertaken. This reconnaissance consisted of a visual inspection for cultural depressions and surface artifacts, and judgementally placed shovel tests to check for buried cultural deposits.

3.2. RESULTS

The cultural depressions recorded for this site could not be relocated. The locational information on the site form is vague and this may not be the proper location although according to John Bolleman, this was the only property in the region owned by Mr. Thacker in the 1950s, and the vegetation, elevation, view of the Fraser River, and overall "lay" of the land conforms to the information provided on the site form. The most likely explanation for the disappearance of these depressions is that they were destroyed when Mr. Thacker drained a pond on his land and placed several areas under cultivation.

The surface inspection and test pitting produced a surface cobble chopper and two basalt flakes in a single test pit. These artifacts were approximately 150 m apart. Based on the information provided on the 1956 site form, the distribution of artifacts located in 1984, and on the overall "lay" of the land, the site probably had an original extent of 300 m (1,000 ft) x 30 m (100 ft).

DiRi 7 is located in a U-shaped basin located on the western edge of Thacker Mountain. This mountain is not named on the 1:50,000 NTS map but is a prominent local topographic feature. The site is northeast of Hope and, since

the proposed Coquihalla Highway will be located to the south and southeast of Hope (Figure 1), will not be impacted by road construction. The updated Archaeological Site Inventory Form for this site is attached as part of Appendix II.

4.0. HERITAGE RESOURCE INVENTORY

In this section the methodology and results of the heritage resource inventory are presented. It includes the results of the inventory of the highway and tote road corridors, and a summary of the site locations and traditional Native resource areas in the vicinity of the highway right-of-way obtained in the ethnohistoric research.

4.1. PURPOSE AND METHOD

A heritage resource inventory study involves "...a program of in-field identification of heritage resources within a proposed development area" (HCB 1982:20). A heritage inventory is usually accomplished through a field survey (or reconnaissance) which is an inspection of land for the purpose of locating heritage sites and objects. The purpose of such a study is to obtain a heritage resource data base for the subsequent assessment of the kind and scale of impacts which might be generated by the proposed development project.

The site reconnaissance in this study was carried out on foot using vehicular access. In the Nicola Valley bottom, right-of-way access was accomplished using well-travelled paved and gravelled roads. Logging roads, power line rights-of-way, and new highway construction roads provided good access to the more remote parts of the study area on the Nicola Plateau.

Standard archeological survey techniques were employed. Man-made and natural exposures were checked for archaeological and paleontological evidence, and standing trees within the right-of-way were examined for signs of cultural modification. In areas with little surficial vegetation and good ground exposure the surface was systematically traversed and inspected for structural, artifactual, and other evidence of past human settlement. Locations with a thick forest litter mat were examined using shovel tests, with these tests placed in areas assessed as having a high potential for containing heritage sites. The shovel tests measured 35 x 35 cm and were excavated to the C soil horizon. Several specific environmental attributes were used to assess heritage potential including surface topography, soil drainage quality, stability of the land surface, exposure to sunlight based on side of valley and direction of surface slope, and degree of ground disturbance due to erosion, logging, construction, and so on. Special attention was given to terrace edges, alluvial fans, elevated landforms, and locations close to streams.

The reconnaissance of the proposed highway corridor began at Highway 5A at the southern end of the Merritt bypass. A short 0.8 km section between the Coldwater Interchange (km 0) and Highway 5A was not examined as logging, clearing, and bulldozing had destroyed any heritage sites in this section. In particular, a site examination revealed that the portion of site EaRe 10 within the highway right-of-way on Godey Creek (km 0.35) had been destroyed and required no further investigation (see section 4.2.).

From km 0.8 to km 17.5 at Rorison Creek in the Clapperton Creek Valley, the highway right-of-way had limited vegetation cover and good ground exposure, and a systematic surface inspection was possible. The survey of this section, which accounts for 45.5% of the inventoried highway area, was undertaken by partitioning the 100 m-wide study corridor into four 25 m-wide corridors, two corridors on each side of the centre line. The 2-person survey crew began on one side of the centre line, each person responsible for one 25 m-wide corridor. Each 25 m-wide corridor was then examined on foot with the surveyor walking a sinuous line to ensure that as much ground surface as possible was inspected. After walking between 1 to 3 km along the right-of-way, the surveyors moved to the opposite side of the centre line and returned to their starting point using the same technique on this side of the right-of-way. The survey vehicle was then used to drive to the next unsurveyed section and the survey process was repeated. Heritage sites and objects observed during the survey were flagged and their location recorded. Detailed site recording and assessment took place after the initial inspection had been completed.

From km 17.5 to km 38.5 at Surrey Lake, the dense vegetation cover did not permit a systematic surface inspection of the proposed highway right-of-way. Within this section man-made and natural exposures were examined, and test pits were excavated in areas considered to have good potential for containing heritage sites.

The proposed tote road begins at about km 14.7 and will consist of upgraded logging roads connected by sections of new road. Unfortunately, construction of the tote road was underway when we began our survey and the sections between km 19.3-km 25.7, km 30.0-km 31.8, and km 32.8-km 36.3 were already completed. The remaining sections of the tote road were examined using systematic surface inspection, examination of man-made and natural exposures, and test pitting of high site potential areas. Judgementally-selected portions of the completed road were inspected to determine whether any heritage sites had been disturbed during the construction.

Prior to the archaeological inventory several survey crews had worked along the highway corridor mapping and staking the highway and tote road routes. The highway centreline had been staked (at 20 m intervals) between km 0.0 and km 13.7, and between km 30.0 and km 36.3. The remainder of the route had been flagged as had the new sections of the tote road. In some of the flagged sections, the flagging had fallen down or been removed and the route had to be estimated using the 1:5,000 project maps. In addition, although the new tote road was flagged, the bulldozer operators often used their own judgment when clearing the route and the road often does not follow the original route as mapped. It is our opinion, however, that these mapping and survey problems did not significantly affect the results of the archaeological inventory.

New sites and previously recorded sites visited during the reconnaissance and located on the right-of-way were photographed on 35 mm colour print film, mapped by pace and compass or with chain and compass, plotted on project design maps, and recorded on B.C. Archaeological Site Inventory forms.

Each site on the right-of-way was briefly documented as to type (see below), size, condition, the absence or presence of buried cultural deposits, and, when possible, age and cultural affiliation. Systematic surface collection and subsurficial testing were the major assessment techniques used. The site and environs were carefully searched for surficial cultural debris, which was collected and mapped using a chain and compass. Test pits were placed judiciously so as to yield the maximum amount of information with the least expenditure of time. The test pits ranged in size from 35 x 35 cm to 100 x 100 cm, and were dug with square-nosed shovel and mason's trowel to the underlying C soil horizon. Fill was sifted through 6.4 mm mesh. Artifacts obtained from the test pits were collected and catalogued.

The site classification scheme used in this study follows the site typology established for usage with B.C. Archaeological Site Inventory forms (Heritage Conservation Branch n.d.: Appendix E). The major site type represented in this study is the general activity location (e.g., camps, workshops). This comprehensive general activity class can be divided into surface artifact scatters, sites with subsurficial deposits, and sites with architectural features. Other site types such as burials, cultural depressions, and pictographs were not encountered during this study.

4.2. INVENTORY RESULTS

As a result of the 1984 survey, a total of 10 heritage sites were confirmed as being within the proposed right-of-way for the Coquihalla Highway between Merritt and Surrey Lake. These consist of two sites (EaRe 10, EaRe 12) (Figure 5) located in previous surveys, and eight sites (EaRe 14, EaRe 15, EaRe 16, EaRe 17, EaRe 18, EaRe 19, EbRe 1, EbRd 7) located during the 1984 study. The latter consist of 7 prehistoric (Figure 6) and 1 historic (Figure 7) sites. An eighth prehistoric site (EaRe 20) (Figure 6) was located within a B.C. Hydro right-of-way near the highway route but outside the study corridor. This site will not be affected by the proposed highway development, but for management purposes it has been described below in case of future development of the B.C. Hydro right-of-way.

The prehistoric sites are located between km 0 and km 13.4 in the Nicola Valley bottom, whereas the historic site is located at km 19.3 in the lower Clapperton Creek Valley. No sites were located during the tote road survey; in fact, archaeological sites were not located north of km 20. This could be due to the difficulty in locating sites in the upper portion of Clapperton Creek, but also reflects the fact that the densely forested western slopes of Clapperton Creek were not as extensively used by aboriginal peoples as the more open eastern slopes and the Nicola Valley bottom.

There were 151 artifacts collected during the investigation of sites on the new right-of-way. For the purposes of this study, all humanly modified objects other than fire-altered rock, charcoal fragments, and features were treated as artifacts. Most of these artifacts (n=126) were obtained in surface collections, although test pit artifacts (n=25) were recovered at EaRe 15.

Site descriptions and the results of the evaluative testing are presented below. Each of the sites recorded in the study is briefly described in alphanumeric order. Site maps and photographs are presented in Figures 9 to 26. All site maps are at a scale of 1:1,000 with the exception of the detailed map for EaRe 15 (1:100) and the site map for EbRd 7 (1:5,000). Table 1 summarizes the site data, and Archaeological Site Inventory Forms are attached as Appendix II. The distribution of recovered artifacts is presented in Table 2; selected artifacts are illustrated in Figure 8.

The description of the sites within the right-of-way is followed by a brief discussion of the results of the ethnohistoric research. A report on the ethnohistoric research is attached as Appendix I.

Highway Right-of-way Inventory

EaRe 10 (Figure 9)

This site was located by Michael Rousseau and Thomas Richards during the 1980 HCB Thompson-Okanagan-Kootenay Impact Assessment Project (Rousseau 1980). It was recorded as a surface lithic scatter consisting of sparsely scattered basalt flakes on both sides of Godey Creek and Fox Farm Road south of Merritt (Figure 3). Rousseau and Richards judged the site to be 70% intact; the major sources of disturbance were Fox Farm Road and a Department of Highways maintenance yard west of this road. The estimated extent of the site was 250 m east-west by 140 m north-south or 35,000 m².

EaRe 10 is located near the southern end (km 0.35) of the highway study corridor. Unfortunately, km 0.0-km 0.8 of the proposed right-of-way was logged, cleared, and graded (Figure 9) prior to the heritage inventory study. The site area within the right-of-way was inspected but had been heavily disturbed, and no intact cultural deposits were observed. Intact cultural deposits may remain west of Fox Farm Road, but this area was not examined as it lay outside the study corridor.

EaRe 12 (Figure 10)

This site was recorded by Richard Brolly as part of the 1983 HCB Highway Survey Project (Brolly 1983). It is a surface lithic scatter consisting of a small number (3?) of basalt and chert artifacts observed in a 250 m² area (Figure 10) adjacent to present Highway 5. In addition, a single basalt flake was observed about 100 m to the southwest, but this isolated find was not considered part of the site. The site was assessed as being 90% intact, with Highway 5 and a nearby powerline being the major forms of disturbance.

This site was re-examined as part of this study. It appears to be in the same condition as when recorded by Brolly, except for the powerline along the southern periphery of the site which had been moved to the north side of Highway 5 in preparation for the construction of the Merritt Interchange. Except for one small basalt flake, we were unable to relocate any of the surficial material observed by Brolly. Two small (35 x 35 cm) pits tested the underlying fluvioglacial gravels but no evidence for buried cultural deposits was encountered. The single isolated find recorded by Brolly southwest of the site was relocated, but no other cultural material was found in this vicinity. This single flake, which is off the survey corridor, is not considered part of EaRe 12 and has not been assigned a Borden site number.

EaRe 14 (Figures 11 and 12)

This small (75 m²) lithic scatter was located on the glaciolacustrine bluffs which overlook the Nicola River floodplain on the Nicola Valley bottom (Figure 11). It consists of two pieces of basalt flake shatter on the southern slope of a small gully (Figure 12). A single 50 x 50 cm test pit was excavated, but no buried cultural material was encountered within the glaciolacustrine silts and sands. This site is undisturbed and is located entirely within the proposed highway right-of-way.

EaRe 15 (Figures 13, 14, and 15)

This site is located in an area of undulating glaciolacustrine terrain east of the town of Merritt and northeast of the Nicola Valley floodplain (Figure 13). It consists of a comparatively dense surface scatter of stone artifacts in a 330 m² area within a shallow northeast-southwest trending gully (Figure 14). On-site vegetation consists of dispersed bunchgrass and rabbitbush and there is good ground visibility in the site vicinity. The site is undisturbed (Table 1) and is situated on the eastern periphery of the proposed highway right-of-way. A staked B.C. Hydro right-of-way centre line passes about 20 m south of the site (Figure 14).

A surface collection recovered 72 artifacts, most of which were located in a dense cluster on the western edge of the site. These surface finds consisted of 1 stone tool and 71 pieces of lithic detritus. The spatial distribution of the surface artifacts is shown in Figure 15.

Four 50 x 50 cm test pits were excavated (Figure 15): two (#1, #2) within the densest part of the surface scatter; one (#3) on the southern periphery of the site; and one (#4) on a flat on the northeast corner of the site. Cultural material was recovered in test pits #1 and #2, with test pit #1 containing 9 artifacts (1 utilized flake, 3 platform-bearing flakes, 1 flake shatter, and 4 pressure flakes) and test pit #2 producing 16 artifacts (7 platform-bearing flakes, 6 flake shatter, and 3 pressure flakes). All of the test pit artifacts were recovered within the first 5-7 cm below surface in loose glaciolacustrine silts and sands. At 7-10 cm below surface the glaciolacustrine sediments become moister, more compact, and did not contain cultural material. Test pits were excavated to 15-20 cm below surface.

The surface and buried artifacts have similar characteristics and were probably deposited during the same occupation. The burial of some of these items can be attributed to the accumulation of slopewashed glacio-

lacustrine silts and sands from the gentle gulley slope. This may also have resulted in the movement of some of the very small artifacts, but the angle of slope is not sufficient to move the larger items.

A total of 97 artifacts were collected during the surface inspection and test pitting of EaRe 15 (Table 2). All of the artifacts were made of a fine-grained basalt of a quality similar to the fine-grained material available in the Cache Creek area. Only two tools were recovered: a surface-collected graver with a single, sharp graving projection formed by the intersection of two flake edges and an arris; and an excavated (test pit #1) utilized flake with a single utilized edge. The remaining 95 artifacts (97.9% of the assemblage) consist of waste material from the manufacture of stone tools. The platform-bearing flakes and the flake shatter typically have very thin cross-sections and are probably the result of soft-hammer flaking. Pressure flaking also occurred with some frequency. The single biface reduction flake could be the result of the working of tool blanks and preforms.

Site EaRe 15 was probably a briefly occupied tool manufacturing station. The lack of faunal remains, fire-altered rock, and charcoal indicate that this was not also a campsite, although the lack of organic debris could be a result of poor preservation conditions. In addition, if this were a camp one would expect a greater number of tools associated with camp maintenance activities. Tools comprise only 2.1% of the assemblage, and no formed tools were located. The lithic detritus is characteristic of the final stages of tool manufacture (i.e., tool finishing), and its clustered distribution suggests it may be the result of one or two individuals working in the area for a relatively short period of time.

EaRe 16 (Figure 16)

This surface lithic scatter is located on a small, remnant gluviglacial terrace at the base of the steep slope that bounds the northern side of the Nicola River Valley. The site occupies about 600 m² on the northeastern edge of this 2,500 m² terrace (Figure 16). Highway 5 is 40 m southeast of EaRe 16, which is three vertical metres above the highway. On-site vegetation consists of bunchgrass, sagebrush, rabbitbush, cactus, and scattered ponderosa pine. EaRe 16 is undisturbed and is contained entirely within the proposed highway right-of-way.

There were 35 basalt artifacts (Table 2) recovered in a surface collection of this site. Thirty-one of these were clustered within a 40 m² area (Figure 16) between 12-18 m from the terrace edge. Three artifacts were

recovered on the terrace within 15 m of this cluster, and a fourth item was located below the terrace on the edge of the Highway 5 road cut. The latter item has been included in the site assemblage, although its relationship to the rest of the material is uncertain.

A single 1 x 1 m test pit was placed within the artifact cluster. This test pit was only excavated to 20 cm below surface because of the difficulty in excavating through the fluvio-glacial deposits. These deposits consist of tightly packed gravels, pebbles, and cobbles within a silty sand matrix. No subsurficial cultural material was recovered in this test.

The EaRe 16 assemblage contains nine tools (Table 2) including three formed artifacts: a complete projectile point(?) and the proximal portion of two drills. The projectile point (Figure 8b) is small (length = 11.8 mm, width = 9.3 mm, thickness = 2.6 mm), and has a contracting stem and straight base. It was shaped by crude, marginal bifacial flaking, and exhibits moderate grinding on its base. Wear striations transverse to the tool long axis occur on both lateral margins, suggesting this may have been used as a drill. The second formed artifact, a drill fragment (Figure 8d), has a slightly spatulate shape and a thick, lenticular cross-section. It exhibits moderate wear or grinding on both lateral margins and along the base, and may also have been used as a knife. The third formed artifact is also a drill (?) fragment, although it is thinner in cross-section than the illustrated specimen and exhibits no evidence of use wear. A graver recovered from this site is also illustrated. The graver (Figure 8e) has two sharp graving projections formed by the intersection of two unifacially flaked edges and a flake arris. Other tools from this site include four retouched flakes and one utilized flake.

The 26 pieces of lithic detritus at this site consist of 8 platform-bearing flakes and 18 flake shatter. The latter are often characteristic of the initial stages of tool manufacture (i.e., primary reduction). The lack of pressure flakes suggests that tool finishing was not an important activity.

EaRe 16 was predominantly used as a tool manufacturing area, but may also have been a short term field camp or game lookout. Organic (wood, bone, and antler) tools were being produced, based on the presence of the drill(s), graver, and retouched and utilized flakes. The latter are expediently manufactured items often used in the manufacture of other implements (Price 1980). Some stone tool reduction did take place, but this did not include tool finishing. The EaRe 15 artifacts are made on a medium- to coarse-grained basalt, which differs significantly from the fine-grained material used at EaRe 15, and may have been obtained from local glacial gravels. The clustered distribution of the artifacts suggests that the artifacts are the result of

the activities of a small group of people, perhaps only one or two individuals.

EaRe 17 (Figures 17 and 18)

This small (350 m²) lithic scatter (Figure 17) is located on a gently sloping colluvial apron that fringes the steep northern side of the Nicola Valley. The site is in an area of open bunchgrass and sagebrush, and two small ponderosa pines occur within the site boundary (Figure 18). The site is undisturbed and is located entirely within the proposed highway right-of-way.

Five artifacts (Table 2) were recovered in a surface collection of this site. These consist of three basalt tools and two pieces of basalt detritus. The single formed tool, a projectile point (Figure 8a) base fragment, is crudely made and appears to be from a side-indenting arrow or atlatl point with a thick cross-section. This is a non-diagnostic form, and an estimate of age or cultural affiliation could not be made. A single 50 x 50 cm test pit was excavated at this site (Figure 17), but no evidence for buried cultural material was observed in the colluvial gravels.

The surface artifacts are probably the remains of a small, briefly-occupied camp or station. Stone tool manufacture was probably not taking place, although there may have been some artifact retooling (broken projectile point). The presence of the expedient retouched and utilized flakes attests to some cutting and/or scraping activities.

EaRe 18 (Figures 19 and 20)

EaRe 18 is a small (450 m²) artifact scatter located on a glacial till bench overlooking the Nicola Valley bottom (Figure 19). The site area contains scattered sagebrush and ponderosa pine, and had been recently grazed by cattle, resulting in good ground exposure. The site is undisturbed and is located entirely within the proposed highway right-of-way (Figure 20).

Two artifacts (Table 2) were recovered in a surface collection of this site. These consist of a basalt retouched flake possessing a single sharp graving projection, and a tooth fragment from a small elk (personal communication, Jon Driver 1985). The latter may not be the result of cultural activities. A single 50 x 50 cm test pit was excavated into the rocky till, but no evidence for buried cultural material was obtained.

Because there is no evidence for animal butchering or food processing activities, the elk tooth is probably a natural occurrence. The

single stone artifact at this site may be a dropped or discarded item. There is an excellent view of the valley bottom from this site (Figure 19), and this area could have been used as a game lookout.

EaRe 19 (Figure 21)

This site is a small (750 m²) lithic scatter located about 220 m north of EaRe 18. The site borders a shallow erosional gully (Figure 21), and is within a 300 m-wide "trench" bounded by glacial till ridges. Local sediments consist of glacial tills and colluvium. On-site vegetation consists primarily of bunchgrass, sagebrush, and scattered ponderosa pine. The site is undisturbed and is situated entirely within the proposed highway right-of-way.

Two basalt artifacts (Table 2) were recovered in a surface collection of this site. One test pit (35 x 35 cm) was placed near each surface find (Figure 21), but no evidence for buried cultural material was encountered.

EaRe 20 (Figures 22 and 23)

EaRe 20 is located on a glaciolacustrine ridge overlooking the Nicola River floodplain to the south. It consists of scattered stone artifacts in a 1,000 m² area (Figure 22) within a recently surveyed B.C. Hydro right-of-way. This right-of-way intersects the proposed highway right-of-way 360 m to the west in the vicinity of site EaRe 15. On-site vegetation consists of widely scattered bunchgrass and rabbitbush (Figure 23). The site has been disturbed by a bulldozer cut and vehicle tracks.

Site EaRe 20 is located outside the highway right-of-way and will not be affected by road construction. As this site is not within the study corridor, surface collection and test pitting were not undertaken.

EbRe 1 (Figures 24 and 25)

This small (1,200 m²) lithic scatter is located on the edge of a large glacial till terrace on the north side of the Nicola Valley. This terrace is situated 110 vertical metres above the valley bottom, and from the site there are good views to the southwest towards Merritt and to the north towards Nicola Lake (Figure 24). A deep gully formed by an unnamed intermittent creek bounds the site to the south, and the terrace edge forms the eastern boundary (Figure 25). On-site vegetation consists of scattered

rabbitbush, cactus, and ponderosa pine with a speargrass grass cover. The proposed highway centre line intersects the site (Figure 25) and all of the site is within the right-of-way.

A systematic surface collection was undertaken and eight stone artifacts were recovered. These artifacts were distributed in two small clusters (Figure 25) near the terrace edge. Four test pits were excavated to check for buried cultural deposits. Each test pit measured 50 x 50 cm and was excavated to between 15 and 30 cm below surface. No buried cultural material was observed in these extremely rocky deposits, and there was no evidence to suggest that there had been any significant sediment accumulation upon the basal till in post-glacial times.

The eight artifacts (Table 2) recovered from this site are all made of basalt. A high frequency of the artifacts were tools (n=5) and these consist of 3 retouch flakes, 1 utilized flake/graver, and 1 knife fragment. The latter (Figure 8c) is the proximal half of a moderate-sized implement exhibiting a small amount of wear on both lateral margins. The base has not been thinned or ground, suggesting that this tool may have been hand held. Two pieces of flake shatter and one pressure flake constitute the lithic detritus from this site.

EaRe 1 was probably used as a lookout site and/or field hunting camp. There is a good view in several directions from this location, and, particularly in the winter time, the nearby gulley would have provided excellent shelter for ungulate populations. The low frequency of lithic detritus indicates that stone tools were not being manufactured, but based on the presence of the retouched flakes and the graving tool, organic materials may have been worked. The lack of faunal remains could attest to poor preservation conditions since such debris would probably remain on the surface for a long period of time in this geologic context. Site size and the low frequency of recovered items suggests that this site was probably occupied for a very short period of time by a small group of people.

EbRd 7 (Figure 26)

This site is located on a large bench on the east side of Kirby Creek in Lot 3366 (Figure 26) near the entrance to the Clapperton Creek canyon. It consists of the remains of an abandoned sawmill operation including collapsed buildings, wood storage areas, and scattered pieces of old machinery. The only remaining standing structure is a wooden privy on the

northern edge of the site. This sawmill operation occupied an area of about 12,000 m²; the proposed highway will intersect the northern edge of the site affecting approximately 50% (Table 1) of the total site area.

This sawmill operation was started in 1920 by a man named Woodward. It was operated in the 1930s by Ventois and Foster, and in the late 1940s to early 1960s by Higans and Sons. At this time it was closed and the timber rights sold to Nicola Valley Sawmills (now Balco Industries Ltd., Nicola Division) (Keith Blom, personal communication 1985). Several employees of this mill in the 1950s are still living in Merritt. During the 1950s, lumber from the Merritt area was milled at a portable sawmill at this site, but it was still a "fairly large operation" (Charlie Suzuki, personal communication 1985). The site has now been abandoned for over 20 years.

Ethnohistoric data

Bouchard and Kennedy (Appendix I) have recorded 26 Native resource areas and landmarks in the vicinity of the study corridor. Although none of these will be directly affected by the proposed highway, several occur close to the right-of-way and could be affected by project design changes or ancillary developments.

Place name #2 (*nsisk'et*) occurs at the southern end of the right-of-way and applies to Godey Creek and the small gully through which it runs. Although most likely applying to the area within Joeyaska I.R. 2, it may also be applicable to the area occupied by site EaRe 10. Place name #13 (*npsxewálh*) refers to a small spring or pool of water immediately alongside the present Merritt-Kamloops highway at the base of *skenáya* (place name #10). Site EaRe 17 is located on the nearby hillside, and the occupants of this site may have used this freshwater source. Place name #14 (*pi7aykwsts'út*) refers to a large flat area on both sides of the present Merritt-Kamloops highway about one kilometre east of the Merritt Airport. The proposed highway right-of-way is located on the slope just above this flat. An Indian trail from Lower Nicola to Quilchena is reported to have gone through this flat. Place name #23 (no Indian name) records the location of a level, grassy flat on the east side of Clapperton Creek near km 27.5. This place is known as an "Indian camp" to local informants and was used on hunting and fishing expeditions. The proposed highway right-of-way crosses from the west to east side of Clapperton Creek in this area, passing within 350 m of this campsite. Several test pits were excavated within this camping area but no cultural material was observed; for this reason, this "camp" has not been given a Borden designation although future work may reveal the need for one.

Lastly, place name #26 (n7iyatsín s7íswelln) refers to Surrey Lake which was a well-known fishing lake. Although the highway route passes 300 m to the west of the lake and no archaeological sites were recorded within the right-of-way, the fact that this lake was a well-known fishing area suggests that the area could contain evidence for aboriginal occupation.

5.0. SITE SIGNIFICANCE EVALUATION

In this section the heritage significance of each site located in this study is evaluated. The significance categories established by the HCB in their "Guidelines for Heritage Resource Impact Assessment in British Columbia" (1982 edition) are used in this evaluation.

5.1. PURPOSE AND METHOD

Each site in the heritage resource inventory for the proposed new Coquihalla Highway was evaluated as to its scientific, public, ethnic, historical, and economic significance. These types of significance are defined as follows (HCB 1982:29-30):

Scientific Significance: the site's potential for yielding information which will enhance the understanding of British Columbia's historic and prehistoric past.

Public Significance: the site's potential for enhancing the public's understanding and appreciation of the past.

Ethnic Significance: the degree to which a site has religious, mythological, social, or other special symbolic value to an ethnically distinct community or group of people.

Historical Significance: the degree to which a site can be associated with an event or individual who made an important contribution to the development of a particular locality of the province.

Economic Significance: the site's potential to provide monetary benefits based on the public's use of the site as an educational or recreational facility.

The purpose of the significance evaluation is to provide a general assessment of the importance of each of the heritage sites located in the inventory. A number of criteria have been used to evaluate significance including: present condition; uniqueness; quantity and variety of artifacts, structures, and activities present; historic integrity; public interest; educational value; regional representation; and relevance to specific cultures, time periods, individuals, or particular events. Site significance ratings together with detailed impact assessment information (section 6.0.) provide the basic data for deciding which mitigative procedures are necessary at a particular site.

Using the above criteria, each site was assigned a significance rating for each of the five significance categories. A fourfold rating scheme was used with sites given a high, high-moderate, low-moderate, or low rating for each category. These ratings were then averaged to obtain a single overall significance rating for each site. In our original proposal for this project (Arcas Associates, July 1984) we had planned also to use a quantitative approach in our significance evaluation in order to "...develop a more objective, measurable, and comparable significance rating system." (p. 14). This approach was not used in this study, however, as only a single relatively uniform prehistoric site type (i.e., the lithic scatter) was located, which did not allow for intersite comparisons and the construction of an adequate comparative model.

Sites assigned a particular significance rating usually share several general characteristics. Sites of high significance are typically unique sites, public interest sites, sites of special importance to specific living groups, and sites with major potential for contributing to problem-oriented research. Sites of high-moderate significance include intact sites of considerable, but not major, potential for contributing to problem-oriented research, sites of moderate public or ethnic interest, and sites with only limited disturbance. Sites of low-moderate significance include sites with definite but limited potential for contributing to problem-oriented research, sites of limited public or ethnic interest, and sites with modest disturbance. Sites of low significance include badly disturbed sites or destroyed sites, sites of very limited potential for contributing to problem-oriented research, and sites of little or no ethnic interest.

5.2. SIGNIFICANCE EVALUATION RESULTS

Table 3 presents the results of the significance evaluation for the 10 sites located within the study corridor. The significance rating for each significance category and an overall significance rating are presented.

Scientific significance values increase when a site can be shown to "...substantively enhance understanding of culture history, culture processes, or other aspects of local and regional prehistory." (HCB 1982:D-1). One of the major research problems within the Nicola Valley is the identification and dating of Athapaskan artifact assemblages. Unfortunately, the lack of diagnostic tools and the small artifact assemblages from the study area sites prevent a proper assessment of their age and cultural affiliation, and no contribution can be made to a solution of this problem. Two sites (EaRe 15 and EaRe 16), however, do have a moderately large, relatively undisturbed

artifact assemblage and have provided some general information on lithic technology and settlement practices. These two sites have been assigned a low-moderate scientific rating, whereas the remaining sites in the study are deemed to be of low scientific significance.

A site's public and economic significance are often related and pertain to a site's ability to provide interpretive, educational, or recreational values to the general public. The heritage sites in this study possess limited educational and interpretive value, and are deemed to be of low public and economic significance.

The determination of a site's ethnic significance often requires the participation of local Native groups and historical societies. The ethnohistoric research identified 26 Native resource areas and landmarks, although none of these are located in areas that will suffer direct project impact. The nine prehistoric sites recorded in the inventory study were not mentioned by any Native informants, and do not contain human burials, petroglyphs or pictographs, or other items that may contribute to their ethnic significance, and have been assigned low ethnic significance values. Very little information was available concerning the single historical site which was abandoned relatively recently. It appears to be of little importance to any particular ethnic group, and has been given a low ethnic significance rating. At least one of the ethnohistoric locations, an "Indian camp" (place name #23) on Clapperton Creek, could be affected by ancillary project developments. This location is considered to have high-moderate ethnic significance.

A single historical site, an abandoned sawmill, was encountered in this study. This site possesses limited local historical interest, and is not associated with any person or event that made an important contribution to the history of this part of British Columbia. It is therefore considered to have low historical significance.

To summarize, eight of the ten study area sites are considered to have low significance values for all significance categories and have been assigned an overall low significance rating. Two sites (EaRe 15 and 16) possess low-moderate scientific significance (with low values in the other four categories) and have been assigned an overall low to low-moderate rating. In addition, the 26 identified Native resource areas and landmarks possess ethnic significance, and possibly other significance values, although none of these locations is in direct conflict with the development project.

6.0. IMPACT IDENTIFICATION AND ASSESSMENT

The impacts of the proposed highway construction project on the heritage resources of the study area are discussed in this section.

6.1. PURPOSE AND METHOD

The purpose of the impact identification and assessment component of a heritage study is to determine "...the net change between the integrity or condition of a heritage site with and without the proposed development." (HCB 1982:35). The identification of the type and level of impact the heritage resources within the study area will encounter is an important component of the heritage resource impact assessment process. In conjunction with site significance evaluation, it forms the basis of a meaningful impact management strategy.

Impacts on heritage resources by a development project can be either beneficial or adverse. The former occurs whenever "...a proposed development project actively protects, preserves, or enhances a heritage resource." (HCB 1982:35). A reduction in natural site erosion would be an example of a beneficial impact. Most impacts, however, are adverse impacts and result in a detrimental change to site condition and integrity. The proposed highway construction project will, in nearly all cases, result in adverse impacts to the heritage resources.

Adverse impacts on heritage resources are characterized by a "level of effect" (HCB 1982:38), which measures "...the extent or degree to which future opportunities for scientific research, preservation, or public appreciation are foreclosed or otherwise adversely affected by a proposed action." (HCB 1982:38). Several criteria such as magnitude, duration, range, diversity, and rate of change are used to measure the degree of impact a proposed development will have. An example of the high level of effect of the Coquihalla Highway project can be found at EaRe 10. The portion of this site within the right-of-way was completely destroyed by preliminary clearing and grading, and these activities are only the first component of the highway construction process.

A development project can have direct, indirect, and potential adverse impacts (HCB 1982). Direct impacts consist of the immediately demonstrable effects of project construction. For the Coquihalla Highway, direct impacts would include land modification and highway construction within the right-of-way, the construction and upgrading of project access (tote) roads, and the movement of transmission lines, buried cables, or pipelines.

Indirect impacts result from activities other than actual project construction. One example of an indirect impact caused by highway construction projects is increased site vandalism due to improved access. This form of impact will be mitigated somewhat, however, by the fact that the Coquihalla Highway will be a limited access highway. Finally, potential impacts are removed in time (and possibly distance) from the project and are not immediately evident. The Coquihalla Highway may significantly affect population density in the Merritt area, which would probably have a detrimental effect on heritage resources in this part of the Nicola Valley. Such factors are very difficult to evaluate, however, and are beyond the scope of this present study.

6.2. IMPACT ASSESSMENT RESULTS

All of the inventoried heritage sites (with the exception of EaRe 20) are located within or on the periphery of the 100 m-wide highway study corridor. Although this corridor does not correspond exactly with the area to be affected by highway construction (detailed plans are unavailable), it is a close approximation and will be considered to be the area to be affected by direct project impacts. Table 1 presents the total area of each heritage site and the site area within the development corridor.

Six sites--EaRe 14, EaRe 16, EaRe 17, EaRe 18, EaRe 19, and EbRe 1--are located entirely within the 100 m-wide highway corridor. Five of these six sites have the highway centre line passing within their boundaries; site EaRe 14 is 35 m from the highway centre line. These sites are all surface artifact scatters containing no buried cultural deposits. These sites will be destroyed by the highway construction.

Three sites--EaRe 10, EaRe 15, and EbRd 7--are partially within the highway corridor. About 60% of EaRe 10 is located within this right-of-way, and this portion of the site has been destroyed by preliminary clearing and grading. The remainder of this site has been disturbed by a road and a Department of Transportation and Highways maintenance yard; it is uncertain whether any intact deposits remain at EaRe 10. Only 45% of EaRe 15 is within the development corridor, but this includes the portion of the site containing over 90% of the recovered artifacts. In addition, this site is located on soft, relatively unstable, glaciolacustrine sediments which may be subject to increased erosional activity along the highway periphery. Fifty percent of the historic sawmill site, EbRd 7, will be affected by the highway project. The project tote road also intersects this site.

One site--EaRe 12 --is located on the periphery of the 100 m-wide highway corridor. This small lithic scatter is located in the vicinity of the Merritt Interchange, and has already been affected by the construction of Highway 5. It will likely be destroyed by construction activities within the interchange area.

The effect of the highway project on the 26 Native resource areas and landmarks identified in the ethnohistoric research is difficult to assess. Based on present plans there are no direct impacts. This could change, however, if any highway route changes are made, or if construction camps or additional construction access roads are necessary. Areas of concern include place names #13, 14, and 23 (see Appendix I), and possibly place names #2 and 3. Place name #23 would be of particular concern as this has been identified as an important "Indian camp". There may also be indirect impacts on these areas caused by improved access and increased population density; however, it is not possible to assess the effect of these indirect impacts at this time.

Lastly, several possible conflicts between historical sites and the proposed highway were identified by Archer (1981) in his heritage overview and assessment (section 2.0.) of the highway route. In each of these cases, the proposed highway will avoid these sites and there will be no direct adverse impacts.

7.0. FINAL REMARKS AND RECOMMENDATIONS

Ten heritage sites--nine prehistoric lithic scatters and one historic sawmill--were located within the project study area. These sites were located in the Nicola Valley and along lower Clapperton Creek on the southern portion of the route; no sites were located on the Nicola Plateau. The lack of sites at higher elevations is probably the result of several factors, the two most important being: (1) the location of the route on the west side of Clapperton Creek as the east side appears to have been the Native travel route (see Appendix I), and (2) the generally less frequent use by Native people and settlers of the higher elevations in this area. A third possible factor is methodological, and relates to the increased difficulty in locating heritage sites in the more heavily vegetated higher elevations.

The nine prehistoric sites were generally small, with all but two sites under 1,000 m² (Table 1) in area. The largest site, EaRe 10, measures 35,000 m² and is probably an amalgam of several smaller sites. This could not be confirmed, however, as this site was largely destroyed at the time of our investigation. A functional analysis of the remaining sites suggests that the prehistoric sites were small tool manufacturing stations, game lookouts, or briefly occupied hunting (field) camps. At least three of the sites could be the result of intentionally discarded or accidentally lost artifacts. Alternatively, small briefly-occupied camps and stations may have been the dominant settlement type in the Nicola Valley, at least in the vicinity of the right-of-way. This pattern differs from that in the Thompson and Fraser river valleys, where residential camps and village sites occur frequently in the valley bottom.

The largest artifact assemblage from any site consists of 97 items, and only 151 artifacts were collected in total. Most of the artifacts were recovered during systematic surface collections, but subsurface artifacts were located at one site. Formed artifacts occur rarely and no diagnostic types were recovered. As a result, age estimates are not possible for any of the prehistoric sites. The lack of diagnostic artifacts or distinct lithic technologies also prevented an assessment of site cultural affiliation.

Each of the 10 sites in the study area was assessed as having overall low or low to low-moderate significance values. Two sites, EaRe 15 and EaRe 16, were documented by the systematic surface collection and test pitting program to be of low-moderate scientific significance. Several locations possessing ethnic significance values were documented in the ethnohistoric research, but these areas are all outside the direct impact zone of the development project.

Six of the heritage sites are located entirely within the project right-of-way and will be completely destroyed; three sites are partially within the right-of-way and face major disturbance; and one site is located on the periphery of the 100 m-wide highway corridor. This site will probably be destroyed by the construction of the Merritt Interchange. None of the 26 places identified in the ethnohistoric research will be directly affected by the development project, although these could be affected by indirect or potential impacts. The only historic site to be affected by the project is EbRd 7, which is a relatively recent sawmill site of modest local significance.

Based on the results of the site inventory, site significance evaluation, and impact identification and assessment, the following recommendations identify any protective or mitigative measures needed for the heritage resources in the Merritt to Surrey Lake section of the proposed Coquihalla Highway:

1. That no further archaeological research be undertaken at any of the recorded heritage sites within the highway study corridor. This includes sites EaRe 10, EaRe 12, EaRe 14, EaRe 15, EaRe 16, EaRe 17, EaRe 18, EaRe 19, EbRe 1, and EbRd 7;
2. That site EaRe 20 be monitored in case of development of the B.C. Hydro right-of-way near km 3.8 of the highway corridor. If disturbance of this site is unavoidable then a systematic surface collection and brief test pitting program similar to that used on other sites in this study would adequately document site content; and
3. That any future highway design changes or ancillary developments be monitored to assess their impact on identified Native resource areas and landmarks, and that these developments be properly inventoried if there is potential for finding unrecorded heritage resource sites.

Table 1. Heritage resource inventory: site location, type, condition, and size, and assessment techniques used.

SITE NUMBER	SITE LOCATION ¹	SITE TYPE ²	PRESENT CONDITION ³ % Comment	SITE AREA (M SQ) ⁴		ASSESSMENT TECHNIQUES		COMMENTS
				Total	Impact Zone	Surface Collection	Test Pits (Number)	
EaRe 10	0.35	SS	10 Disturbed by Fox Farm Road, Dept. Highways yard, logging and clearing	35,000 ⁵	21,000	--	--	Portion of site in right-of-way destroyed
EaRe 12	4.80	SS	90 Disturbed by power line, road construction	250	0	--	2	Although on periphery of main right-of-way, probably will be destroyed by Merit Interchange construction.
EaRe 14	3.75	SS	100	75	75	x	1	
EaRe 15	3.95	BD+SS	100	330	150	x	4	
EaRe 16	5.25	SS	100	600	600	x	1	
EaRe 17	6.15	SS	100	350	350	x	1	
EaRe 18	9.50	SS	100	450	450	x	1	
EaRe 19	9.75	SS	100	750	750	x	2	
EaRe 20*	-	SS	75 Disturbed by bulldozer cut and dirt road	1,000	0			

Table 1. Continued.

SITE NUMBER	SITE LOCATION ¹	SITE TYPE ²	PRESENT CONDITION ³ % Comment	SITE AREA (M SQ) ⁴		ASSESSMENT TECHNIQUES		COMMENTS
				Total	Impact Zone	Surface Collection	Test Pits (Number)	
EbRe 1	13.40	SS	100	1,200	1,200	x	3	
EbRd 7	19.30	HM	20	12,000	6,000	--	--	Disturbed by logging road, all structures have collapsed

¹ Location expressed as distance (in km) along the corridor from the southern end of the Merritt Bypass (Coldwater Interchange).

² Abbreviations are: SS = surface artifact scatter; BD = buried (unstratified) cultural deposits; HM = historic period sawmill.

³ Expressed as percentage of site intact.

⁴ Impact zone is defined as 100 m-wide corridor.

⁵ Rousseau and Richards estimate (Rousseau 1980).

* Located 200 m east of EaRe 14 on B.C. Hydro right-of-way; will not be affected by proposed highway development.

Table 2. Distribution of recovered artifacts.

	Site*							Total
	EaRe 14	EaRe 15	EaRe 16	EaRe 17	EaRe 18	EaRe 19	EbRe 1	
<u>Tools</u>								
Projectile Points	0	0	1	1	0	0	0	2
Knives	0	0	0	0	0	0	1	1
Gravers	0	1	1	0	0	0	0	2
Drills	0	0	2	0	0	0	0	2
Retouched Flakes	0	0	4	1	0	1	3	9
Utilized Flakes	0	1	1	1	0	0	0	3
Retouched Flake/ Graver	0	0	0	0	1	0	0	1
Utilized Flake/ Graver	0	0	0	0	0	0	1	1
Sub-Total	0	2	9	3	1	1	5	21
<u>Non-Lithic Detritus</u>								
Faunal Remains	0	0	0	0	1	0	0	1
Sub-Total	0	0	0	0	1	0	0	1
<u>Lithic Detritus</u>								
Platform-bearing flakes	0	28	8	1	0	1	0	38
Flake shatter	2	43	18	1	0	0	2	66
Pressure flakes	0	23	0	0	0	0	1	24
Biface Reduction flakes	0	1	0	0	0	0	0	1
Sub-total	2	95	26	2	0	1	3	129
Total	2	97	35	5	2	2	8	151

*Artifacts were not collected from sites EaRe 10, EaRe 12, EaRe 20, and EbRd 7.

Table 3. Heritage site significance evaluation results.

SITE	SIGNIFICANCE CATEGORIES					OVERALL
	Scientific	Public	Ethnic	Historical	Economic	
EaRe 10*	1 ¹	1	1	-	1	1
EaRe 12	1	1	1	-	1	1
EaRe 14	1	1	1	-	1	1
EaRe 15	1-m	1	1	-	1	1/1-m
EaRe 16	1-m	1	1	-	1	1/1-m
EaRe 17	1	1	1	-	1	1
EaRe 18	1	1	1	-	1	1
EaRe 19	1	1	1	-	1	1
EbRe 1	1	1	1	-	1	1
EbRd 7	1	1	1	1	1	1

¹ 1 = low, 1-m = low-moderate, 1/1-m = low to low-moderate, - = not applicable

* Site was heavily disturbed when investigated. Significance ratings may have been higher if the site had been intact.

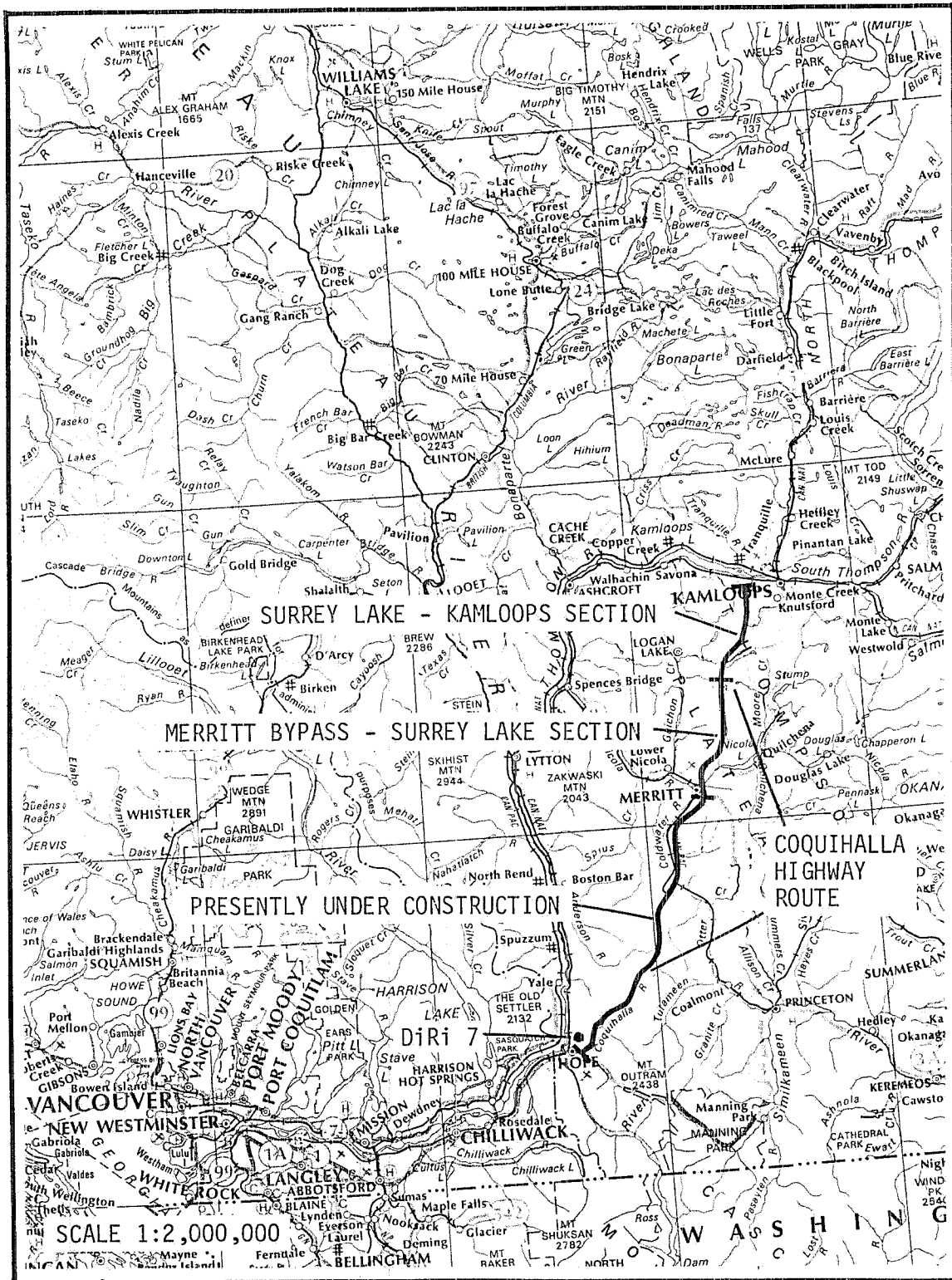


Figure 1. Proposed Coquihalla Highway route: Hope to Kamloops.

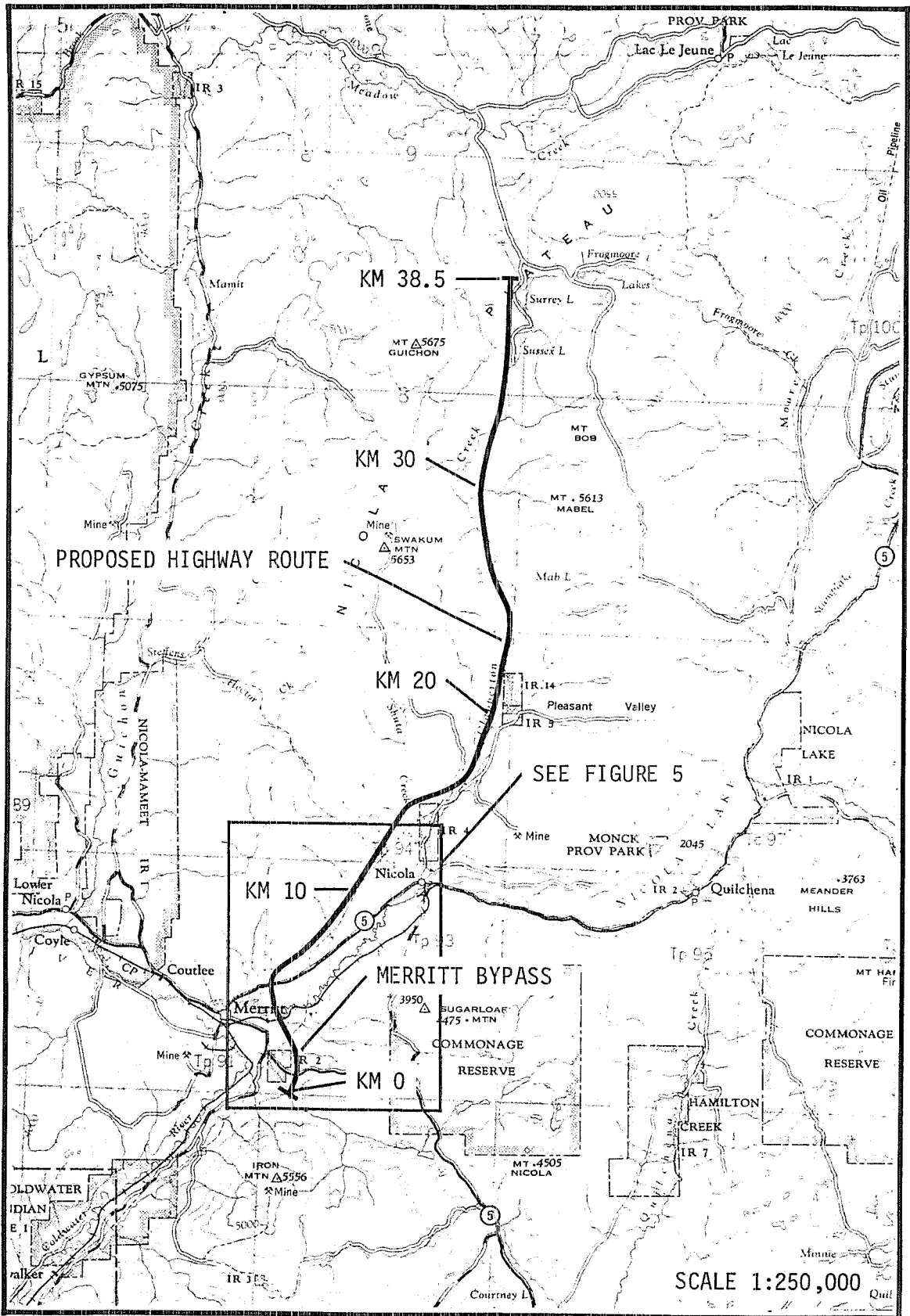


Figure 2. Proposed Coquihalla Highway route: Merritt to Surrey Lake.



Figure 3. The Nicola Valley east of Merritt. The proposed highway crosses the valley at this point, and then traverses the lower valley slopes northeast to Clapperton Creek.



Figure 4. The Thompson Plateau, upper Clapperton Creek area. The dense vegetation cover is typical of higher elevations in the study area.

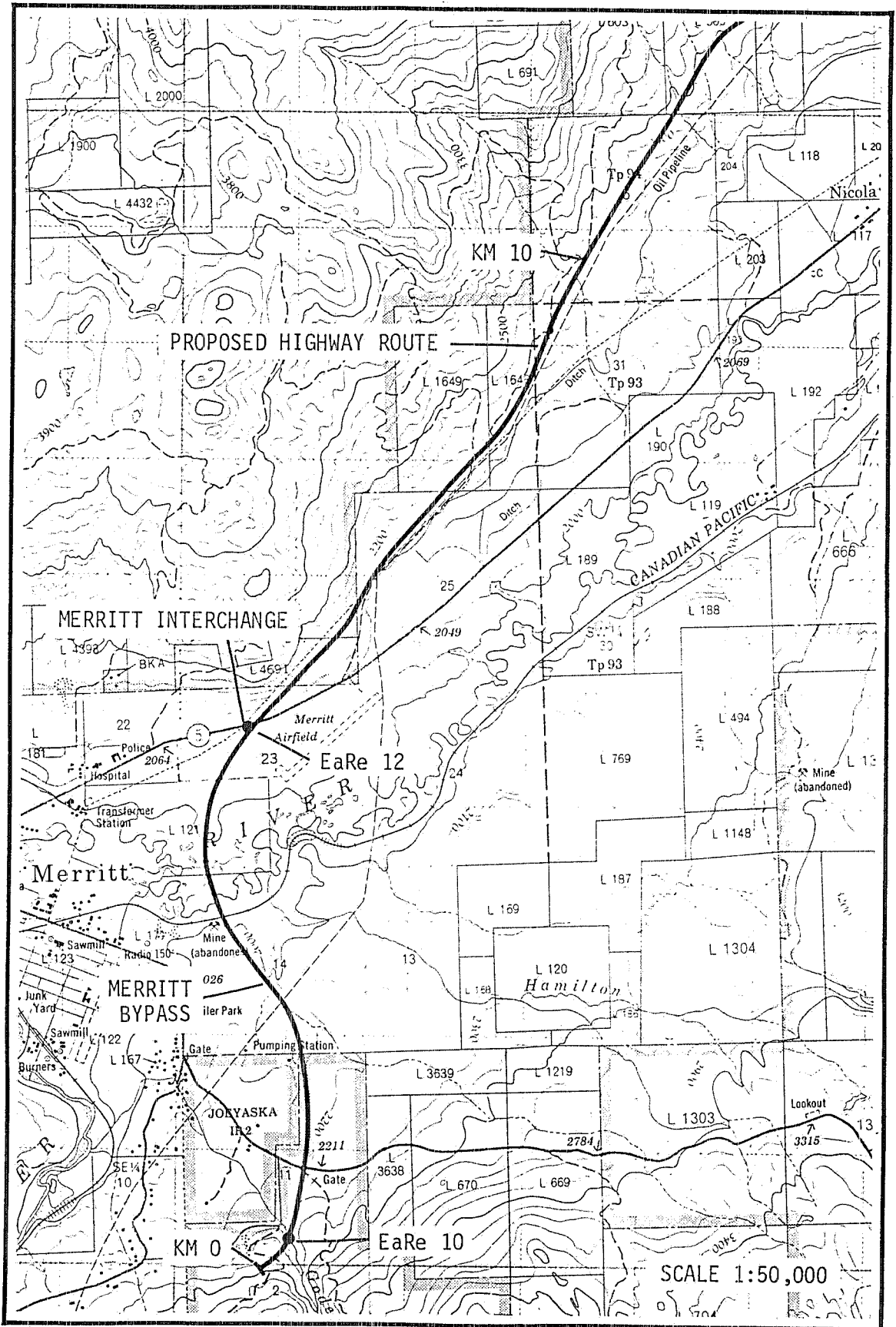


Figure 5. Location of archaeological sites EaRe 10 and EaRe 12.

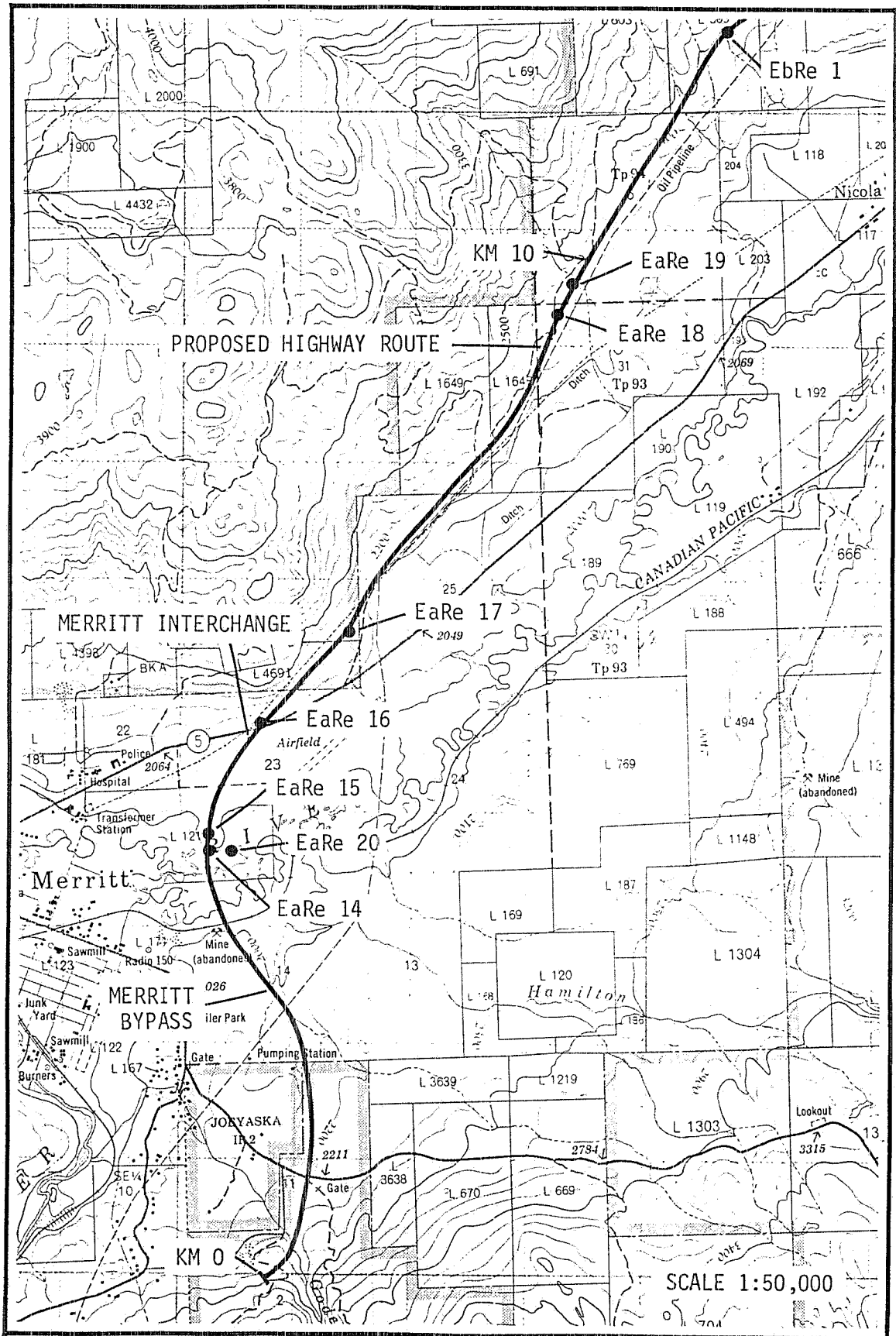


Figure 6. Location of new prehistoric archaeological sites.

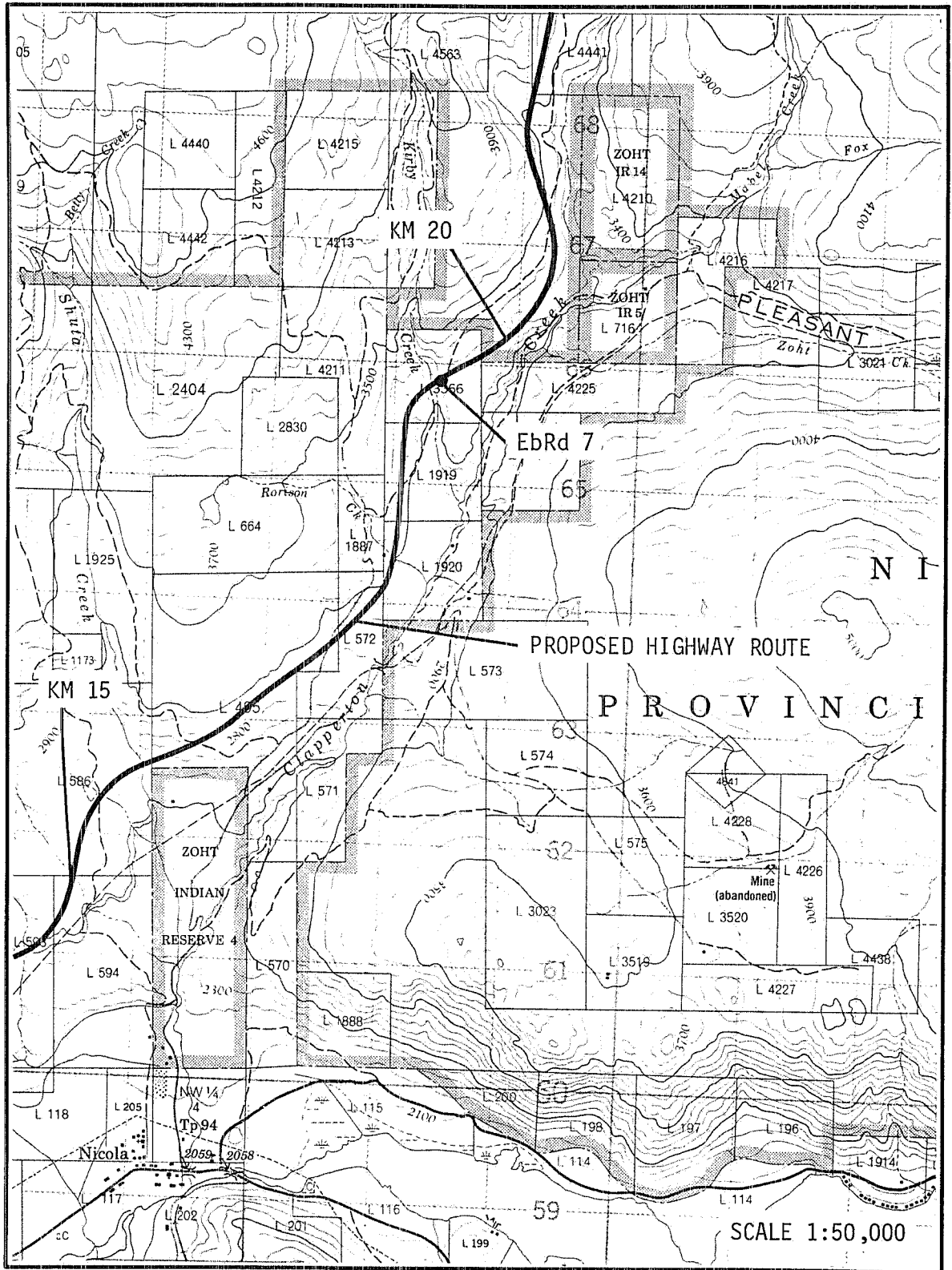


Figure 7. Location of new historic archaeological sites.

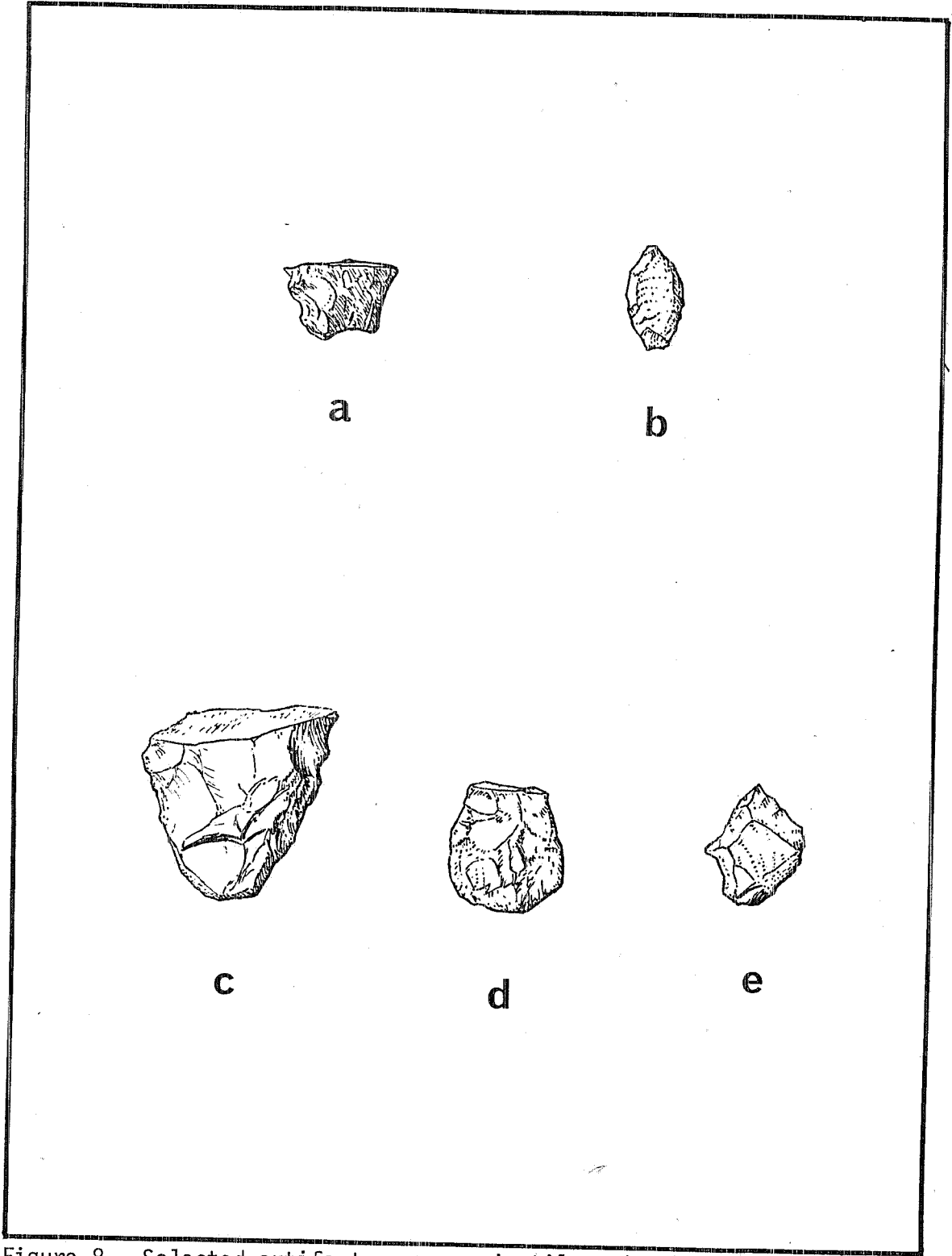


Figure 8. Selected artifacts: a. projectile point base, EaRe 17; b. projectile point, EaRe 16; c. knife fragment, EbRe 1; d. drill fragment, EaRe 16; e. graver, EaRe 16. All artifacts are shown actual size.



Figure 9. EaRe 10, view to the north, logging and bulldozing have occurred on both sides of Godey Creek.

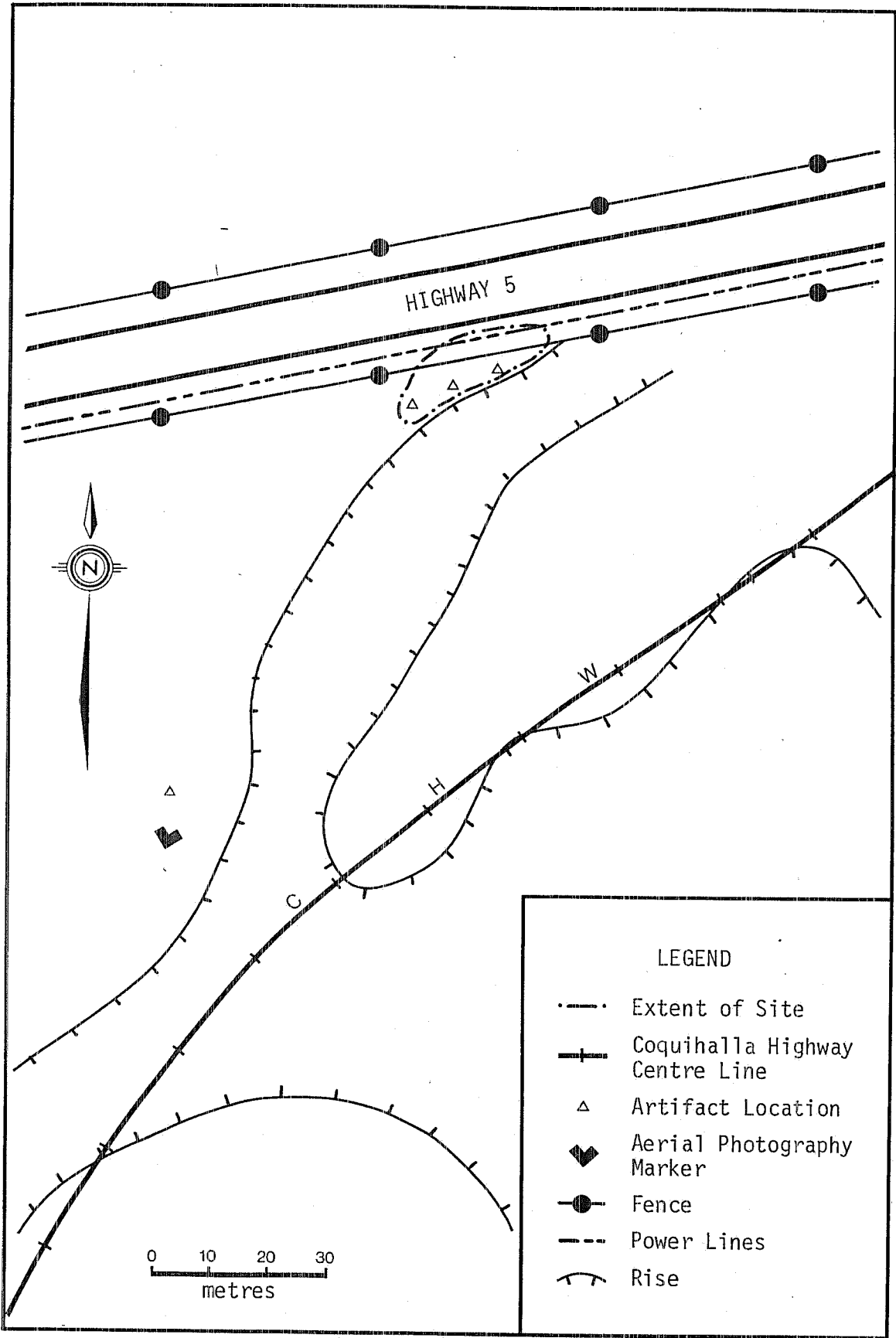


Figure 10. Eare 12 site map.

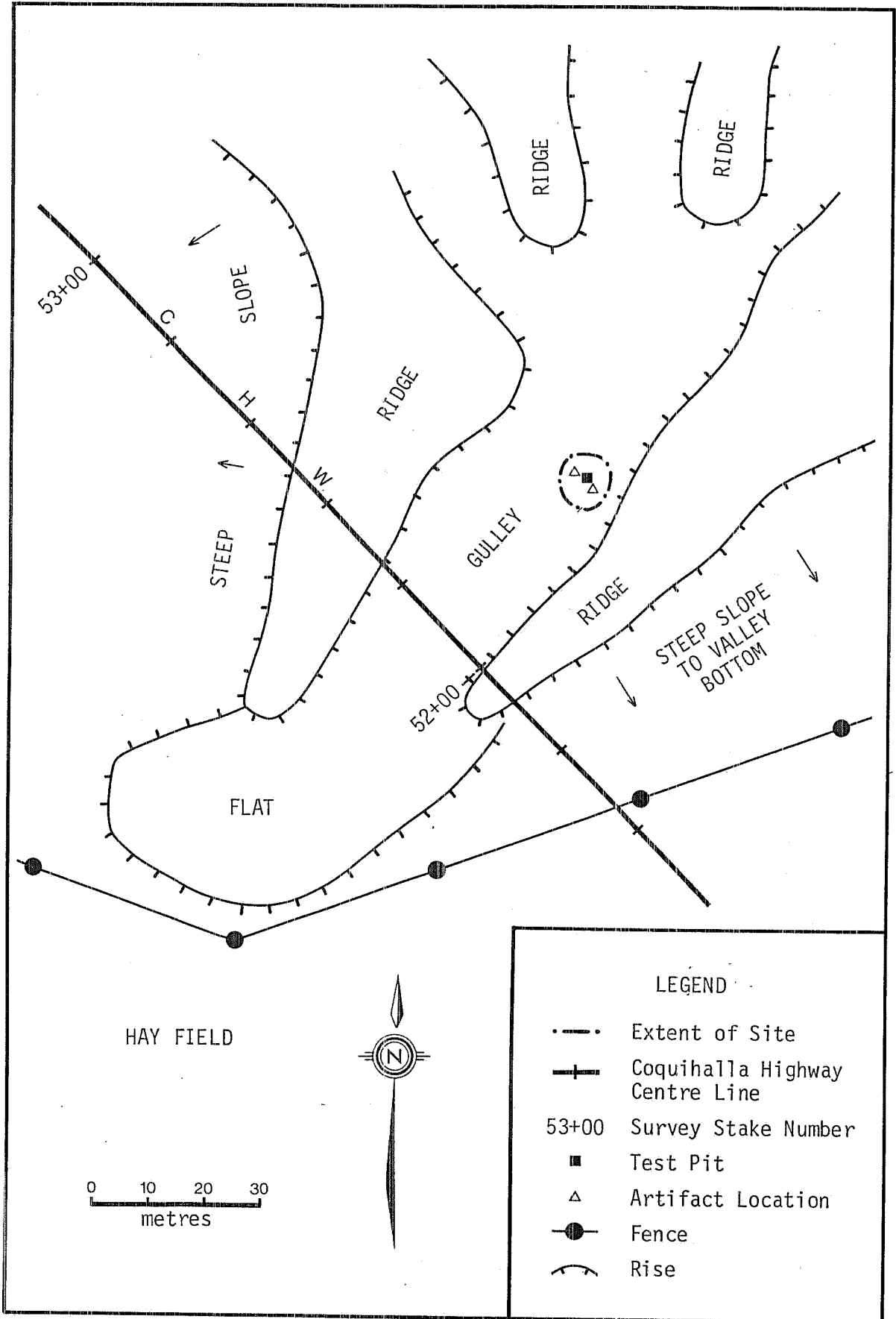


Figure 11. EaRe 14 site map.



Figure 12. EaRe 14 looking southwest.



Figure 13. EaRe 15 looking west with the town of Merritt in the background.

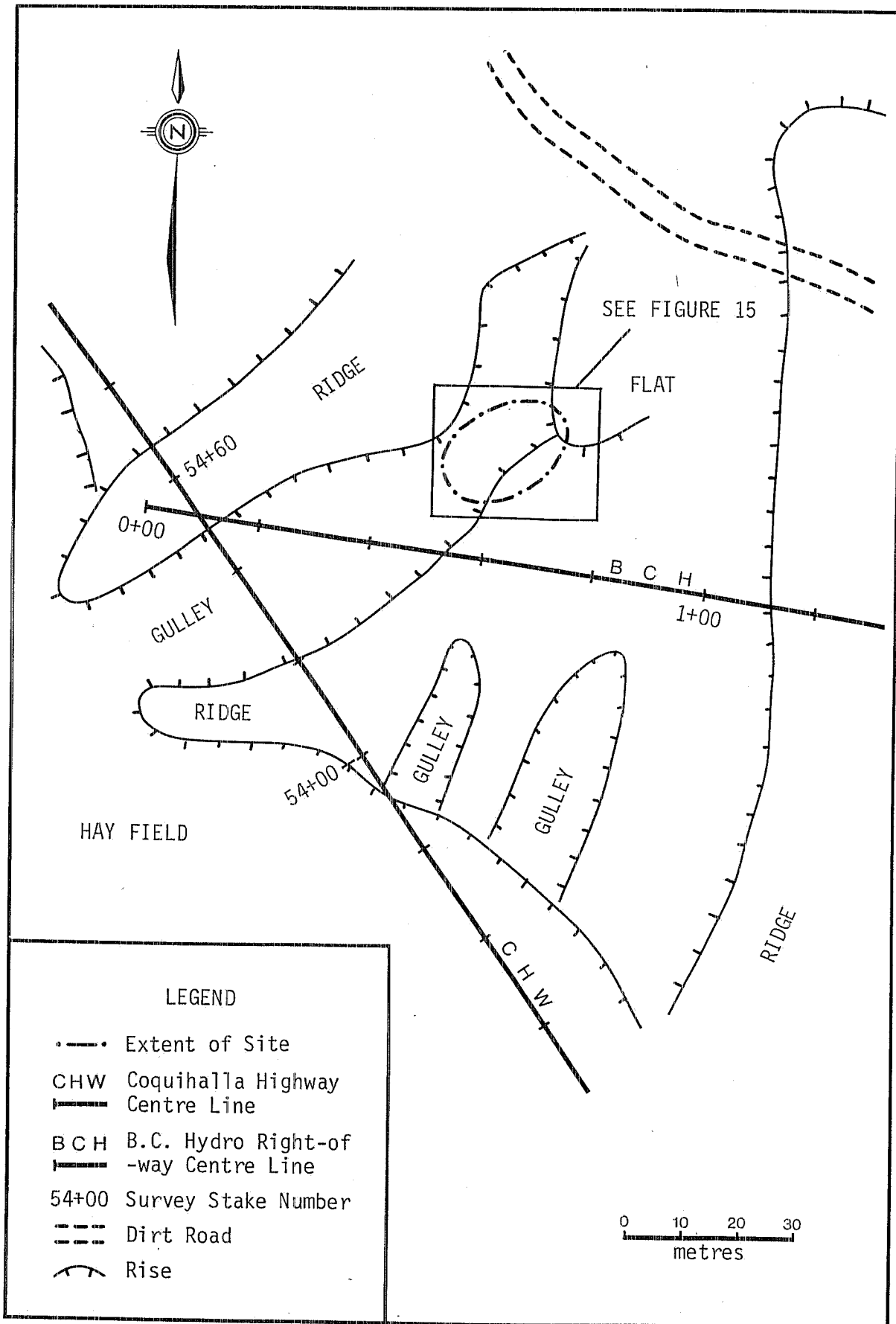


Figure 14. EaRe 15 site map.

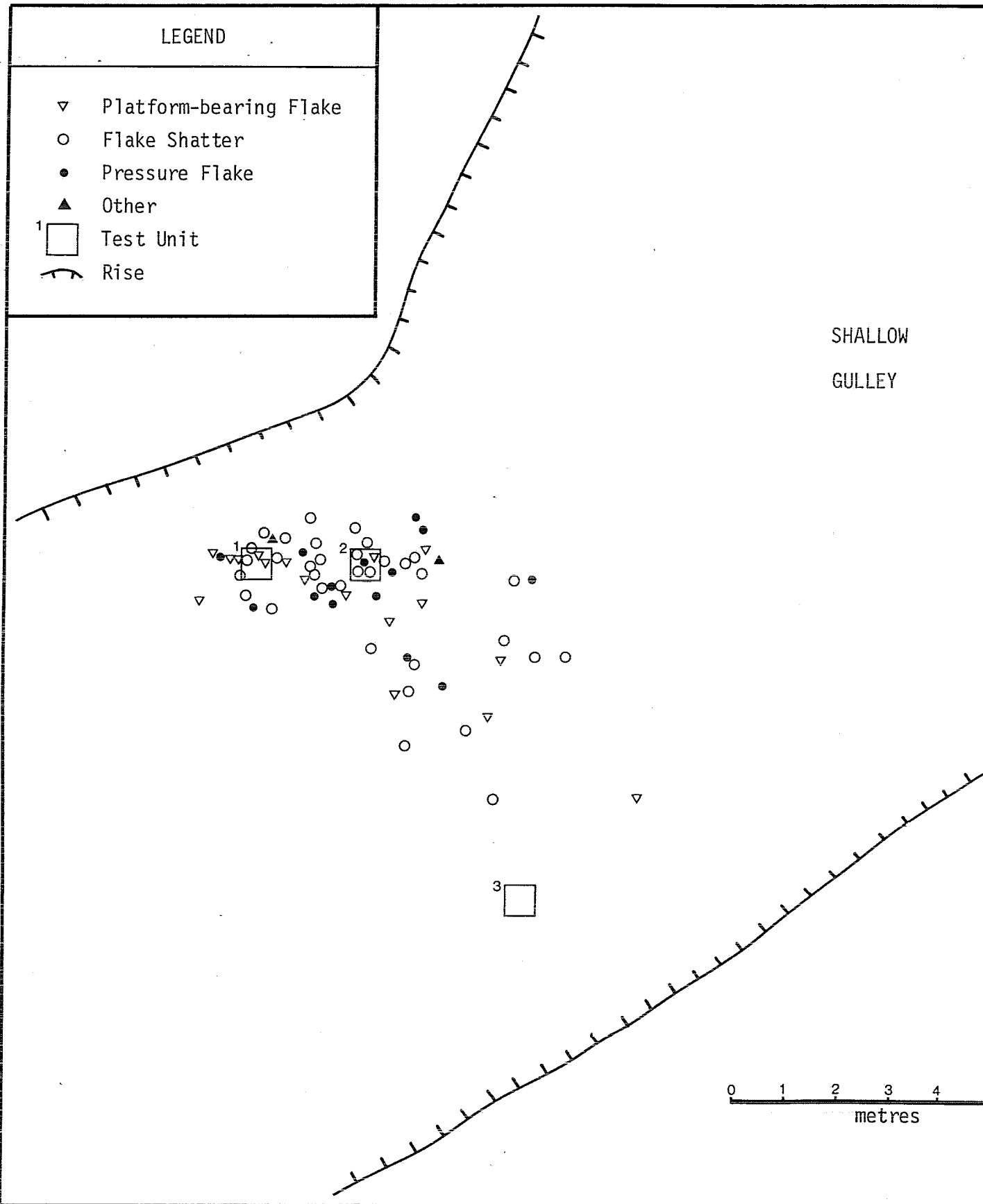


Figure 15. EaRe 15 artifact distribution.

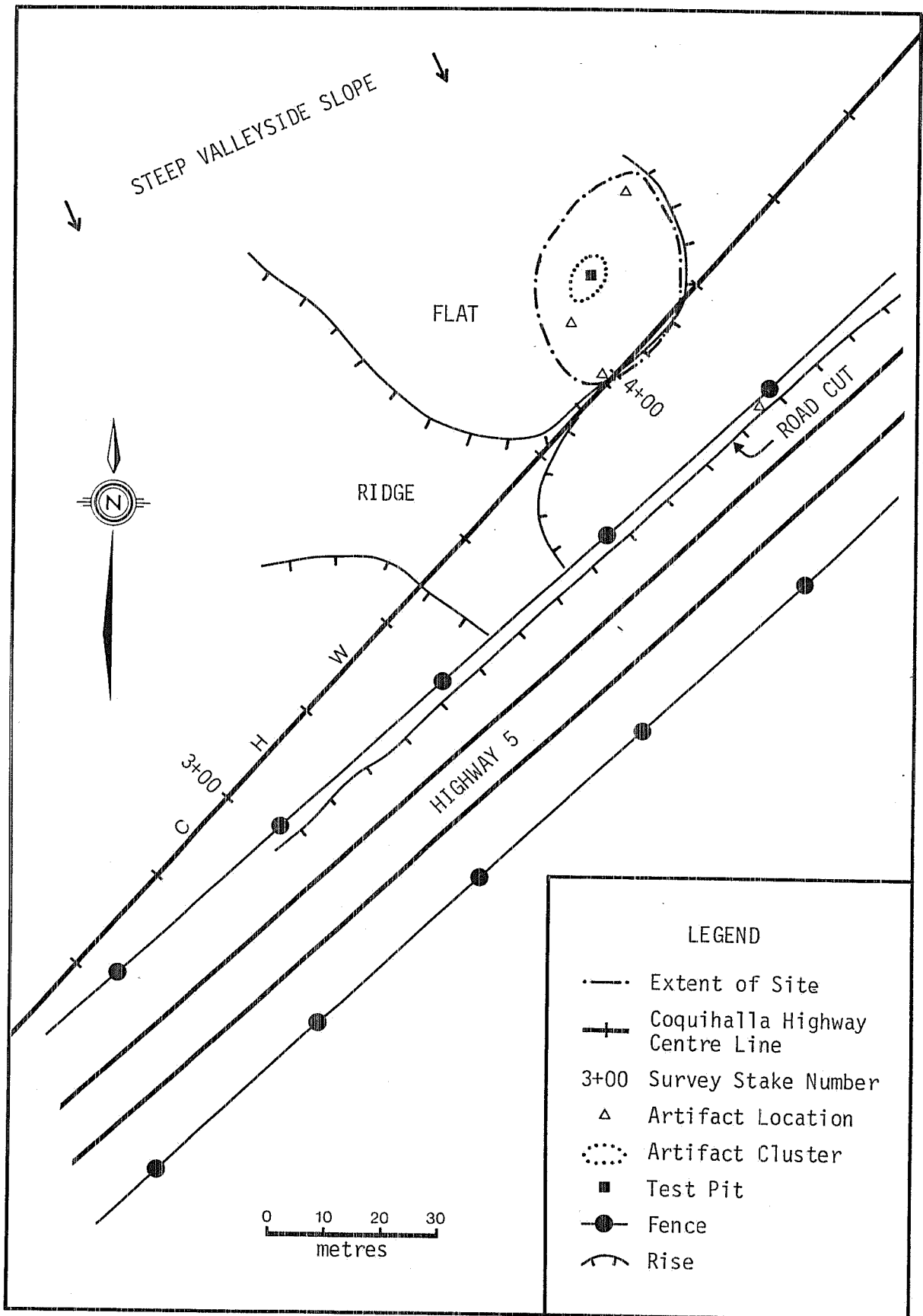


Figure 16. EaRe 16 site map.

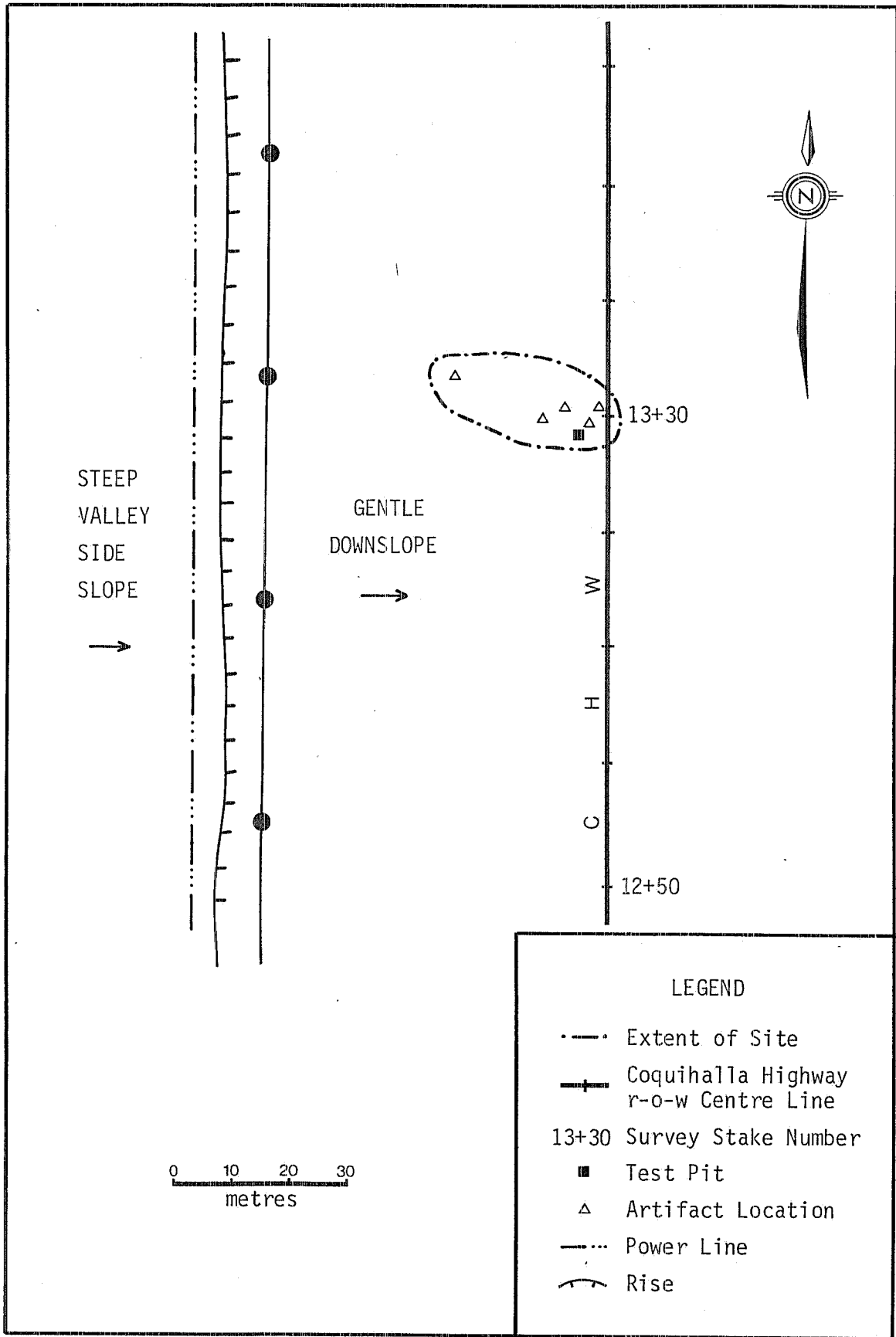


Figure 17. EaRe 17 site map.

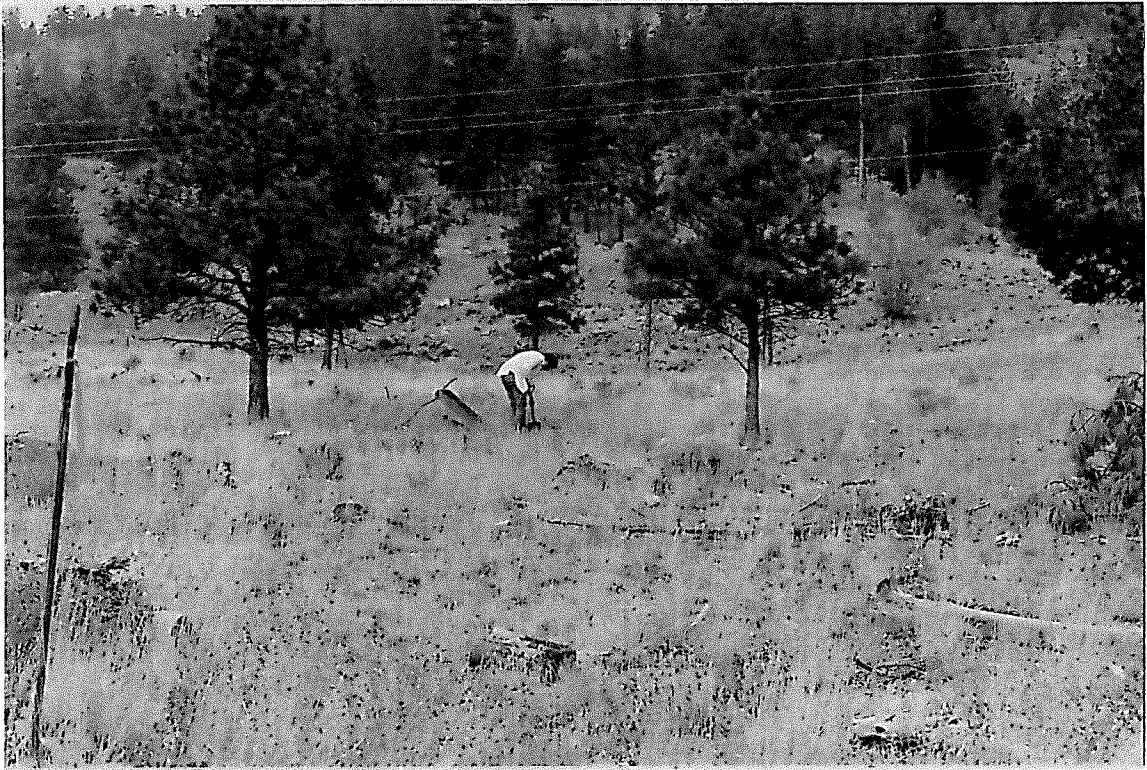


Figure 18. EaRe 17 looking north.



Figure 19. EaRe 18 looking southwest. Artifacts were recovered near person in midground of photo.

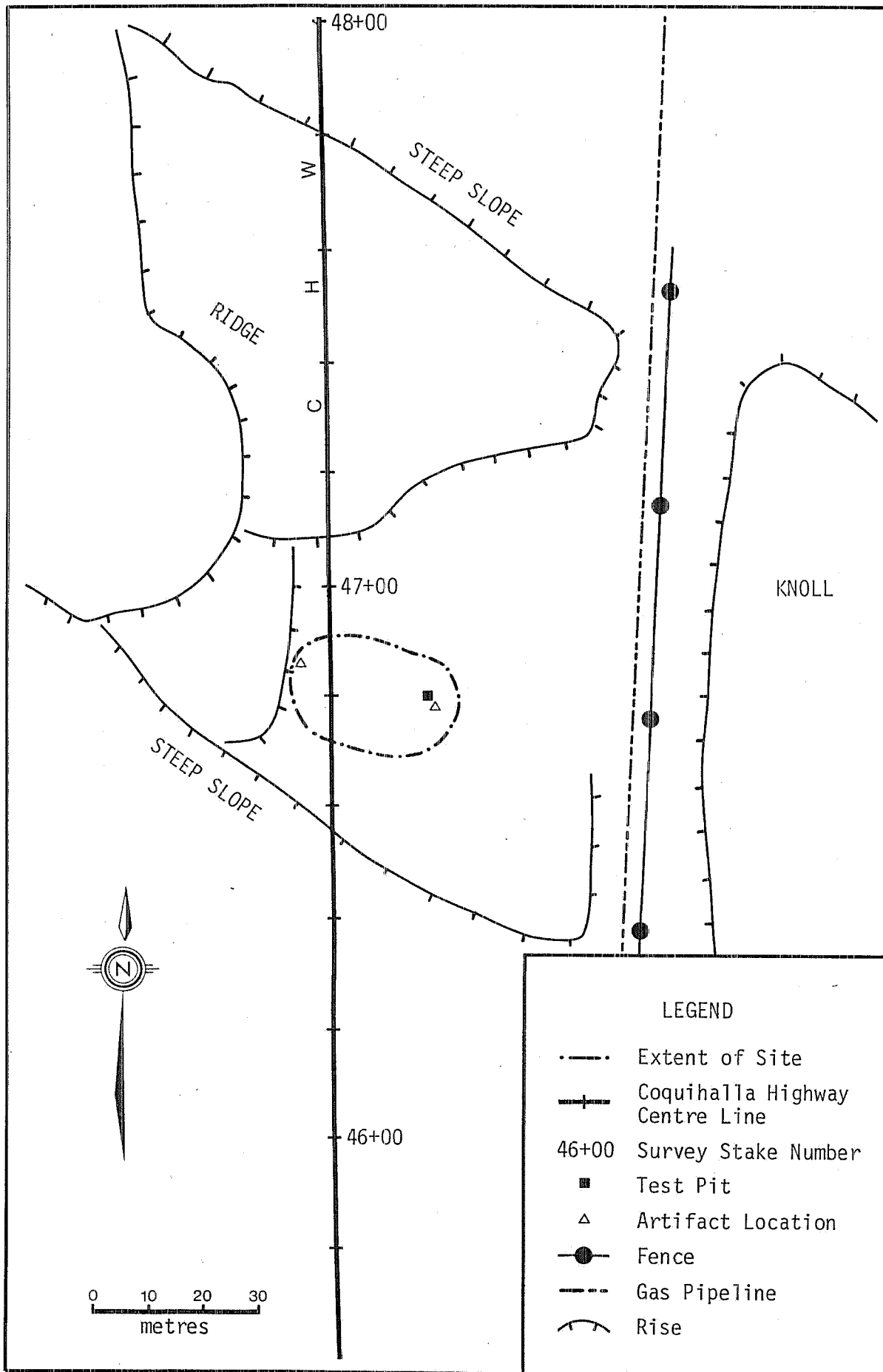


Figure 20. EaRe 18 site map.

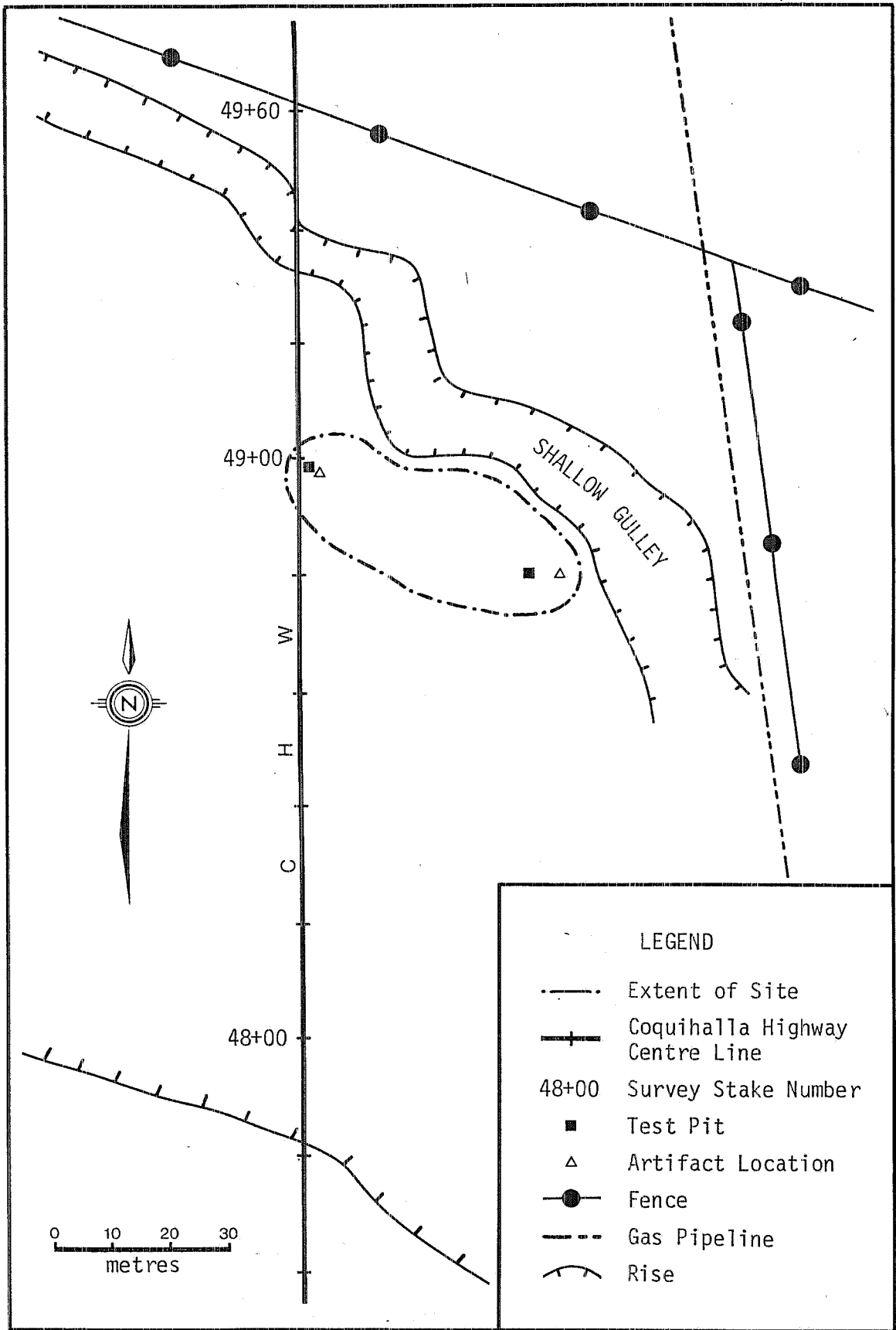


Figure 21. EaRe 19 site map.

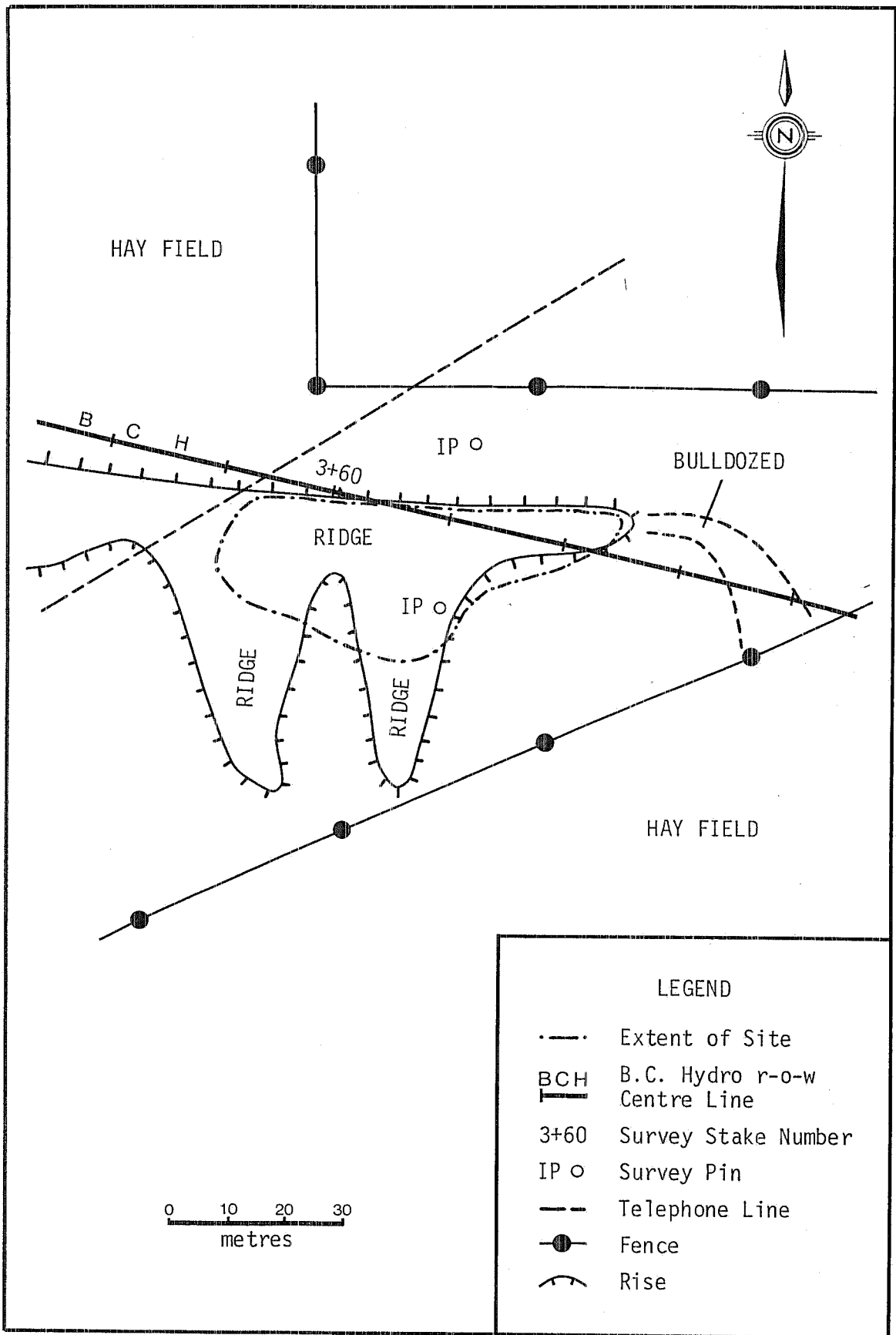


Figure 22. EaRe 20 site map.



Figure 23. EaRe 20 looking south. Site is on point of land extending from foreground to midground of the photo.



Figure 24. EbRe 1 looking south. Site is on terrace edge in midground of photo.

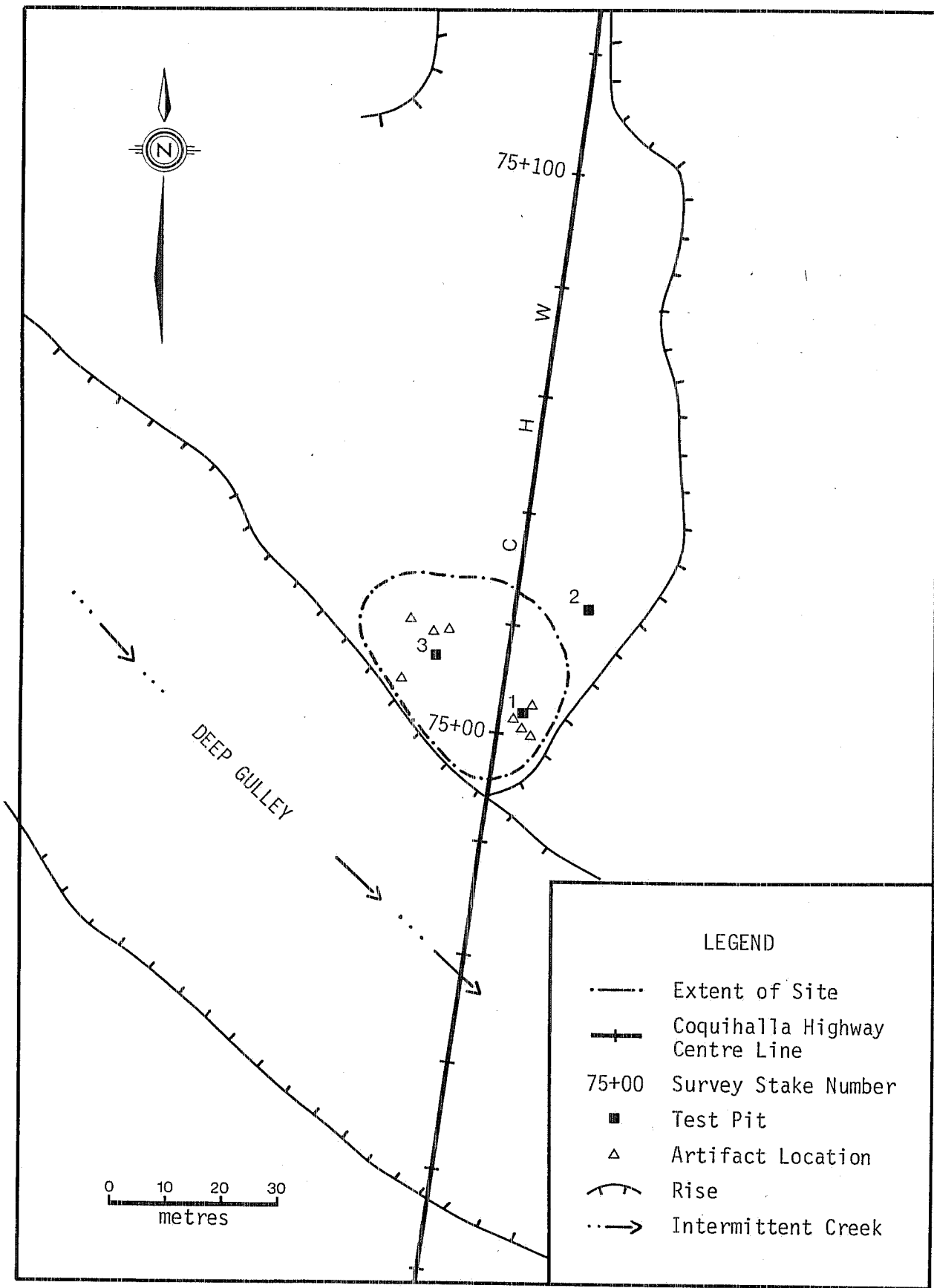


Figure 25. EbRe 1 site map.

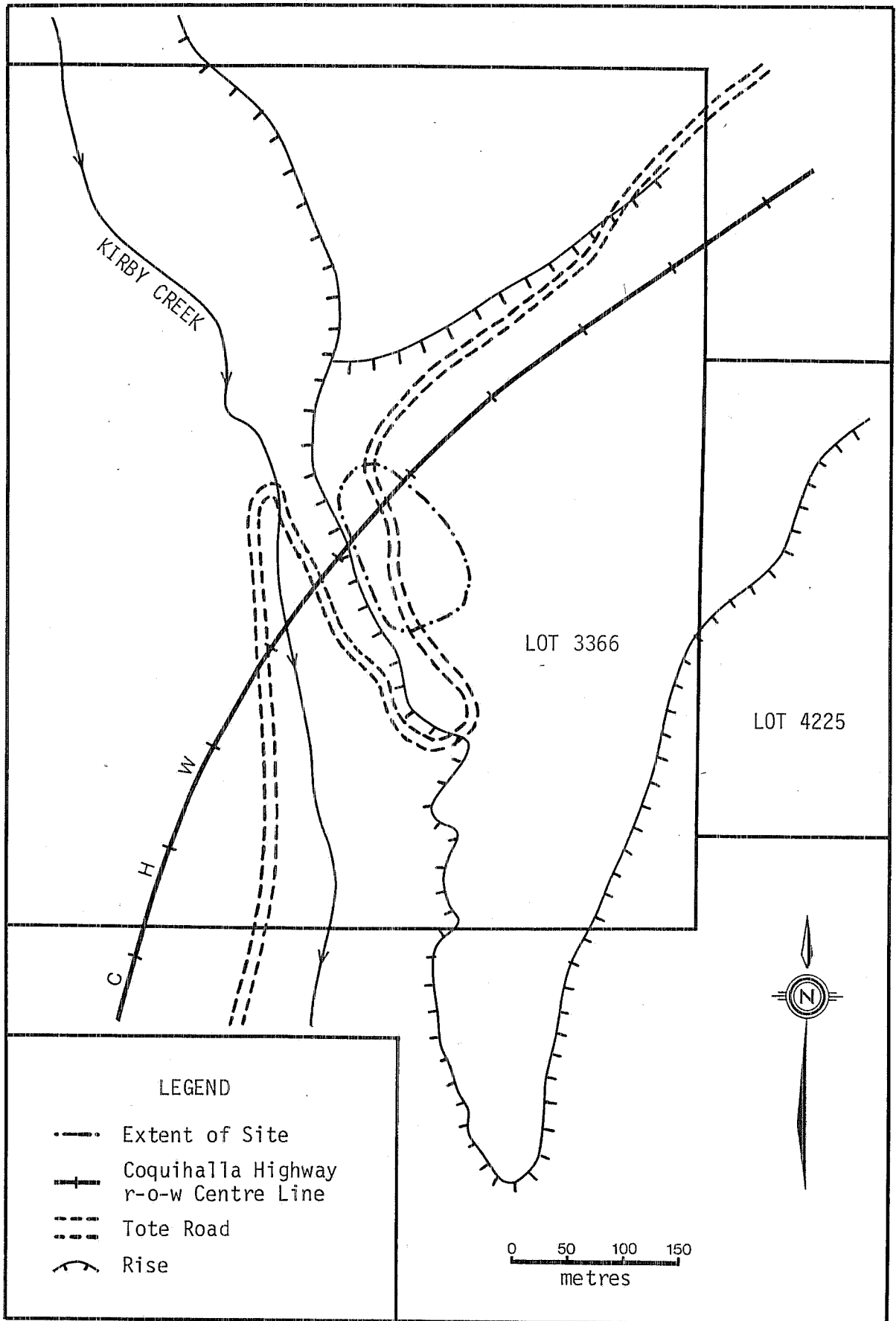


Figure 26. EbRd 7 site map.

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APPENDIX I

INDIAN HISTORY AND KNOWLEDGE OF THE MERRITT TO SURREY LAKE
CORRIDOR OF THE PROPOSED COQUIHALLA HIGHWAY

By Dorothy Kennedy and Randy Bouchard
B.C. Indian Language Project, October 1984

This appendix presents the results of the ethnohistoric research undertaken by Dorothy Kennedy and Randy Bouchard of the B.C. Indian Language Project as part of the Coquihalla Highway heritage resource inventory and impact assessment project. The appendix begins with a description of the purpose and methods of the ethnohistoric study. This is followed by a discussion of the history of Indian occupation of the Nicola Valley. A listing and description of Native place names and resource areas in the vicinity of the highway project is then presented. Lastly, the ethnographic significance of the study area and potential impacts of the proposed highway project are discussed.

Because of the length of this appendix, a separate Table of Contents, List of Tables, and List of Figures has been provided. The table and figure numbers begin with an upper case 'A' (e.g., Figure A1) in order to distinguish these numbers from table and figure numbers used in the main text. The references appearing in this appendix are listed in the References Cited section of the main report.

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INTRODUCTION

This report forms part of the heritage resource inventory and impact assessment study of the Merritt to Surrey Lake corridor of the Coquihalla Highway Project. This component of the study had as its objective the compilation of the ethnographic and ethnohistoric data concerning the history of Indian occupation and land use within the immediate environs of the highway corridor. The research consisted of a comprehensive search of archival sources for information regarding native utilization of the area, followed by interviews with local Indian people for similar information and for data for an inventory of ethnographically-known sites.

STUDY CHRONOLOGY AND METHODOLOGY

Research began with a search of materials held by the Provincial Archives of British Columbia (see the References Cited and Table A1). It was soon apparent that the amount and significance of the archival information pertaining to the highway corridor (notably along Clapperton Creek) was very limited. Some data were obtained from the voluminous unpublished field notes of James Teit, but a more thorough search of these notes, requiring about one week's work, would be necessary to exhaust this source. In particular, Teit's artifact accession notes contain comments about the differentiation between Thompson and Nicola-Similkameen material culture. These comments, however, appear to be few and would not justify the expenditure of time necessary to find them at this stage of the heritage resource inventory. The correspondence files of the Department of Indian and Northern Affairs, of which microfilm copies are held by the Provincial Archives, were also searched, but revealed no information concerning native utilization of the corridor. The Provincial Archives also holds a microfilm copy of the field notes of J.P. Harrington who conducted linguistic research among the Nicola-Similkameen and Thompson Indians in 1941. This source yielded much valuable information which is quoted in this report.

We also examined our own extensive files. Of particular use were two unpublished studies by Dr. David Wyatt (1972, in press) and the published works of Franz Boas (1895, 1898) and James Teit (1898, 1900, 1912, 1930).

This search of archival sources required a total of four person-days. Although eight days of archival research had been allocated for this part of the project, it was not a productive use of our time; we decided, therefore, to concentrate on eliciting data from native consultants.

Six days were spent in the field, conducting interviews with local Indian people in late September of 1984. The first native consultant with whom we worked was Mrs. Mabel Joe, a Thompson Indian from Shulus. Mrs. Joe, born in 1917, is an experienced consultant who has worked with several researchers, including ourselves. Her grandparents were among those who assisted Harrington with his research in this area in 1941. We spent a day travelling by car with Mrs. Joe throughout the accessible parts of the study area, recording her knowledge of place names and land use, and marking on a map the location of ethnographically-known sites.

The following day we met, by chance, Mr. Walter McRae and his wife, both of whom are Okanagan Indians from Douglas Lake. They suggested the names of two people who they believed would be able to assist with this project--Mr. Billy Hall, a Thompson Indian from Nicola, and Mr. William Alec, an Okanagan Indian from the Nicola Lake Indian Reserve. William Alec, who was born in 1930, and who has worked as a cowboy in the area of the highway corridor, told us about an "Indian camping ground" which appeared, from his description, to lie directly in the path of the highway right-of-way. Subsequently we visited this site, accompanied by William Alec and by archaeologists Stephen Lawhead and Geordie Howe of Arcas Associates. The site (place name No. 23) was located on the east side of Clapperton Creek about three km southeast from Helmer Lake. While travelling to and from this site, we made notes concerning William Alec's knowledge of the native utilization of the area.

While at the camp ground near Helmer Lake we noticed the initials "JP/81" carved on a tree. William Alec informed us that it referred to Joe Pete (also known as Joe Saddleman), an Okanagan Indian who also lives on the Nicola Lake Indian Reserve. Accordingly we visited Joe Pete, who was born in 1924 and possesses considerable linguistic experience. Joe Pete confirmed that he knew of the site as an old Indian camping ground and suggested the names of others who he thought might know the area better than himself. He introduced us to Mrs. Nettie John (who was born in 1909), a Thompson Indian living at Shulus, whom we briefly interviewed regarding the Clapperton Creek area.

Later we met Mr. Billy Hall of the Zoht Indian Reserve No. 4, who was then staying in Kamloops with his son, Vonnett Hall. Both Billy and Vonnett Hall accompanied us on a trip by car throughout the accessible area of the highway corridor. Billy Hall, who was born in 1913, has spent the majority of his life living by Clapperton Creek. His knowledge of the study area proved to be the most thorough of all the Indian people we interviewed for this report.

We had, in connection with this project, a meeting in Merritt with Chief Gordon Antoine, Administrator for the Nicola Valley Indian Administration. We discussed with him the heritage resource inventory and impact assessment study, introduced him to the archaeological field crew, and provided him with archival documents pertaining to the Nicola-Similkameen. In a subsequent telephone conversation, Gordon Antoine provided some information about place names in the Coldwater area.

The methodology used for eliciting information concerning place names and the native utilization of the area was as follows: we travelled slowly by car, in the company of each native consultant, throughout the study area, discussing the landscape and asking which places had Indian names and/or were utilized for some purpose and/or were of some mythological importance. This information was recorded as provided. Then, whenever practical, the data elicited from each consultant was read back to him or her, at which time additional information and clarification was requested. The location of each named site was marked on topographic maps when identified. In some cases, photographs of the named sites were taken by Dorothy Kennedy.

There were occasions where information about the Indian utilization of a specific site had been forgotten by our consultants, but had been recorded in the literature. In such instances, we would present this information to the Indian people for their discussion. This prompted their recollection of information that they were familiar with and could verify.

REPORT ORGANIZATION AND CONTENT

After six days interviewing local Indian people, it seemed to us that the limited amount of time we had remaining for the project could better be spent preparing a report on the research findings. There are, nevertheless, several more elderly Indian people in this area with some familiarity with the highway corridor. Yet our discussions with the six people already mentioned confirmed what we had suspected as a result of our archival work--not much is known about this specific area. The Indian people with whom we spoke were both knowledgeable and helpful, but the intimate relationship with the land that was possessed by Indian people in the late 1800s and early 1900s is only partially known by today's oldest generation. This matter is put into perspective by considering the following statement made by James Teit in an unpublished manuscript entitled "Notes on the Early History of the Nicola Valley":

Besides being rich in legendary lore the Nicola Valley has a wealth of incidents in Indian history and is also rich in Indian place names some years ago I collected about 150 of the Chief place names of the Valley between Nicola Lake and Spencer [Spences] Bridge but there are many more [Teit n.d.].

Unfortunately we have not been able to locate this extensive list of place names that Teit referred to.

The structure of this report, therefore, has been determined by the nature of the data that has been provided by the local Indian people and by the quality and extent of the archival sources.

In this report we have discussed in some detail the demise of the first known inhabitants of the area, the Nicola-Similkameen Athapaskans. Data concerning these people are fragmentary. Because the highway corridor falls within their former territory, we have reconstructed the history of the Nicola-Similkameen people and the encroachment upon their territory by the Thompson and Okanagan Indians.

Following the discussion of the Nicola-Similkameen Athapaskans, we describe the native food resources of the Nicola Valley, based on information provided by contemporary Indian people and data contained in the relevant ethnographic literature. This discussion is followed by an inventory of ethnographically-known sites. This focuses on the 25 place names that we have been able to record, and the utilization of these sites as known by contemporary local Indians.

Lastly, the ethnographic significance of the study area is discussed and the potential impact of the highway project on ethnographic sites is described.

A SUMMARY OF NICOLA VALLEY INDIAN HISTORY

Old One commenced to make the Nicola country. He flattened, lowered, and heightened it here and there, until it became similar to what it is at the present day. Then he formed lakes, and made water flow in the form of rivers and creeks, and created fish, animals, and birds to inhabit it. He also made grass, trees and bushes to grow where required. He said, "Water will be the life of the earth and everything on it." Now he created four men and a woman who became the first inhabitants of the Nicola Valley [Teit 1912:324-325].

In the early 1900s, ethnographer James Teit recorded this myth that explains how "Old One" taught the first residents of the Nicola Valley to fish, hunt, gather plant foods, and work with the materials of their environment. The myth does not, unfortunately, tell us anything about the ethnic affiliation of these first people or when they were created. The answers to these and related queries must be gleaned from the fragments of ethnographic, linguistic, and archaeological data that have been collected over the past 100 years.

Today the Nicola Valley in south-central British Columbia is occupied by Thompson and Okanagan Indians who speak languages belonging to the Interior Salish division of the Salishan Language Family. As we will discuss, their permanent residency in this area is relatively recent--they have encroached upon and assimilated with a now-extinct Athapaskan-speaking group who formerly lived in both the Nicola and Similkameen valleys. This group is known as Nicola-Similkameen.

It appears that James Teit was the first researcher to identify this Athapaskan group by the native name stewix (Boas 1895:32). The meaning of this term is not known. In his unpublished field notes, Teit (1898-1910) stated that stewix "is said to have been the oldest name for the Nicola region in general" and added that "their own name for themselves has been forgotten". Subsequently he said that stewix was the Thompson name for these Athapaskan people (Teit n.d.). Many years later, however, linguist John P. Harrington (1943:204) stated that stewix was the "Athapaskan name of the Nicola Valley".

In his 1895 work, Teit implied that the term stewix was applied to the Athapaskan people both in the Nicola Valley and in the Similkameen Valley (Boas 1895:31-33). Although Teit's Thompson monograph of 1900 contained a map indicating the "Athapaskan tribe of Nicola Valley" (see Figure A3) having territory both in the Nicola Valley and in the Similkameen Valley (Teit 1900:166), it was not until years later that he referred to these people as "Nicola-Similkameen" or "Similkameen-Nicola" (Teit 1910-1913). And it was not until the publication of Teit's 1930 monograph on the Okanagan that the term Nicola-Similkameen actually appeared in print (Teit 1930:204).

Present-day elderly Thompson informants refer to the former Athapaskan inhabitants of the Nicola Valley as stewix, but they do not recognize that these are the same people who also used to live in the Similkameen Valley, nor do they recognize the term "smel^lekamux" given by Teit (1898-1910) as the name of the former Athapaskan residents of the

Similkameen. Conversely, present-day elderly Okanagan informants refer to the former Similkameen Athapaskans as smlkamix (the equivalent of Teit's "smɛlɛkamux"), but they do not recognize them as the same people who also lived in the Nicola Valley, and they do not know the name stewix.

Several brief vocabularies of the Nicola-Similkameen language have been recorded, beginning with that published in 1892 by geologist Dr. G.M. Dawson (1892). This vocabulary was obtained from Mr. J.W. MacKay, formerly an Indian Agent at Kamloops, and also by Dawson himself. Additional vocabulary was published by Father LeJeune, a Catholic missionary, in his Kamloops Wawa of 1895 (LeJeune 1895:98). In this same year, anthropologist Dr. Franz Boas instructed James Teit to collect information concerning this original Nicola Valley group. Teit's vocabulary, along with that of Dawson and MacKay, was published later in 1895 by Franz Boas. Further observations on the language were made by Boas in a report published in 1898 in which he related the "Nicola Valley dialect" to two Athapaskan languages from further north, Chilcotin and Ulgatcho Carrier. Boas came to the following conclusion:

Although the apparent differences of a small vocabulary like the present have no great weight, I am inclined to think there was a difference between the Chilcotin and the Nicola Valley dialects. The language was, however, evidently very closely related to the Chilcotin, while it differed more from the Carrier dialects [Boas 1898:39].

Teit also considered the position of the Nicola-Similkameen people further in a subsequent unpublished manuscript based on his own additional fieldwork. He postulated that their language was "more closely related to the tongues of the northern Athapaskan tribes, particularly the Chilcotin" (Teit 1910-1913).

John P. Harrington conducted linguistic research on the Nicola-Similkameen in 1941 and published his results in 1943. In describing this research, Harrington reported that he worked separately with eight different informants and "swept their memory clean of the former language and obtained a sizable and important list of vocables" (Harrington 1943:204). He referred to Nicola-Similkameen as a "fragmentarily remembered language, closely resembling Chilcotin proper, of the Nicola and Similkameen [sic] Valleys, British Columbia." As has been noted, it was James Teit (in his unpublished 1910-1913 field notes) who first identified these people and their language as "Nicola-Similkameen".

It appears that the last Indian people who had any knowledge of the Nicola-Similkameen language (either from the Nicola Valley or the Similkameen Valley) died in the late 1940s, but in fact the language had fallen into disuse by the turn of the century. In May of 1900, Teit made the following observations, which were never published:

About 50 years ago very few remained in the Nicola who could talk that language but probably 50 or more still used it at that time on the Similkameen...About 40 years ago 6 to 8 old people in the Nicola still talked Tinnéh [Athapaskan]...The last Tinnéh talking people died in the Nicola & Similkameen about the same time [Banks 1970].

Today the Nicola-Similkameen language is extinct--only a few place names remain to attest to the presence of these people, but most of these terms are overlaid with a Thompson or Okanagan pronunciation, and only the oldest generation of Indians knows them. Indeed, most of the Thompson and Okanagan Indian people living today in former Nicola-Similkameen territory are not aware that non-Salishan people have lived in this area before them.

One theory regarding Nicola-Similkameen settlement in this area suggests they originated from a Chilcotin Athapascan war party. Dawson (1892:24) first proposed this theory based on an account by Indian Agent MacKay. In relating MacKay's story, Dawson states that the Chilcotin expedition arrived in this area "a long time before the whiteman first came to the country". But in MacKay's own account, he reported that "about one hundred and twenty years ago a party of Chilcotin mostly young men with their wives but no children, left their country on the war-path against the Shuswaps of the Bonaparte" (MacKay 1899:74). Thus, MacKay dated the war party incident in the 1770s. This war party, MacKay noted, was intent upon raiding the Shuswap, but the Shuswap people had left their village to go to their fishery, causing the Chilcotins to think that they had not travelled far enough. They proceeded down to the mouth of the Nicola River where they were pursued by a group of Shuswap and Thompson warriors. The Chilcotins fled, followed by their enemies, until at last they reached the Allison fork of the Similkameen. Here, the Chilcotin attacked, killing their pursuers. No one lived in the Upper Similkameen at this time, so the Chilcotin remained. In the spring they joined with the Okanagan in a fight against the Shuswap and Thompson. The Shuswap were driven north from the Okanagan Valley that they had occupied as far as the Mission. The Okanagans and Chilcotins made a treaty, exchanging wives in the process, and soon the Chilcotin language became lost to the more dominant Okanagan (MacKay 1899:75).

A similar story was published by Susan Allison in 1892. She noted that the Chilcotin war party penetrated into the Upper Similkameen Valley when they became surrounded by their enemies and forced by the approaching winter to remain in the area. Allison stated that this occurred around the 1740s. The Chilcotin of the Similkameen Valley intermarried with the Spokane, according to Allison, until their numbers became depleted by disease.

The "Chilcotin war party" origin theory of the Nicola-Similkameen was by no means unanimously accepted. Because parts of this story conflicted with information Boas had received, he asked Teit to "try to collect as much information as possible" about these people and consequently Teit went into the Nicola Valley in March 1895 (Boas 1895:30). Teit talked to the three old men who still knew of the original language, all of whom he estimated were over seventy years of age and none of whom could provide more than twenty words of Nicola-Similkameen. One of these old men said that as a boy he had been taken by his grandfather, who was himself a very old man at the time, to a place on the Nicola River below Nicola Lake where his grandfather had been born. This old man told him that their people "had always inhabited that region". Another of the old men Teit talked to had been taken by his father "all over the boundaries of the tribal territory". Teit reported that his informants were indignant to hear of MacKay's story concerning their origin from a Chilcotin war party--they said they had "no tradition regarding a foreign origin" (Boas 1895:31). The data collected by Teit in 1895 convinced Boas that MacKay's "Chilcotin war-party" theory was "very unlikely" and that

these Athapaskan people had "lived in the Similkameen and Nicola regions for a long time" (Boas 1895:33).

Teit considered that it was almost too late (in 1895) for him to learn about the Nicola-Similkameen people and their language. His informants at that time were all an admixture of Okanagan and Thompson blood and none was more than one-quarter Nicola-Similkameen. Teit was told that five years prior to his visit in 1895, an old blind woman had died who was the last person to speak the language properly and was half Nicola-Similkameen. Apparently intermarriage had been occurring for quite some time--Teit noted that for three generations there had been "some admixture" of Okanagan and Thompson blood in the Nicola-Similkameen. Teit also reported the Nicola-Similkameen had a tradition that they were "numerous" at one time and that their "southern boundary extended to Keremeos, on the lower Similkameen River" (Boas 1895:31). Additional fieldwork around 1910-1913 in the Similkameen area permitted Teit to extend this boundary even further south. In a note accompanying a map (Figure A1) on which he marked the former boundaries of the Nicola-Similkameen territory, Teit wrote:

Some Similkameen and Okanagan claim there is a tradition that long ago the old Similkameen-Nicola tribe (Athapaskan) formerly extended nearly to the junction of the Similkameen with the Okanagan, and that they were driven north of Keremeos by the Okanagan who occupied all their former territory up to that point. [Teit:1910-1913].

Apparently the Okanagan and Thompson (and to some extent the Shuswap) encroachment into former Nicola-Similkameen territory has occurred in relatively-recent times. As we have noted, Teit (1930:214) claimed that the Okanagan expansion north along the lower Similkameen Valley to the vicinity of Keremeos may have occurred about 1700, a date he clarified further when he stated this happened "some time previous to the introduction of the horse" (Teit 1930:216). It was at this time that the few remaining Nicola-Similkameen people residing along the lower Similkameen River became absorbed by the Okanagan. North of Keremeos the Nicola-Similkameen fared little better. Gradually the Thompson hunting grounds encroached southwards into the valley until they reached a point between Hedley and Keremeos. The few Nicola-Similkameen people living in the upper Similkameen Valley were absorbed by the Thompson. Teit (1930:213-214) implied that this process of Thompson encroachment into the Upper Similkameen occurred in the mid-1700s.

Meanwhile the encroachment on stewix territory in the Upper Nicola was well underway, aided by the introduction of the horse which brought about profound changes in territorial boundaries throughout the Plateau. The Shuswap Indians from the Kamloops area, who once spent the summer and fall months hunting and fishing around Douglas, Fish, and Stump Lakes, were driven back by the now-mobile Okanagan. They invaded the Shuswap hunting grounds and soon established a settlement at Douglas Lake, causing the Shuswap to retreat from the area. Here at Douglas Lake there was good grazing land for the Okanagan's horses. At this time there still remained two stewix settlements--one at the lower end of Nicola Lake and the other near the upper end, south of where the Guichon Ranch was later established. Each of these settlements was said to contain approximately 50 to 60 people, many of whom

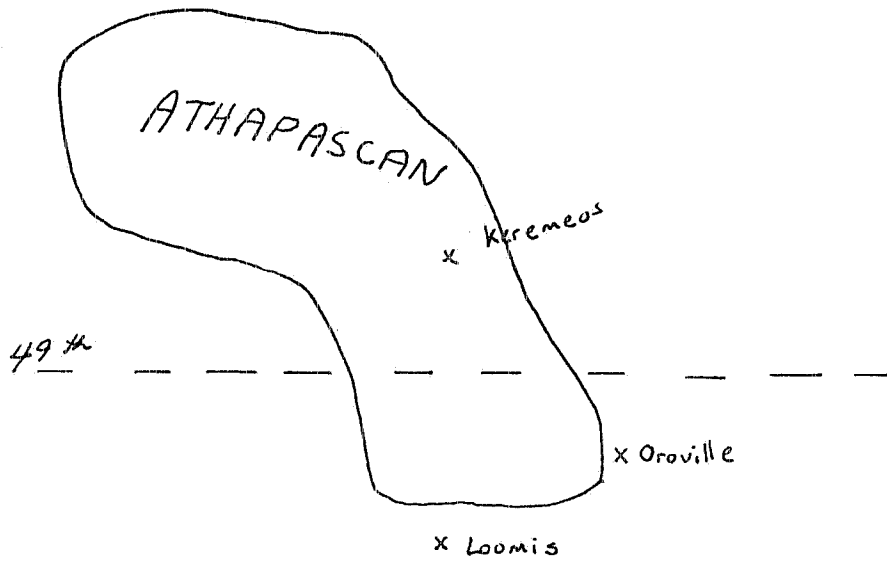


Figure A1. Nicola-Similkameen Territory, circa 1700. Hand-copied from a rough map prepared by James Teit (1910-1913). Original held by American Philosophical Society, Philadelphia (microfilm copy in Provincial Archives of British Columbia, microfilm No. A-239).

were already intermarried with Thompson Indians who freely used this area for hunting and fishing (Teit 1930:214).

In his summary of findings concerning the *stewix* people and their language, Harrington (1943:204) noted "these people used to steal children in order to augment their tribe, and...formerly at times had clashes with the Thompson and other Salishan speaking bands that surrounded them".

One of Teit's *stewix* informants told him that in the late 1700s the Nicola-Similkameen had two fortified houses in which they took refuge when threatened by war parties of Thompson, Okanagan, and Shuswap (Boas 1895:31). The exploits of one such Shuswap war party who attacked a Nicola-Similkameen village with devastating results were recorded by archaeologist Harlan I. Smith during a field trip he made to the Nicola Valley in 1899. He recorded this account from a seventy-year old Indian man named "Iron-Head" who had been born at the lower end of Nicola Lake and whose father was a young man at the time of the raid (thus the incident must have occurred in the very early 1800s). According to Smith (1900:406), Iron-Head said that about fifty "Nicola Athapascans" were living in an underground house "where the church is now". Presumably Smith was referring to the site of the Quilchena (Nicola Lake) Indian Reserve church, for he adds that about 100 Thompson Indians were camped in lodges "among the bushes which skirt the shore, and give the place its name". (The Indian name of the area along the shore of Nicola Lake, not far north from the present-day church, is still well known today and translates into English as 'bushy area'.) Iron-Head went on to say that these Thompson people had come to this area from Lytton and Spences Bridge to fish in Nicola Lake. During the night a Shuswap war party from Kamloops attacked and killed all of the fishing party except for several women who were taken as slaves and a man and a woman who escaped. All the people in the underground house were killed (Smith 1900:406).

Until the time of this massacre, the Thompson winter habitations had apparently "extended up the Nicola River only some seventeen miles" (Boas 1895:32). This group of lower Nicola River Thompson Indians held the salmon fishery at the mouth of the Nicola although they fished and hunted in the Nicola Valley also. The Okanagan people, who had driven the Shuswap away from the vicinity of Douglas Lake and were living there, themselves, later also moved into the area near the upper end of Nicola Lake where the *stewix* and the Thompsons had been murdered (Teit 1930:214). Elsewhere, Teit (1900:178) stated that the Okanagan had permanent settlements in Douglas Lake country by the mid-1800s. According to Teit (1900:214), the Thompson Indians continued to go to the upper Nicola Lake region to hunt and fish until about 1870 and the population in this area was "considerably mixed Thompson" in the 1890s.

The major influx of the Thompson Indians into the Nicola Valley, however, occurred in the mid-1800s. By this time the Thompson had many horses and were beginning to acquire cattle, so they were interested in the depopulated area of *stewix* territory where grazing land was plentiful. It was in the mid-1800s when many Thompson Indians from Lytton and Nicomen settled along the Nicola River and intermarried with the few remaining people of *stewix* ancestry. It was slightly after this time that Thompson people from the Boston Bar area travelled over the mountains and established settlements along the Coldwater River. Elderly Thompson Indians living in the Nicola Valley today still know the stories of their great-grandparents'

migration from other parts of Thompson territory to establish permanent homes throughout the valley--using genealogical data we can estimate that this migration occurred around the 1850s, which agrees with Teit's (1900:179) information concerning this event (Figures A2 and A3).

Information on the stewix utilization of the Nicola Valley is very fragmentary. As we have discussed, their use of the area was not exclusive, at least in relatively-recent times; it appears there was a long-standing tradition of the upper Nicola Valley hunting grounds being used by the Thompson Indians, and the area around Douglas and Fish Lakes being used by the Shuswap and, more recently, by the Okanagan. Yet it appears that the stewix people were the sole permanent occupants of the Nicola Valley prior to their drastic population reduction in the early 1800s.

Harrington (1943:204) notes that the "last linguistic stand" of the Nicola-Similkameen was at the southwest end of Nicola Lake, near where the Zoht Indian Reserve was later established. Many years earlier, Teit had noted there were three subterranean lodges or pithouses of stewix, each containing about forty to fifty people, wintering along the Nicola River "below the [Nicola] Lake and in close proximity to each other". He also said they had "two fortified houses" where they took refuge in times of attack (Boas 1895:31). In his unpublished notes, Teit added that the stewix people also had "a few scattered lodges" in different parts of the Nicola Valley (Teit 1898-1910). And as we have noted, both Teit (1930:14) and Smith (1900:406) talked about a stewix settlement near the upper end of Nicola Lake, around the mouth of the Upper Nicola River. In his unpublished field notes, Teit indicated that sometime in the 1700s there had been additional stewix winter camps at both ends of Nicola Lake, and also along the lower area of the Nicola River, near Petit Creek and also near "Potato Gardens" (that is, the area known today as "14-Mile" as it is 14 miles up from the mouth of the Nicola River). Teit estimated that when all of these winter camps (that is, pithouses) were occupied, the stewix population was around 400 (presumably this would have been in the early 1700s, if not earlier) (Teit 1898-1910).

Wyatt (1972, in press) has discussed the complex matter of how long the stewix people had lived in the Nicola Valley. His discussions have been based on a theory of glottochronology that was put forward in the 1950s. This theory postulated that it was possible to reconstruct the dates at which groups of languages and dialects diverged from one another by careful examination of standardized word-lists filled out in these languages and dialects. The word-lists were considered to be "fundamental". Two of the basic assumptions of glottochronology were that this fundamental vocabulary changed at a constant rate over long periods of time and that this vocabulary was readily translatable into all languages. However, the basic assumptions of glottochronology were thoroughly discredited in the 1960s (see for example Bergsland and Vogt's 1962 article, "On the Validity of Glottochronology"). Therefore Wyatt's speculation, based on a glottochronological consideration of Athapaskan languages, that the Chilcotin moved into the Nicola area no later than about 600 years ago (Wyatt 1972, in press) is not supportable from a modern linguistic perspective.

So the questions remain--were the stewix the first inhabitants of the Nicola Valley? If not, then when did they come here? And what was their relationship with other Athapaskans?

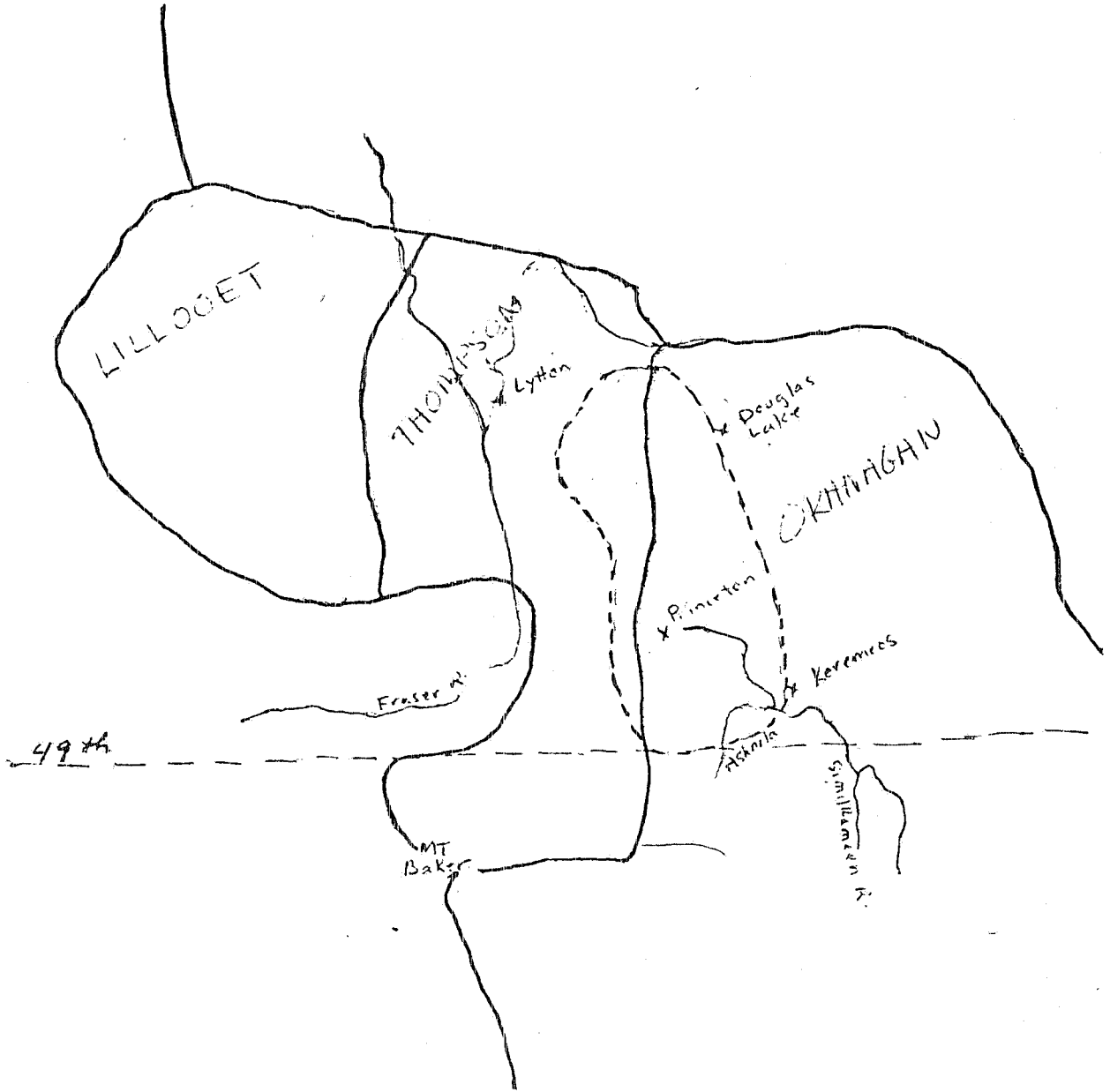
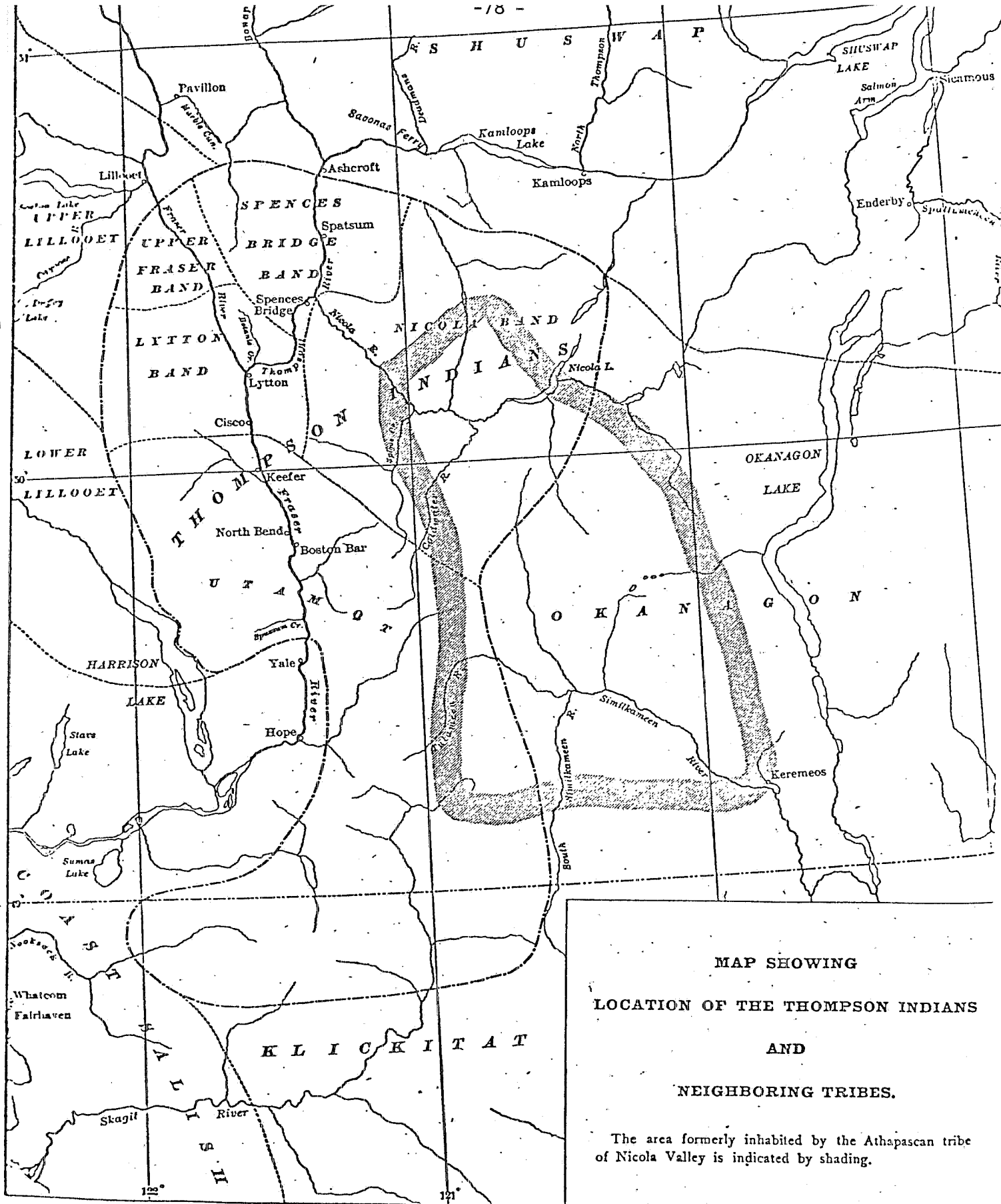


Figure A2. Nicola-Similkameen Territory, circa 1850. Hand-copied from a rough map prepared by James Teit (1910-1913). Original held by American Philosophical Society, Philadelphia (microfilm copy in Provincial Archives of British Columbia, microfilm No. A-239).



**MAP SHOWING
LOCATION OF THE THOMPSON INDIANS
AND
NEIGHBORING TRIBES.**

The area formerly inhabited by the Athapaskan tribe of Nicola Valley is indicated by shading.

Figure A3. Map of Thompson Territory (from Teit 1900).

As we have indicated, there is a very long-standing tradition of the Thompson people's utilizing the entire Nicola Valley on a seasonal basis for purposes of resource exploitation. We can assume this tradition dates back at least until the early 1700s, if not earlier. We have noted how the Thompson winter habitations gradually began to extend up the lower Nicola River--they were said to be 17 miles up the Nicola River by the later 1700s. And we have described the large migration of Thompson people into the Nicola Valley in the mid-1850s to establish permanent settlements. By about 1900, the *stewix* as a distinct ethnic group no longer existed and the majority of the Native population throughout the Nicola Valley (with the exception of the Indian people living in the area around the upper end of Nicola Lake) was Thompson.

On the basis of extensive field work conducted in 1895 and 1897, Teit suggested the Thompson people below Lytton should be designated as the "Lower Thompson" and those above Lytton should be identified as the "Upper Thompson". He noted that the Thompson people "call their entire tribe *Nlak a-pamux*" (Teit 1900:167-168). This term, *nha7kápmx*, is still widely used today by Thompson Indians to identify all those people who speak the Thompson language.

Teit identified four "minor divisions" of the Upper Thompson. He stated that one of the divisions was comprised of all the Thompson people living along the Nicola River, from "a few miles above Spences Bridge to considerably above Nicola". Teit said that these people are known in the Thompson language as "*Cawa-xamux* or *Tcawa-xamux*" which, he added, is translated as 'people of the creek' and is taken from the name of the Nicola River, "*Tcawa-x* or *Cwa-ux*", meaning 'creek' (Teit 1900:170).

In his unpublished field notes, Teit made the following observations:

The people of the Nicola Valley at the present day are called *Tcawāxamux* meaning "creek people". *Tcawāx* being the name of the Nicola River and district in general. The word is Shuswap for creek either implying that the river was named by the Shuswap which might show the Shuswap to have prior influence in the neighbourhood, or the word may be archaic Thompson, the Thompson name for creek evidently being a diminutive form of the same word [Teit 1898-1910].

Apparently Teit only came to this conclusion after the publication of his Thompson ethnography. Our own research verifies that the Shuswap word for 'creek' is *tsewāx*, which seems to be the same term that Teit (1900:170) transcribed as "*Tcawa-x*" and later as "*Tcawāx*" (Teit 1898-1910). And our own research verifies that the Thompson word for 'creek' is *tsewāwxw* and that there is no Thompson term *tsewāx* meaning 'creek'. Therefore we must conclude that, in his ethnography when Teit gave "*Cwa-ux*" as an alternate word meaning 'creek' (in identifying the Nicola River people), he was in fact giving the Thompson form, *tsewāwxw*. However, present-day Thompson informants recognize the people living along the Nicola River only as *tsewāxmx*; they would not use the term *tsewāwxmx*. We can conclude, then, that Teit's unpublished observations (1898-1910) about this matter have some basis in fact--he did indicate elsewhere that the Shuswap at one time had "claimed the country...around the head of the Nicola River" (Teit 1930:266) so

the possibility exists that the Shuswap name for the Nicola River was adopted by the Thompsons. As far as Teit's speculation that tsewax "may be archaic Thompson" is concerned, we can only say that as far as we know, the only contemporary Thompson word for 'creek' is tsewaxw.

NATIVE FOOD RESOURCES OF THE NICOLA VALLEY

It appears that initially it was the large herds of elk (Cervus canadensis nelsoni) and the numerous trout-filled lakes that annually brought several Interior Salish groups into the Nicola Valley area during the summer and fall months. The first known permanent inhabitants of the Nicola Valley, the stewix people, were probably very accomplished hunters, like so many of the Athapaskans. Indeed, their prowess at hunting and the lack of adequate salmon runs in the area may have been reasons why the stewix had been able to live in the Nicola Valley in relative peace for many years. It seems that no Salishan group wanted to make a strong claim to an area where the salmon resources were insignificant when compared with the vast fisheries of the Fraser and Thompson Rivers.

In his discussion of the salmon resources available to the Native people of the Plateau, David Wyatt stated:

The most important species of salmon, both from the point of view of supply--numbers of fish in a run--and preferences of the people, was the sockeye (Oncorhynchus nerka), which run in late summer...Prior to the sockeye runs are those of Chinook or spring salmon (tschawytscha); in September come the Coho (kisutch) and Pink (gorbuscha)--fish of less desirability [Wyatt 1972].

Wyatt's summary deserves further consideration--there is no question that the salmon resources of the Nicola Valley were indeed limited, relative to the Thompson and Fraser River fisheries, but our own preliminary research (1974-1976) concerning fishing practices of the Thompson people suggests that spring salmon was the most plentiful and most sought-after fish prior to the disastrous slide on the Fraser River at Hells Gate in the early 1900s. It was the arrival of the first spring salmon in Thompson Indian country that was marked by a special "first salmon ceremony", and it was spring salmon that the people dried in large quantities for winter storage. The early run of spring salmon ascended the Nicola River in April, followed by the "jack" spring salmon run in July and August. Steelhead were also present in the Nicola River in the spring. But in contrast to the Fraser and Thompson River fisheries, the main salmon harvest in the Nicola Valley was the sockeye run that appeared around the beginning of June. Traditionally, weirs were erected at several sites along the Nicola River to fish them. The Nicola River coho began in September, but these fish were too thin to harvest and many of the Nicola Valley people went to the Thompson River to fish at this time. Pink salmon also used to be found in the Nicola River, and unlike many areas where they are not fished at all or fished only for their belly flesh, the people of the Nicola Valley smoke-dried the opened pink salmon filets. The land-locked sockeye salmon, known locally as kokanee, that spawn in large quantities in the Nicola Valley system in September and October were also available, but this area was noted more for its abundance of trout and suckerfish than for any type of salmon (Kennedy and Bouchard 1974-1976). It is interesting to note that in mythological times, the Nicola country was known as the home of

the "Animals"--"Formerly the Indians lived at Lytton, the Animals in the Nicola country, and the Fishes [below Lytton]" (Teit 1912:231).

Trout fishing in the springtime in the many upland lakes of the Nicola Valley area was undertaken on a very large scale. It was of great importance to all the Indian people of this general area. Teit (1912:405-406) recorded a war story in which a pack train carrying dried trout was ambushed as it returned from the Douglas Lake fishery. Other trout and/or suckerfish or whitefish fisheries were located at many of the lakes throughout the Nicola Valley area, including the following: Chapperon, Stump, Pennask, Bob, Frogmoore, Fish or Salmon, Helmer, Trapp, Sussex, Surrey and Mamit Lakes, as well as Nicola Lake itself.

As has been noted, the upland areas around the Nicola Valley were once the home of large herds of elk. Teit (1912:332fn.) noted that "at one time elks were very common in many parts of the Okanagan and Thompson countries, especially so in Nicola". Wyatt's archaeological work in the area has substantiated Teit's remark, as evidenced by the numerous elk bones found in sites in the Nicola Uplands and in the open portion of the Nicola Valley above Merritt (Wyatt 1972). As the elk population decreased in the early 1800s, deer moved into the area. Teit stated that the depletion of elk herds in the Nicola Valley was due in part to the actions of the famous chief "Nicolas" (after whom the Nicola River, Valley, and Lake are named) and his 500 warriors, who made several massive elk drives both before and after his war expedition (likely around 1820) to Lillooet country to avenge the death of his father. Great numbers of these animals were driven over cliffs and into enclosures to be slaughtered (Teit 1930:268-269).

Very little is known concerning either the plant resources available to the stewix and Thompson people in this area, or what percentage of their traditional diet consisted of plant foods. Harrington (1941) recorded an elderly Thompson woman's statement that a popular stewix food was a mixture of wild rose berries (*Rosa* spp.) and a whitish-coloured berry that has been tentatively identified (Turner et al. 1984) as the fruit of the red willow (*Cornus stolonifera*). With these berries they often mixed wild mushrooms. Another food apparently much prized by the Nicola Valley residents, at least in the 1870s, was the water parsnip (*Sium suave*) which apparently was dug each spring on the flats near the outlet of Nicola Lake (D.I.A. 1878). Turner's (1984) recent ethnobotanical work suggests that these roots were dug again during the fall, in hunting season.

Specific sites for harvesting bitterroot (*Lewisia rediviva*), soapberries (*Shepherdia canadensis*), gooseberries (*Ribes* spp.), blueberries (*Vaccinium caespitosum*), "Indian potato" (*Claytonia lanceolata*), Saskatoon berries (*Amelanchier alnifolia*), and "Douglas-fir sugar" were noted during the course of our brief visit to the Nicola Valley area in September 1984.

Although Turner's (1984) lengthy manuscript on Thompson knowledge and use of plants contains very detailed and useful information, only a limited amount of data are from the Nicola Valley area. Turner notes that despite her extensive Thompson ethnobotanical research over the past 11 years, she is still not yet in a position to estimate what percentage of the traditional Thompson diet consisted of plant foods. Although this type of information is not yet available for any area of the British Columbia Plateau,

a recent study of traditional Indian diet in Washington State has estimated that plant foods comprised approximately 60 percent of the caloric intake for Indians east of the Cascades and 50 percent of the caloric intake west of the Cascades (Keely et al. 1982:560). Turner has determined that "no less than 120 species of plants were utilized in some way as a source of foods, flavouring or beverages" by the Thompson people (Turner et al. 1984).

NATIVE KNOWLEDGE OF THE MERRITT-SURREY LAKE AREA

In the section that follows, the place names that we have recorded with our Native consultants (and that have been noted in the literature) are presented in an order that begins around the Merritt-Coldwater area (Figure A4), proceeds along the proposed new highway right of way (Figures A5 and A6), and ends at Surrey Lake (Figure A7). The numbering of these place names corresponds with their identification numbers on the accompanying illustrations.

The first transcription of each place name that appears is given (wherever possible) in the practical writing system designed and put into use for Northwest languages over the past 15 years by Randy Bouchard and various Native Indian colleagues. Wherever possible, an English translation (provided by the Native informants) of each place name is also given. Listed after this initial transcription are the various ways in which the same place name has been recorded and translated by others. This is followed by any information that we have been able to obtain about each place and about the surrounding area, either from our informants or from the literature.

The Indian people who have provided this information for us are identified by their initials, as follows: Mabel Joe (MJ); Billy Hall (BH); William Alec (WA); Joe Pete (JP); Nettie John (NJ); and Gordie Antoine (GA). Several names are cited from our 1974 place names work between Merritt and Princeton with Harry Robinson, an Okanagan Indian from Hedley (HR 1974).

1. nts'lhátkwu (MJ; GA) 'cold water'
sts.ʔaetkuu (Harrington 1941) no translation given
NtsLa'tko or NtsaLa'tko (Teit 1900:174)

This is the Thompson name for the Coldwater River, which empties into the Nicola River at the west end of Merritt.

2. nsísk'et (MJ; BH; GA) 'little gully'
nsísk'et (HR 1974) 'small crack'
Nsi'tsket (Teit 1898:85) no translation given
N'cickt (Hill-Tout 1899:5) 'little canon'
Nsi'sqet (Teit 1900:174) 'the little split or divide'
nsek'et (Harrington 1941) no translation given
nzisk'et (Harrington 1941) no translation given
nsisk'et (Harrington 1941) no translation given

This is the Thompson name that is applied specifically to Godey Creek and the small gully through which it runs and generally to the vicinity of Joeyaska Indian Reserve No. 2, southeast from Merritt. "Joeyaska" is an anglicization of tsuyásk'a, the Indian name of a man of mixed Thompson and Stewix ancestry (MJ).

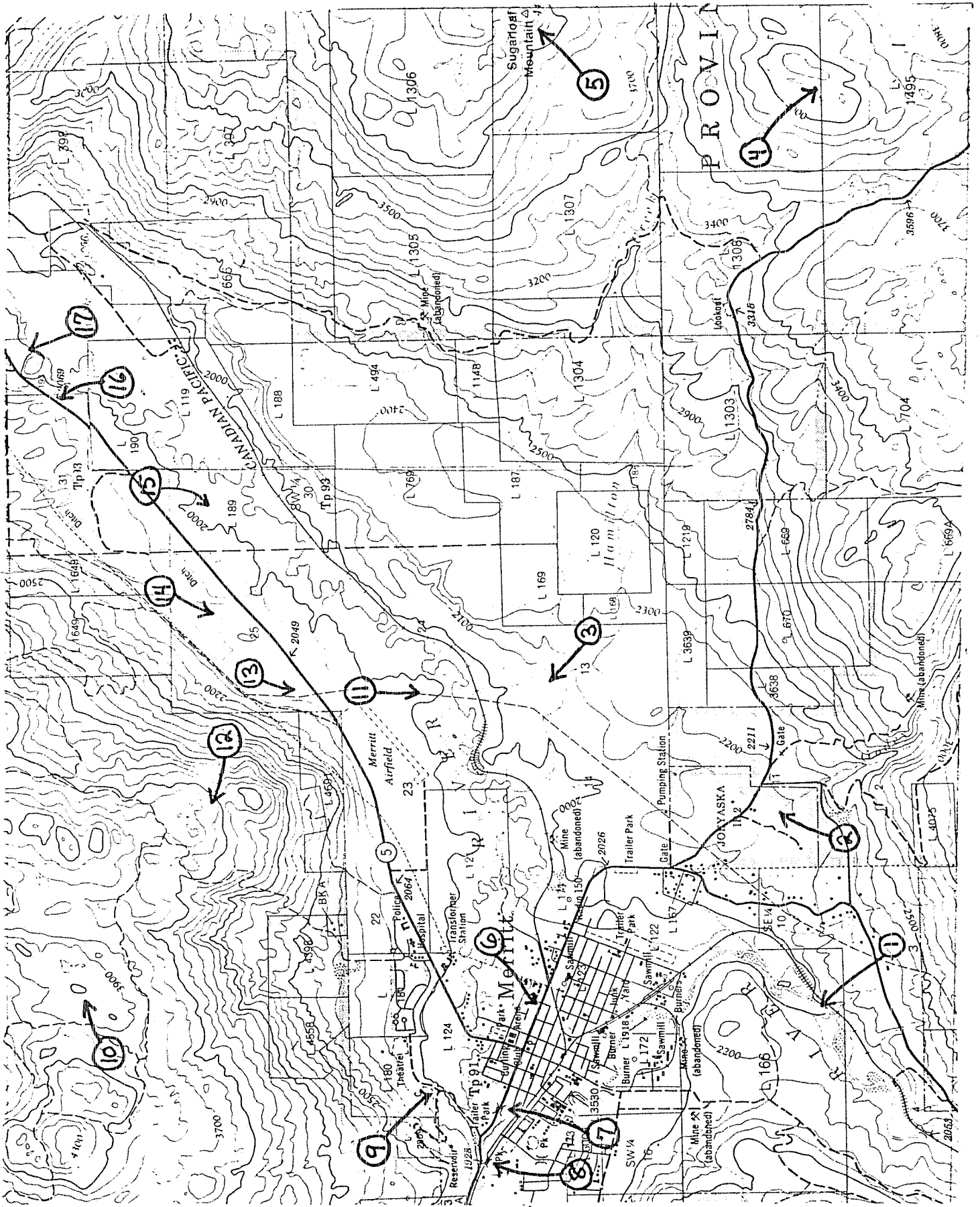


Figure A4. Place names 1-17.

Both Hill-Tout (1899:4) and Teit (1900:174) noted that nsísk'et was a Thompson village.

MJ observed bitterroot (Lewisia rediviva) growing on the hillside through which Godey Creek runs, but she never heard of anyone digging it here.

When BH was a child he lived here at nsísk'et in a log house owned by his grandmother, panáłks. BH recalls two other log houses here: one belonged to a man named sepspáhan and the other belonged to his son, Antoine sepspáhan.

In his unpublished notes, Harrington (1941) noted that nsísk'et was the site "where they play with copper ball". Undoubtedly he was referring to the Thompson myth recorded by Teit (1898:32-34) in which the sons of Coyote and Antelope steal the ball from the people of Lytton. Teit (1898:105-106) added an endnote to the story which explained that Coyote and Antelope both lived near nsísk'et and that both of their underground houses were changed into rocks here when the Transformer came around. Possibly Teit was confusing this site of Coyote's house with the nearby site known as nk'iyapáłhxw (see place name No. 6). Our informants were not aware of Coyote ever having a transformed underground house at nsísk'et.

In another myth recorded by Teit (1898:85) it was noted that nsísk'et was the home of two brothers, Skunk and Badger.

3. spayúl (BH only) 'Mexican person'

BH was told by his grandmother that in her younger days many "Mexicans" (referred to as spayúl in the Thompson language) lived on the flats near the Nicola River, northeast from Joeyaska I.R., and that is why this place was known as spayúl.

4. skí7káytñ (MJ; BH; HR 1974) 'up on top'

This is the Thompson name for the area known locally as Hamilton Hill, east from Joeyaska I.R.

5. skakamáłhk (MJ; BH)

This is the Thompson name for Sugarloaf Mountain, located east from Joeyaska I.R. One English translation of this term is 'tree milk' (Turner et al. 1984). Skakamáłhk is "Douglas-fir sugar", found only on some Douglas-fir (Pseudotsuga menziesii) trees--one of Turner's colleagues recalled that children from the Merritt area used to get this "wild sugar" from "Sugar Mountain [Sugarloaf Mt.]" (Turner et al. 1984). This sugary substance is melezitose, an extremely rare trisaccharide (Davidson 1919:9).

6. nk'iyapáłhxw (MJ; BH) 'Coyote dwelling'
nk'iyapáłhxw (MJ) 'Coyote dwelling (diminutive)'
nk'eepáptu (Harrington 1941) no translation given
nkeopáptuca (Harrington 1941) no translation given
kwekwts'í7 snk'łip (HR 1974) 'Coyote's underground house' (in Okanagan language)

sií'stekns a sni'kiép (Teit 1912:316) 'underground house of Coyote'
(in Thompson language)

All but one of the forms of this name cited above are Thompson.

BH pointed out that this place was where Coyote lived in mythological times, with his "partner", tagtgáln. Formerly this 'Coyote dwelling', a large grass-covered mound, could be seen in the field approximately south from Kengard School at the east end of Merritt. But most of this mound has been destroyed--only the base of it remains today. BH did not know the English name of the animal he called tagtgáln--this may possibly be an antelope.

On one occasion Teit (1912:296) stated that Coyote lived at the place called "Coyote's underground lodge" and elsewhere identified this place in Thompson as "Sií'stekns a sni'kiép" which he translated as 'underground house of Coyote' (Teit 1912:316). However, in an undated manuscript, Teit gave a slightly different explanation of the occupants of this dwelling:

The earliest inhabitants of the Nicola Valley according to Indian legend were the Coyote and Antelope who lived there in Mythological times...Their camp was situated on the large rather low bench just East of the town of Merritt at the end of Quilchena Avenue. According to some this bench is the metophorposed [sic] remains of their camp. The flat where the town of Merritt now stands or at least the major part of it especially towards the East was [the] Common...play ground of the Coyote and Antelope people...These people had their 'woman's lodge' [menstrual hut]...some distance away from their...main camp. The remains of this lodge may now be seen in the form of the isolated little butte or mound situated [in the original draft of this manuscript, this sentence is not completed, but in a later draft of this manuscript, this sentence continues "...just north of Nicola Avenue just back of the Standard Oil depository"]. Their communal sweat lodge...or bath house was a large affair and...in its transformed state it now appears as the hill to the S. of the town where [this sentence is not completed in the original manuscript, but in a later draft, this place is identified as "...the hill to the southeast of Merritt (Coal Hill)"] [Teit n.d.].

In one version of this myth concerning the copper ball, Teit (1912:313) stated that the underground house Coyote lived in was at "Tezze'la", which he clarified in a footnote as the site of Jesus Garcia's ranch. Although land records indicate that the Garcia ranch did in fact include the area where this distinctive mound was located, Harrington's (1941) notes suggest that "təszəlle", (Harrington's transcription) was in the vicinity of the present-day non-Indian cemetery at the opposite end of Merritt (see place name No. 9).

It has been reported that there was a burial site (with associated artifacts) at the western end of this mound that was discovered when bulldozers levelled the area to prepare the site for the construction of an apartment building in the early 1970s (Archaeological Site Inventory Form EaRe 5, 1973).

Many Thompson people living throughout the Nicola Valley today still refer to Merritt as nk'iyapáhxw or nk'iyapáphxw. But Thompson people at Lytton refer to Merritt as tsewáx (George Henry:personal communication) (see also page 79).

7. skwilaélk'uu (Harrington 1941) no translation given

According to Harrington (1941; 1943:204) there was a spring of water at the western end of the town of Merritt, near the junction of Spring and Granite Streets, which was "magically created" by the stewix people as a never-freezing water supply for the neighbouring village of "Teszulle" (see place name No. 9). Apparently water here was warm in winter and cool in summer, so it was used both for drinking and bathing. In his unpublished notes, Harrington (1941) added that the stewix Indians were obliged to use this water supply because the Thompsons would not allow them to take water from the Nicola River. When we visited this site, BH recalled hearing that there was a spring here, but neither he nor our other informants knew about the former use of this spring. Undoubtedly Harrington's "skwilaélk'uu is skwlaítkwu, the Thompson word for 'spring of water'.

8. s7uyu7súps (MJ; BH) 'joined together at tail end'

This is the Thompson name applied to the area around the confluence of the Nicola and Coldwater Rivers. According to MJ, this was the site (see also place name No. 9) where "Old One" gave instructions to the first people--an excerpt of this myth, as recorded by Teit (1912:324-325) appears on page of this present report.

9. Tizzi'la (Boas 1895:34) no translation given
Tezze'la (Teit 1912:313) no translation given
təszəllə (Harrington 1941) no translation given
teszulle (Harrington 1943:204) no translation given

According to Harrington's informants in 1941, this was the stewix name for their village located north of the Nicola River near where the non-Indian cemetery in Merritt is presently situated. Harrington's informants stated that this was the place "where the heaven comes down in early days & gave all the salmon to the people, all the nets, all the spears" (Harrington 1941). MJ heard that this incident occurred at the place called s7uyu7súps (place name No. 8).

Teit (1912:313) noted that Coyote lived in an underground house at "Tezze'la", but as we discussed in connection with place name No. 6, Teit was undoubtedly mistaken, as these two sites are approximately one kilometre (.62 miles) apart.

The Thompson people we spoke with do not recognize this stewix place name, nor have they heard that this site was once a stewix village.

10. nts'eskekátkwu (BH only) 'chickadee water'

This is the Thompson name applied to the mountain ridge that has several very small lakes along its top and lies north of the town of Merritt.

This area was known as an especially good deer hunting area. A strong Thompson Indian doctor named *līmi* used to camp here (BH).

11. *kw²'wt* (Harrington 1941) no translation given

Only Harrington (1941) recorded this term, which he identified as the *stewix* name for the area "on the west side of Nic. R. NW of Merritt". Harrington added that there were Chinese gardens here when he visited the area in 1941. Because our informants did not know this place and Harrington's description is only a general one, our location of this place on the accompanying map is only tentative.

12. *skenāya* (BH only) meaning not known

This is the Thompson name of a low mountain across the highway and immediately north of the Merritt Airport. Spring water can still be found here. The sidehill area of this small mountain is known as a good place for deer hunting. As well, Saskatoon berries (*Amelanchier alnifolia*) were formerly picked here (BH).

13. *npsxewālh* (BH; MJ) 'one trail through water'
npisx²'w²† (Harrington 1941) no translation given

This Thompson name is applied to the small pool of water (which was dried up when we observed it) at the base of *skenāya* (place name No. 10) and immediately alongside the present Merritt-Kamloops highway. Harrington's (1941) notes suggest that there is water here only in the spring.

14. *pi7aykwstsūt* (MJ; BH) 'one tree standing by itself'
pi²'yuk.sūt (Harrington 1941) no translation given

This is the Thompson name of the large flat area on both sides of the present Merritt-Kamloops highway, about one kilometre (.62 miles) east of the Merritt Airport. At one time there was a single pine tree standing in the field here on the north side of the highway. The Indian trail leading from Lower Nicola to Quilchena went through this flat (MJ).

15. *k²k²suhu'a²wt* (Harrington 1941) no translation given

The location and identification of this site must only be considered as tentative--the name was not recognized by our informants. Harrington (1941) describes this place as "a low grassy hill on left of road between road and Nicola River on way from Nicola town to Merritt".

16. *nkwemxewāwlh* (BH only) 'trail over knoll'
nk²m²xwāws (Harrington 1941) no translation given
sxwayāws (MJ only) 'cut through middle'

BH applied the Thompson name *nkwemxewāwlh* and MJ provided the Thompson term *sxwayāws* for the place where the Merritt-Kamloops highway cuts through a small hill about two kilometres (1.25 miles) west of Nicola, while Harrington (1941) gave the location of what is undoubtedly the same place name as "the tongue of hill--Merritt from N town".

BH recalled that in a Thompson myth, several men, including Hummingbird who was a fast runner, were chasing a woman. They had almost caught up to her when she "tossed off her coat" and the men began to fight over it, instead of resuming the chase.

17. stl'kwi7 (BH) 'cut bank' (a Thompson term)

Both BH and MJ heard a story about an old blind man who died accidentally here, although MJ did not recall the Indian name of this place. He was travelling with his family along the trail that leads over the bank, but he insisted upon going on ahead, alone, and apparently fell over the bank and killed himself.

BH heard that Indian people used to live along the Nicola River, below this trail, where the Whitecreek Ranch was later established. Apparently there was little firewood down here, so in exchange for this land the Indians were allotted the upper Zoht reserves.

18. zuxwt (MJ) possibly 'drifting down'
zuxwt (BH; JP) no meaning
zōqkt (Hill-Tout 1899:4) no translation given
zuxt (Teit 1900:174) "meaning doubtful"
zūxt (Teit 1912:316) no translation given
zúht (Harrington 1941) no translation given
zuxt (Harrington 1941) no translation given
zoht (Nicola Indian 1979) 'crossing the creek'
ruxwt (WA only) meaning not known

There seems to be some confusion as to the location of the original site of zuxwt, although in its anglicized form, "Zoht", it is used to identify the three Indian Reserves along Clapperton Creek. MJ believes that zuxwt refers specifically to Clapperton Creek and that it is a Thompson word meaning 'drifting down', such as logs drifting down a creek. BH applies this name to the entire area of Zoht I.R. 4, but not to Clapperton Creek specifically--he does not know the meaning of zuxwt. A translation of zuxwt as 'crossing the creek' was given in the Nicola Indian newspaper in 1979, but the source of this information was not identified. The form ruxwt, given by WA, appears to be an Okanagan pronunciation of zuxwt.

It should be noted that Clapperton Creek is named after John Clapperton who in 1868 pre-empted the area near the outlet of Nicola Lake next to the 1868 claim of E. Dalley (Pre-emption Records). In 1878, when the Indians at zuxwt were given water rights to this creek, it was referred to as Dalley's Creek (D.I.A. 1878). However, some of the present-day Indian people in this area know the creek as "Mill Creek", probably because of the sawmill built in the 1880s in Lot 573 on the east bank of the creek (see page 8).

In 1941, Harrington obtained contradictory information concerning zuxwt and its location. One of his informants stated that this was the name of Nicola Lake, but not in the stewix language, while another stated that it was a stewix word referring both to Nicola Lake and to the Nicola Indian Reserve (at the upper end of the lake).

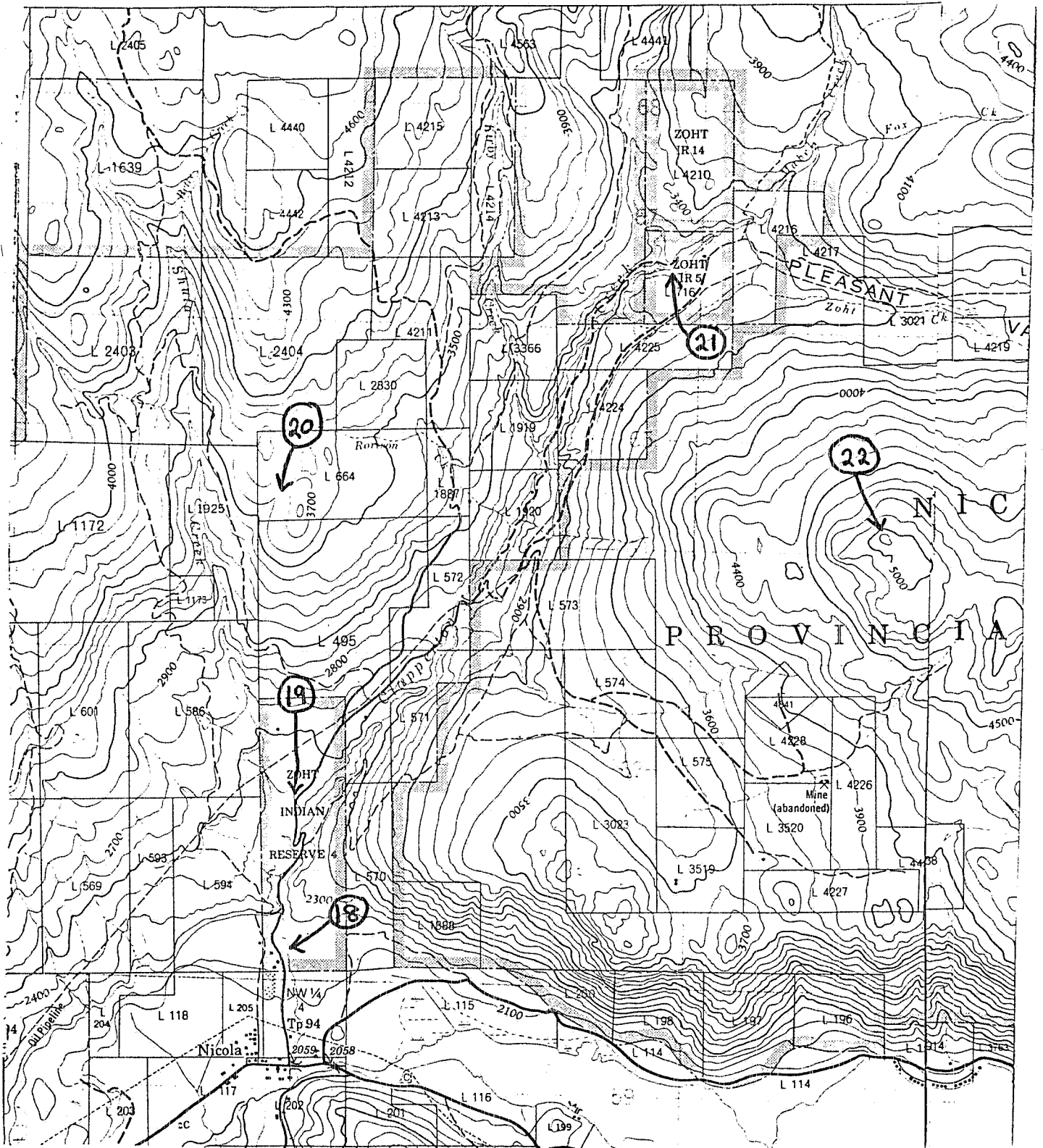


Figure A5. Place names 18-22.

A letter written in 1878 which is in the files of the Department of Indian Affairs stated the following:

Lot 115 Gr. 1 [by the lakeshore at Nicola] includes the Indian settlement of Tootch [zuxwt] formerly a favorite Indian residential and cultivated place occupied by the family of Poach, brother of Naweeshikun [nwisestkn], the present chief who was deprived without compensation [D.I.A. 1878].

As we have discussed (see page 73), the area around the outlet of Nicola Lake was formerly a stewix winter camp. Thus, it would appear that zuxwt has had an expansive history of occupation, and that the name originally applied to the entire area around the outlet of Nicola Lake. This is further substantiated in Thompson mythology. In the myth about "Coyote and the Monster" that was recorded by Teit (1912:313-317) it is said that formerly there was no Nicola Lake, only a creek. As is explained in the myth, the Transformer "made a dam across the creek at Zuxt. The waters rose and formed a lake which covered the cannibal's house." The people who the cannibal had killed were brought back to life again and settled at zuxwt, where they became numerous.

In a myth said to have occurred after this, these people, who were actually Animals, were attacked by a large war party of Fish from the lower Fraser River. Two variants of this latter myth have been recorded by Teit (1912:231-232, 352-353), and another variant has been recorded by Hill-Tout (1899:83-85). In addition, two of our informants (MJ and BH) have some knowledge of this myth. The myth goes on to describe how the Animals from zuxwt responded to the attack of the Fish from the lower Fraser River and finally managed to drive them back as far as Lytton. They killed many of the Fish invaders and threw their bodies into the stream. Some people say that the Nicola River has lots of twists and turns because its course was created by the Fish, led by their chief, Sturgeon, trying to escape the Animals. Pink salmon was overtaken near the mouth of the Nicola River. Then Sockeye Salmon, Steelhead, and Spring Salmon were overtaken and their bodies thrown into the Thompson River. At Lytton, Sturgeon was killed. Only Chum Salmon managed to escape back to the coast and since then, it is said, he has been too frightened to go back up to the Interior again. The other fish now visit the rivers into which they had been thrown. Pink Salmon's son grew up and visited zuxwt, intent upon avenging his father's murder. He caused all the people, except for his host, Badger, to burn to death. Before leaving, he promised to return and visit Badger every two years.

Another version of this myth recorded elsewhere in Teit (1898:77) states that the Fish went to make war on the Okanagan and were slain on their return. Whitefish, Steelhead, and Humpback Salmon were killed and tossed into the Nicola River, while the other salmon were thrown into the Thompson River. Consequently, salmon are plentiful there and not in the Nicola.

It was at this original site of zuxwt that water parsnip (Sium suave) was dug each spring and fall (D.I.A. 1878; Turner et al. 1984), and it was here that people gathered to fish. This original site was also the crossroads of several trails, as indicated on the accompanying 1875 map (Figure A8) drawn by C.W. Hayward. To this map should be added the trail proceeding up the east side of Clapperton Creek to Bob Lake and to the Indian camp southeast of Helmer Lake, and on to Sussex and Surrey Lakes.

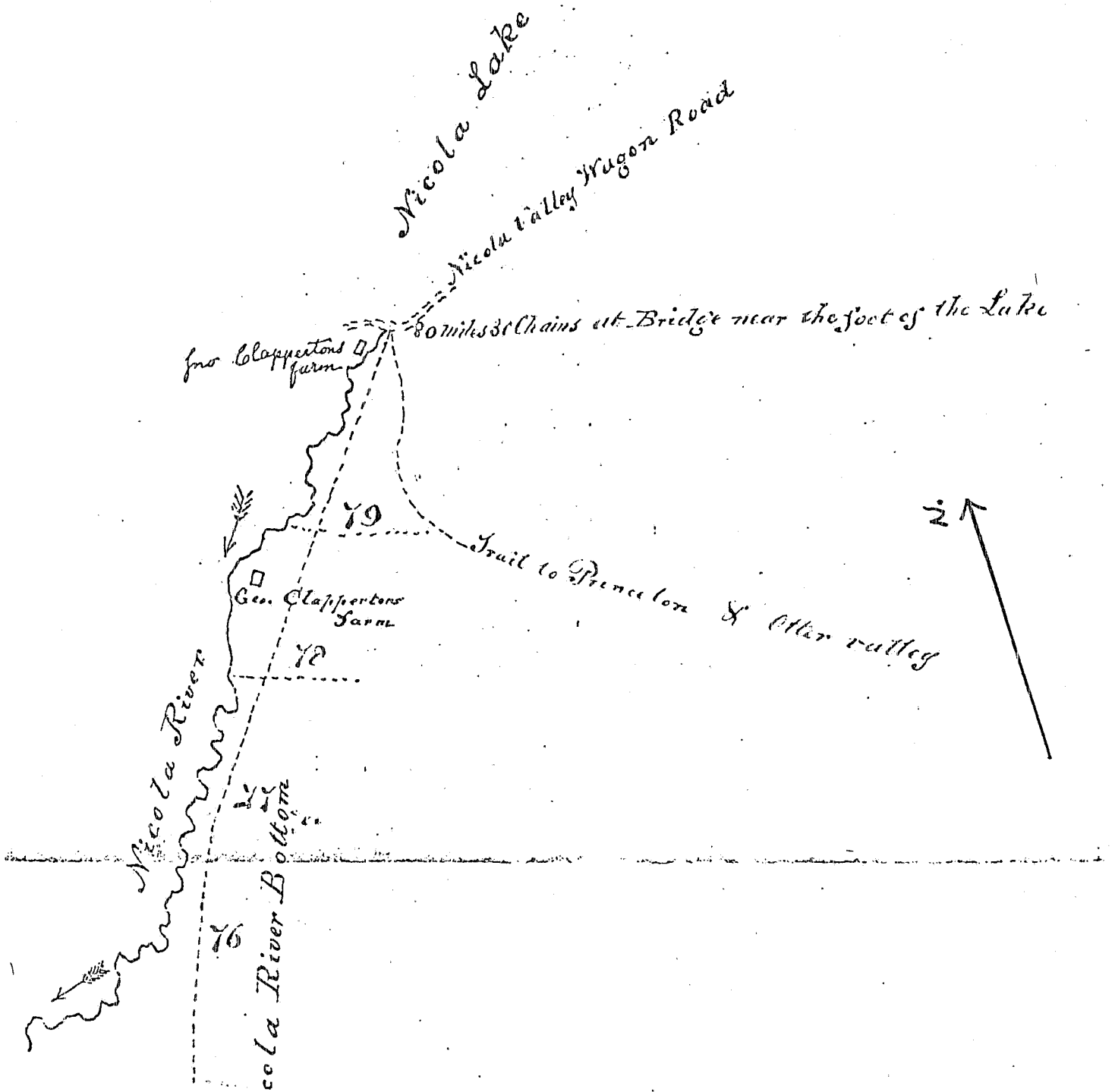


Figure A6. Early trails. Map prepared by C.W. Hayward, 1875 (Provincial Archives of British Columbia, Map Division, RT(11)#7).

19. k'awsíkn (BH only) 'middle ridge'
skayt (BH only) 'up on top'

These are both Thompson names that refer to the flat area between Shuta Creek and Clapperton Creek, on the upper end of Zoht I.R. 4. At the base of this ridge is a spring where BH's family picks water-cress (Rorippa nasturium aquaticum) and gathers mushrooms. Up Clapperton Creek, midway between Zoht I.R. 4 and the upper Zoht reserves is a waterfall where BH's family fishes for trout.

20. nlhekkinnátkwu (BH only) 'brushy-on-top water'

This is a distinctively bushy area west of Shuta Creek on the south side of the hill from which Rorison Creek drains. The Thompson name of Shuta Creek, itself, is not known; however the English name is taken from the name of a former chief of Zoht named siyúta7 (MJ).

21. sxats'éts'en (BH; MJ; GA) 'pertaining to gooseberries'

This is the name applied to the area of Zoht I.R. 5. It is named after gooseberries (Ribes spp.), which can still be found here. The old timers from zuxwt and Shulus used to travel up here to pick the gooseberries, wild raspberries (Rubus idaeus), and blueberries (Vaccinium caespitosum) that grow along the creek here (MJ). It is noted by Turner et al. (1984) that in other areas of Thompson country where blueberries were found, the people would occasionally burn the undergrowth in a deliberate attempt to promote the growth of the blueberry plants.

BH's grandmother's log cabin and part of her barn are still standing at Zoht I.R. 5. She and her husband used to stay here during haying season and would return to Zoht I.R. 4 for the winter months. BH believes that Zoht I.R. 5 was established to provide the people with a place to get wood. Evidently, it is also still a grazing area for cattle. During the 1913-1915 Royal Commission on Indian Affairs (Royal Commission on Indian Affairs 1916:1:353-354) it was agreed that an additional reserve would be allotted to provide more pasture for cattle.

When BH was a child, his grandmother would send him down to the waterfall near Zoht I.R. 5 in the springtime and tell him to throw rocks into the water--it was believed this would cause rain (BH).

22. stetétewen (BH only) 'little patch of Indian potatoes'

BH does not know if the old people gathered Indian potatoes (Claytonia lanceolata) on this mountain which is located southeast of Zoht I.R. 5. However, it was and still is an exceptionally good hunting area where it is possible to find deer and moose at any time of the year (BH).

23. no Indian name known--this place is referred to as "the Indian camp".

This "Indian Camp" is located in a grassy clearing on the east side of Clapperton creek, slightly upstream from the mouth of a small, un-named creek. This small creek is the second creek flowing westwards into Clapperton Creek below Helmer Lake (which is known locally as Lost Lake). This camping area was first brought to our attention by WA, but it is also known to JP, NJ,

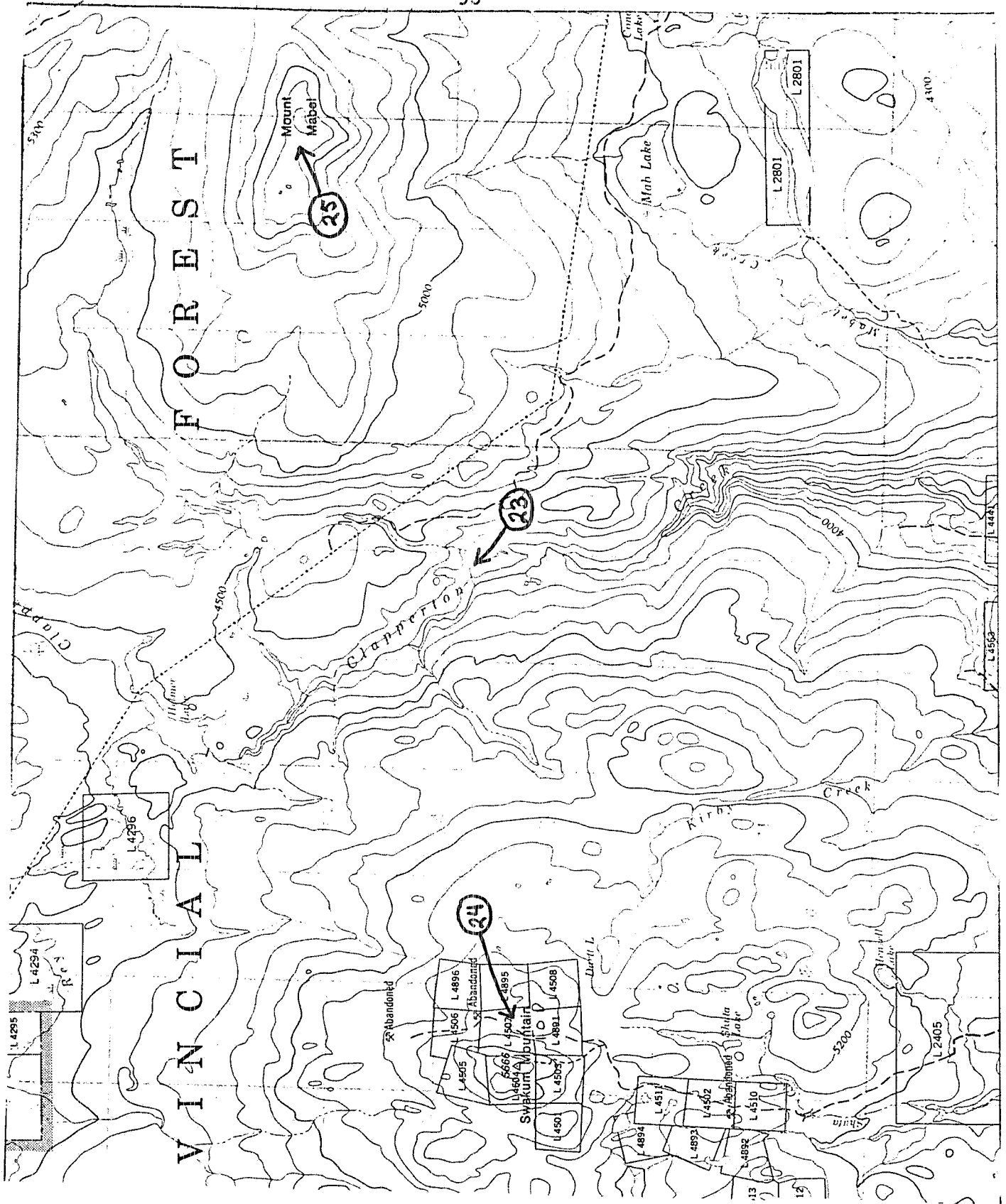


Figure A7. Place names 23-25.

and BH. NJ recalled going up here in the company of her parents and other people from Shulus, when she was a young girl. The men hunted deer while the women fished for trout in the nearby lakes. This was during May and June. Each visit to this camp lasted several weeks and while here they made short excursions to other camps in the area. However NJ did not remember the location of any of these other camps. WA added that people from Shulus, Quilchena and Zoht would camp together here while fishing and hunting during the fall. Both BH and NJ stated that the trail up to this camp was on the east side of Clapperton Creek. JP had also heard about this Indian camp and that the old timers used to stay here while fishing and hunting. He had visited here, himself, in 1981.

24. Swakum Mountain

The original Thompson name for this mountain was not known to our informants. However, MJ noted that "Swakum" is an anglicization of swákem, the Thompson Indian name of a man from Shulus.

25. sp'agwús (WA; NJ; BH) 'burned face'

This is the Thompson name of Mount Mabel, an area noted for its exceptional deer and moose hunting. Apparently the year that the first moose was seen around this area and shot (by Johnny Moon) was 1947 (WA). Since then moose have become quite numerous in this area.

26. n7iyatsín s7íswelh (BH only) 'where there are loons that sing well'

This is the Thompson name for Surrey Lake, which is known for its large trout. At the north end of this lake, JP recalls seeing the hoop of an old Indian dip net hanging in a tree.

ETHNOGRAPHIC SIGNIFICANCE OF THE STUDY AREA

Based on the limited number of interviews we have conducted among the local Indian people, it appears that the contemporary and past native utilization of the specific study area (the highway corridor) is not significant. Our data suggest that activities such as plant gathering and hunting were more prevalent on the east side of Clapperton Creek, opposite the highway corridor. Furthermore, these activities occurred more commonly at the turn of the century. The lakes to the east of the corridor, in the northern portion of the study area, were formerly important as fisheries; apparently these annual fishing trips are no longer practised and it appears that the former route used by the Indian people when ascending the Clapperton Creek valley followed the east side of the creek.

PROJECT IMPACT ON ETHNOGRAPHIC SITES

The proposed highway corridor for the most part follows the west side of Clapperton Creek. Thus it does not appear that the highway will directly impact on any ethnographically-known sites. One possible exception is the camping area identified as place name No. 23 in this report. The potential impact to this site is discussed in section 6.0.

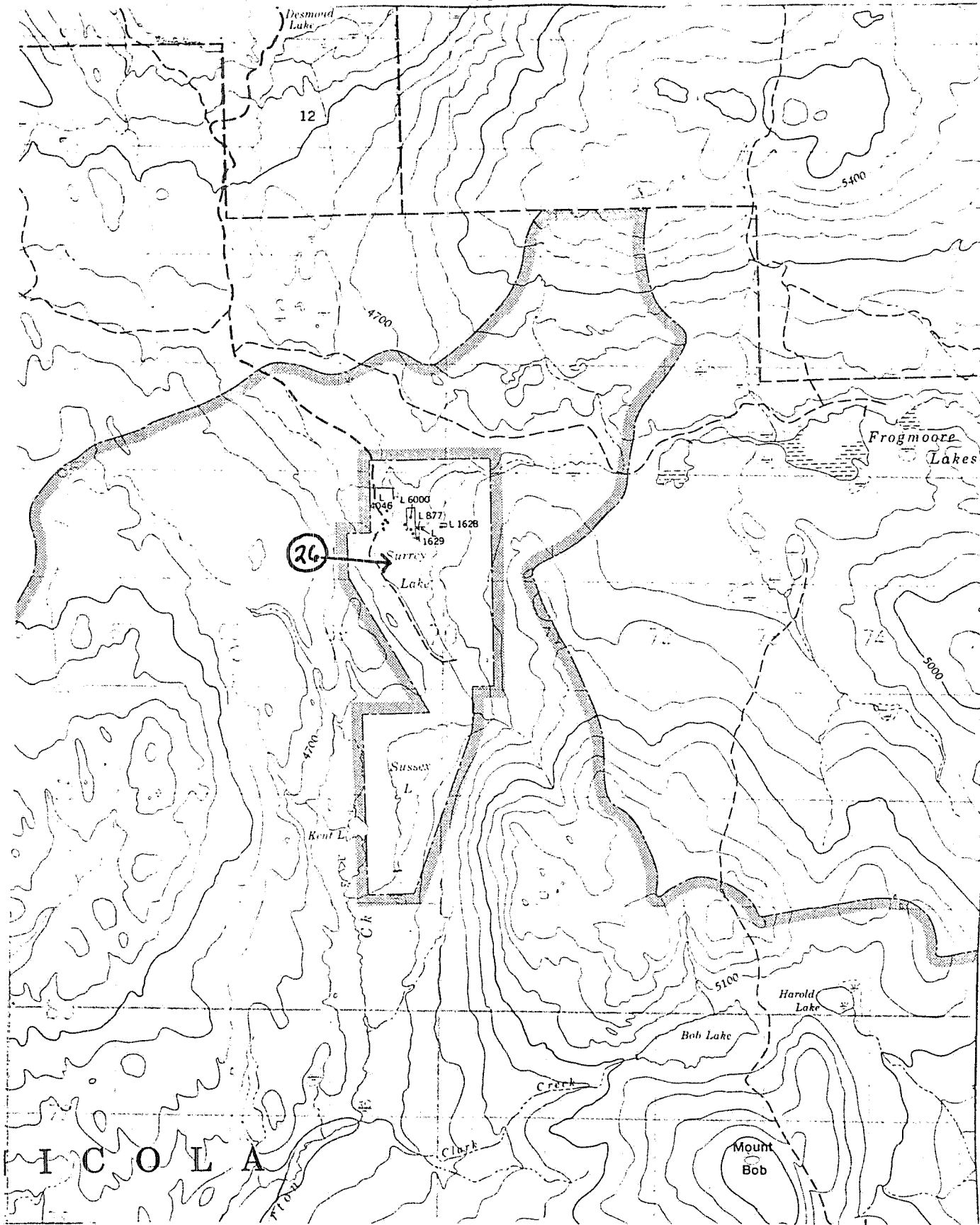


Figure A8. Place name 26.

Table A1: Additional Archival Materials Consulted by Kennedy and Bouchard
(B.C. Indian Language Project)

PROVINCIAL ARCHIVES OF BRITISH COLUMBIA:

GR 1054 Lands and Works, pre-emptions, folders 1, 2, 3
GR 112 Pre-emptions, Yale-Lytton District
GR 1355 File 1/1 Ranger Patrol Diaries (1916-17)
GR 252 Gold Commissioner-Lytton, Correspondence Outwards 1859-1884
GR 1102 B.C. Dept. of Mines
GR 1099 B.C. Dept. of Mines, Chief Inspec. of Mine, Diamond Vale Explosion 1912
Add Mss 633 Diary of a trip through the Interior by S. Tingley
MS #m-104 Fort Kamloops Journal
MS #m-100 Fort Kamloops Journal
MS #m-101 Fort Kamloops Journal
Colonial Correspondence File 650, 96/4, 96/9, 96/35, 376/3a, 326/3a, 928/17,
366/4a, 46/6h, 12/8, 969/4
Vertical Files
Clapperton, Nicola Valley Pioneers, Lean, Nicola Valley History, Dalley,
Nicola Indians, Kirby

Department of Indian Affairs (microfilms):

RG 10 (Black Series) Files 10,768, 4590a/c, 7251, 7571, 10,330
RG 10 Vol. 1273, 1274, 1275, 1276, 1277, 1278 (Indian Reserve Commission,
Incoming Correspondence)
RG 10 Vol. 1324 (Insp. of Indian Agencies)
RG 10 Vol. 1325 (Kamloops Agency letterbook)
RG 10 Vol. 1326 (Kamloops Agency letterbook)
RG 10 Vol. 1327 (Kamloops Agency letterbook)
RG 10 Vol. 3705 (letterbook)
RG 10 Vol. 3670 (letterbook)

Canada, Department of Mines and Resources (1948)

Geology and Mineral Deposits of Nicola Map Area, B.C., by W.E. Cockfield
(NW971.351N1/C666g)

British Columbia,

Report of Minister of Mines, 1900, 1903, 1916 (NW971.35/B862a)

Maps: S616.6cba/C212ge/1905

8500/A50

8000/V13

S616.3fcm/B862ma

S616.6(57)/bje/1894

S616.4pBC/M135a/1827

Table A1. Continued.

BRITISH COLUMBIA INDIAN LANGUAGE PROJECT, VICTORIA:

Original notes compiled by Randy Bouchard and Dorothy Kennedy pertaining to Interior Salish Ethnography, 1971-1984

Smith, Harlan I.

Field Notes. National Museum of Man microfilm reel M82-83 (copy held by B.C.I.L.P.)

Teit, James (1909)

The Shuswap Indians of British Columbia, Memoirs of the American Museum of Natural History, Vol. IV

Lerman, Norman (1952)

Field Notes, Okanagan. Copy held by B.C.I.L.P.

Teit, James (1916)

European Tales from the Upper Thompson Indians, Journal of American Folk-Lore, Vol. XXIX (CXII), pp. 301-329.

Hill-Tout, Charles (1899)

"Sqakktquact," or the Benign-Faced, the Oannes of the Ntlakapamuq, British Columbia, Folklore, Vol. X(21):195-216.

Boas, Franz (1891)

The Shuswap, Sixth Report on the North-Western Tribes of Canada, 1890, Report of the British Association for the Advancement of Science

Boas, Franz (1895)

Indianische Sagen, (Indian Myths and Legends from the North Pacific Coast of America, translated by Dietrich Bertz for the B.C. Indian Language Project, 1977).

NICOLA VALLEY ARCHIVES, MERRITT:

Interview with Harriet Paul, 1973 (Add Mss 43)

Miscellaneous files held by Nicola Valley Archives

KAMLOOPS MUSEUM:

Miscellaneous files concerning the early history of the Nicola-Merritt area.

APPENDIX II

ARCHAEOLOGICAL SITE INVENTORY FORMS

The Archaeological Site Inventory Forms for sites DiRi 7, EaRe 10, EaRe 12, EaRe 14, EaRe 15, EaRe 16, EaRe 17, EaRe 18, EaRe 19, EaRe 20, EbRe 1, and EbRd 7 are attached in this Appendix.

PLEASE CONSULT ACCOMPANYING GUIDE BEFORE COMPLETING

1. Site No. DIRI

7

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s)..... None
3. Site name(s)..... Thacker Mountain Site
4. Legal..... NE $\frac{1}{4}$ Section 15, Tp 5 R 26 W6M, Y.L.D.
5. (a) Location..... On the E side of the Fraser River canyon about 1 km
ENE of the town of Hope; on the W side of "Thacker Mountain"
(local toponym not on N.T.S. maps) at the 183 m level in
dense bush; between a marsh and the edge of a 76 m cliff
overlooking the Fraser River.
- (b) Access..... In the town of Hope, proceed from the corner of 6th Avenue
0.85 km along the Kawkawa Lake Road, across the Coquihalla River
to its junction with the Union Bar Road, then 0.25 km down this
to the junction with the Thacker Mountain Road, proceed 0.45 km
along the latter to the Old Yale Road, then follow this 1.3 km
to the end of blacktop; continue along the gravelled Old Yale...
6. Administrative jurisdiction (a) Regional Dist. Fraser-Cheam
(b) Forest/Grazing Dist. Vancouver (c) Highways Dist. 1-16, Hope
(d) Park Dist. 7-5, Manning (e) Resource Management Reg. Lower Mainland
7. Lat. 49° 23' 25" N. 8. Long. 121° 25' 22" W.
9. UTM 10U FK/E 145 N 718 10. Air photo..... Unknown
11. Map (a) 92 H/06 (b)..... Unknown
12. Drainage (a) minor Fraser River (b) major 10-Fraser
13. Elevation (a) 183 m ASL (b) ca. 152 m above the Fraser River
14. Cultural affiliation (a) Coast Salishan—Halkomelem (b) Unknown
15. Site type Prehistoric cultural deposits—surficial/subsurface lithics...
16. Dimensions (a) exact m - x m - (b) estimated 150 m x ?10 m
(c) original 1000 ft. by ?100 ft. in 1956

17. Condition (a) present ?75 % intact (b) future This site was found not to conflict with the proposed... 18. Priority.....
19. Detailed information (a) Vegetation on site Douglas fir, western red cedar, white birch, broadleaf maple, oregon grape.
- (b) Major vegetation Krajina's Coastal Western Hemlock Zone
- (c) Cultural matrix Flaking debitage
- (d) Depth of cultural matrix To 30 cm below surface in testpit.
- (e) Non-cultural matrix Brownish-orange aeolian silts.
- (f) Water source Coquihalla River is 750 m W and 152 m below site.
20. Known finds and present location.....
A small general activity site, with surficial and subsurface lithics. In 1984, a cobble chopper was found in a disturbed surface context, while 2 coarse basalt flakes were recovered from 30 cm b.s. in a testpit excavated here. The high elevation of this site near the edge of a 76 m cliff strongly suggests at least some defensive function for the area; the S boundary of the Aywawwis Indian Reserve 15 is just 200 m N of this site....
21. Photo record None
22. Published and unpublished references (a) Unknown
- (b) Unknown
23. Site age and/or date (a) Unknown absolute relative
- (b) Source N/A
24. Owner/Tenant None
25. (a) Informant Borden in 1956 talked to T.L. Thacker
- (b) Observer C. Borden & J. Baldwin (UBC) Date JUL 26, 1956
- (c) Recorder C. Borden & J. Baldwin Date JUL 26, 1956
- (d) Revisor A. Stryd & M. Eldridge (Arcas) Date AUG 26, 1984
- Date 19

26. Remarks.....

5.) Rd. for 0.5 km to a junction with an unmarked dirt road; proceed along the latter 0.25 km, through a metal gate to another unmarked dirt on the left, then follow this 0.4 km to a root cellar to the right of the road. This road may not be passable for more than about 200 m beyond the junction.

15.) and untraceable Prehistoric constructed features--large and small circular depressions

17.) (b) Coquihalla Highway 8 in 1984. Prior to 1984, the c.c.d.s reported here by Borden and Baldwin in 1956 had apparently been destroyed by cultivation.

20.) (cont'd) In 1956, Borden and Baldwin reported two groups of circular cultural depressions which were not relocated in 1984; at the same time, they mentioned that T.L. Thacker had an impressive collection of artifacts from this site, especially from the W part of the site, and including hand mauls, chipped points and knives, large coppers, scrapers, and numerous large flakes.

26.) Remarks:

DiRi 7 was originally (and sketchily) recorded by Borden and Baldwin in 1956, when an interesting group of large and small c.c.d.s was observed, and an impressive collection of artifacts reported. For years, the site has been plotted incorrectly on maps at the HCB. The site was relocated and rerecorded by Stryd and Eldridge while acting on behalf of Arcas Associates for the Coquihalla Highway Survey; they were unable to locate the c.c.d.s, which may have been destroyed in the intervening 28 years, but did find the buried cultural materials as recorded here.

GOLF COURSE BUILDING

SITE NO. DiRi 7

OLD YALE ROAD

Pavement ends

Metal Gate

Good view of Fraser R.

DETAIL BELDW

RADIO TOWER

power line

This radiotower is on the 1:50,000 NTS map.

NOT TO SCALE

THACKER MTN

TP. RIDGE

RIDGE

PATH

PIT

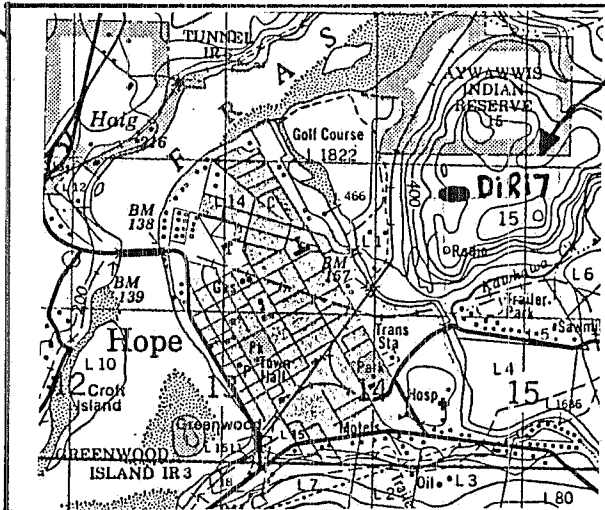
ROOTCELLAR

dirt road

marsh.

Surface find

DETAIL NOT TO SCALE



EXTENT OF SITE - - - - -

ADDITIONAL LEGEND

- BUILDING
- FOUNDATION
- ROAD
- TRAIL
- RAILWAY
- FENCE
- RIVER/CREEK
- STEEP RISE

1:50,000 MAP NO. 92H/06

LATITUDE 49° 23' 25" N

LONGITUDE 121° 25' 22" W

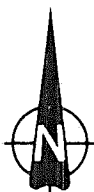
UTM GRID REF. _____

TRUE MAGNETIC

DECLINATION USED _____

DATE FEB. 6, 1985

SCALE: 1 CM. = _____ M.



PLEASE CONSULT ACCOMPANYING GUIDE BEFORE COMPLETING

1. Site No. EaRe 10

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe 80-1
3. Site name(s) Unknown
4. Legal Unknown
5. (a) Location Site is located southeast of Merritt at southeastern corner of Indian Reserve #2, at intersection of Fox Farm Road and Godey Creek. Site is on terraces on both sides of Godey Creek and both sides of Fox Farm Rd.
- (b) Access From the junction of Highways 5 & 8 in the town of Merritt, proceed south along Hwy. 5 for 3.6 km to eastern boundary of Indian Reserve #2. Turn right off highway onto Fox Farm Road and continue south for another 0.5 km to Godey Creek. Site is on terraces on both sides of road and on both sides of creek.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
- (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
- Thompson-Okanagan
- (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 05' 10" N. 8. Long. 121° 45' 06" W.
9. UTM 10U FL/E 608.5 N 505 10. Air photo Unknown
11. Map (a) 92 I/ 2 (b) 1:5000 Key plan; Ministry of Transportation
12. Drainage (a) minor Godey Creek (b) major 8 - Thompson
13. Elevation (a) 686 m ASL (b) 5 m above Godey Creek
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Anthapaskan, Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 140 m N - S × 250 m E - W (b) estimated Same
Unknown
- (c) original

17. Condition (a) present ? % intact (b) future Site largely destroyed by Coquihalla Highway Merritt-Kamloops section 18. Priority

19. Detailed information (a) Vegetation on site poplar, ponderosa pine, bunch grass, deciduous bushes

(b) Major vegetation Ponderosa pine - bunch grass

(c) Cultural matrix basalt flakes

(d) Depth of cultural matrix surface only

(e) Non-cultural matrix gravelly till

(f) Water source Godey Creek

20. Known finds and present location. Basalt flakes sparsely scattered on terraces on either side of Godey Creek on both sides of Fox Farm Road. Left in situ (Rousseau & Richards 1980).

In September of 1980 the site was partly destroyed during construction of the Coquihalla Highway. The construction was carried out before the Arcas crew had time to undertake salvage excavations or surface collection. Intact cultural deposits may still be present on the W side of Fox Farm Road ; this area was not examined as it is outside the proposed hwy. r-o-w.

21. Photo record H.C.B. Thompson-Okanagan-Kootenay Impact Assessment Project 1980: 1/10 also see #26

22. Published and unpublished references (a) Unknown

(b) Rousseau, M. 1980-8; Thompson Okanagan, Kootenay Impact Assessment also see #26

23. Site age and/or date (a) Unknown absolute relative

(b) Source N/A

24. Owner/Tenant Merritt Indian Reserve #2, Crown Land

25. (a) Informant N/A

(b) Observer Thomas Richards, Mike Rousseau Date May 26, 19 80

(c) Recorder Thomas Richards, Mike Rousseau Date May 26, 19 80

(d) Revisor Steve Lawhead, Geordie Howe Date Sep 26, 19 84

Date [] [] [] [] , 19 [] []

26. Remarks Site was partly destroyed in September, 1984 during construction
for the Coquihalla Highway.

21. Photo record continued: Coquihalla Highway Project Merritt-Kamloops
Heritage Impact Assessment Project 1984 (Arcas Associates) Roll 1:12-16

22. Published and unpublished references (b) Coquihalla Highway Project
Merritt-Kamloops Heritage Impact Assessment Project 1984 Final Report
1985 (Arcas Associates) - S. Lawhead

PLEASE CONSULT ACCOMPANYING GUIDE BEFORE COMPLETING

1. Site No. EaRe—12

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T12
3. Site name(s) Unknown
4. Legal Sec. 23, K.D.Y.D.
5. (a) Location In the Nicola River valley 2.5 km NE of Merritt; on the S side of Highway 5 at the point where a B.C. Hydro transmission line crosses the highway on a bearing of 239° (Hydro transmission line gone in 1984); at the edge of a dry glaciofluvial/lacustrine channel complex.
- (b) Access From the town of Merritt, proceed 2.9 km northeasterly along Hwy. 5 from its junction with Hwy. 8 in downtown Merritt, to the point where a B.C. Hydro power transmission line crosses the highway (Hydro lines gone in 1984); the site area is on the S side of the r/w at the edge of a shallow arroyo or dry wash.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
- (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2—25, Merritt
Thompson-Okanagan
- (d) Park Dist. 2—5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 07' 33" N. 8. Long. 120° 45' 20" W.
9. UTM 10U FL/E 605 N 546 10. Air photo. Unknown
11. Map (a) 92 I / 2 (b) Coquihalla Highway Merritt-Kamloops #30319-1 (1:5000)
 Province of British Columbia, Design and Surveys Branch
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 629 m ASL (b) 46 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 10 m N - S × 30 m E - W (b) estimated Same
- (c) original Unknown

17. Condition (a) present 90 % intact (b) future Possible destruction by development of Coquihalla Highway 18. Priority
19. Detailed information (a) Vegetation on site List by Brolly is attached separately
- (b) Major vegetation Ponderosa pine - Bunchgrass zone (Krajina)
- (c) Cultural matrix basalt lithics
- (d) Depth of cultural matrix surface only
- (e) Non-cultural matrix consistent, unstratified glaciolacustrine sediments (silty sand & gravels)
- (f) Water source Nicola River is 800 m east southeast of site area
20. Known finds and present location This is a small lithic scatter site, with only a few lithic debitage elements being observed in 1983 and 1984. Most materials, including a non-diagnostic biface tip, were manufactured from Cache Creek Basalt except for one flake of a grayish chert. An additional isolated basalt flake was found far to the SW; although it is shown on the accompanying map, it was not recorded. A materials were left in situ (Brolly 1983-84 site form).
21. Photo record R. Brolly, 1983 Highways Survey - H.S. 83-16:20
22. Published and unpublished references (a) Unknown
- (b) Brolly, R.P.: Report of the 1983 H.C.B. Highways Survey. (Ms) also see #26.
23. Site age and/or date (a) Unknown absolute relative
- (b) Source N/A
24. Owner/Tenant Unknown
25. (a) Informant N/A
- (b) Observer R. Brolly, L. Calancie (H.C.B.) Date Sep 27, 19 83
- (c) Recorder R. Brolly Date Mar 26, 19 84
- (d) Revisitor Steve Lawhead, Geordie Howe Date Sep 25, 19 84
- Date , 19

26. Remarks Comments from Brolly's 1984 site form:

"11.) (b) and Highways, Design & Surveys Branch: Coquihalla Highway,
Merritt Bypass.

14.) (a) this was also the aboriginal territory of the extinct Athapaskan-
Nicola people.

17.) (b) the site should be avoided by construction crews without too much
difficulty; although this site is not very significant, there is no need
for it to be casually destroyed by a highway project in the initial phases
of development.

19.) (b) B.C. Forest Service's more fine-grained PPBGd0a--Very Dry
Northern Ponderosa Pine-Bunchgrass Edaphic Grassland."

Additions to site form:

22. Published and unpublished references (b) Coquihalla Highway Project Merritt-
Kamloops Heritage Impact Assessment Project Final Report 1985 (Arcas
Associates)- S. Lawhead

26. Remarks: As this site is located nearby the right-of-way of the new
Coquihalla Highway Merritt-Kamloops section, the site may well be impacted.
Although on periphery of main r-o-w, probably will be destroyed by Merritt
Interchange construction. For subsurface testing 2 35 X 35 cm excavation
units were dug. No cultural material was uncovered during the test
excavation. All other artifacts were left in situ.

It should be noted that Location and Access are only applicable
until the highway has been built.

The site is located 4.80 km along the corridor from the southern end
of the Merritt Bypass (Coldwater Interchange).

19.) (a) EaRe 12 Vegetation List (Collection in September 1983)

Trees

Pinus ponderosa

ponderosa pine

Shrubs

Amelanchier alnifolia

saskatoon berry

Rosa nutkana

nootka rose

Chrysothamnus nauseosus

rabbitbush

Herbs

Salsola kali

russian thistle

Lepidium densiflorum

prairie peppergrass

Medicago sativa

alfalfa

Melilotus alba

white sweetclover

Opuntia fragilis

brittle prickly pear

Achillea millefolium

yarrow

Antennaria neglecta

field pussytoes

Artemisia frigida

pasture sage

Cirsium undulatum

wavy-leaved thistle

Tragopogon dubius

salsify

Agropyron caninum

bearded wheatgrass

Agropyron cristatum

crested wheatgrass

Bromus californianum

california brome

Bromus inermis

smooth brome

Bromus tectorum

nodding cheatgrass

Elymus cinereus

giant wildrye

Poa annua

annual bluegrass

Poa sandbergii

sandberg's bluegrass

Calochortus macropcarpus

mariposa lily

Lilium columbianum

tiger lily

1. Site No. EaRe 14

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T84-1
3. Site name(s) Unknown
4. Legal Lot 121
5. (a) Location The site is located in the Nicola River valley 2.05 km (linear distance) east northeast from the junction of Highways 5 & 8 in the town of Merritt. The site is situated 950 m (linear distance) south of Hwy. 5 and 600 m (linear distance) north of the Nicola River. This site is on the north slope of a glacial fluvial/lacustrine ridge above the flood plain of the Nicola River within Lot 121.
- (b) Access By permission of owner. From the junction of Highways 5 & 8 in the town of Merritt proceed northeast on Highway 5 for 2.3 km until you reach the Merritt Airport road. Head south on this road for 350 m; the Airport road turns left (east), but continue on through a gate on the south side of the road and proceed 600 m along a field access road. Turn left and proceed another 25 m along a ridge crest. Park vehicle, the site is located 15 m northeast near the bottom of a gully.
6. Administrative jurisdiction (a) Regional Dist. Thompson - Nicola
- (b) Forest/Grazing Dist. Kamloops Thompson-Okanagan (c) Highways Dist. 2-25, Merritt
- (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 06' 58" N 8. Long. 120° 45' 28" W
9. UTM 10U FL/6025N 5335 10. Air photo Unknown
11. Map (a) 92 I 2 (b) Unknown
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 600 m ASL (b) 18 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Nicola Unknown
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 8 m N - S × 9 m E - W (b) estimated 75 m²; same
- (c) original Unknown

17. Condition (a) present 100 % intact (b) future Destruction of 100% of site by new Coquihalla Highway Merritt-Kamloops section 18. Priority
19. Detailed information (a) Vegetation on site Bunch grass (various grasses), rabbitbush
- (b) Major vegetation Ponderosa pine - Bunch grass zone (Krajina)
- (c) Cultural matrix basalt lithics on surface
- (d) Depth of cultural matrix surface only
- (e) Non-cultural matrix consistent, unstratified glacio-lacustrine sediments (silty sand)
- (f) Water source none nearby; Nicola River 600 m (linear distance) south
20. Known finds and present location 2 basalt lithic flake shatter; collected (B.C.P.M.)

21. Photo record Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment Project 1984 (Arcas Associates) Roll 3: 20-21 & 4: 13-14.
22. Published and unpublished references (a) Unknown
- (b) Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment Project Final Report 1985 (Arcas Associates) - S. Lawhead
23. Site age and/or date (a) Unknown absolute relative
- (b) Source N/A
24. Owner/Tenant Mrs. Garthwaite, River Ranch, Merritt

25. (a) Informant N/A
- (b) Observer Steve Lawhead, Georgie Howe Date September 27, 1984
- (c) Recorder Georgie Howe, Steve Lawhead Date October 25, 1984
- (d) Revisor
- Date , 19
- Date , 19

26. Remarks As this site is located within the right-of-way of the new Coquihalla Highway Merritt-Kamloops section, the site will be completely destroyed. Under the specifics of the contract let to Arcas Associates the site was 100% surface collected and 1 1x1 m excavation unit was dug. No cultural material was uncovered during the test excavation.

It should be noted that Location and Access are only applicable until the highway has been built.

The site is located 40 m northeast of Stake 52 + 00 on the new Coquihalla Highway right-of-way, and 3.75 km along the corridor from the southern end of the Merritt Bypass (Coldwater Interchange).

1. Site No. EaRe - 15

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T84-2
3. Site name(s) Unknown
4. Legal Lot 121
5. (a) Location The site is located in the Nicola River valley 2.06 km (linear distance) east northeast from the junction of Highways 5 & 8 in the town of Merritt. The site is situated 850 m (linear distance) south of Hwy. 5 and 700 m (linear distance) north of the Nicola River. The site is located near the bottom of a small gully/draw of a glacial-fluvial/lacustrine ridge above the floodplain of the Nicola River within Lot 121.
- (b) Access By permission of owner. From the junction of Highways 5 & 8 in the town of Merritt proceed northeast on Hwy. 5 for 2.3 km until you reach the Merritt Airport road. Head south on this road for 350 m; the Airport road turns left (east), but continue on through a gate on the south side of the road and proceed 500 m along a field access road. Park the vehicle, the site is located 100 m southwest along a narrow gully/draw.
6. Administrative jurisdiction (a) Regional Dist. Thompson - Nicola
- (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
Thompson-Okanagan
- (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 07' 00" N 8. Long. 120° 45' 28" W
9. UTM 10U FL/E 608 N 534 10. Air photo Unknown
 Province of British Columbia, Design and Surveys Branch
11. Map (a) 92 I/ 2 (b) Coquihalla Highway Merritt-Kamloops #30319-1 (1:5000)
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 605 m ASL (b) 22 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 16 m N - S × 22 m E - W (b) estimated Same
 (c) original Unknown

17. Condition (a) present 100 % intact (b) future Destruction of 100% of the site by new
 Coquihalla Highway Merritt-Kamloops section. Priority
19. Detailed information (a) Vegetation on site Bunch grass (various grasses), rabbitbush,
 yarrow, Rosa sp.
- (b) Major vegetation Ponderosa pine - Bunch grass zone (Krajina)
- (c) Cultural matrix basalt lithics on and below surface; 97 recovered.
- (d) Depth of cultural matrix maximum 10 cm depth below surface (average 5-7 cm DBS)
- (e) Non-cultural matrix consistent, unstratified glacio-lacustrine sediments (silty sand)
- (f) Water source none nearby; Nicola River 700 m (linear distance) south
20. Known finds and present location 97 basalt lithics recovered;
 1 graver, 1 utilized flake; 28 platform-bearing flakes, 43 flake shatter,
 23 pressure flakes, 1 biface reduction flake (95 pieces of lithic detritus
 in total). EaRe 15: 1 and 2

Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment

21. Photo record Project 1984 (Arcas Associates) Roll 3:22-23 & 4: 15-20.
22. Published and unpublished references (a) Unknown
 Coquihalla Highway Project Merritt-Kamloops Heritage Impact
 (b) Assessment Project Final Report 1985 (Arcas Associates) -
 S. Lawhead
23. Site age and/or date (a) Unknown absolute relative
 (b) Source N/A
24. Owner/Tenant Mrs. Garthwaite, River Ranch, Merritt
25. (a) Informant N/A
- (b) Observer Steve Lawhead, Geordie Howe Date SEP 27, 1984
- (c) Recorder Geordie Howe, Steve Lawhead Date OCT 25, 1984
- (d) Revisor Date [][] [][], 19 [][]
- Date [][] [][], 19 [][]

26. Remarks As this site is located within the right-of-way of the new Coquihalla Highway Merritt-Kamloops section, the site will be completely destroyed. Under the specifics of the contract let to Arcas Associates the site was 100% surface collected and 4 50 X 50 cm excavation units were dug. No cultural material was uncovered during the test excavation.

It should be noted that Location and Access are only applicable until the highway has been built.

The site is located 3.95 km along the corridor from the southern end of the Merritt Bypass (Goldwater Interchange).

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T84-3
3. Site name(s) Unknown
4. Legal Section 23
5. (a) Location The site is located in the Nicola River valley 3.05 km (linear distance) northeast from the junction of Highway 5 & 8 in the town of Merritt. The site is situated 50 m (linear distance) north of Hwy. 5 and 500 m (linear distance) north of the west end of the Merritt airport. A B.C. Hydro power line runs 150 m (linear distance) east and 160 m (linear distance) north of the site.
- (b) Access From the junction of Highways 5 & 8 in the town of Merritt proceed northeast of Highway 5 for 3.2 km and park the vehicle. Cross Hwy. 5 and heading north walk 50 m up a short slope to a small flat bench above the highway. This is the site location.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
- (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
Thompson-Okanagan
- (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 07' 34" N. 8. Long. 120° 44' 53" W.
9. UTM 10U FL/E 608. N 548.5 10. Air photo Unknown
 Province of British Columbia, Design and Survey Branch
11. Map (a) 92 I/ 2 (b) Coquihalla Highway Merritt-Kamloops #30319-1 (1:5000)
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 633 m ASL (b) 50 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 35 m N-S × 25 m E-W (b) estimated Same
 (c) original unknown

17. Condition (a) present 100 % intact (b) future Destruction of 100% of site by new Coquihalla Highway Merritt-Kamloops section 18. Priority.....
19. Detailed information (a) Vegetation on site Ponderosa pine, bunch grass (various grasses), rabbitbush, yarrow
- (b) Major vegetation Ponderosa pine - Bunch grass zone (Krajina)
- (c) Cultural matrix basalt flakes
- (d) Depth of cultural matrix surface only
- (e) Non-cultural matrix very rocky sediment, colluvium or till; silty sand & pebbles
- (f) Water source none nearby; Nicola River 1.0 km (linear distance) south
20. Known finds and present location 35 basalt lithics recovered:
- Tools: 1 graver, 2 drills, 4 retouched flakes, 1 utilized flake, 1 projectile point -- EaRe 16: 1 to 9
- Detritus: 8 platform-bearing flakes, 18 flake shatter

Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment

21. Photo record Project 1984 (Arcas Associates) Roll 1: 17
22. Published and unpublished references (a) Unknown
Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment Project Final Report 1985 (Arcas Associates)- S. Lawhead
23. Site age and/or date (a) Unknown absolute relative
- (b) Source N/A
24. Owner/Tenant Unknown
25. (a) Informant N/A
- (b) Observer Steve Lawhead, Geordie Howe Date Sept 26, 1984
- (c) Recorder Geordie Howe, Steve Lawhead Date Oct 25, 1984
- (d) Revisitor Date , 19
- Date , 19

26. Remarks As this site is located within the right-of-way of the new Coquihalla Highway Merritt-Kamloops section the site will be completely destroyed. Under the specifics of the contract let to Arcas Associates the site was 100% surface collected and 1 1 X 1 m excavation unit was dug. No cultural material was uncovered during the test excavation.

It should be noted that Location and Access are only applicable until the highway has been built.

The site is located 15 m north of Stake 4 + 00 on the new Coquihalla Highway right-of-way, or at 5.25 km along the corridor from the southern end of the Merritt Bypass (Coldwater Interchange).

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T84-4
3. Site name(s) Unknown
4. Legal Unknown - Crown Land
5. (a) Location The site is located in the Nicola River valley 3.9 km (linear distance) northeast from the junction of Highways 5 & 8 in the town of Merritt. The site is situated 400 m (linear distance) north of Hwy. 5 and 150 m (linear distance) south of a B.C. Hydro power line. The north boundary of Lot 4691 is 45 m south of the site.
- (b) Access From the junction of Highways 5 and 8 in the town of Merritt proceed northeast on Highway 5 for 3.85 km until you reach Swakum Mountain Road. Turn left (north) and follow Swakum Mtn. Road for 350 m and park the vehicle. Walk 100 m northwest until you reach the site location.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
 (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
Thompson-Okanagan
 (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 07' 54" N 8. Long. 120° 44' 25" W
9. UTM 10U FL/E 614 N 555 10. Air photo Unknown
 Province of British Columbia, Design and Surveys Branch
11. Map (a) 92 I / 2 (b) Coquihalla Highway Merritt-Kamloops #30319-1 (1:5000)
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 654 m ASL (b) 71 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 10 m N-S × 35 m E-W (b) estimated Same
 (c) original Unknown

17. Condition (a) present 100 % intact (b) future Destruction of 100% of site by new Coquihalla Highway Merritt-Kamloops section 18. Priority
19. Detailed information (a) Vegetation on site Bunch grass (Various grasses), ponderosa pine, cactus (Opuntia fragilis), rabbitbush
 (b) Major vegetation Ponderosa pine - Bunch grass zone (Krajina)
 (c) Cultural matrix 5 basalt lithics
 (d) Depth of cultural matrix surface only
 (e) Non-cultural matrix very rocky sediment, colluvium or till; silty sand and pebbles
 (f) Water source none nearby; Nicola River 1.25 km (linear distance) southeast
20. Known finds and present location 5 basalt lithics, collected (B.C.P.M.)
 Tools; 1 unifacially retouched flake, 1 utilized flake, 1 projectile point
 EaRe 17: 1 to 3
 Detritus: 1 flake shatter, 1 platform-bearing flake
21. Photo record Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment Project 1984 (Arcas Associates) Roll 4: 10-12
22. Published and unpublished references (a) Unknown
 Coquihalla Highway Project Merritt-Kamloops Heritage Impact
 (b) Assessment Project Final Report 1985 (Arcas Associates) - S. Lawhead
23. Site age and/or date (a) Unknown absolute relative
 (b) Source N/A
24. Owner/Tenant Unknown
25. (a) Informant N/A
 (b) Observer Steve Lawhead, Geordie Howe Date Sep 26, 19 84
 (c) Recorder Geordie Howe, Steve Lawhead Date Oct 25, 19 84
 (d) Revisor Date , 19
 Date , 19

26. Remarks..... As the site is located within the right-of-way of the new
Coquihalla Highway Merritt-Kamloops section, the site will be completely
destroyed. Under the specifics of the contract let to Arcas Associates
the site was 100% surface collected and 1 35 X 35 cm excavation unit was dug.
No cultural material was uncovered during the test excavation.

..... It should be noted that Location and Access are only applicable
until the Highway has been built.

..... The site is located at Stake 13 + 30 on the new Coquihalla Highway
right-of-way, 6.15 km along the corridor from the southern end of the Merritt
Bypass (Coldwater Interchange).

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T84-5
3. Site name(s) Unknown
4. Legal Tp 93
5. (a) Location The site is located in the Nicola River valley 7.05 km (linear distance northeast from the junction of Highways 5 & 8 in the town of Merritt. The site is situated 1.6 km (linear distance) north and 1.6 km (linear distance) west of Hwy. 5. Swakum Mountain road is 175 m (linear distance) west of the site and an oil pipeline runs 50 m (linear distance) southeast of the site. The northern boundary of Tp 93 is 100 m (linear distance) north of the site.
- (b) Access From the junction of Highways 5 & 8 in the town of Merritt proceed northeast on Hwy. 5 for 3.85 km until you reach Swakum Mountain Road. Turn left (north) and follow Swakum Mtn. road for 3.8 km and park the vehicle. Walk 750 m east until you reach the site location at Stake 47 + 80 on the new Coquihalla Highway right-of-way.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
- (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
Thompson-Okanagan
- (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 09' 23" N. 8. Long. 120° 42' 48" W.
9. UTM 10U FL/E 632, N 582.5 10. Air photo Unknown
Province of British Columbia, Design and Surveys Branch
11. Map (a) 92 I / 2 (b) Coquihalla Highway Merritt-Kamloops #30319-2 (1:5000)
12. Drainage (a) minor Nicola River (b) major 8 -Thompson
13. Elevation (a) 710 m ASL (b) 127 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Unknown
Nicola
15. Site type General Activity - Isolated find
16. Dimensions (a) exact 15 m N - S × 30 m E-W (b) estimated Same
Unknown
(c) original Unknown

17. Condition (a) present 100 % intact (b) future Destruction of 100% of site by new
Coquihalla Highway Merritt-Kamloops §8. Priority section
19. Detailed information (a) Vegetation on site Ponderosa pine, bunch grass (various grasses),
yarrow, rabbitbush, castus (Opuntia fragilus)
- (b) Major vegetation Ponderosa pine - Bunch grass zone (Krajina)
- (c) Cultural matrix 1 basalt flake and 1 elk tooth
- (d) Depth of cultural matrix surface only
- (e) Non-cultural matrix very rock sediment, colluvium or till; silty sand & pebbles
- (f) Water source none nearby; Nicola River 1.55 km (linear distance) southeast
20. Known finds and present location 1 retouched flake/graver (basalt) (EaRe 18: 1)
and 1 elk tooth -- collected (B.G.P.M.)

Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment

21. Photo record Project 1984 (Arcas Associates) Roll 4:7
22. Published and unpublished references (a) Unknown
Coquihalla Highway Project Merritt-Kamloops Heritage Impact
 (b) Assessment Project Final Report 1985 (Arcas Associates)-
S. Lawhead
23. Site age and/or date (a) Unknown absolute relative
 (b) Source N/A
24. Owner/Tenant Unknown
25. (a) Informant N/A
- (b) Observer Steve Lawhead, Geordie Howe Date SEP 26, 1984
- (c) Recorder Geordie Howe, Steve Lawhead Date OCT 25, 1984
- (d) Revisitor _____ Date □□□□, 19 □□
 _____ Date □□□□, 19 □□

26. Remarks..... As this site is located within the right-of-way of the new
..... Coquihalla Highway Merritt-Kamloops section the site will be completely
..... destroyed. Under the specifics of the contract let to Arcas Associates
..... the site was 100% surface collected and 1 35 X 35 cm excavation unit was
..... dug. No cultural material was uncovered during the test excavation.

..... It should be noted that Location and Access are only applicable
..... until the highway has been built.

..... The site is located at Stake 47 + 80 on the new Coquihalla Highway
..... right-of-way, or 9.50 km along the corridor from the southern end of the
..... Merritt Bypass (Coldwater Interchange).

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T84-6
3. Site name(s) Unknown
4. Legal Tp 94 Section 6
5. (a) Location The site is located in the Nicola River valley 7.35 km (linear distance) northeast from the junction of Highways 5 & 8 in the town of Merritt. The site is situated 1.75 km (linear distance) north and 1.85 km (linear distance) west of Hwy. 5. Swakum Mountain Road is 150 m (linear distance) west of the site and an oil pipeline runs 100 m (linear distance) southeast of the site. The southern boundary of Tp 94 is 150 m (linear distance) south of the site, and an intermittent creek flows 75 m (linear distance) east of the site.
 (b) Access From the junction of Highways 5 & 8 in the town of Merritt proceed northeast on Hwy. 5 for 3.85 km until you reach Swakum Mountain Road. Turn left (north) and follow Swakum Mtn. road for 4.05 km and park the vehicle. Walk east 1.25 km until you reach the site location at Stake 49 - 00 on the new Coquihalla Highway right-of-way.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
 (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
Thompson-Okanagan
 (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 09' 31" N. 8. Long. 120° 42' 41" W.
9. UTM 10U FL/E 633, N 585 10. Air photo Unknown
 Province of British Columbia, Design and Surveys Branch
11. Map (a) 92 I / 2 (b) Coquihalla Highway Merritt-Kamloops #30319-2 (1:5000)
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 713 m ASL (b) 130 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan (b) Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 20 m N-S × 45 m E-W (b) estimated Same
 (c) original Unknown

17. Condition (a) present 100 % intact (b) future Destruction of 100% of site by new Coquihalla Highway Merritt-Kamloops section 18. Priority
19. Detailed information (a) Vegetation on site Various grasses (bunch grass), yarrow, cactus (Opuntia fragilis), rabbitbush, ponderosa pine, rosa sp.
 (b) Major vegetation Ponderosa pine - Bunch grass zone (Krajina)
 (c) Cultural matrix 2 basalt flakes
 (d) Depth of cultural matrix surface only
 (e) Non-cultural matrix very rocky sediment, colluvium or till; silty sand & pebbles
 (f) Water source intermittent creek 50 m west or Nicola River 1.7 km (linear distance) southeast
20. Known finds and present location 2 basalt lithics, collected (B.C.P.M.)
 EaRe 19: 1 utilized flake, and 1 flake shatter
21. Photo record No photographs taken
22. Published and unpublished references (a) Unknown
 Coquihalla Highway Project Merritt-Kamloops Heritage Impact
 (b) Assessment Project Final Report 1985 (Arcas Associates) - S. Lawhead
23. Site age and/or date (a) Unknown absolute relative
 (b) Source N/A
24. Owner/Tenant Unknown
25. (a) Informant N/A
 (b) Observer Steve Lawhead, Geordie Howe Date Sep 24, 19 84
 (c) Recorder Geordie Howe, Steve Lawhead Date Oct 25, 19 84
 (d) Revisor Date , 19
 Date , 19

26. Remarks As the site is located within the right-of-way of the new Coquihalla Highway Merritt-Kamloops section, the site will be completely destroyed. Under the specifics of the contract let to Arcas Associates the site was 100% surface collected and 1 35 X 35 cm excavation unit was dug. No cultural material was uncovered during the test excavation.

It should be noted that Location and Access are only applicable until the highway has been built.

The site is located at Stake 49 + 00 on the new Coquihalla Highway right-of-way, or 9.75 km along the corridor from the southern end of the Merritt Bypass (Coldwater Interchange).

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EaRe T84-7
3. Site name(s) Unknown
4. Legal Lot 121
5. (a) Location The site is located in the Nicola River valley 2.25 km (linear distance) east northeast from the junction of Highways 5 & 8 in the town of Merritt. The site is situated 1.0 km (linear distance) south of Hwy. 5 and 300 m (linear distance) north of the Nicola River. The site is located on the crest of a glacial fluvial/lacustrine ridge above the floodplain of the Nicola River within Lot 121.
- (b) Access By permission of owner. From the junction of Highways 5 & 8 in the town of Merritt proceed northeast on Hwy. 5 for 2.3 km until you reach the Merritt Airport road. Head south on this road for 350 m; the Airport road turns left (east), here you pass through a gate on the south side of the road and proceed 800 m along a field access road which leads to the B.C. Hydro power line/poles on a narrow ridge. The site is located here.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
- (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
Thompson-Okanagan
- (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 06' 55" N. 8. Long. 120° 45' 19" W.
9. UTM 10U FL/E604 N 536.5 10. Air photo Unknown
11. Map (a) 92 I/ 2 (b) Unknown
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 605 m ASL (b) 22 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 20 m N-S × 70 m E-W (b) estimated Same
(c) original Unknown

17. Condition (a) present 100 % intact (b) future Possible destruction of 100% of site by
 B.C. Hydro access road for new Coquihalla Highway 18. Priority
19. Detailed information (a) Vegetation on site Bunch grass (various grasses), rabbitbush,
 ponderosa pine
- (b) Major vegetation Ponderosa pine - Bunch grass zone (Krajina)
- (c) Cultural matrix 5 basalt flakes
- (d) Depth of cultural matrix surface only
- (e) Non-cultural matrix consistent, unstratified glacio-lacustrine sediments (silty sand)
- (f) Water source none nearby; Nicola River 250 m (linear distance) south
20. Known finds and present location basalt lithic flakes left in situ; 5 were observed,
 more may be present.

Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment

21. Photo record Project 1984 (Arcas Associates) Roll 3: 24-25 & 4: 21.
22. Published and unpublished references (a) Unknown
 Coquihalla Highway Project Merritt-Kamloops Heritage Impact
 (b) Assessment Project Final Report 1985 (Arcas Associates) -
 S. Lawhead
23. Site age and/or date (a) Unknown absolute relative
 (b) Source N/A
24. Owner/Tenant Mrs. Garthwaite, River Ranch, Merritt
25. (a) Informant N/A
- (b) Observer Steve Lawhead, Geordie Howe Date Sep 27, 1984
- (c) Recorder Geordie Howe, Steve Lawhead Date Oct 25, 1984
- (d) Revisor Date [][] [][], 19 [][]
 Date [][] [][], 19 [][]

1. Site No. **EbRe** 1

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) EbRe T84-1
3. Site name(s) Unknown
4. Legal Lot 569
5. (a) Location The site is located in the Nicola River valley 9.75 km (linear distance) northeast from the junction of Highways 5 & 8 in the town of Merritt. The site is situated 2.3 km (linear distance) north of Hwy. 5 and 2.1 km (linear distance) northwest of the Church in Nicola. Clapperton Creek flows 1.6 km (linear distance) east of the site and an unnamed intermittent creek flows 40 m (linear distance) west of the site. The site is located 200 m (linear distance) west of the east boundary of Lot 569.
 (b) Access From the junction of Highways 5 & 8 in the town of Merritt proceed northeast on Hwy. 5 for 3.85 km until you reach Swakum Mountain Road. Turn left (north) and follow Swakum Mtn. road for 4.55 km and then take the old road on the right (east) side. Proceed along this road path for 2.3 km and park the vehicle. Walk north along the new Coquihalla right-of-way, down a creek gully and up the other side for 75 m until you reach the site location at Stake 75 - 00.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
 (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25 Merritt
Thompson-Okanagan
 (d) Park Dist. 2-5 Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 10' 34" N. 8. Long. 120° 41' 31" W.
9. UTM 10U FL/E 648 N 605 10. Air photo Unknown
 Province of British Columbia, Design and Surveys Branch
11. Map (a) 92 I 2 (b) Coquihalla Highway Merritt-Kamloops #30319-3 (1:5000)
12. Drainage (a) minor Nicola River (b) major 8 - Thompson
13. Elevation (a) 750 m ASL (b) 167 m above Nicola River
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Unknown
Nicola
15. Site type General Activity - Lithic Scatter
16. Dimensions (a) exact 35 m N - S × 40 m E - W (b) estimated Same
 (c) original Unknown

17. Condition (a) present 100 % intact (b) future Destruction of 100% of site by new Coquihalla Highway Merritt-Kamloops section. Priority

19. Detailed information (a) Vegetation on site Various grasses (bunch grass), ponderosa pine, rocky mountain juniper, trembling aspen, kinnickinnick, yarrow, rabbitbush, cactus (Opuntia fragilis)
(b) Major vegetation Ponderosa pine - bunch grass zone (Krajina)
(c) Cultural matrix 8 basalt lithics
(d) Depth of cultural matrix surface only
(e) Non-cultural matrix very rocky sediment, colluvium or till; silty sand & pebbles
(f) Water source intermittent creek immediately west of site

20. Known finds and present location 8 basalt lithics, collected (B.G.P.M.)
Tools: 3 retouched flakes, 1 knife fragment, 1 utilized flake/graver -- EbRe 1: 1 to 5
Detritus: 1 pressure flake, 2 flake shatter

Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment

21. Photo record Project 1984 (Arcas Associates) Roll 3: & 4: 1-4

22. Published and unpublished references (a) Unknown
Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment Project 1984 Final Report 1985, (Arcas Associates)
(b) - S. Lawhead

23. Site age and/or date (a) Unknown absolute relative
(b) Source N/A

24. Owner/Tenant Unknown

25. (a) Informant N/A
(b) Observer Steve Lawhead, Georgie Howe Date Sep 24, 19 84
(c) Recorder Georgie Howe, Steve Lawhead Date Oct 25, 19 84
(d) Revisor Date [][] [][], 19 [][]
Date [][] [][], 19 [][]

26. Remarks As this site is located within the right-of-way of the new Coquihalla Highway Merritt-Kamloops section, the site will be completely destroyed. Under the specifics of the contract let to Arcas Associates the site was 100% surface collected and 3 50 X 50 cm excavation units were dug. No cultural material was uncovered during the test excavation.

It should be noted that Location and Access are only applicable until the highway has been built.

The site is located around Stake 75 + 00 on the new Coquihalla Highway right-of-way, or 13.40 km along the corridor from the southern end of the Merritt Bypass (Coldwater Interchange).

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. Previous designation(s) E b R d T84-1
3. Site name(s) Kirby Creek Sawmill
4. Legal Lot 3366
5. (a) Location The site is located in the Clapperton Creek valley 6.4 km (linear distance) north of Nicola Lake. Situated on the east side of Kirby Creek the site is located within Lot 3366. Clapperton Creek flows 650 m (linear distance) east of the site. The southern boundary of Lot 3366 is 350 m to the south of the site and the eastern boundary of Lot 3366 is 360 m to the east of the site.
- (b) Access From the junction of Highway 5 and Mill Creek Road in the community of Nicola proceed north on Mill Creek Road for 3.2 km until a junction is reached on the east side of Zoht Indian Reserve 4. Take the left (west) branch and proceed for 2.6 km and take the road (tote road) on the right (west) side. Proceed along this road for 1.4 km until Kirby Creek is reached. Cross Kirby Creek and proceed to the top of the terrace. Site is located on this terrace over-looking Kirby Creek.
6. Administrative jurisdiction (a) Regional Dist. Thompson-Nicola
- (b) Forest/Grazing Dist. Kamloops (c) Highways Dist. 2-25, Merritt
- Thompson-Okanagan
- (d) Park Dist. 2-5, Thompson River (e) Resource Management Reg. Thompson-Okanagan
7. Lat. 50° 13' 23" N 8. Long. 120° 38' 25" W
9. UTM 10U FL/E 683. N 658, 5 10. Air photo Unknown
- Province of British Columbia, Design and Surveys Branch
11. Map (a) 92 I/ 2 (b) Coquihalla Highway Merritt-Kamloops #30319- (1:5000)
12. Drainage (a) minor Kirby Creek (b) major 8 - Thompson
13. Elevation (a) 945 m ASL (b) 30 m above Kirby Creek
14. Cultural affiliation (a) Salishan, Interior Salish, Thompson/Athapaskan, Historic Nicola
15. Site type Historic sawmill and associated historical debris
16. Dimensions (a) exact 100 m N - S × 120 m E - W (b) estimated Same
- (c) original Unknown

17. Condition (a) present 20 % intact (b) future Destruction of 50% of ^{remaining} site by new Coquihalla Highway Merritt-Kamloops section 18. Priority

19. Detailed information (a) Vegetation on site Various grasses (bunch grass), ponderosa pine, yarrow

(b) Major vegetation Ponderosa pine - bunch grass zone (Krajina)

(c) Cultural matrix collapsed historic remains of sawmill and associated structures and historic debris

(d) Depth of cultural matrix unknown; surface only

(e) Non-cultural matrix very rock sediment, colluvium or till; silty sand and pebbles

(f) Water source Kirby Creek, immediately south of site

20. Known finds and present location Collapsed remains of many historic structures.

One large communal outhouse still standing: has unique separate but attached single hole outhouse (woman's?). Scattered historic remains and debris from old sawmill operation. Slag heap at base of south immediately below site and above Kirby Creek. Additional historic log structures located along Kirby Creek in the immediate area of the sawmill location. All remains left in situ.

Coquihalls Highway Project Merritt-Kamloops Heritage Impact Assessment

21. Photo record Project 1984 (Arcas Associates) Roll 5: 13-16

22. Published and unpublished references (a) Unknown

(b) Coquihalla Highway Project Merritt-Kamloops Heritage Impact Assessment Project 1984 Final Report 1985 (Arcas Associates) - 3. Lawhead

23. Site age and/or date (a) 1920s - 1960s absolute relative

(b) Source

24. Owner/Tenant Balco Industries Ltd.

Nicola Subdivision

Merritt, B.C.

25. (a) Informant N/A

(b) Observer Steve Lawhead, Geordie Howe Date Oct 21, 1984

(c) Recorder Geordie Howe, Steve Lawhead Date Oct 26, 1984

(d) Revisor Date [] [], 19 [] []

Date [] [], 19 [] []

26. Remarks As this site is located within the right-of-way of the new Coquihalla Highway Merritt-Kamloops section the site will be completely destroyed.

It should be noted that Location and Access are only applicable until the highway has been built.

The site is located at Stake 83 + 00 on the new Coquihalla Highway right-of-way and 19.30 km along the corridor from the southern end of the Merritt Bypass (Coldwater Interchange).