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Executive Summary

The 2015 Historic Resources Management Field Program for the Lower Churchill Project commenced in June 2015 and was completed in October 2015.

Limited Stage 2 assessment in 2015 was focused tightly on relocating three registered archaeological sites: FgCg-09, FfCi-05, and the remains of the HBC Post at FgCg-01. FgCg-09 was not relocated; it does not exist in its identified location, and is believed to correspond to another tilt site previously recorded (ethnographic site 13F/03 Ethno 39). FfCi-05 was relocated and vegetation cleared in preparation for recovery in 2016. The remains of the HBC Post at FgCg-01 were successfully located and designated FgCg-01 Locus D.

Stage 3 Systematic Data Recovery (SDR) operations were completed at one large site on Gull Lake. Recovery work at this site (FfCi-02) yielded evidence for six discrete occupation areas (designated Loc i A-F), reflecting repeated re-occupation of the site during both the precontact and historic periods. Artifacts recovered from precontact occupation areas (Locus A, C, D, E and F) were fashioned almost exclusively from quartzite and included projectile points, bifacial knives, scrapers, preforms, linear flakes and retouched/utilized flakes, with large quantities of primary, secondary and tertiary debitage from quartzite knapping. These were found in association with small diffuse hearth features, and several piles of discarded firecracked rock. One precontact locus additionally yielded hundreds of sherds of Aboriginal grit-tempered ceramic, the largest sample of precontact ceramics yet collected from the Churchill Valley. In addition to the precontact occupation areas, FfCi-02 also contained evidence for an historic Innu occupation, including the remains of an earth-walled dwelling at FfCi-02 Locus B. Associated artifacts indicate that Locus B was occupied in the 19th century, with occupation possibly extending into the 20th century. Sparse evidence for transitory 20th century campsites was recovered from Locus D.

At FgCg-01, Stage 3 (SDR) recovery operations were completed at Locus A and Locus B; in the latter area precontact artifacts were recovered from unusual depths in the context of complex stratigraphy. Recovery is in progress at Locus D. Preliminary results confirm that Locus D is the site of the Sandy Banks HBC Post. Three structures have been identified, including the probable “house,” and one or two possible stores. The site has also yielded evidence for the presence of boats on-site, and potentially for boat-building or repair. Locus D has been winterized in preparation for resumption of recovery work in 2016.

Further work scheduled for 2016 includes the resumption and completion of recovery work at FgCg-01 Locus D, along with the completion of recovery work at the remainder of the sites situated within the Muskrat Falls reservoir area.
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>AFR</td>
<td>Alternative Field Recording</td>
</tr>
<tr>
<td>AMS</td>
<td>Accelerator Mass Spectrometry</td>
</tr>
<tr>
<td>asl</td>
<td>Above sea level</td>
</tr>
<tr>
<td>BP</td>
<td>Before present</td>
</tr>
<tr>
<td>ca.</td>
<td>Circa</td>
</tr>
<tr>
<td>cm</td>
<td>Centimetre</td>
</tr>
<tr>
<td>CPT</td>
<td>Cone Penetration Test</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System or Geospatial Information System</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>HBC</td>
<td>Hudson’s Bay Company</td>
</tr>
<tr>
<td>HVac</td>
<td>High Voltage Alternating Current</td>
</tr>
<tr>
<td>HVdc</td>
<td>High Voltage Direct Current</td>
</tr>
<tr>
<td>Km</td>
<td>Kilometre</td>
</tr>
<tr>
<td>kV</td>
<td>Kilovolt</td>
</tr>
<tr>
<td>m</td>
<td>Metre</td>
</tr>
<tr>
<td>m²</td>
<td>Square metre</td>
</tr>
<tr>
<td>PAO</td>
<td>Provincial Archaeology Office of the Government of Newfoundland and Labrador</td>
</tr>
<tr>
<td>ROW</td>
<td>Right of Way</td>
</tr>
<tr>
<td>SDR</td>
<td>Systematic Data Recovery</td>
</tr>
<tr>
<td>SFR/SS</td>
<td>Systematic Field Recording and Subsurface Sampling</td>
</tr>
<tr>
<td>TL</td>
<td>Transmission Line</td>
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</tbody>
</table>
Glossary

A or Ae Horizon Soil horizons are specific layers in the soil. The A Horizon is the topmost level of sediment beneath the organic (e.g., moss, leaf litter) layer. There are many variations but in northern forest soils a common type is “Ae,” a leached grey horizon. The B Horizon lies beneath the A Horizon.

Aboriginal A broad term referring to those peoples who have inhabited North America since before European contact.

Accelerator Mass Spectrometry (AMS) A form of radiocarbon dating that gives more precise results than conventional radiocarbon dating and can be employed using smaller samples of carbon.

Adze A bladed woodworking tool similar to an axe, but with the blade edge mounted perpendicular to the handle.

Alternative Field Recording (AFR) Detailed photographic, videographic and illustrative recording of a site, possibly also including the collection and conservation of visible artifacts. AFR is normally implemented at sites such as historic tilts, where features and artifacts are located on the surface and excavation is not required.

Amerindian A broad term sometimes used to refer to the aboriginal inhabitants of North America, excepting the Arctic-adapted Inuit and Palaeo-Eskimo peoples. In Newfoundland and Labrador, it may refer to the Maritime Archaic, Intermediate and Late Precontact occupations, as well as to the historic Beothuk and the historic and contemporary Innu and Mi’kmaq people.

Archaeological Site A location which contains the material remains of human land use in the past. Technically, only those sites which date to the historic or precontact periods and which are assigned Borden numbers are true archaeological sites. Sites with more recent remains are considered ethnographic sites and are assigned Ethno numbers by the PAO.

Archaic In Labrador, the initial period of Amerindian occupation, dating from approximately 8,000 – 3,700 BP. In Newfoundland and Labrador, generally synonymous with Maritime Archaic.

Arris In precontact lithic technology, the ridge or ridges running parallel to the edges of a blade or linear flake. These ridges mark the edges of blades or linear flakes previously removed from the core.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>Artifact</td>
<td>A discrete object deliberately manufactured or modified by human activity.</td>
</tr>
<tr>
<td>Awl</td>
<td>A pointed instrument used to pierce cloth or leather.</td>
</tr>
<tr>
<td>Bedrock</td>
<td>A general term for the rock, usually solid, that underlies soil or other</td>
</tr>
<tr>
<td></td>
<td>unconsolidated superficial material.</td>
</tr>
<tr>
<td>Before Present (BP)</td>
<td>In radiocarbon dating, &quot;Present&quot; is arbitrarily fixed at the year 1950 AD.</td>
</tr>
<tr>
<td>Berm</td>
<td>A low raised ridge. In this study, the term refers to the ridge which</td>
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<td>flanks a prepared roadway.</td>
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<tr>
<td>B Horizon</td>
<td>A soil horizon is a specific layer in the soil. The B Horizon lies beneath</td>
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<td>the A Horizon and is commonly referred to as 'subsoil'. It may be</td>
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<td></td>
<td>characterized by concentrations of minerals. In northern forest soils,</td>
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<td>the B Horizon is often rich in iron and is orange, red or reddish-black</td>
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<tr>
<td></td>
<td>in colour.</td>
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<tr>
<td>Blade</td>
<td>In precontact archaeology, a type of stone tool consisting of long,</td>
</tr>
<tr>
<td></td>
<td>narrow, parallel-sided flake deliberately detached from a prepared stone</td>
</tr>
<tr>
<td></td>
<td>core, generally for use as an expedient disposable cutting tool. Blades</td>
</tr>
<tr>
<td></td>
<td>exhibit one or more arrises, resulting from the repeated removal of blades</td>
</tr>
<tr>
<td></td>
<td>form the core. See also Linear Flake.</td>
</tr>
<tr>
<td>Blank</td>
<td>A very early stage in the manufacture of a flaked stone artifact, usually</td>
</tr>
<tr>
<td></td>
<td>a partly-worked piece of chert or other stone, made at a quarry for later</td>
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<tr>
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<td>use elsewhere. A blank can resemble a thick, wide biface and may serve as</td>
</tr>
<tr>
<td></td>
<td>the basis for manufacturing almost any type of stone tool.</td>
</tr>
<tr>
<td>Biface</td>
<td>In precontact archaeological sites, a lithic artifact chipped on both</td>
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<td>opposite sides is referred to as a biface, or bifacially-flaked tool.</td>
</tr>
<tr>
<td>Bodkin</td>
<td>A thick needle, often with a blunt tip and a large eye.</td>
</tr>
<tr>
<td>Borden Number</td>
<td>Archaeological sites in Canada are registered under a nationwide site</td>
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<tr>
<td></td>
<td>registration system known as the Borden System, which assigns each site a</td>
</tr>
<tr>
<td></td>
<td>unique Borden number. In Newfoundland and Labrador, the PAO assigns these</td>
</tr>
<tr>
<td></td>
<td>numbers. Only true archaeological sites (those predating the mid-20th</td>
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<tr>
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<td>century) receive a Borden number. More recent ethnographic sites are</td>
</tr>
<tr>
<td></td>
<td>assigned an Ethno number.</td>
</tr>
<tr>
<td>Caplock Firearm</td>
<td>A muzzle-loading firearm in which the main charge is ignited by means of</td>
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<td>a percussion cap rather than a flint and steel (i.e. a flintlock).</td>
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Charles Complex  A culture-historical unit representing an early-middle period in the Intermediate Period of central Labrador, ca. 3000 BP to 2700 BP. Characterized by triangular and linear flakes, bifaces, and formal scrapers, many fashioned of banded rhyolite.

Chert  A fine-grained silica-rich sedimentary rock, often selected by precontact peoples for manufacturing chipped stone tools.

Circa (ca.)  Approximately (literally “around”).

Cladonia  A white, moss-like lichen which grows abundantly on sandy soils in Labrador and serves as an important winter food source for caribou. See lichen woodland.

Clinker-built  A boat-building method in which the bottom edges of the external planking (or strakes) overlap the top edges of the planks immediately below (similar to clapboard cladding). This method of boat-building (also referred to as lapstrake) is in contrast to carvel construction, whereby all the external planks butt edge to edge.

Cone Penetration Test  A geotechnical investigation method in which a cone-tipped probe is inserted into sediments in order to determine the bearing capacity or other properties of soils.

Component  In an archaeological site, a component is a period of occupation. A site occupied at various times, for example, once 3,000 years ago and again less than 25 years ago, may be said to have a precontact component and a contemporary component.

Contemporary Site  A location which contains the material remains of human land use in the recent past (by convention, post-dating the mid-20th century). As a category of land use sites, “contemporary” may be used interchangeably with “ethnographic.” Contemporary sites may be important in interpreting the history of human land use in a region, but are not considered true archaeological sites, and are not assigned Borden numbers. Contemporary/recent sites are assigned Ethno numbers by the PAO.

Core  A piece of knappable stone used as the basis for producing flakes or blades for use as tools. Cores may be deliberately prepared to produce flakes of specific types. For example, blade cores are cores specifically prepared for the production of narrow, straight-sided blades.

Cortex  The naturally-weathered outer surface of a rock, particularly a beach cobble.

Cortical Flake  A flake of stone whose dorsal surface is partly or entirely cortex. See also Primary Flake and Secondary Flake.
Corner-Notched In precontact archaeology, a descriptive term applied to bifaces modified for hafting by chipping notches into the basal corners, forming drooping shoulders and an expanding base.

Cow Head Complex A culture-historical unit representing the first period in the Late Precontact Period on the Island of Newfoundland, ca. 2000 BP to 1000 BP.

Culture-Historical Sequence In archaeology, the human history of a region, defined as a series of culture-historical units, each characterized by distinctive artifact styles.

Culture-Historical Unit In archaeology, a division of the human history of a region. It consists of a period of time defined by diagnostic artifact and feature styles that distinguish it from earlier and later periods in a culture-historical sequence. Culture-historical units are equated with past human cultures and given distinctive names. They may be broad periods of time (e.g. Intermediate Period or Late Precontact Period) or finer chronological subdivisions (e.g. Daniel Rattle Complex, North West River Phase).

Daniel Rattle Complex A culture-historical unit representing the first period in the Late Precontact Period of coastal Labrador, ca. 2000-1000 BP. Characterized by moderately large projectile points and large triangular-lanceolate bifaces fashioned almost exclusively of Ramah.

Dart In precontact archaeology, a dart is a projectile larger and heavier than an arrow but shorter than a spear, usually projected using a spear-thrower.

Debitage In precontact sites, the lithic waste flakes and shatter left over from the manufacture of stone tools.

Diagnostic Tool Type A class of artifact with stylistic features that allow it to be assigned to a culture-historical unit.

Dorsal Surface For precontact lithics, the “back”, generally the most convex or most flake-scarred surface, on a flake or stone tool.

Dorset The final period in the Palaeo-Eskimo occupation of the Island of Newfoundland and the Labrador coast, dating approximately 2,500 to 550 BP.

Duff The layer of organic, and partly-decayed organic material, on the floor of a forest, overlying the mineral sediment.
Ethnographic site  
A location that contains the material remains of human land use in the recent past (by convention, post-dating the mid-20th century). As a category of land use sites, “ethnographic” may be used interchangeably with “contemporary.” Ethnographic sites may be important in interpreting the history of human land use in a region, but are not considered true archaeological sites, and are not assigned Borden numbers. Ethnographic sites are assigned Ethno numbers by the PAO.

Ethno Number  
The registration number assigned to an ethnographic site by the PAO.

Event  
In an archaeological context, an activity, action or process, whether cultural or natural, that leaves recognizable physical evidence in the archaeological record (e.g. the deposition of horizontal soil layers).

Expedient Tool  
In precontact archaeological sites, a retouched or utilized flake, or other stone tool that has been minimally-worked. Expedient tools were often disposable implements, intended to be used for very short periods of time and then discarded.

Feature  
In archaeology, a feature is a group of related objects, which may include artifacts, and which reflect past human activity. Features differ from artifacts in that they are an assemblage of objects. As a result, while the individual objects within a feature may be collected and physically removed, the feature itself is a set of relationships between those objects, which can only be recorded in the field. An example would be a hearth, composed of interrelated rocks, artifacts, and soils.

Flake  
In precontact archaeological sites, a flake is a sharp-edged piece of fine-grained rock left over from making stone tools. See debitage.

 Flakepoint  
A projectile point made from a flake, generally shaped with minimal retouch.

Friable  
Easily crumbled or reduced to powder.

Grit Temper  
Coarse sand added to the paste of precontact Aboriginal ceramics in North America to strengthen clay vessels and prevent cracking during firing.

Groswater  
A period in the Palaeo-Eskimo occupation of the Island of Newfoundland and the Labrador coast, dating approximately 2,800 to 2,100 BP.
Gunflint
An artifact found on historic sites. A gunflint is a prepared square or oval of flint used to strike the spark that ignites the powder in a flintlock musket. European flint is a type of chert, but is readily distinguishable from the North American cherts employed by precontact peoples in Labrador for the manufacture of stone tools.

Hearth
A campfire feature. In central Labrador archaeology, these generally take the form of distinct clusters of firecracked rocks and charcoal. However, sand-mound hearths and pit hearths are also known.

Historic Site
In Newfoundland and Labrador, an archaeological site dating between the initial period of European contact with Aboriginal peoples (approximately 500 BP) but before the mid-20th century.

Historic Resources
In the context of environmental assessment, these include palaeontological, architectural and archaeological resources, but may also include ethnographic sites or other material evidence of past human land use.

Ice-Push Ridge
A ridge of sediment formed along the beach of a river, lake, or bay, when ice creeps shoreward and pushes rock and sediment into linear mounds.

Illuviation
In a soil layer, this refers to the percolation of water leaching out particles from one layer (e.g. the Ae Horizon) and redepositing them in an underlying soil layer (e.g. the B Horizon).

In situ
Literally “in place”. In situ archaeological remains are those which are undisturbed and still found in the same place as when they were originally deposited through past human activities.

Intermediate Period
The middle period of the Amerindian occupation of Labrador, including the interior, from approximately 3,500 to 2,000 BP.

Kaolin
A soft, white clay employed in the manufacture of porcelain, and also for the manufacture of clay tobacco pipes found on historic sites in North America.

Knapping
The chipping of fine-grained stone such as chert to fashion tools and other objects.

Labrador Trough Cherts
A group of cherts with highly variable colours and flaking properties derived from the iron-bearing sedimentary and volcanic rocks of the Labrador Trough in western Labrador.

Lanceolate
In precontact archaeology, a descriptive term applied to narrow, lance-shaped bifaces.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Precontact</td>
<td>The final precontact Amerindian occupation of Newfoundland and Labrador after the Intermediate period, beginning approximately 2,000 BP. This period is also referred to as “Recent Indian” in some archaeological literature. The Late Precontact period arbitrarily ends at the time of European contact, approximately 500 years BP, but the same people continued to inhabit Labrador and are directly ancestral to the Innu, while Late Precontact people on the Island of Newfoundland were ancestral to the Beothuk.</td>
</tr>
<tr>
<td>Ledum</td>
<td>The genus commonly known as “Labrador Tea.” An ericaceous shrub now classified within the genus Rhododendron.</td>
</tr>
<tr>
<td>Lichen Woodland</td>
<td>An open woodland vegetation community which, in Labrador, generally consists of black spruce widely-spaced over a ground cover of Cladonia. This vegetation pattern is common in central Labrador and often associated with nutrient-poor, well-drained sandy terraces.</td>
</tr>
<tr>
<td>Line-Cutter</td>
<td>A deeply-notched cutting tool used for quickly cutting line or cordage. Deeply-notched unifacial stone tools may have been employed for this purpose.</td>
</tr>
<tr>
<td>Linear Flake</td>
<td>A flake with some attributes of a blade but lacking one or more of the attributes associated with blade technology, including evidence for the use of deliberately prepared blade cores.</td>
</tr>
<tr>
<td>Lithic</td>
<td>Literally, a term referring to stone. In the context of historic resources, lithic usually refers to stone tools and debitage found on archaeological sites once occupied by precontact peoples.</td>
</tr>
<tr>
<td>Loam</td>
<td>A soil composed of a mixture of sand and silt, possibly also containing smaller amounts of clay.</td>
</tr>
<tr>
<td>Locus (pl. Loci)</td>
<td>Literally a “place”. In archaeological literature a locus is a discrete concentration of artifacts and features that forms one part of a larger archaeological site.</td>
</tr>
<tr>
<td>Macroblade</td>
<td>In precontact lithic technology, a large blade more than 11 mm wide.</td>
</tr>
<tr>
<td>Maritime Archaic</td>
<td>The first major period in the Amerindian occupation of the province, dating approximately 8,000 to 3,700 BP in Labrador, and from ca. 6,000 BP to 3,200 BP on the Island.</td>
</tr>
<tr>
<td>Metamorphic</td>
<td>In geology, normally refers to recrystallized minerals; rocks which have been transformed in the past by extreme temperature and/or pressure.</td>
</tr>
<tr>
<td>Microblade</td>
<td>In precontact lithic technology, a small blade less than 11 mm wide. Normally associated with Palaeo-Eskimo archaeological sites.</td>
</tr>
</tbody>
</table>
Midden  A deliberate, often concentrated, deposit of discarded waste, which may include animal bone, plant waste, and/or shell, along with tools, clothing, containers, and other artifacts.

Mistassini Quartzite  A very fine-grained, semi-translucent, waxy-finished quartzite derived from the Colline Blanche on the Témiscamie River in Québec and widely-used for stone tool manufacture in the northern Québec interior.

Mokoshan  A spiritually-important Innu communal feasting ceremony.

Mugford Chert  A semi-translucent stone from the Cape Mugford area of the north-central Labrador coast, south of Ramah Bay. Mugford, or “Cod Island Chert” often resembles Ramah but may have a greener colour. Widely used for stone tool manufacture in north-central Labrador.

North West River Phase  A culture-historical unit representing the final period in the Intermediate Period in Labrador, ca. 2000 BP. Characterized by ovate and leaf-shaped bifaces and preforms bifaces fashioned almost exclusively of local quartzite.

Ordovician Chert  On the Island of Newfoundland, Ordovician cherts are particularly abundant in the Cow Head Group of western Newfoundland. These cherts, often green, tan, or brown in colour, were widely used by precontact peoples on the island of Newfoundland for stone tool manufacture. In Labrador, Ordovician cherts from western Newfoundland were widely used in the Strait of Belle Isle in all periods, and, in sites of the Groswater Palaeo-Eskimo period are commonly found as far north as the north-central Labrador coast.

Palaeo-Eskimo  A term referring to a series of occupations of Newfoundland and Labrador by Arctic-adapted peoples arriving from the north. Although also deriving from the north, the Palaeo-Eskimo peoples were not directly ancestral to the later Inuit occupation.

Palimpsest  In archaeology, refers to a distribution of cultural materials that reflects multiple successive occupations and depositions of cultural material within a single location.

Paste  In ceramic technology, the clay mixture used to form the body of a ceramic vessel.

Point Revenge Complex  A culture-historical unit representing the second and final period in the Late Precontact Period of coastal Labrador, ca. 1000 BP to 500 BP. Characterized by small projectile points and triangular bifaces fashioned almost exclusively of Ramah.
Podzol/Podzolic Refers to the typical soil associated with coniferous forest in the subarctic, including central Labrador. Podzols are formed through the process of podzolisation, whereby organic material and soluble minerals (particularly iron) are leached from the upper levels of sediment, forming a white or grey A Horizon, and redeposited below, forming an orange, red or maroon B horizon.

Porcelain In North American archaeology, a high-fired, hard, vitrified and translucent historic Chinese or European ceramic ware containing a high proportion of kaolin.

Portage The practice of carrying boats or supplies around an obstacle to water travel, such as a falls or rapids. Also refers to the route or trail followed when doing so.

Precontact The period of Aboriginal occupation in Newfoundland and Labrador that occurred before significant contact with Europeans, approximately 500 years BP.

Preform An early stage in the reduction and manufacture of a flaked stone artifact. A preform may resemble a finished biface but will be larger, thicker and more roughly-worked.

Primary Flake A flake of stone on which the dorsal surface is entirely cortex. See also Cortical Flake.

Primary Reduction The initial removal of cortical flakes from a beach cobble or other cortical piece of fine-grained stone. The first stage in manufacturing stone tools.

Projectile point The cutting and piercing end of a projectile, such as a spear, harpoon, dart or arrow. In precontact archaeological sites, projectile points are normally made of chert or other fine-grained stone.

Provincial Archaeology Office The office of the Government of Newfoundland and Labrador which regulates and oversees the protection of historic resources within the province.

Quartz An extremely common clear, glassy silicate occurring naturally in many forms. Both massive and crystalline varieties were used by precontact people in Labrador to make chipped stone tools.

Quartzite A granular metamorphosed quartz which, despite its relatively coarse grain, is adequate for the manufacture of chipped stone tools. Quartzite is readily available in cobble form on beaches in the Muskrat Falls area.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiocarbon Dating</td>
<td>An absolute dating technique that dates the age of organic materials such as wood, bone, and charcoal by measuring the relative frequency of carbon isotopes present in a sample.</td>
</tr>
<tr>
<td>Ramah</td>
<td>A metamorphosed quartzite found on the Torngat coast of Labrador. Prized by precontact peoples for manufacturing chipped stone tools and widely traded across eastern North America in the precontact period.</td>
</tr>
<tr>
<td>Réappropriation du Littoral</td>
<td>A culture-historical unit in the Strait of Belle Isle, equivalent to the Intermediate Period in central Labrador, ca. 3500 BP to 2500 BP.</td>
</tr>
<tr>
<td>Red Ochre</td>
<td>A bright or rich red friable mineral soil composed of hematite-rich or dehydrated iron oxide. In powdered form it has been widely used as a pigment from antiquity down to the present day. In eastern North America, red ochre pigments were used by Amerindian people in the contact period as body paints, as well as to paint clothing, canoes, and other objects.</td>
</tr>
<tr>
<td>Reduction (Lithic)</td>
<td>The process of chipping stone to produce stone tools, blanks, and preforms. Lithic reduction produces large quantities ofdebitage. See also Knapping.</td>
</tr>
<tr>
<td>Rhyolite</td>
<td>A silicate-rich igneous rock. Fine-grained varieties are particularly suitable for manufacturing stone tools. Rhyolites visually identical to those found in central Labrador archaeological site have been identified in river cobble form on the upper-middle Churchill River upstream of Minipi Rapids, and as small cobbles in the Muskrat Falls area. Associated with sites of the Intermediate Period in general and the Charles Complex in particular.</td>
</tr>
<tr>
<td>Sand</td>
<td>A granular sediment in which individual grains range from 0.0625 mm to 2 mm in size.</td>
</tr>
<tr>
<td>Saunders Complex</td>
<td>A culture-historical unit which comprises much of the Intermediate Period on the north-central Labrador coast, ca. 3500 BP to 2800 BP. Characterized by a wide variety of artifact types fashioned from Saunders Chert, rhyolite, and quartzite.</td>
</tr>
</tbody>
</table>
Saunders Chert  A colourful fine-grained opaque chert, generally pink, salmon-pink, red or purple in colour, derived from an as-yet unknown source, likely in the north-central Labrador interior. Widely used for stone tool manufacture in the Intermediate Period in central Labrador, but not normally common on sites of other periods.

Schist  A medium-grained metamorphic rock.

Scraper  In archaeology, a unifacially-chipped stone tool generally employed for hideworking or woodworking.

Secondary Flake  A flake of stone on which the dorsal surface is partly a cortical surface.

Settler  In 19th-century historic sources, “Settler,” and more rarely “Planter” are terms used to refer to people of European or mixed descent who came to settle permanently in central Labrador. Their modern descendants may nowadays affiliate politically with Nunatsiavut, NunatuKavut, or neither.

Shaputuan  A large feasting tent erected by the Innu for performing mokoshan. Other neighbouring peoples, such as the Cree of Québec, also build Shaputuan structures.

Shatter  Irregular thick or blocky lithic debris produced during the making of stone tools.

Side-Notched  In precontact archaeology, a descriptive term applied to bifaces modified for hafting by chipping notches into both sides near the base, generally forming straight shoulders and a rectangular or semi-circular base.

Silt  A fine granular sediment in which individual grains range from 0.0039 mm to 0.0625 mm in size.

Siltstone  A fairly fine-grained sedimentary rock composed of silt-sized particles.

Slate  A very fine-grained metamorphosed sedimentary rock which tends to fracture into sheets. In Labrador precontact archaeology, slate was most commonly used for making ground and polished stone tools such as axeheads, and adzes.
Soil Development Horizon | A recognizable soil layer formed by one or more of the principal soil horizon development processes: addition, transformation, translocation, and removal. All of these may act on soils, but in typical podzolic soils the most conspicuous process is transformation, creating distinctly-coloured A and B horizons. In Labrador, these are often not separately-deposited layers, but rather a single sediment column transformed differently at higher and at lower levels by chemical processes. See Podzol/podzolic.

Sphagnum | A genus of green mosses particularly associated in Labrador with spruce-sphagnum forests and peat bogs.

Spokeshave | A concave-edged planning tool used to form and smooth wooden shafts, such as arrow or spear-shafts.

Sprue | A piece of metal that has solidified in the pouring channel for a mold. For example a strip of lead from resulting from pouring into a mold for making shot.

Stage 1 Historic Resources Assessment | The initial step in the historic resources assessment process in Newfoundland and Labrador. Typically involves background research and may involve a preliminary field study. The Stage 1 Assessment is intended to serve as the basis for determining if any additional research is required.

Stage 2 Historic Resources Assessment | The second stage in the historic resources assessment process in Newfoundland and Labrador, following the Stage 1 Assessment. Stage 2 Assessment involves a more detailed and extensive field study to gain a thorough understanding of the historic resources within a defined study area and any interactions that may result from any proposed development.

Stage 3 Historic Resources Assessment | Stage 3 Assessment follows directly from previous assessment studies and may include a broad range of activities and mitigation measures, including site avoidance, or scientific recovery (excavation) of archaeological sites. Stage 3 Assessment constitutes the management of any historic resources that may be present within a Project Area and its objectives are to protect resources and mitigate potentially adverse effects to sites of cultural and/or spiritual importance.

Stoneware | In North American archaeology, a high-fired, hard and vitrified historic European ceramic ware type.

Stratigraphy | In archaeology, the study of soil layers undertaken in order to understand the processes by which archaeological sites are formed and transformed over time.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stream Swamp</td>
<td>Periodically-flooded terrain on the margins of a waterway, generally characterized in Labrador by reworked unstable sediments and dense alder growth.</td>
</tr>
<tr>
<td>Systematic Data</td>
<td>The scientific and systematic excavation and recording of historic resources using accepted data recovery techniques. Generally synonymous with archaeological excavation.</td>
</tr>
<tr>
<td>Systematic Field</td>
<td>Assessment of a known historic site by means of visual inspection of surface-visible cultural materials and subsurface sampling to determine whether the site contains additional evidence for undetermined historic or older occupation(s).</td>
</tr>
<tr>
<td>Recording and</td>
<td></td>
</tr>
<tr>
<td>Subsurface Sampling</td>
<td></td>
</tr>
<tr>
<td>Terrace</td>
<td>An area of level terrain bordered by a slope, in Labrador generally formed by riverine erosion or by falling sea levels.</td>
</tr>
<tr>
<td>Tertiary Flake</td>
<td>A flake of stone on which the dorsal surface exhibits no cortex.</td>
</tr>
<tr>
<td>Testpit</td>
<td>In archaeological assessment, a testpit is usually a small pit excavated by shovel and hand tools. Large number of testpits may be excavated within a single testing location. Testpitting is usually the only way to locate those archaeological sites which are not visible on the surface.</td>
</tr>
<tr>
<td>Tilt</td>
<td>A small, single-roomed, log-built hut employed by trappers as temporary accommodation while trapping. Tilts may include “main cabins” used throughout the trapping season, and also “line tilts” used for overnight stays along trap lines.</td>
</tr>
<tr>
<td>Total Station</td>
<td>An electronic/optical survey instrument comprising an electronic theodolite (transit) integrated with an electronic distance meter to read slope distances from the instrument to a particular point.</td>
</tr>
<tr>
<td>Treethrow</td>
<td>The depression, often flanked by a mound, that results when a tree falls and its rootmass and associated soils are pulled from the ground, generally as a result of wind action.</td>
</tr>
<tr>
<td>Uniface</td>
<td>In precontact archaeological sites, a lithic artifact chipped on a single side is referred to as a uniface, or unifacially-flaked tool. Unifaces are often assumed to have served as scraping or planning tools.</td>
</tr>
<tr>
<td>Usewear</td>
<td>Flaking scars, often quite small, that are not produced by deliberate retouch but represent wear damage resulting from the use of an unmodified flake as a cutting or scraping tool.</td>
</tr>
<tr>
<td>Utilized Flake</td>
<td>A flake which has not been retouched or otherwise deliberately shaped, but which has been used as a scraping or cutting tool, leaving minute flake scars as evidence of usewear.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
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<td>-----------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ventral Surface</td>
<td>For precontact lithics, the “bottom,” generally the flattest and/or smoothest surface, on a flake or stone tool.</td>
</tr>
<tr>
<td>Whiteware</td>
<td>Refined earthenware of European origin with a white paste and clear lead glaze, dating primarily after the 1820s.</td>
</tr>
<tr>
<td>Zone</td>
<td>In the context of this study, a zone is a landform with particular slope, vegetation and drainage features, and specifically one that has been identified and mapped within the Survey Area. The characteristic features will determine which zone type a zone belongs to and this will determine its archaeological potential rating. These will also determine whether testing locations will be chosen within that zone as part of the archaeological assessment.</td>
</tr>
<tr>
<td>Zone Type</td>
<td>All of the zones which share certain characteristics of slope, or drainage, or vegetation, are assigned to a particular zone type. Zone types are assigned archaeological potential ratings, based on the probability of finding archaeological sites within zones of that zone type.</td>
</tr>
</tbody>
</table>
1.0 INTRODUCTION

1.1 Project Works in Labrador

Nalcor Energy (Nalcor) is constructing extensive infrastructure at Muskrat Falls, central Labrador, as part of the development of the lower Churchill River for hydroelectric power. The principal works in Labrador required for the development (hereinafter referred to as the “Project”), include: extensive tree and brush clearing at Muskrat Falls and within the upstream reservoir; stabilization of the North Spur; bulk excavation of earth and rock from the south side of Churchill River; and construction of the dam itself as well as access roads, an accommodations camp and office complex. Key Project components required for transmission of power include construction of a high voltage alternating current (HVac) transmission line (TL) from Muskrat Falls to Churchill Falls, a high voltage direct current (HVdc) transmission line from Muskrat Falls to Forteau Point on the Strait of Belle Isle, southern Labrador, a switchyard and associated cable infrastructure at Forteau Point, and an electrode site at l’Anse au Diable (Figure 1-1). Pre-flooding of the Muskrat Falls reservoir is scheduled for October 2016.
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Figure 1-1 Project components in Labrador
1.2 Historic Resources Assessment and Management

The overall goals of the Historic Resources Management Program are to identify and manage the impact of the development on any archaeological or cultural resources located within the Project Area to achieve a mutually acceptable balance between the development and the provincial historic resource legislation and management requirements. Regarding the latter, emphasis is usually directed toward efforts to conserve and protect the resource. In accordance with these regulations (Government of Newfoundland and Labrador 1992), historic resources assessment and management for the Project required one or more of the following three stages.

1.2.1 Stage 1 Historic Resources Overview Assessment

A Stage 1 Historic Resources Overview Assessment (Stage 1 Assessment) is normally the initial step in the provincial historic resources assessment process and typically involves background research and, frequently, a preliminary field study. The Stage 1 Assessment is intended to serve as the basis for determining if any additional research is required under the Historic Resources Act (1985).

1.2.2 Stage 2 Detailed Impact Assessment

For many development projects, Stage 2 Assessment is the standard procedure following the Stage 1 Assessment and, in the majority of instances, involves a more detailed and extensive field study to gain a thorough understanding of the historic resources within a defined study area and any interactions that may result from the proposed development. Stage 2 assessment may include a combination of visual surface inspection and subsurface testing (shovel testing).

1.2.3 Stage 3 Recovery (Mitigation)

Stage 3 Assessment follows directly from previous assessment studies and may include a broad range of activities and mitigation measures, including site avoidance, capping (i.e. securing materials and features in such a way as to ensure their long-term integrity) or systematic data recovery/excavation. By acting upon results and recommendations of the previous stages of assessment, Stage 3 Assessment involves the effective, professional management of any historic resources that may be affected within the Project Area. In sum, the priority of historic resources management is to protect resources and mitigate potentially adverse effects to reduce loss or disturbance of sites, objects or materials, and places of cultural and/or spiritual importance.

1.2.3.1 Mitigation

In the context of the Labrador component of the Project, where a broad range of archaeological sites of varying ages, functions and differing cultural origins have been identified and registered, three principal types of mitigation have been defined and approved by the Provincial Archaeology Office (PAO) to ensure the necessary and appropriate degree of site information is recovered. The mitigation measures are summarized as:
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- Systematic Data Recovery (SDR) involves the scientific and systematic excavation and recording of unavoidable historic resource losses using accepted data recovery techniques;
- Alternative Field Recording (AFR) involves photographic, video and illustrative coverage and, where indicated, collection, documentation and conservation of relevant site materials; and,
- Systematic Field Recording and Subsurface Sampling (SFR and SS) involves photographic, video and illustrative coverage of visible surface remains, excavation of testpits, collection, documentation and conservation of relevant site materials, and, where indicated, additional AFR or SDR.

1.3 2015 Historic Resources Assessment and Recovery Program

1.3.1 Permitting and Study Area

The 2015 Historic Resources Management Program for the Lower Churchill Project was undertaken under Archaeological Investigation Permit #15.09 issued to Dr. Fred Schwarz by the Provincial Archaeology Office (PAO). This permit encompassed Stage 1, Stage 2 and Stage 3 Historic Resources Management activities within the Muskrat Falls reservoir area of the Churchill Valley, central Labrador (Figure 1-2). This Draft report summarizes the methods and results of the 2015 historic resources assessment and recovery program conducted in relation to reservoir preparation in the Churchill Valley.

1.3.2 2015 Study Objectives

Previous Stage 1 and Stage 2 assessments along the lower Churchill River identified 23 registered archaeological sites within the proposed Muskrat Falls reservoir between Lower Brook and Gull Rapids. Although reservoir preparation activities (mechanical tree-felling) commenced within the reservoir area in 2013-2014, 50 m buffer zones were defined around these known sites and, within these buffers the natural vegetation was left standing.

Stage 3 mitigation is required at these sites before creation of the reservoir. Required mitigation varies according to site type: precontact and historic sites with subsurface remains require Systematic Data Recovery (SDR), consisting of conventional archaeological excavation, while historic sites composed of surface-visible remains and/or standing structures require Alternative Field Recording (AFR) by other means such as surface feature inventory, photography, and videography.

Stage 3 mitigation in the Muskrat Falls Reservoir area first commenced in 2014. The objective of the 2015 historic resources management program was to continue the Stage 3 mitigation at archaeological sites in the reservoir area, and, where necessary, complete remaining Stage 1 and 2 assessments.
The work required in 2015 to achieve the objectives therefore included two principal elements:

- Following an archaeological training program to train field teams so they were prepared to undertake both site delineation and mitigation work at Muskrat Falls, the completion of further Stage 1 and Stage 2 assessment to relocate and/or completely delineate the sites and site loci which might need to be recovered; and
- Stage 3 SDR for sites identified, including the processing and, where necessary, the stabilization, of cultural materials recovered.
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Figure 1-2 Churchill Valley Historic Resources Management Program, 2015
2.0 Approach and Methods

The methods employed for each assessment stage are summarized in the sections that follow.

2.1 Stage 1 Background Research

Extensive background research has been conducted for the entire Project Area, including the Churchill River Valley in central Labrador, the central interior south of Muskrat Falls, and the Strait of Belle Isle region in southern Labrador (see Thurlow et al. 1974; Tuck 1981; IED/JWEL 2000; JWEL/IELP 2001a; JWEL/IELP 2001b; JWEL/IELP 2001c; Minaskuat 2008; Stantec 2014a; 2014b; 2015).

The background research methodology employed in the present study closely followed that employed for the overall Project assessment and involved the review of previous archaeological research undertaken within and adjacent to the Study Areas, and included publically available historic, ethnohistoric and ethnographic literature.

Background research for the 2015 Stage 3 recovery program included further review of past archaeological research in central Labrador, including upper Lake Melville and the Churchill Valley, with particular focus on reviewing site-specific data from previous assessments within the Study Area (e.g. Tuck 1981; IED/JWEL 2000; JWEL/IELP 2001a; JWEL/IELP 2001b; JWEL/IELP 2001c). More specifically, background research was focused on records relating to previous archaeological assessment work at FgCg-01 and FfCi-02.

Further background research involved review of published literature bearing on specific research questions arising out of the 2014-2015 recovery results. This included review of literature bearing on precontact ceramic assemblages in Labrador-Ungava (e.g. Lévesque 1971; Côté and Inksetter 2001; Stapelfeldt 2013), on the archaeology of historic Innu earth-walled tent-rings (e.g. Lee 1966; Turner 1894; Samson 1975; Loring 2015), and on the architecture, archaeology, and material culture of Hudson’s Bay Company posts across Canada (e.g. Losey 1977a, 1977b; Moat 1979; Karlins 1979; Forsman 1985). In addition, the research team engaged with members of the Michelin family to secure additional background information on 20th century trapper land use at Sandy Banks.

2.2 Stage 2 Field Assessment Methodology

Stage 2 Field Assessment was focused primarily on relocating two sites (FfCi-05 and FgCg-09), but also included shovel testing activities undertaken to confirm the distribution of cultural materials at FgCg-01 and FfCi-02 during Stage 3 Recovery. At FgCg-01 Locus C, a 30 m nylon measuring tape was laid out east to west along the line North 02 line of the overall site grid. Subsequently, a total of six 0.50 m by 0.50 m testpits were dug at 2 m intervals, beginning at N2W46 and proceeding west across roughly the central portion of the midden. Recording of the
findings from Locus C was consistent with other field recording methods used for the 2015 Historic Resources Assessment and Recovery Program.

Shovel testing locations for Stage 2 Field Assessment were accessed by helicopter. These locations were investigated initially by helicopter overflight then subsequently by means of visual inspection to identify surface-visible cultural materials, as well as level, well-drained, habitable terrain. Suitable locations were further investigated with subsurface shovel testing.

In addition, a variety of Stage 2 Assessment methods were employed to delineate the distribution of cultural materials at sites during Stage 3 Recovery (see below) in order to facilitate comprehensive recovery from these sites. Assessment methods employed during the recovery process included visual inspection for surface-visible remains, inspection of tree throws, subsurface shovel testing around the margins of excavated areas, and at FgCg-01 a series of larger, deeper 1x1 m test excavation units to clarify the stratigraphy. In addition, at FgCg-01, a metal detector was employed in order to clarify the extent of detectable metallic cultural materials at the site. The locations of positive readings were flagged and plotted in relation to the site grid using a total station survey.

Elsewhere, shovel testing was restricted to one site, FfCi-05, where testing was undertaken in order to relocate the site prior to manual tree-felling.

Sites and testing locations were recorded with hand-held GPS, and photographic records and field notes were maintained. Reports on the work were prepared and submitted to Nalcor and PAO on a weekly basis. Sites and cultural materials are being catalogued on PAO-compliant digital site and artifact record forms.

Tree-felling was undertaken to clear trees, brush and debris present within excavation areas. Vegetation was manually felled using chainsaws, and then stacked or discarded in accordance with Project protocols and with the provisions of the cutting and operating permits. Manual tree-felling was also employed to create or enlarge helicopter landing pads to provide site access. Tree-felling teams included two wilderness first-aiders per chainsaw operator, and all required emergency firefighting equipment. Cutting and clearing proceeded in alternating shifts so that clearing personnel did not operate in proximity to cutting personnel.

2.2.1 Archaeological and Contemporary Site Registration

In the province of Newfoundland and Labrador, archaeological sites (defined as physical evidence of land use pre-dating 1960) are recorded, inventoried and assigned numbers under the Borden System (the Canadian registry for archaeological materials) in accordance with the provincial Historic Resources Act (1985). As well, under current regulatory policy for Labrador, all material evidence of contemporary land use (defined as land use occurring within the past 50 years) is recorded, inventoried and assigned ethnographic numbers. Contemporary sites can include, for example, remains of campsites or tilts (i.e., small, rough-constructed cabins), or other physical evidence of hunting, fishing or trapping. Moreover, if distinct ‘cultural indicators’ are
present, such as the manner in which a tent and/or stove was set or the type of trap used for harvesting a particular species, it is sometimes possible to determine the cultural affiliation of the find. A detailed recording of contemporary sites has value not only because such materials can serve as proxy indicators of archaeological potential, but because physical evidence of land use within the past 50 years, in conjunction with written and/or oral information, can broaden a picture of land use patterns and activities within a region.

Though recorded by the PAO, contemporary sites are not assigned numbers under the Borden System, are not classified as archaeological sites, and are not normally the subject of Stage 2 or 3 mitigation measures. However, contemporary sites are inventoried in a database for ethnographic remains compiled by the PAO. No contemporary sites were recorded or investigated during the 2015 historic resources management program in the Churchill Valley.

2.3 Stage 3 Recovery Program Methodology

The Stage 3 Systematic Data Recovery (SDR) of subsurface precontact and historic archaeological remains was completed by teams of field technicians supervised by Team Leads and by the permit holder. Excavations consisted of 2 m x 2 m units, separated by 20 cm-wide baulks and excavated by natural and, where indicated, cultural layers. This grid pattern of excavation allows sufficient areas to be uncovered in order that spatial patterns of archaeological features and cultural debris may be easily discerned, while the continuous baulks enable stratigraphic control to be maintained at all times. This method is preferred over trenching or checkerboard excavation, since site significance depends in part on the presence or absence of significant archaeological features (such as hearths), and broad simultaneous areal exposure is the most effective way of identifying and recording these in deposits anticipated to have relatively simple soil stratigraphy.

Excavation activities at each site began with manual woodcutting using chainsaws to remove trees, debris and brush (battery-powered reciprocating saws, as well as hand saws and shears were employed during the excavation process to remove roots and stumps). This was followed by laying out the site grids. At the sites recovered in 2015, georeferenced points were established by professional surveyors using high-precision GPS with < 5 cm accuracy, while intervening grid corners were plotted using total stations. All units were excavated by trowel and all soils gathered from excavation units was screened using 1/4” mesh screens.

Point provenience was recorded in three dimensions for historic and lithic artifacts, including debitage, bone, and soil and charcoal samples. Artifact provenience from FgCg-01 Locus A and Locus B was recorded using a surveyor’s level; at FfCi-02 Locus A and Locus B, provenience was recorded using tapes and line levels; and at FgCg-01 Locus D and FfCi-02 Loci C-F, provenience was recorded using total stations. Total stations were also employed to develop local contour mapping for each recovered site.
At Locus D of FgCg-01, a preliminary metal-detector assessment was completed across the outlying areas (i.e., away from the identified Structures and Features) to help establish the physical distribution and extent of metals and metal debris. Of particular interest was the identification of concentrated midden deposits which might be expected to include metallic debris. Once an anomaly was identified, the location was marked with surveyor’s flagging tape and plotted with a total station for inclusion on site mapping. The information gathered was used in 2015 to help guide the recovery strategy, and will form a key component of the scoping of future work. In addition, the recording of charred timbers at Locus D, thought to be structural members from the Post’s buildings, involved positioning nails in the earth around the perimeter of the wood, and then fastening orange line to each nail, forming a polygon equivalent to the shape of the wood. The configuration was first photographed and the position of each nail was recorded with the total station for inclusion on a site plan.

Regarding stratigraphic recording for the Churchill Valley precontact sites, the vertical excavation was typically conducted by natural “Level,” with virtually all materials recovered from the A Horizon, normally found directly beneath the duff. However, at FgCg-01 Locus D where more complex sequences of natural and anthropogenic stratigraphic events were observed, vertical provenience of artifacts was recorded by “Event.” Essentially, an “Event” is considered to be a cultural and/or natural action, activity or process that is detectable in a stratigraphic sequence. In addition to the provenience classification by Event, artifacts were also classified by sub-Events, or “Lots.” The purpose of assigning Lots was to provide a second and higher order of archaeological recording for key findings that could, during research and analysis of field data, be tracked to a particular Event and/or excavation Grid Unit or location on the site.

In one case (FfCi-02 Locus D Feature 4) it proved necessary to recover fragile artifacts by means of block-lifts. In this instance, two sand deposits containing fragile artifacts (soft-paste grit-tempered ceramics) were pedestalled and isolated with plastic, then undercut with sheet metal and stabilized with a layer of plaster-impregnated gauze and then with expanding polyurethane foam poured into a cardboard form. The stabilized blocks were put inside a helicopter and flown to Goose Bay for controlled excavation in the artifact processing area of the Stantec office in Goose Bay.

Recording methods included field notes and a digital photographic and video record of the excavation and features. Excavation areas and cultural features were mapped and representative baulks and sidewalls manually profiled at a scale of 1:10. Additionally, the horizontal positioning of a number of site features and structures was recorded using a total station. The data collected with the total station were later downloaded and converted into detailed site plans by Stantec GIS personal. Sites and cultural materials were catalogued on PAO-compliant digital site and artifact record forms.

In most excavation units, excavations that were commenced or resumed in 2015 were completed in 2015, but at one large site (FgCg-01 Locus D), features were exposed in areal
excavation for subsequent excavation and removal in 2016. At this site, the excavation area was winterized by covering exposed features in a layer of geotextile and then a layer of loose sand.

Progress reports summarizing key findings were submitted to Nalcor and the PAO on a weekly basis over the course of the 2015 Historic and Heritage Resources Assessment and Recovery Field Program. In addition, a presentation, display of artifacts, and question-and-answer session was held at Innu Nation’s annual community gathering at Gull Island on Sept. 23, 2015, and a reporter from Labrador Life with family ties to Sandy Banks was given a tour of the ongoing archaeological work at FgCg-01.

2.4 Stage 3 Alternative Field Recording Methodology

Alternative Field Recording approaches applicable to sites that have no or few subsurface remains include photographic and video recording, as well as documentation of surface-visible site artifacts and limited collection of significant objects. No sites were mitigated by means of Alternative Field Recording in 2015.

2.5 Artifact Processing and Conservation Methodology

Whereas preparation for the 2014 season focused primarily on training of key personnel and outlining procedural guidelines for artifact processing as designed by the Project Conservator, the 2015 field season saw the further implementation of key features of that planning, a clear division of processing activities and increased coordination of cataloging activities between Goose Bay and St. John’s, a significant increase in the scope of preparatory work required for cataloging, and an increase in required conservation-specific activities (stabilization and treatment).

In addition to previously adhered-to procedures of artifact management (see Stantec 2015), in-field conservation techniques in 2015 included stabilization of damp iron artifacts and the block lifting of fragile pre-contact ceramic fragments.

The division of processing activities was a result of several challenges. One was the large volume of material, both lithic and other, that was recovered and required processing. Furthermore, processing of the historic collection required dedicated space that would accommodate processing in a timely manner. Finally, a large percentage of the collected material required some level of stabilization pending analysis and report production, before final treatment. These challenges were addressed simultaneously by sending all historic material to St. John’s where cataloging and conservation activities were performed at the Rooms Museum Conservation Lab, concurrently with additional cataloging activities conducted at the Stantec offices on Torbay Road. The availability of both facilities enabled conservation and cataloging to be achieved efficiently.
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Preparation of the historic collection for shipment to St. John’s included segregation of all artifacts by material (stable and unstable glass, ceramics/pottery, ferrous and non-ferrous metals, lithic, organic and composite), while maintaining intellectual control of field (excavation) information. All material was packaged according to the requirements of the Project Conservator and shipped to St. John’s, where the Project Conservator took custody of the collection and arranged further assignment of processing spaces (i.e. The Rooms Conservation Laboratory, and Stantec Offices on Torbay Road, St. John’s).

The division of collection processing between St. John’s and Goose Bay allowed the Goose Bay team to focus solely on the processing of the vast lithic collection that exceeded 100,000 pieces in total. The cataloging of lithic material followed the same procedures as in 2014. Initially, one full-time cataloguer trained by the Project Conservator served as cataloguing and artifact processing team lead supported by two assistants; all members of the team had previous experience of artifact cataloguing, contributing to the efficiency of the work. Following the end of the field season, the team expanded to include two team leads supported each by two and three assistants whose responsibilities included basic cleaning, cataloguing, and eventual packing for shipment. Data entry, including the assigning and coordinating of catalogue numbers, and overall monitoring was the responsibility of team leads. In order to minimize potential error, each team was assigned lithic collections specific to a particular site. The cataloging and packing of the lithic component of the 2015 collection was completed on February 19th and received in St. John’s on February 22nd, 2016.

The risk of duplicating catalog numbers within a site or locus due to concurrent cataloging between Goose Bay and St. John’s was mitigated by designating blocks of numbers as required, with periodic checks via conference call between all cataloging personnel involved. Additionally, blocks of numbers were sufficiently large to ensure that results would not have material from a particular locus distributed intermittently throughout the overall Specimen Record Form. Backfilling of unused numbers was required on occasion, but this is preferable to the risk of duplicating numbers.

All artifacts currently housed at the Conservation Laboratory and Torbay Road offices are now stabilized for the purpose of analysis and report preparations. Following the submission of the report, ferrous and non-ferrous metal artifacts will be provided final conservation treatments (treatment reports will summarize treatment-specific information) prior to submission to the Provincial Archaeology Office.

2.6 Training Program Methodology

A cadre of personnel who have acquired training and experience in efficient and effective archaeological excavation and cataloguing comprised part of the field team. These individuals received one day of refresher training. One artifact processing specialist (along with two Field Team Leads) had previously (in 2014) received a two-day training course in field stabilization, block-lifting, and conservation of artifacts delivered by the Canadian Conservation Institute, and
an artifact processing orientation delivered by the Project Conservator. In addition, a number of local persons with experience in environmental science were selected to participate in fieldwork, and these were trained through the one-day course, as well on the job, under the supervision of the Team Leads, and in the company of mentors with prior field experience.

2.7 Project Personnel

The 2015 historic resources assessment and recovery program was conducted by Stassinu Stantec. Project personnel included Project Managers, Technical and Field Leads, Field Technicians, Data Analysts and Report Writers, and GIS Specialists. All principal project personnel have in-depth knowledge and experience in their fields of expertise and a broad general knowledge of the work conducted by other experts in related areas of the program. Brief biographical statements for the principal archaeological team members are provided below.

Fred Schwarz, Ph.D. (Archaeologist) holds a B.A. in Anthropology from Memorial University, an M.A. in Archaeology from the University of Calgary and a Ph.D. in Archaeology from the University of Cambridge. He specializes in the archaeology and pre-history of the Newfoundland and Labrador interior. His research interests include predictive modelling and field investigation of precontact interior settlement in Newfoundland and Labrador, settlement patterns and the interpretation of interior adaptations and culture history in the region. Dr. Schwarz has been directing field research projects in Newfoundland and Labrador, Nova Scotia, and Latin America for 22 years. His work in Labrador has included scientific management of the Stage 1 Historic Resources Overview Assessment of the Churchill River Power Project from 1998 to 2006, which included a series of three training programs for Innu researchers. In addition, he has worked on numerous projects with and for Innu organizations and companies. In 1996, he directed the Regional Context Component of the Voisey's Bay Historic Resources Impact Assessment for the Mushuau Innu Band Council (in conjunction with the Labrador Inuit Association and Jacques Whitford). In 1997, he served as field consultant to the Innu History Commemoration Project for the Department of Canadian Heritage and directed the Archaeological Resource Inventory of Akamiuapik Proposed National Park for Innu Nation and Parks Canada, eventually preparing the Human History Study of the proposed park in 2001. Since that time, he has also completed major assessments for IELP, including the Historic Resources Study of Phase III of the Trans Labrador Highway, as well as assessments and research in the town of Sheshatshiu for the Sheshatshiu Innu Band Council. More recently, since 2006 he has undertaken several projects with Minaskuat Limited Partnership and Stantec, including archaeological potential mapping and field assessment of the LabMag Iron Ore project in western Labrador, and scientific management of historic resources assessment of the Lower Churchill Hydroelectric Generation Project and the Labrador - Island Transmission Link. Dr. Schwarz held the Archaeological Investigation Permit issued by the Provincial Archaeology Office (PAO) for the Lower Churchill Project Historic Resources Management programs in 2015. Dr. Schwarz co-directed the background and field research programs, and co-authored the required reporting on the work.
Roy Skanes, B.A., M.Phil (Archaeologist), has worked as a Consulting Archaeologist with Stantec Consulting Limited and its predecessor Jacques Whitford Environment Limited for the past 21 years and has been involved in archaeological and related background research since 1978. His research focus has been primarily on historical archaeology, with a large majority of his work directed toward study of habitation sites and fortifications dating to the 17th, 18th, and 19th centuries. Mr. Skanes holds a B.A. in Anthropology (Archaeology major and French minor) from Memorial University of Newfoundland and a Master’s degree in Modern History (specialization archaeology) from the University of St. Andrews, Scotland. He has worked extensively in Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick, Quebec, Ontario and Alberta. Over the past 20 years, he has directed and / or acted as Team Lead for many Historic and Heritage Resources assessments for a broad range of development projects on the Island and in Labrador, including assessments and excavations at Voisey’s Bay, Labrador, within the corridor of the Trans Labrador Highway from Red Bay to Cartwright and from Cartwright Junction to Goose Bay, at five locations proposed for construction of short range radar sites in central and northern Labrador, at a number of locations in the Churchill River valley and west and southwest Labrador for the proposed lower Churchill development, at in western Labrador for a number of proposed mining projects. He has also completed several Stage 1 Historic Resources Overview Assessments (Stage 1 HROA) in the Labrador Straits region and on the Island for road and power-line projects, including the proposed HVdc transmission corridor from Muskrat Falls in Labrador to Soldiers Pond on the Avalon Peninsula. He has also worked extensively with Aboriginal groups carrying out field research in Labrador. Mr. Skanes co-directed the background and field research, and co-authored the required reporting on the work.

Corey Hutchings, B.A., M.A. (Archaeologist), has worked in cultural resource management for the past five years and participated in additional archaeological and heritage research since 2002. Mr. Hutchings holds a B.A. in anthropology and a Master’s degree in archaeology from Memorial University. His research interests have primarily been the archaeology of the Arctic’s prehistoric people with a focus on the Labrador Archaic. He has participated in various cultural resource management and academic research projects on the Island of Newfoundland, Labrador, Baffin Island and Aleutian Islands. Mr. Hutchings’ work in Labrador has included multiple years as a field supervisor for the Porcupine Strand Archaeology Project based in Cartwright Labrador. Over 2011 and 2012 he worked with local people in assessment and mitigation for the Baffinland Iron Ore Company. This work consisted of assessments and excavation of sites that fell in the footprint of the ore loading area as well as the route of a 150 km railway. He has had multiple archaeology reports approved by the Newfoundland Provincial Archaeology office, the Alaskan Department of the Interior and most recently an ethnographic report approved by the Nunatsiavut Government. Mr. Hutchings co-directed the background and field research for the 2015 Historic Resources Management Program, and co-authored the required reporting on this work.
Sara Beanlands, BA., MA (Archaeologist), has worked in cultural resource management for the past 12 years and has been involved in archaeological and heritage research since 1994. Ms. Beanlands holds a B.A. in History and Social Anthropology from Dalhousie University and a Master's degree in History from Saint Mary's University. Combining her formal training in history and anthropology with over a decade of practical experience in cultural resource management, she has undertaken a wide range of archaeological projects for both private and public sector clients in Nova Scotia, Newfoundland and Labrador, and Ontario. As Principal Investigator, she has coordinated and conducted over 40 archaeological assessments, including large-scale utility, wind power, hydroelectric, mining and linear developments. As a project manager, Ms. Beanlands has been involved with a wide range of projects, including archaeological assessment of various components of the Maritime Link Project and the Mersey River Hydro system. She is currently an Adjunct Professor in the Department of Anthropology at Saint Mary's University. Ms. Beanlands co-directed the field research for the 2015 Historic Resources Management Program, and co-authored the required reporting on this work.

Miki Lee, (Conservator) is an associate of Stantec Consulting Ltd. with over 15 years' experience in conservation treatment and preservation consulting for an extensive range of municipal, provincial and federal institutions. In that time, Ms. Lee has trained and directed teams in both archaeological and historical conservation treatment, collections management, and preventive conservation. Accredited in 2007, Ms. Lee's areas of specialty include preventive conservation, archaeology, archives, mixed collections, collections management, and education. Ms. Lee served as Project Conservator, designing the artifact processing, shipping and conservation procedures and establishing the artifact processing facilities for the Project.

Table 2.1 lists the complete historic resources team as well as their identified roles.
### Table 2.1 2015 Historic Resources Assessment and Recovery Personnel

<table>
<thead>
<tr>
<th>Role</th>
<th>Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>Diane Ingraham (Project Manager), Wayne Tucker (Assistant Project Manager), Robin Power (Project Controls)</td>
</tr>
<tr>
<td>Technical and Field Archaeology Leads</td>
<td>Fred Schwarz, Roy Skanes, Corey Hutchings, Sara Beanlands</td>
</tr>
<tr>
<td>Project Conservator</td>
<td>Miki Lee</td>
</tr>
<tr>
<td>Manual Tree-Felling – Team Leads and Wilderness First-Aiders</td>
<td>Corey Hutchings, Stacey Camus, Caroline Hong, Tina Newbury, Tony Parr, Daniel Windeler</td>
</tr>
<tr>
<td>Data Analysis and Report Preparation</td>
<td>Fred Schwarz, Roy Skanes, Corey Hutchings, Sara Beanlands</td>
</tr>
<tr>
<td>Senior Technical Review</td>
<td>Chris Blair</td>
</tr>
<tr>
<td>Field Technicians</td>
<td>Mark Acerman, Victoria Bartmann, Kim Byrne, Margie Clark, Nicholas Coates, Mark Elson, Jacob Flowers, Leo Ford, Amy Goodyear, Ivan Gregoire, Judy Guy, Jean-Luc Hervieux, Mason Holley, Jonathan Holley, Kelly Hopkins, Candice Lethbridge, Jessica Melindy, Waverly Mercer, Taylor Pilgrim, Beverly Poole, Martina Rich, Savin Gregoire, Chris White, Daniel Windeler, Zachery Snellgrove, Rose Penashue, Randy Best, Barry Keough, Corey Hutchings</td>
</tr>
<tr>
<td>Health &amp; Safety</td>
<td>Caroline Hong, Doug Schaefer</td>
</tr>
<tr>
<td>Artifact Cataloging and Packaging</td>
<td>Charlene Clark, Margie Clarke, Mary Ann Aylward, June Flowers, Amy Goodyear, Judy Guy, Kelly Hopkins, Waverly Mercer, Chris White, Barry Keough, Corey Hutchings</td>
</tr>
<tr>
<td>GIS</td>
<td>Chris Shupe, Heather Ward, Tony Parr, Ryan Melanson, Amanda Benson, Chris Senior, Neil Mackey</td>
</tr>
<tr>
<td>Project Support</td>
<td>Mary Ann Aylward, Victoria Greeley, Barry Keough, Wayne Tucker, Nicole Dalton, Lois Strangemore</td>
</tr>
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STAGE 2 ASSESSMENT RESULTS
June 2, 2016

3.0 STAGE 2 ASSESSMENT RESULTS

Stage 2 assessment in 2015 was relatively limited and focused primarily on relocating three registered archaeological sites (see Figure 1-2 for locations):

- **FgCg-09** is the location of a pair of historic tilts initially identified in the 1970s and assigned a Borden number in 2012. The site was not successfully relocated during Stage 2 assessment in 2014 and it was determined that further Stage 2 assessment was required in 2015.

- **FfCi-05** is a small precontact site near the western end of the Muskrat Falls reservoir area. The site was initially identified in 2000, and slated for recovery prior to inundation; a site visit in 2014 identified the approximate location but indicated that subsurface testing would be required in 2015 to determine its precise location prior to manual tree-felling and recovery.

- **FgCg-01** was an historic Hudson’s Bay Company (HBC) Post and precontact site first identified in 1998. The site was relocated in 2014 and recovery work commenced; however, while significant precontact and historic components were recovered in 2014, evidence for the actual HBC Post structures was not found. It was therefore determined that further testing would be required in 2015 to relocate the Post structures.

3.1 **FgCg-09**

The approximate location of FgCg-09, a pair of historic tilts, is estimated to lie in the general vicinity of the former Johnson’s Construction (JCL) camp west of Edwards Brook. Daily overflights from Edwards Brook west to Gull Lake throughout the 2015 field season included aerial inspection in an effort to locate the reported tilts. The results were negative, and the only remaining location that could not be effectively assessed from the air was the wooded mouth of a small brook near the JCL camp site (Photo 1, Photo 2). In October 2015, this location was visually assessed on the ground. One large rusted tin can was noted at the western side of the brook (Photo 3), but no evidence for tilt structures or any significant historic debris scatter. FgCg-09 has therefore not been relocated, but there are no remaining locations to assess in the vicinity of the indicated coordinates. It should be noted that the locational information on the site record form prepared for this site by PAO is based on a very indistinct survey map prepared 35 years ago. It is likely that this site is actually located elsewhere and may correspond to one of the tilt sites recorded in 2014 (specifically, site 13F/03 Ethno 39; see Stantec 2015).
Photo 1  Aerial View Looking Southwest across the Location Investigated in the Search for FgCg-09
Photo 2 Substantial Beaver Dam across the Brook Mouth adjacent to the Location Investigated in the Search for FgCg-09
3.2 **FfCi-05**

The original unconverted NAD 83 coordinates for FfCi-05, a small precontact site, (Photo 4), were revisited and subsurface testing undertaken to relocate the site. One testpit at the precise coordinates from 2000 revealed quantities of rhyolite and chert flakes. Since the soil plug from the testpit was undisturbed, no material was collected and instead the plug was replaced for controlled excavation during subsequent recovery. The positive testpit was flagged and the site area cleared of vegetation for planned recovery in 2016; in addition, a helicopter landing area was cleared approximately 50 m to the west.
Review of the multiple GPS readings recorded at FgCg-01 in 1998 suggested the possibility that the actual HBC Post structures might lie to the east of Locus A and Locus B, the areas opened in 2014. At the beginning of the 2015 field season, assessment, including subsurface testing, confirmed that this was the case, yielding historic and some precontact materials, as well as surface-visible indications of possible building foundations. This area, approximately 28 m east of Locus B, was designated FgCg-01 Locus D. The results of subsequent recovery work at Locus D are described in Section 4.1.4 below.
4.0 STAGE 3 RECOVERY RESULTS: FFCI-02

FFCi-02 is situated approximately midway along the north shore of Gull Lake, on the eastern side of a small, sheltered cove (Photo 5, Figure 4-1).

Photo 5  
View Looking North toward FFCI-02  
The site occupies the high terrace to the right of the brook.
Figure 4-1  Aerial Imagery Showing Excavation Units at FfCi-02
Recovery work at FfCi-02 commenced with a review of previous data from site record forms and original field notes. FfCi-02 was initially identified in 1998 (see IED/JWEL 2000) on the main terrace extending along the lake frontage east of the principal stream flowing into the cove. Numerous positive test pits recorded during test pitting on this terrace indicated an extensive precontact site in this location; an additional precontact site, FfCi-01, was also identified at a similar elevation on the western side of the stream. Site assessment at the time indicated that FfCi-02 was extremely large (ca. 750 m²), but that cultural material was discontinuously-distributed across the site and was concentrated in a number of discrete loci, in some cases separated by small gullies (see Figure 4-2).
Figure 4-2  Hill-Shaded LiDAR Imagery Showing Excavation Units at FFCI-02. The Excavation areas are situated on the main terrace; the narrow lower terrace is also visible in LiDAR imagery.
Fieldwork at the site in 2015 commenced in early July (see Photos 6 and 7). Following additional tree-felling at the site, programs of surface inspection, examination of treethrows and subsurface testing were undertaken in order to relocate the previous positive testing results and establish the distribution of cultural material. It should be noted that this terrace had experienced considerable blowdown since 1998, and treethrows were far more numerous than in previous years. Six occupation loci were identified at the site, and by the end of the field season in late October, a total of 553 m² had been excavated at FfCi-02 in these six loci (see Figures 4-2, 4-3).
Photo 7  View Looking West across FFCI-02 at the Commencement of Recovery Work at Locus A in Early July, 2015
Note again the persistent ice-sheet in the cove.
Figure 4-3 Overview Plan of Site Loci at FCI-02
The results of recovery operations at the site are summarized below for each locus.

4.1 **FFC-I-02 Locus A**

Locus A is situated at the eastern end of FFC-I-02, bounded to the south by the shoreline of Gull Lake and to the west by a gully which separates Locus A from Locus D. A total of 64 m² was excavated at Locus A in 2015 (Figure 4-4).
Figure 4-4 Plan of Excavations at FCI-02 Locus A
4.1.1 Site Stratigraphy and Features

The basic stratigraphy at FfCi-02 Locus A (Figure 4-5) conformed to the typical soil development profile encountered at precontact archaeological sites previously recovered in the Churchill Valley (e.g. Stantec 2014a, 2014b, Stantec 2015). A layer of sphagnum moss and forest litter of variable thickness (5-20 cm) overlay a silty gray-white A Horizon which also varied in thickness (from 2 to 10 cm) and which yielded virtually all of the cultural material recovered from the site. This white silty layer terminated at an iron-rich, orange sandy and silty B Horizon. The basic stratigraphy was complicated in places by several treethrow disturbances (Photo 8, Photo 9).

One cultural feature was recorded at Locus A: a diffuse scattered hearth feature associated with a dense scatter of quartzite debitage and artifacts. 4.1.1.1 Feature 1

Photo 8 Aerial View Looking West across FfCi-02 Locus A, Top of A Horizon Areas of tan sediment indicate treethrow disturbances on the gully slopes.
Feature 1 (Figure 4-4; Photo 8, Photo 9) is a scatter of small firecracked rock fragments measuring approximately 4 m x 1.5 m extending northeast from a small mound measuring 0.5 m x 1.0 m and situated on a level terrace edge, flanked to the west by a gully, and to the south by the steep bank leading down to the shore of Gull Lake. Excavation beneath the firecracked rock in the mound yielded a small sample of calcined bone fragments and one charcoal sample. Feature 1 is interpreted as a diffuse mounded hearth feature.

Feature 1 is associated with, and surrounded by, a 3 m diameter, dense scatter of quartzite debitage and artifacts. This scatter is densest around the hearth mound and amongst the scattered firecracked rock to the northeast, but also continues down the slope toward the gully to the west and the lake to the south, presumably reflecting the effects of post-depositional slopewash from the level occupation area.
Figure 4-5  FCI-02 Locus A - Profile
4.1.2 Cultural Materials

FfCi-02 Locus A yielded a large collection of 18,029 lithic pieces of quartzite, rhyolite, chert, and quartz weighing over 25 kg, the overwhelming majority (17,858 pieces, or 99.05%) being knapping debitage. The debitage assemblage consisted almost entirely of quartzite, with rhyolite (36 pieces), chert (2 pieces) and quartz (2 pieces) present in only trace frequencies. While the small rhyolite, quartz and chert debitage collection consists entirely of small sharpening and repair flakes, the quartzite assemblage includes a wide diversity of debitage, including cobble fragments, shatter, and primary, secondary and tertiary flakes, as well as micro-debitage. The quartzites exhibit some colour variation, although all appear to be varieties of the local grey, grey-tan, grey-pink, and reddish-purple quartzites. Both the debitage and the lithic tool assemblage were mainly concentrated in the vicinity of Feature 1.

4.1.2.1 Artifacts

FfCi-02 Locus A yielded a collection of 171 finished precontact artifacts (Table 6.1, Photos 10-14). Of these, one utilized flake was Ramah, one biface midsection was quartz, and one projectile point was rhyolite (Photo 10: N); the remainder of the finished artifacts were quartzite. With respect to artifact types, 64 pieces (37.4% of the assemblage) consisted of linear flakes. Otherwise, the collection included 12 preforms, 47 bifaces and biface fragments, 22 retouched and utilized flakes, four scrapers, three cores, and three hammer stones. Most noteworthy was the unusually large collection of 16 projectile points.

The 16 projectile points in the collection are for the most part quite uniform in style. Most are square-stemmed with markedly and (occasionally-asymmetric) rising shoulders (Photo 10: A-H, M-O). The majority of these are less than 40mm long with approximately equilateral-triangular blades, and are likely arrow points, but some are notably elongated (e.g. Photo 10: M-O) and may be dart points. However, there are some divergent styles. Two are un-stemmed triangular bifaces (e.g. Photo 10: I), while two appear to have tapered stems (e.g. Photo 10: J, L). One piece, tentatively identified as a projectile point because of its wide-side-notched or “waisted” hafting modification, is a very unusual, almost entirely unifacially-worked implement made from a cortical flake (Photo 10: K). Quartzite was the predominant lithic raw material employed in the manufacture of points, although one was of rhyolite (Photo 10: N).
STAGE 3 RECOVERY RESULTS: FFCi-02
June 2, 2016

Photo 10 Projectile Points Recovered from FFCi-02 Locus A
The 45 bifaces or fragments recovered from FfC1-02 Locus A include tips from many bifaces of indeterminate form (Photo 11: A-E). Some clearly derive from broad, thin, well-made knives (Photo 11: C-D), while others are more likely to be lanceolate. Basal fragments appear generally to be from slender, lanceolate knives with squared, often markedly asymmetric, (e.g. Photo 11: J-L) or slightly tapered (e.g. Photo 11: M, Q) bases. Again, quartzite was the predominant lithic raw material employed in the manufacture of points, although one was of quartz.
The large collection of 64 quartzite linear flakes (Photo 12) included one with distal unifacial usewear (Photo 12: J). All were single-aris blade-like flakes, and the majority were relatively small, being less than 11 mm in width.
Of the 12 preforms recovered from FfCi-02 Locus A, most are tips, midsections, and other fragments of indeterminate form. The remaining preforms exhibit a variety of forms. Two small teardrop or triangular examples may be projectile point preforms (e.g. Photo 13: A). One is large and leaf-shaped (Photo 13: E). Two basal fragments appear to be from straight-based or asymmetric lanceolate knives (Photo 13: B-C).
Other lithic tools recovered from FFCl-02 Locus A included four scrapers, all made from quartzite cobble-spalls (e.g. Photo 14: H-J). The three cores in the collection include two flake cores, one prepared but seemingly not subsequently used (Photo 14: K), and one linear flake core (Photo 14: L). Three hammer stones were also recovered from Locus A. Finally, the collection includes 22 retouched and utilized flakes (e.g. Photo 14: A-G), one of Ramah and the remainder of quartzite. The majority exhibit unifacial usewear along straight or convex edges and appear to have served as expedient scraping tools.

4.1.3 Interpretation and Summary

FFCl-02 Locus A yielded a large lithic assemblage composed almost entirely of quartzite cobbles, shatter, and flakes. The relatively large collection of finished artifacts includes linear flakes, bifaces and biface fragments, preforms, retouched and utilized flakes, cores, hammer stones, and an unusually large assemblage of stemmed projectile points. The raw materials, the bifaces, and the relative scarcity of formal scrapers are compatible with a North West River Phase cultural affiliation. The stemmed projectile points are also potentially consistent with this dating,
although the specific style is more reminiscent of the preceding (and rather poorly-defined) David Michelin Component at North West River (Fitzhugh 1972; see especially Plate 45). The presence of triangular bifaces may suggest affiliation with the Late Precontact Daniel Rattle and Point Revenge complexes, although the triangular bifaces from Locus A do not closely resemble late-precontact triangular forms.

The assemblage suggests that the working of local quartzites was an important activity at the site, although the high frequencies of linear flakes, bifacial knives, and retouched and utilized flakes indicate a range of domestic activities including food processing around the central hearth. The unusually high frequency of projectile points further indicates the importance of hunting and/or preparation for later hunting activities at the site. Because of the relatively large assemblage of finished artifacts, FFci-02 Locus A is interpreted as a longer-term encampment overlooking the north shore of Gull Lake.

4.2 FFci-02 Locus B

Locus B is situated at the southwestern comer of FFci-02, on the “point” of the terrace, overlooking both Gull Lake to the south, and the mouth of the brook which empties into the cove to the west. During manual tree-felling in this area, several rocks were noted projecting through the duff. Although there was no clear indication of hearth alignments, the presence of partially-exposed rocks indicated the potential for an historic or ethnographic occupation on this portion of FFci-02. This potential appeared to be confirmed when a piece of lead was recovered from the rootmass of a treethrow nearby.

Consequently, a new locus, Locus B, was defined for this area, and a total of 96 m² was excavated at Locus B in 2015 (Figure 4-6, Photo 15). It should be noted that Locus B was contiguous with Locus C, immediately to the north. These two loci represent quite distinct occupations, an historic occupation at Locus B and a precontact occupation at Locus C. However, there is some overlap in the two components, and there is no rigid demarcation between them. Thus, Locus B primarily yielded evidence for an historic occupation, but included a sparse scatter of precontact artifacts, particularly at its northern edge, adjacent to Locus C. Conversely, Locus C represents primarily a precontact occupation area, but did yield a small sample of historic artifacts, particularly along its southern edge, adjacent to Locus B.
For the purposes of this report, all historic material from both Locus B and Locus C will be discussed in this section, along with the Locus B historic features. All precontact material from both loci will be discussed separately, in the following section dealing with FfCi-02 Locus C.

4.2.1 Site Stratigraphy and Features

Broadly, the basic stratigraphy at FfCi-02 Locus B (Figures 4-7, 4-8) conformed to the typical soil development profile encountered at precontact archaeological sites previously recovered in the Churchill Valley. The topmost layer of sphagnum moss and forest litter achieved thicknesses of 20-25 cm, particularly near the edge of the terrace, although generally this organic duff was noticeably thinner than on other parts of the site. This may reflect the impact of compression through foot traffic across this area through the historic period, or the possibility that the duff has
only reformed here over the past century. This duff generally overlies a gray-white sandy A Horizon which varied in thickness from 1-5 cm to occasionally as much as 9-15 cm, and which in turn terminated at an iron-rich, orange-red, sandy B Horizon. The historic cultural material from the site was primarily recovered from the duff, and the top of the underlying A Horizon. The basic stratigraphy was complicated in places, not only by several treethrow disturbances, but also by cultural deposits associated with the construction of Structure 1 (discussed below).

Four cultural features (Photo 16) and one structure were recorded at Locus B.
Figure 4-6  Plan of Excavations at FCI-02 Locus B and C Indicating the Distribution of Historic Features and Artifacts
Figure 4-7  FCI-02 Locus B - North-South Profile
Figure 4-8  FCI-02 Locus B – East-West Profile
Photo 16  View Looking South across Features 1-4 at FFCi-02 Locus B
4.2.1.1 Feature 1

Feature 1 (Photo 17) is situated at the southern edge of Locus B, on the edge of the terrace. It consists of a small charcoal-stained mound measuring approximately 1 x 1.5 m, which contained 14 g of unburned animal long bones, most likely from caribou. Artifacts recovered from Feature 1 and surrounding units included a musket barrel, one piece of copper strip, one iron barrel hoop fragment, one kaolin tobacco pipe stem, two sherds of green-and-burgundy sponge-painted ceramic and one sherd of pharmaceutical bottle glass. Feature 1 is interpreted as a small, likely open-air, hearth.

4.2.1.2 Feature 2

Feature 2 (Photo 16, right of centre), near the southwestern edge of Locus B, is a scatter of rocks and firecracked rocks, many of them quite large. Very little charcoal and no bone were recovered from this rock cluster, and Feature 2 is interpreted as a discard pile of rocks cleared from elsewhere on the site, rather than a hearth.
4.2.1.3 Feature 3

Feature 3, immediately east of Feature 2, (Photo 16, centre) is another scatter of rocks and firecracked rocks. Again, very little charcoal and no bone were recovered from this rock cluster, and Feature 3 is interpreted as a discard pile.

4.2.1.4 Feature 4

Feature 4, northeast of Feature 3 (Photo 16, left of centre) is a third scatter of rocks and firecracked rocks, also interpreted as a discard pile of rocks cleared from elsewhere on the site.

4.2.1.5 Structure 1

Structure 1 (Figure 4-6, Photos 18-19) is the remains of a large dwelling structure which occupies most of the northeastern half of Locus B. It is composed of two principal features.

The first and largest of these features is an annular earthen perimeter wall, the outside diameter of which measures 4.5-6 m, and which encloses a level interior space approximately 3.5 m in diameter. As is evident in the stratigraphic profiles (Figures 4-7, 4-8), this earthen embankment was formed by scooping earth, presumably from the interior, and depositing it atop the original organic duff surface to form a ring-like enclosure. Excavation of the wall-fill uncovered a distinctive ring of buried duff which also defined the structure perimeter (Photo 19). A natural hummock to the northwest was incorporated into this enclosure wall. The entryway to this enclosure was not clearly-defined but most likely the entry opened to the southeast.

The second feature comprising Structure 1 is a central hearth feature measuring 0.5 x 1 m and occupying a low mound. The perimeter of this hearth consists of lenses of buried duff and charred duff, indicating that when the interior sediment was scooped out to form the earth walls, the existing ground surface in the hearth area was left in place to create a low mound. The hearth was almost completely lacking in firecracked rock, but was capped with a deposit of tan sand containing charcoal and calcined bone. One sherd of transfer-printed ironstone ceramic and one piece of scrap metal were recovered from atop this tan sand deposit.

Structure 1 is interpreted as the remains of an earth-walled tent-ring with central hearth. Dwelling structures of this type are characteristic of 19th and early 20th century historic Innu occupation sites in northern Labrador and Québec (e.g. see Lee 1966, 1967; Loring 1992, 2015; Samson 1975). Although this is the first such structure to be identified and excavated in forested central Labrador, it too must be interpreted as the remains of an historic Innu dwelling.
Photo 18  View Looking Southwest across Structure 1 at FFCl-02 Locus B
The earthen walls have been exposed but not excavated; the cross-baulks intersect at the edge of the central hearth.
Photo 19  View looking Southwest across Structure 1 at FFCI-02 Locus B
Following Excavation of the Walls. The dark ring indicates the buried sod underlying the earthen walls.
4.2.2 Cultural Materials

FfCi-02 Locus B yielded a small, but remarkably diverse and informative assemblage of historic artifacts (Table 4.1). Over half of the pieces recovered were ceramic sherds, but kaolin tobacco pipe fragments and pieces of scrap metal (both sheet and strip) were also common. Firearm-related objects were not numerous but nevertheless present, as were assorted artifacts of glass, metal and fabric.

Table 4.1 Historic Artifacts Recovered From FfCi-02 Locus B

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<th>Artifact Type</th>
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<tr>
<td>Pharmaceutical Bottle</td>
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<tr>
<td>Seed Bead</td>
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</tr>
<tr>
<td>Ceramic</td>
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<tr>
<td>Undecorated Ceramic</td>
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<tr>
<td>Tobacco-Related</td>
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<tr>
<td>Tobacco Pipe Bowl</td>
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</tr>
<tr>
<td>Tobacco Pipe stem</td>
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<tr>
<td>Tobacco Brand</td>
<td>2</td>
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<td>Percussion Cap</td>
<td>1</td>
</tr>
<tr>
<td>Scrap Metal</td>
<td></td>
</tr>
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<td>Copper Sheet/Strip</td>
<td>8</td>
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<tr>
<td>Tin Strip</td>
<td>3</td>
</tr>
<tr>
<td>Lead</td>
<td>2</td>
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<tr>
<td>Miscellaneous Metal</td>
<td></td>
</tr>
<tr>
<td>Iron Bodkin/Awl</td>
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<td>Thimble</td>
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<td>Barrel Hoop</td>
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</tr>
<tr>
<td>Total</td>
<td>71</td>
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</table>
4.2.2.1 Artifact Descriptions

As noted, ceramic sherds (31 pieces) were the most common artifact type recovered from Locus B. Six were undiagnostic sherds of a clear-glazed medium-paste vessel that may have been a small plate or a saucer. However, sherds of two decorated wares were also recovered (Photo 20).

Photo 20 Ceramic Artifacts Recovered from FFCi-02 Locus B
(Note that F was actually recovered from Locus F, 26 m north of sherds D and E)
The most common were sherds of a thick white ironstone from a large, cylindrical vessel, many of them transfer-printed with a blue naturalistic design of raspberry (or possibly grape) leaves and berries (Photo 20: A-C). All of these pieces were found within, or in close association with, Structure 1. One sherd, recovered from the central hearth of Structure 1, is a rimsherd, revealing a pouring spout (Photo 20: C) decorated with a molded foliate design underlying the coloured transfer print. These pieces all appear to belong to a large pitcher. Most sherds appear to have been exposed to fire, and as noted, one was found within the Structure 1 hearth. Although the glaze has been dulled by burning, none appear to have been subjected to intense heat. White ironstones with molded and/or transfer-printed decoration are common in late 19th-century contexts on sites across Canada (Miller 1991).

Also recovered were two sherds from a thin-walled white-ware bowl, painted with horizontal burgundy bands then sponge-painted with a motif of simple green garlands and flowers (Photo 20 D-E). Both sherds were found in association with Feature 1, although neither shows any sign of being burnt. Sponge-painted wares, decorated with sponged and banded painting in vivid colours, were exported to Canada in large quantities from Scotland and also from Staffordshire from the 1840s to the 1920s, although the period of greatest production was from 1860-1914 (Losey 1977a: 214). Sponged wares were, in their time, the cheapest decorated ceramic wares available on the market (Miller 1991).

Four firearm-related artifacts were recovered from FfCi-02 Locus B. One is a lead musket ball (Photo 21: A). The diameter is 13.4 mm (thus .53 calibre), and the ball fits well, if loosely, in the gun barrel also recovered from the same site (Photo 21: C). The second (Photo 21: B) is a rectangular (“English”) gunflint comparable to examples recovered from the Sandy Banks HBC post (see Section 5.0 below). The third item is the distal end of a smoothbore gun barrel (Photo 21: C), including the front sight and the forward eye for attachment to the stock. At the proximal end, the barrel has been scored and filed through, so this end has clearly been deliberately “sawn-off,” and removed from the remainder of the barrel. The fourth firearm-related object recovered from FfCi-02 Locus B was a torn and spayed percussion cap. All four of these items are consistent with the use of smoothbore, muzzle-loading (both flintlock and caplock) firearms at the site. In most of North America, through the second half of the 19th century, flintlock muzzle-loaders were largely supplanted, first by caplock muzzle-loaders, and then by breech-loading weapons firing rimfire and later centrefire cartridges.
A number of small pieces of scrap metal were recovered from Locus B. These were particularly associated with Feature 1, and with Structure 1 (including one piece recovered from the Structure 1 hearth). These include two amorphous pieces of lead (e.g. Photo 22: A). Lumps of lead found on historic hunting-related sites are normally assumed to be the raw material for making shot and this is almost certainly the case at FfCi-02 Locus B as well, although neither of these pieces is clearly identifiable as sprue. Also recovered were eight thin pieces of copper strip or sheet (e.g. Photo 22: C-D, F-G, I-L). In several instances, these have been rolled or crimped (e.g. Photo 22: D, L). These pieces may have originated from copper pots or kettles, but were probably subsequently employed as raw material for repairing implements or for manufacturing expedient tools. There are three pieces of tin strip (e.g. Photo 22: H). These strips sometimes appear to have a longitudinal channel, and may thus derive from tin cans opened with a metal key (like modern canned beef tins). It is unclear whether these narrow strips of tin were intended for expedient use, or if they were simply discarded as waste. Finally, we note two other iron objects recovered from the site. One is a length of barrel hoop. The other is the extremely sharp distal end of an iron bodkin or awl (Photo 22: E). This would have been useful for perforating a sturdy material such as caribou hide.
A variety of small artifacts were recovered from FfCi-02 Locus B. Ten of these were pieces of kaolin tobacco pipes; most are small bowl sherds, associated with Structure 1, but one stem was also recovered from Feature 1. The largest of these was a bowl-stem fragment (Photo 23: I). Although the stem has been broken very short, it is not a sharp break; rather, the degree of wear on the end indicates that this pipe was used for some period of time despite the shortness of the stem. This piece bears a maker’s mark, the initials “I” and “F” on opposite sides of the spur beneath the bowl. Tobacco pipes with this mark have also been recovered during excavations at the Sandy Banks HBC post (see Section 5.0 below), and indeed they are common in HBC contexts elsewhere in Canada as well. Although there were some ten pipe makers with the initials “I.F.” operating in London during the 19th century (see Hamilton and Lunn 1984), these HBC-related pipes, including the example from FfCi-02 Locus B, were almost certainly produced by the firm of John Ford (later Jesse and Thomas Ford), who exported tobacco pipes to the HBC from c.a. 1846 until 1877 (Walker 1971).
Photo 23 Various Small Finds Recovered from FFCI-02 Locus B

Two other items of tobacco paraphernalia were recovered from Locus B, both associated with Structure 1: these consist of two small tin tobacco brands, originally used to mark plug tobacco. Both are heart-shaped with a central “voided heart” (Photo 23: A-B). Brands of this type were employed to mark tobacco manufactured by the W.C MacDonald tobacco company between 1877 and 1922 (Springate 1997). In archaeological contexts, tin tobacco brands are normally highly-corroded, but one of the brands recovered from Locus B is in extraordinary condition, revealing an inscribed text: “W.C. MacDonald...Prince of Wales...Montreal” (Photo 23: B). W.C. Macdonald changed his name (and that of his company) from “McDonald” to “MacDonald” during this period (perhaps as late as the 1890s), and this artifact obviously employs the later spelling; unfortunately, it is unclear precisely when the company began trading under that later spelling. It should be noted that heart-shaped tobacco brands were also recovered from the historic campsite excavated beside the portage route across the North Spur of Muskrat Falls in 2013 (Stantec 2014b).

Five glass objects were recovered from Locus B. Two are small trade beads (“seed beads”), one of clear glass (Photo 23: C), the other dark opaque blue (Photo 23: D). Two additional glass
artifacts consist of four-hole milk-glass buttons, both with countersunk faces and convex backs (Photo 23: E-F). The final glass item, recovered from Feature 1, is a small bodysherd from a straight-sided, colourless lead-glass pharmaceutical vial with embossed text reading “…GSPA…”. Fortunately, more complete examples of such vials have been recovered in excavations at the Sandy Banks HBC post (see Section 5.0 below), and we know that the complete inscription, which occupied all four sides of the bottle, read: “BY THE / KINGS PATENT / ESSENCE OF / PEPPERMINT.” Medicinal peppermint essence bottles of this sort were produced from the 1760s through the second decade of the 20th century and are common in fur-trade archaeological contexts, including the sites of Aboriginal peoples involved in the fur-trade, who came to value European medicines (see Jones 1981). It is difficult to more precisely date this piece, since the base and finish of the bottle are missing, but the serif lettering style indicates the bottle was likely produced during the first half of this period, between the 1760s and ca. 1850 (see Jones 1981).

Four additional clothing-related items recovered from Locus C, northeast of Structure 1, conclude the artifact inventory from Locus B. One is a heavily-corroded thimble (Photo 23: G). Also collected were three small scraps of textile, apparently a fairly thin red-dyed flannel, most likely from a clothing item (e.g. a shirt), rather than a blanket.

4.2.3 Interpretation and Summary

FfCi-02 Locus B yielded evidence for a 19th-century historic Innu occupation. The most substantial manifestation of this occupation is the remains of an Innu earth-walled tent-ring with a central hearth. Although the form of this dwelling is familiar from the results of previous archaeological work on the barren landscapes of northern Labrador and Québec (as far south as Seal Lake: McCaffrey, Loring and Fitzhugh 1989), the presence of such a dwelling in forested central Labrador represents a new discovery.

In northern Labrador and Quebec, the artifact assemblages associated with these historic Innu habitation sites are generally sparse, and in fact they have been described as “impoverished” (Loring 1992: 211). The collection of historic artifacts from FfCi-02 Locus B is not large, but it is larger than is commonly associated with historic Innu sites further north, and also more diverse. The firearms-related items and tobacco paraphernalia are present, but there are also at least two domestic ceramic wares, and a variety of items associated with clothing and sewing, including buttons, beads, a thimble, scraps of textile, and perhaps also the iron awl. The scraps of copper (and perhaps also the tin) attest to the adaptive and innovative use of expedient materials to fabricate and repair implements in the country. Although direct evidence for trapping is lacking, some items indicate that the inhabitants of the site were participants in the fur trade. The marked tobacco pipe and medicine vial are identical to items recovered from the Sandy Banks HBC post in 2015, while other items, including the ceramics, clothing items and beads, were likely acquired by trade.

The Innu occupation at FfCi-02 Locus B dates broadly to the second half of the 19th century and perhaps the very beginning of the 20th century. More specific dating is problematic.
In general, the Innu earth-walled tent-ring sites that have been excavated to date in the north have yielded items of hunting technology dominated by percussion caps (such as the sites near Kuujjuaq, interpreted to date to the period 1850-1875: Loring 1992: 209-210; see also HeDf-01, a site excavated by Samson on Mushuau-nipi. Samson 1975: 148) or breech-loading rifle cartridges (such as several sites discussed by Loring, interpreted to date between the 1890s and the early 20th century; Loring 1992: Appendix A). The presence of the gunflint alongside the percussion cap at FfCi-02 Locus B, and the absence of evidence for breach-loading weapons, may therefore suggest occupation earlier than any of these excavated northern sites. On the other hand, the 19th century transition from muzzle-loading flintlocks to breech-loading firearms among the Innu of central and northern Labrador-Ungava was likely a slow and uneven process, so hunting technology may not be the most useful for precise dating.

Nevertheless, FfCi-02 Locus B did yield a number of individual artifacts which can be more or less precisely dated (Table 4.2). Some (such as the pharmaceutical vial) appear to be unusually early; others (such as the tobacco tags) may be unusually late. An occupation date that encompasses all of the dateable material culture would most likely fall broadly between the 1840s and 1880s. This would be potentially compatible with the firearm evidence, and is therefore a plausible occupation period. However, it is also possible that the artifact assemblage, though small, actually reflects a number of different occupations. For example, Feature 1, with its sponged ware and peppermint bottle, may date minimally between 1840 and 1860. Structure 1, which yielded the marked tobacco pipe, the ironstone pitcher and the tobacco tags, may date later, perhaps at a minimum to the late 1870s or early 1880s. The relative richness and diversity of the artifact assemblage from Locus B further suggests that the site may have seen repeated occupations through the second half of the 19th century.

Table 4.2 Dateable Historic Artifacts Recovered From FfCi-02 Locus B

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4.3 FfCi-02 Locus C

Locus C is situated near the western end of FfCi-02, immediately north of, and contiguous with, Locus B. A total of 66 m² was excavated at the site in 2015 (Figure 4-10). In contrast with Locus B, which was primarily an historic site with a sparse scatter of precontact lithics, Locus C primarily represents a precontact occupation with a sparse scatter of historic materials associated with
the Locus B historic occupation. Precontact artifacts from Locus B, mostly recovered near the southern edge of Locus C, are included in the discussion of Locus C cultural materials.

4.3.1 Site Stratigraphy and Features

The basic stratigraphy at FfCI-02 Locus C (Figure 4-9) conformed to the typical soil development profile encountered at precontact archaeological sites previously recovered in the Churchill Valley (e.g. Stantec 2014a, 2014b, Stantec 2015). A generally very thick (up to 30 cm) layer of sphagnum moss and forest litter overlay a gray-white silty-sand A Horizon which varied in thickness from 2 cm to occasionally as much as 10 cm, and which yielded virtually all of the cultural material from the site. This white silty layer terminated at an iron rich, orange-red, silty-sand B Horizon. The basic stratigraphy was complicated in places by several treethrow disturbances.

Three cultural features were recorded at Locus C (Figure 4-10).
LOWER CHURCHILL HYDROELECTRIC DEVELOPMENT PROJECT 2015 HISTORIC RESOURCES ASSESSMENT AND RECOVERY PROGRAM

STAGE 3 RECOVERY RESULTS: FCI-02

June 2, 2016

Figure 4-9  FCI-02 Locus C - Profile

LEGEND
- DUFF
- GREY SILTY SAND A HORIZON
- RED-ORANGE SAND B HORIZON
- ROOT
- CHARCOAL / BURNT DUFF
Figure 4-10  Plan of Excavations at FCI-02 Locus B and C Indicating the Distribution of Precontact Features and Artifacts
4.3.1.1 Feature 1

Feature 1 (Figure 4-10; Photo 24) is a cluster of relatively large rocks and firecracked rocks measuring approximately 3.5 m x 1.5 m and situated toward the eastern end of Locus C. Excavation of this feature yielded no calcined bone or charcoal, and lithic debitage and artifacts were almost entirely lacking. Feature 1 does not appear to be a hearth as such, but rather a discard pile of rocks and firecracked rocks cleared from elsewhere on the site.

4.3.1.2 Feature 2

Feature 2 (Figure 4-10; Photo 24) is a small cluster of relatively large rocks and firecracked rocks measuring approximately 0.5 m x 1.5 m and situated toward the western end of Locus C, on the edge of a small depression which may be a treethrow disturbance. As with Feature 1, excavation of this feature yielded no calcined bone or charcoal, and lithic debitage and artifacts were again almost entirely lacking. Like Feature 1, Feature 2 does not appear to be a hearth as such, but rather a discard pile of rocks and firecracked rocks cleared from elsewhere on the site.

4.3.1.2 Feature 3

Feature 3 (Figure 4-10) is a large and dense cluster of quartzite artifacts and debitage measuring approximately 5 m x 7 m and situated in the centre of Locus C, between Features 1 and 2. Although it is located in close proximity to Locus B Structure 1, this scatter appears to taper off to the southeast and does not appear to have been truncated by the later construction of Structure 1 in Locus B. Little rock or firecracked rock is associated with this lithic scatter, but some
64 g of calcined bone, and a very small quantity of charcoal recovered from the bottom of the A Horizon and the top of the B Horizon near the centre of this lithic scatter suggests the former presence of a hearth. It is possible that rock and firecracked rock from Feature 3 was subsequently cleared and redeposited as Features 1 and 2. Feature 3 is interpreted as a former hearth and occupation area; the sharp boundaries of this lithic scatter is may reflect the interior dimensions of a dwelling structure.

4.3.2 Cultural Materials

FfCi-02 Locus C yielded a large collection of 35,059 lithic pieces of quartzite, rhyolite, chert, and quartz, weighing over 33 kg, the overwhelming majority (34,807 pieces, or 99.3 %) being knapping debitage. The debitage assemblage consisted almost entirely of quartzite, with rhyolite (2 pieces) and quartz (3 pieces) present in only trace frequencies. The quartzite assemblage include a wide diversity of debitage, including cobble fragments, shatter, and primary, secondary and tertiary flakes, as well as micro-debitage. The quartzites exhibit some colour variation, although all appear to be varieties of the local grey, grey-tan, grey-pink, and reddish-purple quartzites. Both the debitage and the lithic tool assemblage were mainly concentrated in the vicinity of Feature 3.

4.3.2.1 Artifacts

FfCi-02 Locus C yielded large collection of 252 finished precontact artifacts (Table 6.1, Photos 25-30). With the exception of two linear flakes of rhyolite (Photo 27: G-H), one mudstone object, and 13 small mica sheets, the artifacts recovered from Locus C were of quartzite. With respect to artifact types, 100 pieces (39.7% of the assemblage) consisted of linear flakes. Otherwise, the collection included 34 preforms, 51 bifaces and biface fragments, 47 retouched and utilized flakes, seven scrapers, five cores, four projectile points, three unifaces, and one mudstone object.

The four quartzite projectile points in the collection from Locus C include two sharply-pointed tips from points of indeterminate form (e.g. Photo 25: C), and two bases. One base exhibits a straight, square stem with rising shoulders (Photo 25: A). The other is a straight-sided, rounded-base stem; the shoulders are missing (Photo 25: B). The two stemmed examples closely resemble the stemmed points recovered from FfCi-02 Locus A (see Section 4.1.2.1 above).
The 51 bifaces or fragments recovered from FfCi-02 Locus C, as at other loci at FfCi-02, include tips from many bifaces of indeterminate form (e.g. Photo 26: A). The majority of bases appear to be from asymmetrically straight-based bifaces likely from relatively slender lanceolate knives (e.g. Photo 26: C-F, H, J, P). A smaller number are tapered (e.g. Photo 26: I) or rounded (e.g. Photo 26: N) bases from knives of apparently pentagonal or leaf-shaped form. One unusual biface base of opaque grey-white quartzite is markedly asymmetric, with one straight edge and one curved edge, this latter constricting to a single-shouldered "waisted" hafting modification (Photo 26: K). All bifaces and biface fragments from Locus C were of quartzite.
Photo 26  Selected Bifaces or Biface Fragments Recovered from FFCl-02 Locus C
The large collection of 100 linear flakes (Photo 27), all but two (Photo 27: G-H) of quartzite, included 12 with double arrises, and two with unifacial retouch or usewear along one or both lateral margins (Photo 27: AA, CC). The majority were relatively large blades, but many (44, or 44%) were relatively small (less than 11 mm wide) and could be classified as microblades.
Of the 34 preforms recovered from FfCi-02 Locus C, most are tips, midsections, and lateral fragments of indeterminate form. The remaining preforms exhibit a variety of forms. Four are complete specimens; three of these are large, thick, and roughly triangular in form (e.g. Photo 28: G, H, J), while the fourth (Photo 28: F) is small, pentagonal/leaf-shaped in form, and may be a projectile point preform. Of the basal fragments, several have well-defined bases that taper to a broad striking platform (e.g. Photo 28: C, D). Other examples are quite irregular in form (e.g. Photo 28: K, L).
The lithic artifact collection from FfCi-02 Locus C included seven scrapers, all made from quartzite. None of these are formal scrapers with retouched hafts. Three are large cobble-spall scrapers (e.g. Photo 29: C-E). The remaining four are fragments of small irregular flake scrapers (e.g. Photo 29: A, B). Three fragmentary unifacial tools present in the collection may also be from scrapers.
Other lithic tools recovered from FfCi-02 Locus C included 47 retouched and utilized flakes (e.g. Photo 30: A-N), most showing evidence for unifacial scraping use-wear, and five cores: four flake cores (Photo 30: O, P, R) and one linear flake core (Photo 30: Q). Finally, the pieces recovered during excavation included 13 fingernail-sized mica sheets, none of which showed evidence for deliberate cutting or shaping, and one vaguely anthropomorphic mudstone object; none of these are demonstrably cultural in origin.

4.3.3 Interpretation and Summary

FfCi-02 Locus C yielded a very large lithic assemblage composed almost entirely of quartzite cobbles, shatter, and flakes. The relatively large collection of artifacts is dominated by expedient cutting and scraping tools (linear flakes and retouched/utilized flakes respectively), which amount to nearly 58% of the collection. Formal tools are less common, but the biface forms are compatible with those recovered from other loci at FfCi-02, while the two stemmed projectile point bases are identical in form to those recovered from FfCi-02 Locus A. In addition, there is considerable quartzite debitage and a large collection of preforms.
The assemblage therefore suggests that while the working of local quartzites was an important activity at the site, the high frequencies of linear flakes, bifacial knives, and retouched and utilized flakes indicate a range of domestic activities including food processing within an occupation area that may have had a central hearth, as evidenced by the calcined bone deposits. FfCi-02 Locus C is interpreted as a precontact encampment with a dwelling structure surrounding a central hearth, although it appears that rock and firecracked rock has been removed from the occupation area and re-deposited in two piles to the east and west.

4.4 FfCi-02 Locus D

Locus D, the central and largest of the site loci excavated at FfCi-02, is situated between two small gullies to the east and west which separate it from Locus A and Locus C respectively. The locus is bounded to the south by an abrupt terrace fall that drops to the shore of Gull Lake. A total of 176 m² was excavated at the site in 2015 (Figures 4-11, 4-12).

4.4.1 Site Stratigraphy and Features

The basic soil stratigraphy at FfCi-02 Locus D (Figure 4-13) conformed to the typical soil development profile encountered elsewhere at the site. A layer of sphagnum moss and forest litter ranging from 2 cm to 19 cm thick is mostly consistent across the locus but was noticeably thicker (10-19 cm) on the downward slope toward the south and east. Isolated rocks and firecracked rocks, along with several sand lenses, were encountered in the duff, associated with 20th century historic artifacts. The central and northern sections of the site, which contain traces of recent historic objects, show significantly less organic accumulation. This may be due to compression or the removal of ground cover during the historic occupation. Underlying this mixed moss forest litter layer is a gray-white sandy A Horizon which marks the precontact occupation level. This white sandy matrix was ranged from 1-8 cm in thickness and yielded virtually all of the precontact lithic material recovered from the site. This occupation layer graded to an iron rich, orange-red, sandy B Horizon with minimal mixing between the two layers. Aside from Feature 4, this B Horizon was largely sterile. This locus is noteworthy in that it does not appear to have any noticeable tree throws or other soil disturbances. The only variations in the basic stratigraphic profile consisted of historic occupations and one cultural pit feature.

Five cultural features (Figure 4-11, 4-12, Photos 31, 32) were recorded at Locus D.
Figure 4-11  Plan of Precontact Features and Artifacts at FCI-02 Locus D
Figure 4-12  Plan of Historic Features and Artifacts at FCI-02 Locus D
Photo 31  View Looking East across FFCI-02 Locus D, Top of A Horizon Feature 1, a Quartzite Scatter is Visible to the Right, and Feature 2, a Collection of Rocks, to the Left.

Photo 32  Close-Up View Looking North FFCI-02 Locus D, Feature 1
Figure 4-13  FCI-02 Locus D – Profile
4.4.1.1 Feature 1

Feature 1 (Figure 4-11; Photo 31, Photo 32) is a scatter of firecracked rock fragments measuring approximately 3 m x 1.5 m. Feature 1 is situated on the margin of the level central portion of the site, where it begins to slope down into the western gully. The firecracked rock was organized into a loose mound and a small charcoal sample was recovered near the surface. Feature 1 was comprised almost exclusively of fire shattered quartzite cobbles.

Feature 1 is associated with a dense scatter of quartzite debitage and artifacts. Much of this debitage is primary flakes or split cobbles with cortex still visible. The confined nature of the feature, density of debitage and evidence of fire lead to the interpretation of this feature as a location for heat treating quartzite for tool production.

4.4.1.2 Feature 2

Feature 2, located on the flat central area of the Locus (Figure 4-11; Photo 33), is a cluster of relatively large rocks and firecracked rocks measuring approximately 1 m x 1.5 m. The purpose of Feature 2 is not clear. A lack of charcoal or significant bone suggests it is not a hearth but some of the rocks are obviously fire-cracked. Feature 2 is interpreted as a discard pile of rocks derived from a hearth in a different location, possibly associated with Feature 4 (see below).
Feature 3 (Photo 34), located near the southeastern edge of Locus D, is a scatter of rocks, firecracked rocks as well as shattered quartzite. Little charcoal and no bone were recovered from this rock cluster but the surrounding area is covered with tools and lithic debitage. The uneven ground level and scattered appearance of the feature suggest that it is a hearth occupation area that has slumped into the gully to the east.

Photo 34 Close-Up View Looking North of FFCi-02 Locus D, Feature 3
Feature 4 (Photo 35) manifested as a small pit and adjacent mound of intermixed sand from the A and B Horizons. A large collection of highly fragmented low-fired grit-tempered ceramic was recovered from the feature. In cross section, Feature 4 is recognized as an in-filled pit with a band of fire-reddened sand mirroring the floor of the pit. The majority of this feature was removed as a series of two block lifts, but excavation prior to lifting revealed a scatter of ceramic sherds that extended to the south of the pit. Feature 4 appears to be a pit feature and adjacent mound of spoil formed in antiquity when a pit containing ceramic was excavated and distributed to the south in a fan of spoil (which also contained hundreds of ceramic sherds and sherdlets). Feature 4 is interpreted as the remains of a sand “kiln,” a pit for firing pottery, from which firecracked rock has been removed (creating Feature 2), and the fill redistributed as spoil. Given the highly-fragmented and remarkably low-fired nature of the sherds recovered from Feature 4, it appears that the firing process was not successful.
4.4.1.5 Feature 5

Feature 5 (Photo 36; Figure 4-12) is a small (20 x 50 cm) concentration of melted glass, calcined bone and charcoal encountered within the duff layer, approximately 2 m north of Feature 1. Feature 5 is interpreted as the remains of a small historic campfire.

4.4.2 Cultural Materials

FfCi-02 Locus D contained one of the largest collections of lithics from the site with 30,788 lithic pieces. The lithic collection consists almost exclusively of quartzite, with minimal traces of rhyolite and chert. The overwhelming majority (29,293 or 95%) of the lithic assemblage consists of debitage. The debitage assemblage follows trends in materials seen elsewhere on the site, consisting almost entirely of quartzite, with only low numbers of rhyolite (29 pieces), chert (2 pieces) and quartz (1 piece). The small rhyolite, quartz and chert debitage collection consists of small flakes that appear to be maintenance and sharpening flakes. The quartzite assemblage, which appears to consist exclusively of locally available types, shows the full range of production debitage including cobble fragments, shatter, and primary, secondary and tertiary flakes.
4.4.2.1 Artifacts

FfCi-02 Locus D contained a large collection of 664 precontact lithic tools, the majority of which (288 pieces) consist of retouched and utilized flakes (Table 6.1, Photos 37-41). Of this collection all but two tools were made of local quartzite. These two tools, a bifacial scraper fragment and a corner notched endscraper, were made of fine-grained chert and were likely highly curated, the latter, for example, being apparently a re-purposed projectile point. Aside from utilized flakes, artifact types represented in the collection include 229 linear flakes 48 preforms, 44 bifaces and biface fragments, 28 scrapers, 17 cores, eight projectile points and two hammer stones.

In addition to the lithic assemblage, a substantial collection of 1,414 pieces of precontact ceramic were recovered from Locus D.

Finally, Locus D yielded a fairly large collection of historic artifacts, with 153 individual pieces. The majority of these artifacts are undecorated ceramic, melted glass fragments and tin/iron fragments. Along with these large numbers of objects a variety of single small finds confirmed a historic component to the locus.

Lithics

Eight projectile points were recovered during excavation (Photo 37: A-G); this is a very small assemblage of points in comparison to the rest of the lithics recovered. Two examples (Photo 37: C and F) are square-stemmed, one (Photo 37: C) sharing similar rising shoulders as seen in points recovered from Locus A. Another (Photo 37: F) is a finely-flaked square stem with a slight turn suggesting shoulders were present on the complete object. Three of these points appear to have tapered stems (e.g. Photo 37: A, E, G). While two (Photo 37: A and E) are symmetrical, the third (Photo 37: G) exhibits a slight shoulder on one edge. Basal thinning is present on two pieces (Photo 37: B, D) with parallel flaking along the proximal edge.

The majority of the 44 bifaces and biface fragments recovered from FfCi-02 Locus D were broken distal segments (Photo 37: H-I, K-O). The large number of contracting stems, granular raw material and abandoned preforms made the determination of stems and tips difficult in some cases (e.g. Photo 37: J, T). Identified basal fragments appear to be from thin, wide-bladed knives with rounded bases (Photo 37: Q-S). A number of broken examples suggest a more lanceolate shape (Photo 37: M-O) with the one complete example (Photo 37: M) showing a slightly tapering stem. Quartzite was the sole lithic raw material employed in the manufacture of all bifaces and projectile points.
Photo 37  Projectile Points and Bifaces Recovered from FFCi-02 Locus D
The collection of 229 quartzite linear flakes from Locus D (Photo 38) represents the highest frequency of this tool type from any Locus at FfCi-02. Shapes ranged from straight parallel-sided examples (Photo 38: A, L) to less formal examples (Photo 38: M and N). Included in the collection are a large number of flakes that exhibit extensive usewear (Photo 38: P-S). The majority were relatively small, less than 11 mm in width, and while single-arris examples dominate there is a small collection (n=4) of double-arris examples.

The 48 preforms recovered from FfCi-02 Locus D are predominately tips, midsections, and other fragments of unknown form. The more complete preforms show a variety of forms. Three late-stage teardrop examples (Photo 39: A-C) may be projectile point preforms. The remaining preforms (Photo 39: D-G) seem to be examples of straight-based (Photo 39: E-F) or asymmetric lanceolate knives (Photo 39: G, D). Among the more complete recovered preforms, two styles of abandonment are identifiable, the first being the discard of a tool that was broken near completion (Photo 39: B, D, E, G). The second type (Photo 39: A, C, F) consists of experimental attempts with difficult materials that were abandoned early in production.
The lithic artifact collection from FfCi-02 Locus D included 28 scrapers of various styles, all but two made from quartzite. While examples of expedient end scrapers made on flakes were well-represented (e.g. Photo 40: A-C), only two examples of formal scrapers with flaking on hafts were recovered (Photo 40: D and F). Large cobble-spall scrapers (e.g. Photo 40: H-L) were the most common scraper type recovered. These cobble spall scrapers are generally little modified beyond initial flaking but some do show repeated retouch (Photo 40: I, H). Other scrapers recovered (e.g. Photo 40: E, G) were more amorphous in shape and style but have clear scraping edges and some evidence of retouch. These scrapers are likely expedient utilized flakes that were retouched during use, producing the distinctive steep, unifacial scraping edge.