

ANTIGONISH COUNTY

Sample Number
CP-14

TOPOGRAPHICAL SHEET: 11F/12

LOCATION: On the road going west from St. Andrews to South River. Exposure is in the bed of a small brook approximately 210 m south of the Chisholm farm house (Fig. 10).

UTM: 585940 E
5045230 N

GEOLOGICAL UNIT: Pleistocene clay, Quaternary age

DESCRIPTION: Thin bands of light brown to red-brown clay containing organic material. The clay is gritty with numerous small pebbles and is exposed for approximately 30 m in the brook.

ATTITUDE OF BEDDING: Essentially horizontal

SAMPLE INTERVAL: Channel sample across the thickness of clay

TYPE OF MATERIAL: Clay

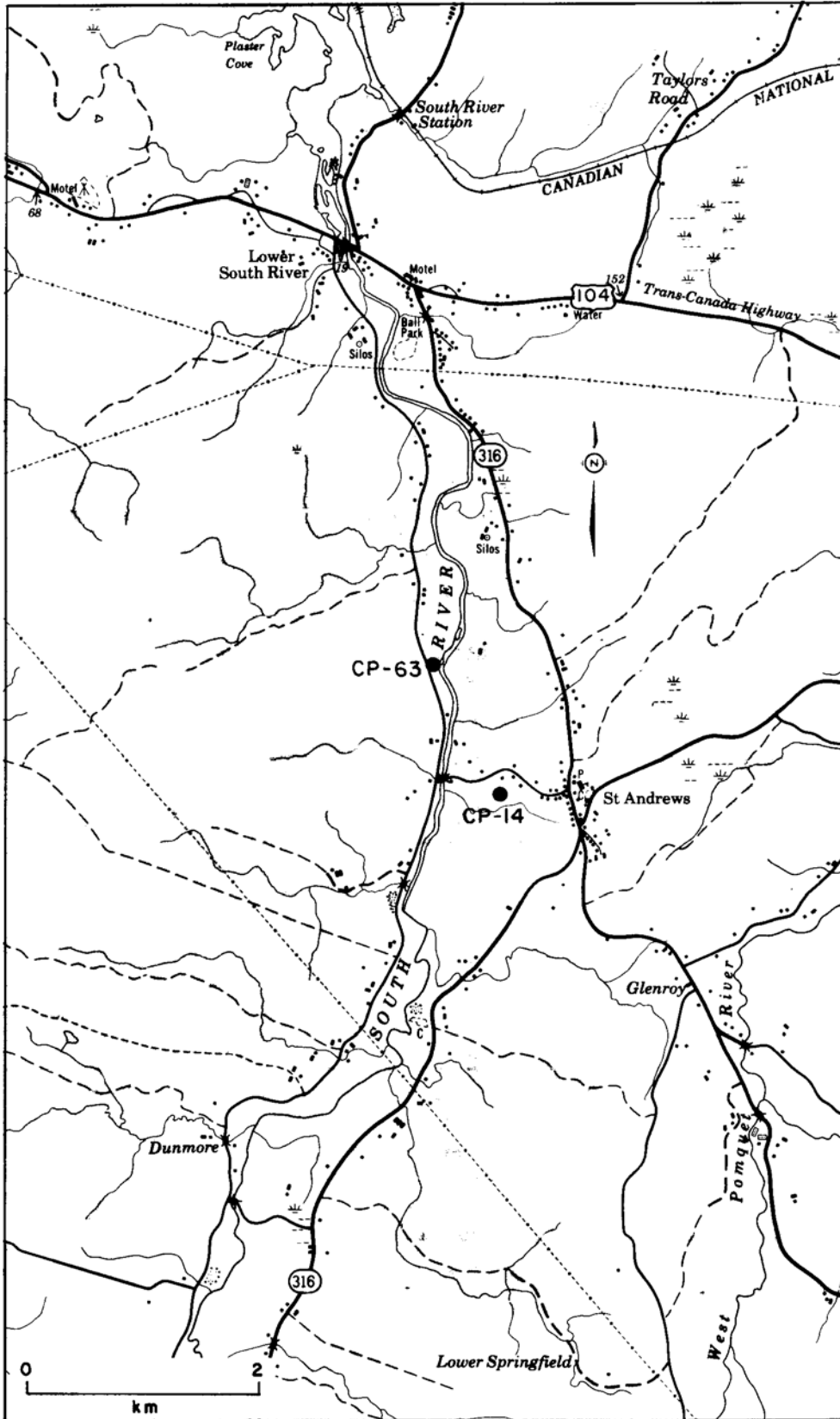
UNFIRED CHARACTERISTICS: Light brown, noncalcareous clay containing a few stones. Good workability. Plastic. Water of plasticity 28.0%. Slight cracking with rapid drying at 85°C. Air shrinkage 6.1%. Modulus of rupture 214 p.s.i. Benzidine test negative.

P.C.E.: 3-4

FIRED CHARACTERISTICS:

Cone No.	Fired Shrinkage %	Absorption %	Colour	Hardness
05	4.10	9.90	Pale reddish brown	Hard
04	6.42	7.71	Moderate reddish brown	Very hard
02	9.42	2.72	Moderate reddish brown	Steel hard

POTENTIAL USES: Common brick, face brick, hollow tile, wall tile and sewer pipe



Ref. Map II-F-12

Figure 10. Location map for samples CP-14, 63 (St. Andrews)

ANTIGONISH COUNTY

Sample Number

CP-15

TOPOGRAPHICAL SHEET: 11F/12

LOCATION: Harbour Centre. The exposure is 21 m north of Harbour Road, approximately 9 km northeast of Antigonish (Fig. 11).

UTM: 584420 E
5060050 N

GEOLOGICAL UNIT: Pleistocene clay, Quaternary age

DESCRIPTION: A 10 cm layer of brown clay containing organic material was first encountered by putting a soil auger through 33 cm of overburden. Underlying this is a whitish-grey clay mottled with iron carbonate stains. Both layers contain small pebbles and grit. Total thickness of the clay is 30 cm.

ATTITUDE OF BEDDING: Essentially horizontal

SAMPLE INTERVAL: 17 cm channel sample across the lower clay layer.

TYPE OF MATERIAL: Clay

UNFIRED CHARACTERISTICS: Light grey and brown (greyish-orange after grinding and mixing), slightly calcareous clay, containing a few stones and sandy material. Good workability. Very plastic. Water of plasticity 30.5%. Slight cracking with rapid drying at 85°C. Air shrinkage 7.8%. Modulus of rupture 313 p.s.i. Benzidine test negative.

P.C.E.: 13

FIRED CHARACTERISTICS:

Cone No.	Fired Shrinkage %	Absorption %	Colour	Hardness
04	5.08	9.15	Moderate reddish orange	Hard
02	7.58	5.65	Moderate reddish brown	Very hard
1	7.58	4.42	Moderate reddish brown	Steel hard

POTENTIAL USES: Earthenware and most structural products.

ANTIGONISH COUNTY

Sample Number

CP-23

TOPOGRAPHICAL SHEET: 11F/12

LOCATION: On the shore of St. Georges Bay approximately 800 m northwest of Monks Head (Fig. 11).

UTM: 590280 E
5058770 N

GEOLOGICAL UNIT: Pleistocene clay, Quaternary age

DESCRIPTION: Medium to light grey clay containing extensive organic material. The exposure is sporadic for 46 m along shore. This sample was taken from the uppermost of three clay horizons exposed by digging. See Sample Numbers CP-24, -25

SAMPLE INTERVAL: 18 cm channel sample

TYPE OF MATERIAL: Clay

UNFIRED CHARACTERISTICS: Yellowish-grey, noncalcareous clay. Very good workability. Highly plastic. Water of plasticity 37.5%. Safe drying. Air shrinkage 8.8%. Modulus of rupture 472 p.s.i. Benzidine test negative. Slight warping on drying.

P.C.E.: 15+

FIRED CHARACTERISTICS:

Temp °F	Fired Shrinkage %	Absorption %	Colour	Hardness
1750	9.61	5.71	Moderate reddish brown	Steel hard
1820	10.18	3.43	Moderate reddish brown	Steel hard
1880	10.79	2.34	Moderate reddish brown	Steel hard
1945	10.86	2.21	Moderate reddish brown	Steel hard
2000	11.12	1.91	Dark reddish brown	Steel hard
2055	10.80	0.87	Dark reddish brown	Steel hard
2100	10.56	0.79	Dark reddish brown	Steel hard
2145	9.85	0.65	Dark reddish brown	Steel hard
2185	9.43	2.83	Dark yellowish brown	Steel hard
2215	8.95	2.83	Dark yellowish brown	Steel hard
2236	8.44	2.37	Dark yellowish brown	Steel hard
2255	7.60	2.46	Moderate yellowish brown	Steel hard
2272	7.23	2.56	Moderate yellowish brown	Steel hard

POTENTIAL USES: None

ANTIGONISH COUNTY

Sample Number

CP-24

TOPOGRAPHICAL SHEET: 11F/12

LOCATION: Along the shore of St. Georges Bay, approximately 800 m northwest of Monks Head (Fig. 11).

UTM: 590280 E
5058770 N

GEOLOGICAL UNIT: Pleistocene clay, Quaternary age

DESCRIPTION: Light greenish-grey clay containing pebbles and small sandy pockets. Iron carbonate stains are present along with organic material. The clay is 61 cm thick and the middle of three horizons found at this site. See Sample Numbers CP-23, -25.

ATTITUDE OF BEDDING: Essentially horizontal

SAMPLE INTERVAL: 61 cm channel sample

TYPE OF MATERIAL: Clay

UNFIRED CHARACTERISTICS: Light brown, noncalcareous clay containing stones and sandy material. Poor workability. Poorly plastic. Water of plasticity 16.0%. Safe drying. Air shrinkage 3.8%. Modulus of rupture 221 p.s.i. Benzidine test negative.

P.C.E.: 8+

FIRED CHARACTERISTICS:

Cone No.	Fired Shrinkage %	Absorption %	Colour	Hardness
04	0.70	8.99	Light mod. reddish brown	Hard
02	2.43	6.54	Moderate reddish brown	Very hard
1	2.43	6.05	Moderate reddish brown	Very hard to steel hard

POTENTIAL USES: None

ANTIGONISH COUNTY

Sample Number
CP-25

TOPOGRAPHICAL SHEET: 11F/12

LOCATION: Along the shore of St. Georges Bay, approximately 800 m northwest of Monks Head (Fig. 11).

UTM: 590280 E
5058770 N

GEOLOGICAL UNIT: Pleistocene clay, Quaternary age

DESCRIPTION: Light yellowish-grey clay containing grit and stones. Iron carbonate stains and organic material are present. This sample represents the lower most of three horizons of clay at this site. It is 20 cm thick and grades down into sand. See Sample Numbers CP-23, -24

ATTITUDE OF BEDDING: Essentially horizontal

SAMPLE INTERVAL: 20 cm channel sample

TYPE OF MATERIAL: Clay

UNFIRED CHARACTERISTICS: Yellowish-grey, noncalcareous clay. Fair workability. Fairly plastic. Water of plasticity 20.8%. Safe drying. Air shrinkage 5.1%. Modulus of rupture 249 p.s.i. Benzidine test negative.

P.C.E.: 12-

FIRED CHARACTERISTICS:

Cone No.	Fired Shrinkage %	Absorption %	Colour	Hardness
04	1.58	11.0	Moderate reddish orange	Hard
02	3.87	6.37	Dark moderate reddish orange	Very hard to steel hard
1	4.75	6.47	Light moderate reddish brown	Very hard to steel hard

POTENTIAL USES: None

ANTIGONISH COUNTY

Sample Number
CP-63

TOPOGRAPHICAL SHEET: 11F/12

LOCATION: Exposure along the western bank of the South River approximately 1 km north of the bridge crossing the River, 1.2 km west of St. Andrews (Fig.10).

UTM: 585430 E
5046520 N

GEOLOGICAL UNIT: Clay, Quaternary age

DESCRIPTION: Brown clay containing some iron carbonate and organic material. The thickness of the clay is in excess of 30 cm.

SAMPLE INTERVAL: Channel sample across the top 30 cm of thickness

TYPE OF MATERIAL: Clay

UNFIRED CHARACTERISTICS: Reddish-brown, noncalcareous clay. Good workability. Plastic. Water of plasticity 23.6%. Safe drying. Air shrinkage 6.4%. Modulus of rupture 227 p.s.i. Benzidine test negative.

P.C.E.: 4-

FIRED CHARACTERISTICS:

Cone No.	Fired Shrinkage %	Absorption %	Colour	Hardness
06	2.50	9.32	Moderate reddish orange	Hard
04	3.91	7.36	Moderate reddish orange	Hard
02	8.16	2.43	Dark moderate reddish brown	Steel hard

REMARKS: Short firing range

POTENTIAL USES: None