Historic Resources Component Report

Historic Resources Overview Assessment (Stage 1) Long Harbour, Placentia Bay

Archaeological Investigation Permit #06.14, and #06.14.01

Submitted by
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Submitted to
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30 November 2006

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*Cover photo***:** The pool at Crawleys Island. Mount Arlington Heights at top, left and the study area across the bay at top, right (GPAL image CI37).

Letter of Transmittal

30 November 2006

Ken Reynolds
Provincial Archaeologist (Acting)
Department of Tourism, Culture and Recreation
Confederation Building
St. John's, NL
A1B 4J6

Dear Ken,

Please find enclosed our report on Long Harbour, Placentia Bay, comprising the final report on permit #06.14 (issued 18 May 2006), and extension #06.14.01 (issued 6 June 2006).

Sincerely,

Gerald Penney
President

/encls

Executive Summary

No historic resources were located during survey and testing of the footprint area of the proposed development, or the proximate shoreline. All indicators are that the prospect of incidental impact/accidental discovery of same within this area is very low. Outside the study area, there is some indication of precontact aboriginal use, as well as early historic use by migratory fishers and settlers, in areas that are identified by local tradition as the earliest settled areas within Long Harbour.

Participants

Gerald Penney, M.A.
Robert Cuff, M.A.
Blair Temple, M.A.

The assistance of residents of Long Harbour, named in our sources below, and of Ms. Brenda Brown of Voisey's Bay Nickel Company is gratefully acknowledged.

Test-pitting at Crawleys Island (CI25).

Proposed Development

Voisey's Bay Nickel Company Limited (hereinafter VBNC) is proposing to locate a nickel processing plant, with associated process water supply, access roads, pipelines, conveyors and residue ponds (and/or dry ground waste storage), to the south of the community of Long Harbour-Mount Arlington Heights, Placentia Bay. VBNC has filed a project description (under the Canadian Environmental Assessment Act) and a registration document (under the Newfoundland and Labrador Environmental Protection Act). The complete document is available online at www.vbnc.com. See also topographic sheet 1 N/5 "Argentia."

> The project will be located partially on a "brown field" site (port and laydown infrastructure – Tier 1) on the south side of the harbour and partially on a "green field" site (processing facility – Tier 2) above the harbour on the south side. The lower site (Tier 1) and surrounding areas were previously occupied from 1969 to 1989 by the ERCO/Albright and Wilson Americas Phosphorous Plant… The decommissioned ERCO site contains a wharf, a paved road, three buildings, buried service lines, several landfills, a fenced hazardous waste disposal area, a phosphorous furnace slag stockpile and construction debris. It is presently

> a partially secure site because of contaminated material buried during decommissioning (VBNC Project Description 2006:8-9).

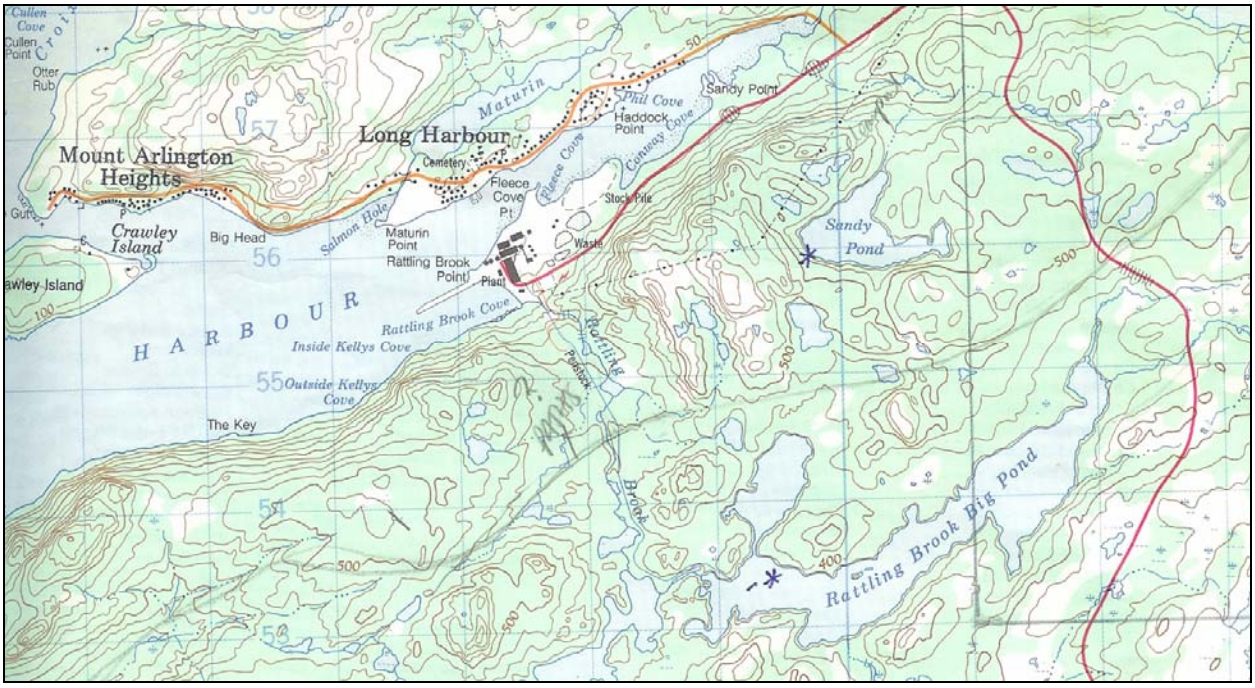
VBNC and government are currently assessing two processing options: a hydrometallugical facility ("Hydromet Plant") or a plant which will utilize nickel matte ("Matte Plant") produced from concentrate at a smelter elsewhere. The Hydromet option is considered the preferred option, however for the purposes of this study both options are required to be assessed.

It is estimated that the either option will disturb an area of about 65 hectares, including infrastructure at both tiers. The area for residue ponds and pipeline will require either an additional 85 hectares for the Hydromet Plant option, or an additional 40 hectares for the Matte Plant option. For either option, approximate building sizes and locations will be similar, with the Hydromet Plant option requiring some additional capacity for storage, handling and processing of material (VBNC 2006:12-13). Some specific infrastructure noted:

1. It is anticipated that process water for the plant will be obtained from Rattling Brook Big Pond, approximately 2km southeast of the Tier 1 "ERCO site."
2. A pumphouse, pipeline, and access road from Rattling Brook Big Pond.
3. A 3.8km pipeline to covey slurry to a residue disposal pond (Sandy Pond).
4. Sub-aqueous residue storage at Sandy Pond.
5. Large earthen dam at the outflow of Sandy Pond.
6. Two dams at a small pond to the northwest of Sandy Pond, to serve as a clarification pond.
7. A road of approximately 3km will connect the ERCO site to Tier 2.
8. In the case of the Matte Plant, waste gypsum slurry transported by pipeline 2km southwest of Tier 2 site, which site would be surrounded by a 4m-high containment berm, where excess water would be collected in an adjacent clarification pond, then carried by return pipeline back to the Matte Plant, and further treated prior to discharge at Rattling Brook Cove, west of the proposed Tier 1 wharf. (VBNC 2006:10-11).

Accordingly, eight areas were identified by the Provincial Archaeology Office (hereinafter PAO) in the Provincial call (Government of Newfoundland and Labrador 2006:8) for environmental assessment:

> By virtue of the Historic Resources Act and the Archaeological Investigations Permit Regulations, an archaeological impact assessment is required for certain areas within the project footprint. Sod houses have been reported to be in proximity to the proposed development but their location is uncertain. This area has archaeological potential and the following areas require assessment:
> 1. location of the Tier 2 Plant,
> 2. road and transmission corridor to the Tier 2 Plant,
> 3. Pipeline corridor to Sandy Pond,
> 4. entire shoreline of Sandy Pond and the small unnamed pond to its northeast,
> 5. pipeline corridor to Rattling Brook Pond,
> 6. the affected shoreline of Rattling Brook Pond (pumphouse and intake areas),
> 7. pipe corridor to Residue Storage Area, and
> 8. Residue Storage Area.



Detail from 1:50,000 topographic sheet 1 N/5 Argentia.

HROA Processes

Gerald Penney has conducted archaeological and research activities in Newfoundland and Labrador, for the past 25 years including areas adjacent to the proposed study area. He has worked with regional development associations, municipalities and a variety of commercial clients. In May of 2006 Gerald Penney Associates Ltd. (hereinafter GPAL) was engaged by VBNC to conduct an archaeological survey of the eight identified areas of concern. The following objectives were identified:

1. to perform fieldwork for an Historic Resources Overview Assessment (Stage 1) of the eight proposed processing facility footprint areas;
2. to foot survey, record, and photograph each of the eight identified areas of interest;
3. to foot survey and generally assess the remainder of the plot identified in VBNC Project Description [with the exception of the ERCO site, which has been much disturbed and contains potentially hazardous materials] as well as the shoreline proximate, in order to determine indirect impacts to historic resources;
4. to gather oral histories in the area;
5. to produce a report which inventories sites, analyzes and evaluates heritage resources, and assesses site condition; and
6. to recommend mitigation measures should site integrity be adversely impacted.

In May of 2006 fieldwork was conducted, yielding no significant historic resources. One area of interest, the projected Matte Plant waste disposal area, was not visited during this phase of fieldwork, but rather was completed in June under permit #06.14.01.

On submission of a monthly progress report (a requirement of the contract between GPAL and VBNC), the proponent requested that GPAL, in addition to completing the survey of the waste

disposal area, extend its archaeological investigations to encompass the general Long Harbour area. GPAL requested that the PAO extend permit #06-14 for the month of June, during which time is was proposed to:

1. Further test the Conways Cove droke.
2. Survey and test the Matte Plant waste disposal area.
3. Survey the shoreline west of Rattling Brook Cove to The Key, including Yankee Dave's West, and the Kelly Coves.
4. Investigate the site discovered by Ms. Gosse along the main railway line.
5. Investigate Long Harbour Bottom Brook, from the point where the old road and hydro line cross the brook towards its mouth (approximately one km) and including the mouth of Sandy Pond Brook.
6. Investigate sites suggested by Mr. Eugene Conway as known winterhouses "north of Mount Arlington Heights" (St. Croix Bay?).
7. Survey the earliest recorded settled sites in this part of Placentia Bay: Crawleys Island and Moany Cove.

The first five objectives were accomplished, but adverse wind conditions did not allow for a small boat survey, other than a "flick" over to Crawleys Island, where historic resources of interest were encountered. Moany Cove was viewed during a trek overland, from Fair Haven, with negative result.

Looking over the ERCO site and Long Harbour. Crawleys Island is just left of centre, while Iona Islands are visible in the distance (L1-17).

Study Area

The shoreline on the southeast side of Long Harbour, Placentia Bay, is generally steep and rugged. Normally, archaeological investigation of such an area would concentrate upon shoreline features. However, in the case of the present development, the shoreline is considerably developed, disturbed and largely buried. Accordingly, the only coastal area within the study area tested was Rattling Brook Cove, which is the shoreline terminal of the proposed transmission / conveyor corridor between the Tier 1 and Tier 2 sites. We also made a brief visit to Sandy Point, which was found to have been much disturbed by an attempt to construct a small-boat basin.

During June 2006 fieldwork the survey was extended to 5km of coast "below" the projected plant/waste disposal sites on the south side of Long Harbour – from Outside Kellys Cove to the mouth of Bottom Brook (excluding the "ERCO" site) – and to Salmon Hole and Crawleys Island

on the north side of Long Harbour. With the exception of Crawleys Island, the shoreline was rocky with few tenable landing sites and negligible soil cover.

Presently, the major route into the country on the south side of Long Harbour is an access road built from the old ERCO plant site to Rattling Brook Big Pond (locally, Coadys Pond). The current pipeline and road (the "ERCO Road") approximate the course of a projected pipeline corridor between the Tier 1 plant site and Rattling Brook Big Pond. From the supplied artists' renditions, this pipeline corridor will be 200-300m east of the ERCO Road, while the access road to the Tier 2 plant will be west of the ERCO Road, south of the Steel Bridge.

Generally, the field crew observed that disturbance from human activity (quad tracks, detritus, cutovers) was concentrated closest to the ERCO Road and almost non-existent 100m or more off it. Local informants supplied information as to the existence of cabins in the area. There are 10-12 cabins, most on the north arm of Rattling Brook Big Pond and on Cross Pond, which is just west of Rattling Brook Big Pond and likewise touched by the ERCO Road. Some cabin owners keep small boats, which provide greater access to these ponds than overland, but watercourses are not suitable for great penetration of the interior by boat apart from Rattling Brook Big Pond and Cross Pond.

The most remote site visited, the Tier 2 Waste Disposal Area, was found to be extremely rough country and virtually trackless, in keeping with the dismissal of this country by one local informant: "there's no way to hunt it, and no way to travel it."

Human History

While Placentia Bay is known to have been frequented by each of the three pre-contact cultures of the Island of Newfoundland (Maritime Archaic, Palaeoeskimo and Recent Indian), archaeological knowledge of this Bay cannot be described as definitive or comprehensive. Engaging in a survey of Placentia Bay for the National Museums of Canada in the summer of 1970, Urve Linnamae noted that "Placentia Bay is in the middle of an extensive area of southeastern Newfoundland that is virtually unknown archaeologically" (Linnamae 1971:1).

The National Museums survey did add significantly to baseline knowledge of the prehistory of Placentia Bay (see Previous Archaeological Results, below), but it was a preliminary effort, which has not been followed up in any significant way.

In the post-contact era there are very few accounts of aboriginal inhabitants in Placentia Bay. While there were rumours among the inhabitants of the English Shore that French fishers traded with the Indians in Placentia Bay, the only surviving first-hand account of an encounter occurred at the harbour of "Pesmarck," on the west side of Placentia Bay, in 1594. The "Savages" (presumed Beothuk) cut the moorings of boats belonging to the *Grace* of Bristol, which hurriedly departed from the harbour "fearing a shrewder turne." Ingeborg Marshall suggests Presque for the location, while Seary's identification of Pesmarck as being Breton for "Horse's Head," suggests Gallows Harbour (St. Josephs), a prominent landmark of which is a peak of that name (Marshall 1996:23-24; Leslie Harris 1993). It is also worthy of note that in 1612 John Guy observed an Indian trail, and an abandoned camp showing evidence of trade with Europeans, at the Come by Chance River (Gilbert 1990).

A European migratory fishery to Placentia Bay, chiefly conducted by the Basques and French, was established by the mid-16th century. While little is known of the precise locations of the earliest Spanish and French fishing stations, it is presumed from linguistic and cartographic evidence that the major fishing stations were Merasheen, Oderin, Paradise and especially Placentia and Little Placentia (Argentia).

Otter trap, near Bottom Brook (J16.009).

While the migratory French fishery at Argentia has not been definitively documented, it was clearly a major fishing station from a very early date with a harbour and beaches (*graves*) for drying fish that were second in natural advantage only to Placentia itself. Argentia was settled year-round shortly after the French determined to establish a colony at Placentia in 1662, appearing in the first French census of the settlers in 1687 – as Petit Plaisance – with a population of 35. Argentia is approximately 20km SW of the study area. It is clear that settlement at Long Harbour has its genesis in use as a fishing station and particularly as a winter hunting and logging area (a "winterhouse") of Argentia. European seasonal use of Long Harbour likely predates year-round settlement by at least a century.

While visitation of inner Placentia Bay is presumed to date from the establishment of year-round settlement at Argentia, there are very few documents of sufficient geographic precision as to be very informative. One intriguing document of 1695 refers to a *sauvagesse micmas* and her family living near Placentia. This is one of the earliest documents to definitively identify Mi'kmaw settlers in the Placentia area, and indeed one of the earliest usages of a variant of the sobriquet Mi'kmaw for those people. This document, a court martial of two French deserters, notes that members of the Mi'kmaw Turbis family were murdered when they "went in a shallop… to try and take game on a small island" near Placentia, which must have been either Fox Island of one of the Iona Islands, off Long Harbour (Archives Nationale de France 1695).

The evidence from historic cartography is that Long Harbour was certainly known to the French by the early 18th century, for Seary notes that an anonymous manuscript chart of 1706, "Carte de la coste de la Cadie de Baston et Partie de Terre Neuve," indicates two features to the north of

Petit Plaisance: *I gorichon* [presumably one of the Iona Islands] and *haure long* (Seary 1971:51, 238).

While local knowledge of Long Harbour certainly persisted, it would be many years before the study area was depicted realistically on maps. The dominant French tradition, as exemplified in the work of Nicholas Bellin, was to depict a group of islands, usually designated *Isles aux Renards*, to the north of Petit Plaisance, but other wise to leave Placentia Bay's northern reaches open with a notation to the effect *le fond est inconnu*. In English cartography, the most notable depictions of Placentia Bay come from works of Herman Moll in the early 18th century, wherein islands to the north of Petit Plaisance are designated *Is Rua*. Intriguingly, beginning in 1708, Moll also consistently places two boxes in the north of Placentia Bay. While the significance of these symbols is not explained, Moll does label a similar box on Anticosti Island "French Factory." His two Placentia Bay boxes are placed on numerous Moll charts in similar positions: one at the bottom of Placentia Bay (Bordeaux?) and one on the west side, in the vicinity of Bar Haven. The cartographic emergence of Long Harbour in 1706 and 1708 may be related to a recent discovery, or intensified usage, as it has been noted that during Queen Anne's War and the blockade of Plaisance by the English, that settlers were forced to resort to the woods for subsistence. In 1711, 130 of 238 of *matelots, pesceurs ou chasseurs* wintering at Plaisance, were forced to winter in the woods and live off game (Humphreys 1970:7).

After the war, and the French surrender of Plaisance under the Treaty of Utrecht, surveyor William Tavernor traveled around inner Placentia Bay in October of 1714, inventorying resource potential based on the information of some French who had remained behind and taken the Oath of Allegiance. Taverner records several sites as being good for Fox, Deere [caribou], Otter, Seale, or Beavers. He notes houses or French fishing rooms only at Little Placentia [14 stages, 30 houses, two churches], Merasheen, Oderin [where there is a "strong fort"], and Cummins Harbour [probably Paradise]. Of the Long Harbour area, Taverner records

> 29th Wind at Wt: fair weather, went up the Bay taking the Bearings, and Distances, from Little Placentia to Famish Gutt. The Islands and Rocks are Dangerous for Shipping as appears by my Chart, Long Harbour is good for Ships. The Coast on the Maine is very good for Deer, and the Islands afford abundance of ffowle, in the Summer and Seale in the Winter, I presume those Islands afford good ffishing in the Season, because the inhabitants of Little Placentia advisd me that Fox Island was exceeding good for Codfishing, in Time of Capling, which is a small ffish, the Codd feed on, and generally come in with the Shore, to cast their Rowes, on the Sands about the 20th of June.
> 30th Wind at W:S:W: fresh gales, went to Little Sutte Harbour between those Two places is no harbour, for Ships. Along the Coast, is good hunting for Deer, and ffoxes, at the proper Seasons of the Year, there is neither Good Woodes, nor anything Else, to render it Acceptable… (Taverner 1718:226v-227, transcribed in Cuff 1995).

Intriguingly, Taverner also finds a French winter-house, "an old house in the woodes," when he is trapped by weather at Bay de Largent [Pipers Hole/Swift Current] where he notes "large trees fit for Board, of which the ffrench from Placentia did land great quantities."

Test WH1, droke south of Conway Cove (L2-021).

Through the 18th century there is little documentation of settlement or seasonal usage of inner Placentia Bay, although Little Placentia continued to be a significant port for migratory fishing ships and, eventually settlement. Meanwhile it was noted as early as the 1720s that inhabitants of Placentia kept winterhouses in the Bay (Smith 1994). The earliest documented family name associated with Long Harbour in the vicinity is William Bruce, appointed Keeper of the Rolls for Placentia district in 1753 (Seary 1977). Little Placentia had a winter population of 130 by 1762 and the Lower Ram [Harbour Island, Iona] was the site of a fishing room in 1792 (Brown 1974). Long Harbour and the Rams appear on Captain James Cook's map of Placentia Bay (1762), were accurately surveyed by Michael Lane in 1772, and appear on most standard maps of Newfoundland thereafter (Lane 1773).

Local tradition has it that the Rams and Harbour Island, Long Harbour [Crawleys Island, 3km west of the study area] were settled in the early 1800s, although doubtless there was something of a transition period between year-round and seasonal settlement (Ottenheimer 1972). Indeed, the earliest first descriptions of Long Harbour make it clear that the community was still at least in part a winter-house for the Rams.

In February of 1835 Archdeacon Edward Wix met several "pious Romanist winter settlers… chiefly of Irish extraction, from Rams island" who wintered at Long Harbour. Wix goes into greater detail about the winter houses of English settlers in the harbour, some "turned to the Romish faith." He specifically mentions one J.G. [John Griffen?] who had his tilt over a frozen pond two miles from the harbour and another winter-house nearer the harbour belonging to J.D. [Joseph Dicks, who was married to Mary Griffen?] (Wix 1836:27-41).

Brian Hennessey's 1997 compilation of Argentia parish records suggests the earliest settlers at Long Harbour, in the decade after 1835, when parish records begin, were John and James Griffen, Joseph Dicks [the family later known as Duke?], James Kenney, David Bruce and James Salmon [Hammond], who was married to Elizabeth Mooney. In the first Newfoundland census (1836) Long Harbour is not listed, although there is a population of 36 recorded for Crawleys Island, Mooneys [Moanys] Cove and Bald Head combined. In that year a population of 197 is

recorded for the Rams, many of whom were doubtless resident at Long Harbour for at least part of the year.

Intake/pumphouse area, Rattling Brook Big Pond, looking north (L2-015).

Long Harbour was visited by geological surveyor J.B. Jukes in June of 1840, at which time he noted four houses "midway" in the harbour (that is, presumably, on the north side of the harbour, opposite the ERCO site, which is the centre of the modern-day community) and a winterhouse at the head, near a "little track" that Jukes followed, with some difficulty, to Chapel Arm, Trinity Bay. It is noteworthy that at that time of year Jukes found that all, but one old man, were absent fishing at some distance removed from the community, presumably in the outer bay or at Cape St. Marys (Jukes 1841:vol. 2, 56-57).

Howard Brown notes that it was in the 1840s that fishermen from Fox Harbour, Long Harbour and Ship Harbour began to resort to Cape St. Marys, which he ties to a significant increase in population in this area of Placentia Bay 1836-1874 (Brown 1974:28-30). Long Harbour is first recorded in the census of 1845 (population 48), increasing to 133 in 1857 and 234 in 1874.

Long Harbour was firmly part of the "western boat" belt of Placentia, where it was the saying that "Cape St. Mary's pays for all:"

> In the late years of the nineteenth century and in the first half of the twentieth Long Harbour, together with the adjacent villages of Ship Harbour and Fox Harbour, were home ports to a fleet of 'western boats', that is, two- and three-dory schooners of 25 to 40 tons that fished the banks of Placentia Bay and, more particularly, the fecund waters of Cape St. Marys…" (Harris 1993:322).

The local inshore small-boat fishery regained some momentum from the beginnings of the commercial lobster fishery. In the late 1880s the first lobster factory in Placentia Bay was established at Long Harbour by a Canadian named Oates, processing the majority of the catch on the eastside of the Bay until it burned in 1898. By the time Long Harbour and Iona became a separate parish in 1918, the western boat fishery was nearing an end.

Previous Archaeological Results

The National Museums 1970 survey located 10 sites, of which three were multi-component (exhibiting archaeological evidence of more than one culture). Most sites discovered were on islands within Placentia Bay, the most notable "mainland" site being Bordeaux 2 (CkAm-5, Palaeoeskimo) approximately 40km NNW of the study area. The two others on the main – Bordeaux 1 (CkAm-5, possibly Palaeoeskimo) and Come by Chance (CkAl-1, indeterminate) – were minor sites (Linnamae 1971:15-17). Other mainland sites which were visited without result include Little Pinchgut, Davis Cove, Arnolds Cove [Great Southern Harbour] and North Harbour. Long Harbour (where the ERCO site had recently begun operating) was not surveyed (*Ibid*:20-22). It is noteworthy that the more significant and/or multi-component sites were located on sand bars or beaches.

Multi-component island sites include Long Island Neck (Maritime Archaic and Palaeoeskimo, approximately 30km NW of the study area), Tacks Beach (Palaeoeskimo and Recent Indian) and Great Brule (Palaeoeskmo and indeterminate). Ingeborg Marshall classifies Great Brule as Recent Indian and adds Merasheen on Linnamae's authority (Marshall 1996:265). There were also two recent Indian burials discovered in Placentia Bay in the late 19th century: Hangmans Island and Indian Hole Tilt (Howley 1915:292-294).

Field Results

A three-person crew arrived at Long Harbour on 23 May 2006 and made a visit to the local council office to inform the town clerk, Ms. Marie Pretty, and Ms. Noreen King, secretary of the Long Harbour Development Corporation, as to our activities in the area, and to begin the process of accessing oral history of the study area.

It might be noted that all local informants were quick to suggest that the north side country has "always" been the more frequented and utilized by residents. Mr. Barry Murphy, a council employee, was suggested as a contemporary outdoorsman with considerable familiarity with the study area. Mr. Murphy proved most helpful, supplying information as to wildlife, the sporting potential of various ponds, and his own accustomed footpaths through the country. Other local information as to contemporary use of the study area by Long Harbour residents was supplied by those who had recently been hired to cut brush for the project and were encountered in the country.

Test KC14 west of the ERCO Road, a line being flagged and cut for the drill (L1-38).

Sandy Pond Country. An initial reconnoiter was made by accessing the transmission line and Newfoundland Hydro track to Clarification Pond, where the survey commenced. The shorelines of Clarification Pond and Little Dab Pond were surveyed and tested. We then climbed the hills overlooking Long Harbour, to observe an area which had been suggested by the PAO as possible site of sod houses reported by a layperson in 1995. On the ground, this area was considered scarcely tenable as a site for human habitation. However, some useful observations of the surrounding country were made.

Following a ridge to the southeast towards Little Sandy Pond, observations of the access road/pipeline route were made, testing the east side of Little Sandy Pond and the south and west sides of Big Sandy Pond, returning via Clarification Pond.

Sandy Pond, from the east, the site of one of the proposed dams (L2-024).

A second visit to Big Sandy Pond approached from the east, via a footpath from Route 101 (this path enters the woods just south of the first pond encountered on the right hand side, proceeding

south on Route 101, from its intersection with Route 202). This approach facilitated a survey and testing of coves at the east and north ends of Sandy Pond, as well as the country to be dammed and flooded northeast of this pond.

The southern and western shores of Big Sandy Pond are rugged. There is not even an apparent footpath. Presumably, bird hunting accounts for the firepits and detritus encountered on the west shore of Big Sandy Pond, where rough country provides good cover for hunters. Apart from charcoal at three cm below surface at one test pit (SPD3), nothing was noted other than recent trash at surface.

Conway Cove Droke. A clearing was observed from the heights above Conway Cove. This clearing was tested, given the report suggestive of winterhouses in the area, and informants' identification of this area as having been once used to cut long timbers for house construction. No artifacts or features were encountered, although the clearing did not appear to be a natural one. One test (WH1) did have fine fertile soil to 30cm, suggestive of a garden.

Rattling Brook Cove. Concrete blocks were observed at surface on the north side of the brook. On the south side, within the footprint of the proposed conveyor / access corridor, test pits were dug in two small coves and along a small brook emptying into the easternmost cove. No artifacts were encountered, apart from a surfeit of contemporary plastic detritus and kelp, piled up in this bottom by prevailing winds.

Local informants described Rattling Brook Cove as the only site on the south side of Long Harbour previously developed. Concrete pillars on the northeast side of the brook were identified as the remnants of a sawmill, operated within living memory by "Yankee Dave" Griffiths. 1951 air photography indicates a clearing at this site and northeast of the cove, an area now covered by a helipad. A road or slide-path is also indicated, extending about one km inland to a gully on Rattling Brook. This gully is just east of, and visible from, the Steel Bridge on the ERCO Road. From air photos, there were paths radiating out from this gully to the east and west a few hundred meters, but no further indication of regular overland penetration, suggesting that logs may have been driven or towed by horse and slide along the branches of Rattling Brook to this gully.

Rattling Brook Cove (L2-01).

Approximately 400m west of the mouth of Rattling Brook, a beach and narrow "grass ground" was observed (field name, Yankee Dave's West). Older air photos indicate a clearing at this beach, which local informants said had been set out as gardens by Yankee Dave. From Rattling Brook Cove other narrow beaches were observed to the west, features noted on topographic maps as Inside Kelly Cove, Outside Kelly Cove and The Key. These four coves are north of, and below, the Tier 2 plant site and waste disposal area, and not within the development footprint.

Second Kelly Cove Pond, looking south, test KC20 (L1-46).

Rattling Brook Corridor/Tier 2 Plant. Two expeditions were made in the vicinity of Rattling Brook: west and east of the ERCO Road and at the intake/pumphouse area on Rattling Brook Big Pond. Assessment of the Tier 2 plant and corridor sites began in the vicinity of the Steel Bridge, which carries the ERCO Road over Beaver Pond Brook approximately one km into the country.

The crew followed Beaver Pond Brook and a tributary emptying Kelly Cove Ponds, test pitting the shoreline of the ponds without result. It might be noted that ponds in the study area had generally rocky shorelines and that tests encountered peat and then either water or rock at minimal depth below surface. We climbed what eminences there were for a view of the country in the vicinity of the Tier 2 plant and then made our way to Rattling Brook Cove along the conveyor/pipeline corridor.

A second excursion followed the ERCO Road to the Rattling Brook Big Pond pumphouse/intake area - from the artists' renditions at the cove where Rattling Brook exits the pond, flowing towards Cross Pond. Both ponds showed much evidence of human activity and changing water levels, related on the one hand to access provided by the ERCO Road and the other to a pipeline which carried process water from Rattling Brook Big Pond to the ERCO site. This pipeline is largely above surface, but in some areas, trenched.

"The Crossroads," looking west. Access/pipeline corridor to Sandy Pond (L2-017).

Testing concentrated on the ponds and also at a site dubbed "the Crossroads," where from artists' renditions the pipeline access corridors from the Tier 2 Plant, Rattling Brook Big Pond and Sandy Pond will meet. We returned to Rattling Brook Cove via an older trail through the country, east of the ERCO Road, approximating the proposed new pipeline corridor.

Test at the matte plant waste disposal area (wpt SUB, J16.35).

Further fieldwork was conducted on 15, 16, 22, 29 and 30 June and may be roughly categorized as falling into three phases:

1. The remaining unsurveyed plant site and the south side of Long Harbour;
2. Inland locations with some potential as winterhouses; and
3. Crawleys Island and Moany Cove.

Matte Plant Waste Disposal Area. As the only remaining area of interest unsurveyed, the Matte Plant waste disposal area was the first area "tackled" in June month. As with a previous expedition into the Tier 2 Plant site, this country was found to be extremely rough, in keeping with the dismissal of this country by local informants. No historic resources were encountered in 15 test locations.

Southeastern coast of Long Harbour. The survey was extended to five km of coast "below" the projected plant/disposal sites: that is, from Outside Kellys Cove to the mouth of Bottom Brook (excluding the "ERCO site"). In 26 test locations the only evidence of human habitation encountered (apart from contemporary plastic detritus, which tends to collect in the "bottom" to a distressing degree) were old cuts and evidence of gardens (particularly at Yankee Dave's West) and some evidence of otter trapping in the Sandy Pond Brook-Bottom Brook area.

Southeast coast of Long Harbour, looking towards Bottom Brook (LH.008).

Conway Cove. A previously-tested clearing above Conway Cove was re-tested without result. Another clearing observed to the west was found to be marshy and hence an unlikely site for habitation. Mr. Ed Bruce, deputy mayor of Long Harbour-Mount Arlington Heights, was encountered in this area and offered that this area had all been cut out 20 years ago after all the timber had died off during the operation of the ERCO plant. The shoreline east of Conway Cove was found to be encumbered with pumbley boulders and with few tenable landing sites. No historic resources were encountered in nine test locations.

Bottom Brook and Salmon Hole. An area on the north side of Bottom Brook had the appearance of having been cleared, but testing did not encounter any historic resources. The team followed the brook a kilometre from its mouth, with the only artifacts encountered being 20+ junked cars. Salmon Hole and Maturin Point, prominent features lying between "the cove" and "the bottom," were also surveyed without yield. There were 17 test locations in all for these three areas.

Railway line. Ada and Harvey Gosse of Whitbourne were contacted regarding their 1995 report of possible sod houses to the PAO. It was determined that this discovery was made near the railway main line 2-3 km west of Long Harbour Station. Following Mr. Gosse's description, 4 sites were investigated without result. Mr. Gosse has offered, should his health improve, to accompany the archaeologist to this site for further investigation. It should be noted that this site is at least 8km from the plant site and reported in such close proximity to the abandoned railway line that a 20th century origin is strongly indicated.

Crawleys Island (CiAl-1). Crawleys Island is known to have been the earliest site in Long Harbour settled by Europeans. Meanwhile, from past experience, it was felt that the "site advantage" of the beach at the east end of Crawleys Island had the greatest potential in the area for a precontact site. Generally, the team noted that there were fewer artifacts than anticipated in 24/26 test locations: 20th century glass and pottery was observed on the beaches, but no 19th century pipestems in the banks, for instance.

Recent Indian arrowhead from Crawleys Island (waypoint CI24), cataloged as CiAl-1:1.

This initial disappointment was made up for with the discovery of a single Recent Indian point (arrowhead) at waypoint CI24. Further, a pottery sherd, possibly of French origin was found just off the beach of the pool at waypoint CH31.

This corner-notched point, with a probable Little Passage (i.e. pre-contact Beothuk) affiliation, is the first pre-contact artifact to have been recovered from this area of Placentia Bay. It is a finely-crafted, yet asymmetric, piece of grey-and-white stone with some mineralized inclusions.

Recommendations

It must be considered unlikely that there is a significant pre-contact site in the study area *per se*, given its general lack of site advantage and in particular its extensive industrial disturbance at the shoreline. Both precontact and early historic peoples of Newfoundland made use of interior resources, and in both cases such resources were vital to their seasonal round in a marginal environment. However, all known peoples of Newfoundland were primarily maritime-adapted. Both archaeology and historical geography support the common-sense notion that the primary activities in interior areas were for hunting, trapping and fuel – activities that in pre-industrial societies occurred largely in corridors of traditional access from coastal locations, following watersheds to interior resource extraction areas. Such patterns of land use have particular implications for interior archaeology. Usage was heaviest in “corridors” – along the major river or lake systems – and is most visible at landmarks in these corridors associated with water features (portages, coves, shallows in salmon rivers).

In general, the study area does not present these classic attributes of a high-expectations archaeological prospect. The very limited known historic use of the study area is probably indicated for the pre-contact era as well.

Two kilometres outside the study area, the Crawleys Island site (CiAl) must be regarded as having further potential. While one (or two) artifacts are themselves of some significance, it should be noted that both were found in disturbed contexts.

Hopefully, the Crawleys Island site will spur some further interest in the prehistory of eastern Placentia Bay. In the event of some future survey in this area, we recommend the Iona Islands, Corbin Head, and Trinny Cove for further investigation.

In situ photo at Crawleys Island (CiAl).

Sources

Local informants
Ed Bruce, Eugene Conway, Ada Gosse, Harvey Gosse, Brian Keating, Dave Keating, Noreen King, Barry Murphy, Adrian Norman, Dan Norman, Marie Pretty, Ches Temple.

Moany Cove, and the Iona Islands.

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Appendix I – GPS Data/Field Notes

Test locations, NAD27 – fieldwork 23-26 May, 15-16, 22, 29-30 June 2006.

Tier 2 Plant

location	*easting [2]*	*northing [52]*	*notes/photo#*	
KC 2	88.014	54.690	brook frm K/B Ponds	
KC 19	87.146	54.327	2nd KC Pond	L1.41-47
KC20	87.064	54.393	2nd KC Pond	
KC 22	87.068	54.560	2nd KC, N end	
KC 26	87.130	54.738	1st KC Pond, SE	
KC 30	87.282	54.476	viewpoint	L1.48

Tier 2 road/transmission/conveyor corridor

KC3	87.999	54.502	crew cutting trail	
KC14	87.783	54.432	last flags P	L1.38
KC15	87.616	54.476		
KC16	87.415	54.467	1 blue flag	
Y1	87.673	55.573		
Y2	87.673	55.582	dry streambed	L2.004
Y3	87.576	55.636		
Y4	87.546	55.629		
Y5	87.521	55.615	Yankee Dave's	L2.001
KC34	87.708	55.006	steep slope above cove	L1.49

Pipeline corridor to Sandy Pond

KCTR	88.097	54.785	steel bridge	
KC1	88.212	54.613	flagging	
Q6	87.831	55.339	valley, towards Lt Sandy	L2.017
Q5	88.281	54.319	clearing	
CR1	88.245	54.628	cross track/flagging on ERCO Rd	
MDRD	89.943	55.234	E of Lt Sandy Pond	L1.24, 29
PLRD	89.413	56.002	hydro road	
SPKN	89.536	55.702	lookout, SP/Little SP	L1.30

Winterhouses, Conway Cove

RDR	89.053	56.189		
RDW	89.195	56.109	E suggested	L1.5
LHLO	89.026	56.421	lookout over E droke	L1.9
LL2	88.889	56.230	lookout, towards plant	L1.14, 20
WH3	88.736	56.669	N end clearing, trail	
WH2	88.731	56.655	test near nest	L2.022
WH1	88.716	56.652	fine soil	L2.021
KC 26	87.130	54.738	1st KC Pond, SE (alt W suggested)	
KC 30	87.282	54.476	viewpoint	L1.48

Shoreline, Clarification Pond and Sandy Pond

CPLO	89.857	56.742	lookout over Clare Pond	L1.4
CP1	89.814	56.697	N side Clare Pond	
CP2	89.725	56.586	S side Clare Pond	L1.1
location	*easting [2]*	*northing [52]*	*notes/photo#*	
SPD1	89.919	55.898	SW side Big Sandy	
SPD2	89.883	55.900		
SPD3	89.880	55.902	charcoal @ 3cm	
SPD4	89.835	55.907	troutin rock, moose fur, bobber	
SPD6	89.,736	56.019	escarpment, large boulders	L2.028
SPD9	89.687	56.091	firepit, cut sticks, largest camp NW	
SPD11	89.613	56.209	trail towards little dab pond	
ES8	90.309	56.356	outlet of brook	
ES7	90.418	56.441	lookout over brook	L2.020
ES6	90.566	56.345	lookout over 2 arms of SP	
ES5	90.799	56.182	east cove of pond, smelt	
ES2DAM	90.902	56.161	lookout over dam	L2.024

Corridor to Rattling Brook (Coadys) Pond

RATB	87.686	55.596	wooden bridge	
KCTR	88.097	54.785	steel bridge	
Q1	88.344	53.897	old track, W of ERCO Rd	
Q2	88.423	53.906		
Q4	88.314	54.278	clearing	
CR2	88.215	54.444	cross quad on ERCO Rd	
CRPD	88.352	53.778	Cross Pond, berry bucket	L2.011
CRPD2	88.412	53.458	Cross Pond	

Pumphouse, intake area Rattling Brook (Coadys) Pond

CRPD3	88.406	53.465	Cross Pond, brook inflow	L2.016
RB1	89.100	53.361	intake pipe	L2.015
RB3	88.956	53.453	brook outflow	

Tier 2 pipe corridor to waste area

KC 24	86.520	54.427	
KC25	86.133	54.234	

Matte Plant Waste Disposal Area

2-1	83.782	52.878	steel bridge
005(p)	84.378	52.878	1st crossroads
2-2	87.721	54.148	groundwater test?
SUB	86.527	53.356	16 J035
SUB2	86.401	53.412	
2-5	86.367	53.414	swamp
SUB6	86.221	53.356	16 J037
SUB7	85.827	53.528	moose trail

SUB9	85.678	53.547	
1SUBA	85.498	53.556	farthest
SUB10	86.479	53.510	
SUB11	86.522	53.583	
SUB12	86.589	53.629	
SUB13	86.604	53.643	
2-4	86.643	53.304	drill 16J039

Bottom Brook-Sandy Point

location	*easting [2]*	*northing [52]*	*notes/photo#*
B10	88.976	57.247	cesspit pt, clinkers
BOCAR	89.091	57.333	near Sandy Point basin 16J004
BO1			point midway
B02	89.283	57.463	SPoint Brook, 4 tests (beach, bank) 16J006
B04	89.467	57.604	point W bobs brook, otter trap 16J009-10
B05	89.523	57.614	bobs brook, photo old cut 16J011
B06			clam cove, caribou tracks 16J012
B07	89.893	57.735	northside bottom16J013
B08	89.861	57.781	southside bottom16J014-13, **27**
004	89.860	57.837	clearing near road 16J025-25
B09	89.858	57.844	mouth, bottom brook 16J015
SH20	89.879	57.997	old road, cars broke
SH21	90.003	58.033	dumpsite
SH25	90.615	58.337	grouse & young / some cutting
SH30	90.951	58.325	bridge

Salmon Hole

SH1	86.517	56.553	west side Maturin Brook
SH2	86.469	56.486	E side brook
SH3	86.502	56.293	bank, Maturin Point
SH4	86.720	56.371	photo Big Head, E bank

Conway Cove

WHW	88.684	56.627	west clearing, turfy muck
CC1	88.707	56.805	point E of Conways
CC2	88.669	56.790	
CC3	88.508	56.708	beginnings of slag/fill

Yankee Dave's Garden

YW1	87.343	55.516	half beachy
YW2	87.309	55.501	W bank, charcoal @ 4cm
YW3	87.300	55.498	blowdown
YW4	87.282	55.473	clearing SW, old cuts /Pics
YW5	87.286	55.473	brook @ W
YW6			dry steambed / banks near YW5
YW7	87.261	55.478	wet, peaty

YW8	87.294	55.495	W beach, clearing ++old cuts
YW9	87.248	55.411	banks @ beach
YW10	87.354	55.528	E clearing
YW13	87.409	55.559	blackdirt
YW14	87.433	55.559	new cutline
YW15	87.413	55.552	

Crawleys Island

location	*easting [2]*	*northing [52]*	*notes/photo#*
CI1	84.449	56.005	landing, hook of point
CI2	84.396	56.009	across gut, bricks
CI3	84.356	56.047	bank, beginning of road
CI5	84.244	55.975	woods path
CI7	84.155	56.086	school, blocks
CI8	84.118	56.095	cemetary (no test)
CI9	84.095	56.104	kids cemetery (no test)
CI10	84.017	56.130	Mt Pearl, arterial rd
CI11	84.011	56.179	cellar
CI12	83.962	56.224	last stage N, Mt Pearl
CI13	84.060	56.210	point of beach
CI14	84.127	56.159	last stage S, Mt Pearl
CI15	84.125	56.162	barkpot
CI16	84.243	56.123	stag, mod ceramics, stopper
CI17	84.271	56.091	tumbledown bank
CI18	84.357	56.049	N point of beach
CI19	84.416	55.904	killing fields (eggs)
CI21	84.358	55.815	far end of bank, gardens on top
CI23	84.392	55.899	flat of point, best camp
CI24	84.358	55.926	arrowhead
CI26	84.253	56.063	boat basin rock, photos
CI27	84.279	55.995	gurt foundation/chimney
CH28	84.011	55.838	path across Is, farthest W
CI31	84.439	55.895	outside bottom
CH31	84.420	55.910	bottom of pool, blue ceramic
CI32	84.493	56.009	bait depot, nests
CI33	84.484	56.018	bill of point
CI34	84.365	55.926	3 more tests near CI2

Railway Line

RW1	93.459	62.439	square/trench near rw
RW2	93.314	61.831	near power line
RW3	93.374	62.029	juniper knap
RW4	93.449	61.521	knap closest rw

Appendix II – Test Areas (Map)

N

Bakers Pond

Rattling Brook Cove

Maturin Brook

St. Croix Bay

Cullen Point

Otter Rub

Maturin Ponds

Phil Cove

Sandy Point

Haddock Pt

Mount Arlington Heights

Fleece Cv

Fleece Cove Pt

Salmon Hole

Big Head

Crawley Island

Rattling Brook Point

Rattling Brook Cove

Inside Kellys Cove

Outside Kellys Cove

The Key

Rattling Brook

Sandy Pond

Rattling Brook Big Pond

5262000m
5260000m
5258000m
5254000m
5252000m
5250000m
5248000m
284000m
286000m
288000m
290000m

RW1 RW3 RW2 RW4

Y4 Y5 Y3 RATB Y2 Y1 YW13 YW10 YW14 YW3 YW8 YW15 YW1 YW7 YW2 YW5 YW4 YW9

Q6

SH25 SH30 SH20 SH21 B09 004 B08 B07 B04 B05 B02 BOCAR B10

CPLO CC2 CC1 CC3 WH3 WH2 WHW WH1 LHLO CP1 CP2 ES7 ES8 ES6 ES5 ES2DAM SPD11 LL2 RDR SPD9 RDW PLRD SPD6 SPD4 SPD21 SPD3 SPKN MDRD

SH2 SH1 SH3 SH4

KC34 KC 2 KCTR CR1 KC1 KC 26 KC15 KC3 KC 22 KC 30 CR2 KC 24 KC 20 KC16 KC14 Q5 KC25 KC 19 Q4 2_2 Q1 Q2 CRPD

SUB11 SUB13 SUB12 1SUBA SUB7 SUB10 SUB9 SUB SUB6 2_4 2_5 SUB2 2_1 005(p)

CRPD2 RB3 RB1

CI12 CI13 CI15 CI11 CI14 CI10 CI16 CI9 CI17 CI8 CI7 CI18 CI33 CI26 CI32 CI27 CI5 CI2 CI1 CI24 CH31 CI34 CI19 CI23 CI31 CH28 CI21

Crawley Island

-1 0 1 2

Kilometres

Gerald Penney Associates Ltd.

Test Areas
2006 Archaeological Survey
Long Harbour

Drawn: *DIGEOS*	NTS: 1 N/5	Figure
Scale: 1:40,000	DATUM NAD27	Date: Sep 2006