

A RECONNAISSANCE SURVEY OF CLAY DEPOSITS*
ON THE ISLAND OF NEWFOUNDLAND
D.G. Vanderveer, R. Harvey

The ceramic industries, particularly the cottage pottery industries, have been importing increasing amounts of clay from outside the province. The object of this survey was to locate and evaluate the island's clay resource potential for use in these industries.

A total of 23 ten-pound samples of clay were collected from 23 occurrences (Fig. 1). In addition at each site a small sample of clay was taken for future X-ray diffraction studies. The samples were turned over to Peter Thomas of the Extension Services of Memorial University where ceramic testing is nearing completion. The samples were tested in the field for CaCO_3 content, plasticity and clay content (Table I). In addition, the color and vertical and horizontal size of each deposit were noted.

Laboratory tests include (a) drying in air (24 hours) and kiln drying (15 hours at 212°F) for cracking, and (b) various firing range tests for 'cone equivalents' and observed firing color, hardness, scumming, cracking, shrinkage and moisture absorption.

Further detailed laboratory tests will be conducted on any samples that may be of use for the production of pottery. This testing will hopefully be followed up by more detailed sampling to delineate and evaluate any potential commercial deposits of clay.

*Project 4-8, Canada-Newfoundland Mineral Exploration and Evaluation Program.

CLAY OCCURRENCES NEWFOUNDLAND

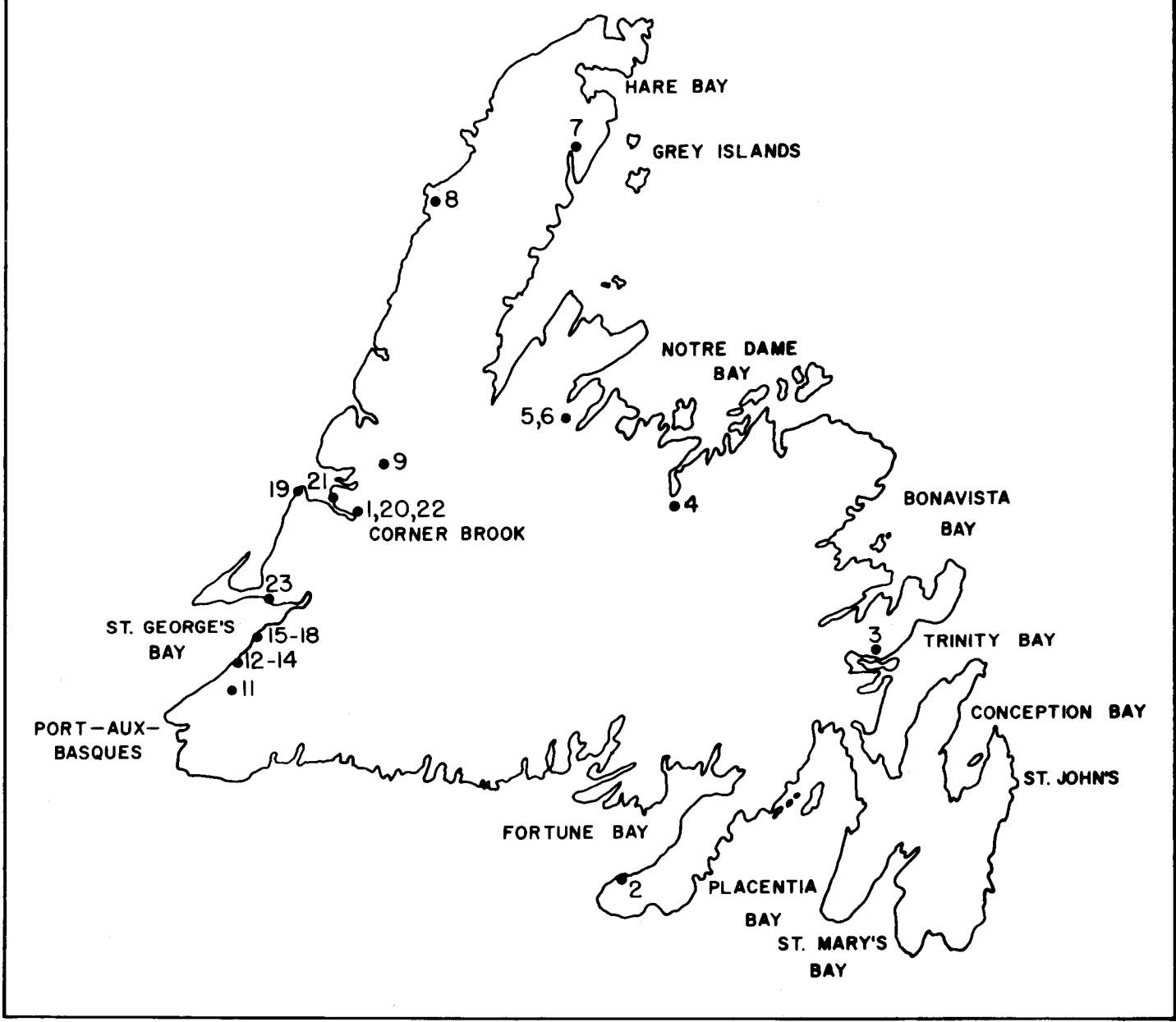


Figure 1

TABLE I

Location	Extent		Colour	Ca Co ₂ Content	Plasticity	Clay Content		Remarks
	Hor.	Ver.				%	Distribution	
1. Wild Cove								
2. Fortune	75' x 5'	8"-10"	lt. grey-brown	mod. excessive	fair	40	predom. silt and sand with clay lenses	
3. Monroe	475' x 12'	2'-4'		mod	excellent-good	40-60	sand & clay lenses intb.	small pebbles throughout deposit
4. Jumper's Bk.	300' x 30'	2'	lt. brown gray	low	fair			4" humus & silt cover
5. Indian Bk.	1100'	8'		variable	good		clay and silt lenses intb. greater quantity being clay	22' embankment
6. Springdale A.	350' x 12'	2'	lt. brown	nil	good		clay & silt lenses with some sand	
Springdale B.	350' x 70'	5'	lt. brown	nil	good		clay & silt lenses with some sand	
7. Roddick-ton		6"	dk. grey	fair	good			narrow bands of clay in sand & gravel deposits
8. East River N.	160' x 30'	7'	lt. brown gray				sorted clay silt and sand, sand and silt predom. in lower levels	surficial deposit
East River S.	165' x 20'	7'	lt. brown gray				sorted clay silt and sand, sand and silt predom. in lower levels	surficial deposit
9. Rocky Pd.	200' x 15'	9'	red-brown	excessive	good		sand, silt & clay lenses, more silt & clay in middle	
10. Larkin Pt.	350'		red-brown	mod.	mod.	65	clay & sand lenses intb. with clay	humus cover 2"
11. Codroy Pond	150' x 75'	5'	grey	slight-nil	good	60-70	clay lenses silt & sand intb.	
12. Highland	150'	4'	lt. brown-gray brown	excessive	good		clay & silt lenses with sand lenses	25' embankment 1.2-2" humus core

Table 1

Location	Extent		Colour	Ca Co ₃ Content	Plasticity	Z	Clay Content Distribution	Remarks
	Hor.	Ver.						
13. Maidstone	150'	4'	lt. gray-red		fair-good		clay, silt and sand intb.	45'-50' embankment
14. Jeffrey's #2	25'	2'	red	mod.-excessive	good-mod.	40	red clay & silt	10-12.5' embankment
Jeffrey's #4	700'x 50'	3'	brown-dk. brown	excessive	good	60		40'-60' embankment fair organic content
15. Mitchell	175'	4'	brown	mod.	good		silt & clay intb.	80'-90' embankment
16. St. George's Bay	120'x 60'	6'	red	mod.-excessive	good		silt & clay with sand lenses intb.	
17. Bank Head	80'	2'	lt. brown	mod.	good		silt & clay intb. & at lower levels	
18. Journals Bk.			lt. brown-brown	mod.	fair		sand lenses predominant in upper & lower beds	80' embankment
19. Little Port	60'x 12'	4'	lt. brown gray	mod.	good-excellent	70-85	clay lenses silt & sand intb.	
20. Hughes Brook	375'x 25'	6'		mod.	excellent		clay lenses silt & sand intb.	no organic 2-3" humus core
21. Lower Cove #1	200'x 25'	12'	red-brown	mod.	excellent	>35	clay lenses and bands - sand & silt	1-2" humus cover
Lower Cove #2	200'x 25'	12'	brown-red	excessive	good	<35	clay lenses and bands - sand & silt	1-2" humus cover
22. Hughes Bk. S.	350'x 60'	3'	red	mod.	excellent			slight veg. & humus core
23. Kippens								

ABBREVIATIONS USED IN TABLES

Bk. - Brook	Lt. - Light	S. - South
Dk. - Dark	Mod. - Moderate	Veg. - Vegetation
Hor. - Horizontal	N. - North	Ver. - Vertical
Intb. - Interbedded	Predom. - Predominant	
Intm. - Intermixed	Pt. - Point	

Table 1 (Cont'd)