



GEOLOGICAL SURVEY OF CANADA

OPEN FILE 2149

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# OVERBURDEN DRILLING PROGRAM IN THE SAINT JOHN VALLEY AND THE BAIE DES CHALEURS COASTAL AREA OF NORTHERN NEW BRUNSWICK: TILL GEOCHEMISTRY AND BOREHOLE LOGS

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## **INTRODUCTION**

As part of the Canada-New Brunswick Mineral Development Agreement 1984-89 (objectives described in Lamothe, 1988), a deep overburden drilling project was conducted in the winter of 1986-87, in the St.John Valley , between Edmunston and Fredericton, and in the vicinity of Bathurst (Figures 1, 2, 3, and 4). The objectives of this study were to document the buried lithostratigraphic and chemostratigraphic successions over two major areas of western New Brunswick (see Rampton et al., 1984, for details about the current Pleistocene stratigraphy). This report presents the detailed log description of those boreholes where significant thicknesses of drift were encountered and a series of geochemical results obtained from two granulometric fractions of the till samples.

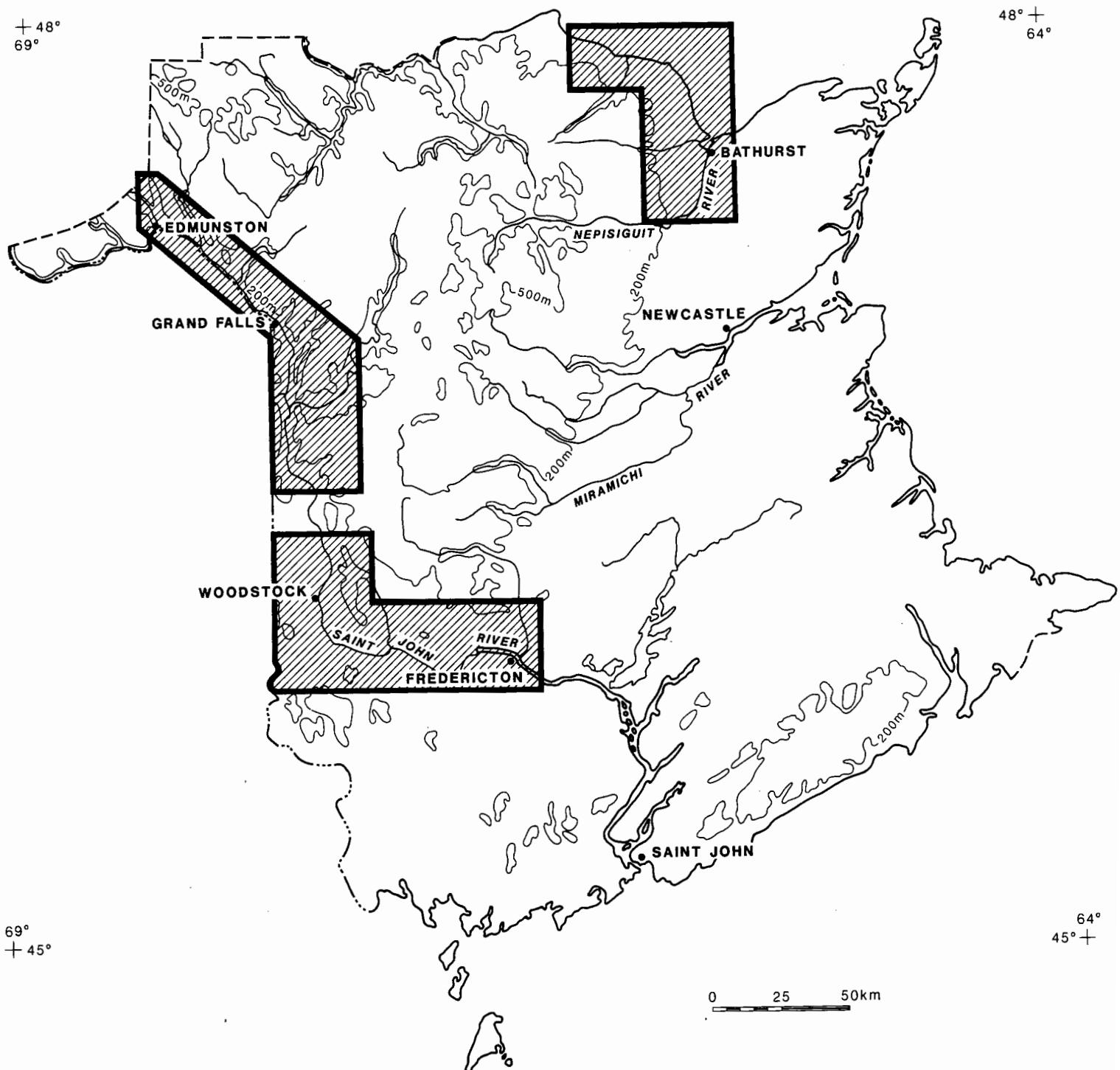
### **A) THE DRILLING PROGRAM**

Borehole sites were selected after a survey of the waterwell catalog of the New Brunswick Department of Environment, followed by a program of seismic refraction, conducted in the fall of 1986, by R. Gagné of the Terrain Sciences Division. Rotasonic drilling was contracted to Midwest Ltd (Winnipeg). A full description of the drilling equipment and operations can be found in Averill et al. (1986). Recovery of the core was on the order of 95 to 100 %. Coreshack log descriptions (Figures 6 to 44 ) as well as core sampling were accomplished upon arrival by S.J. Courtney, consulting geologist.

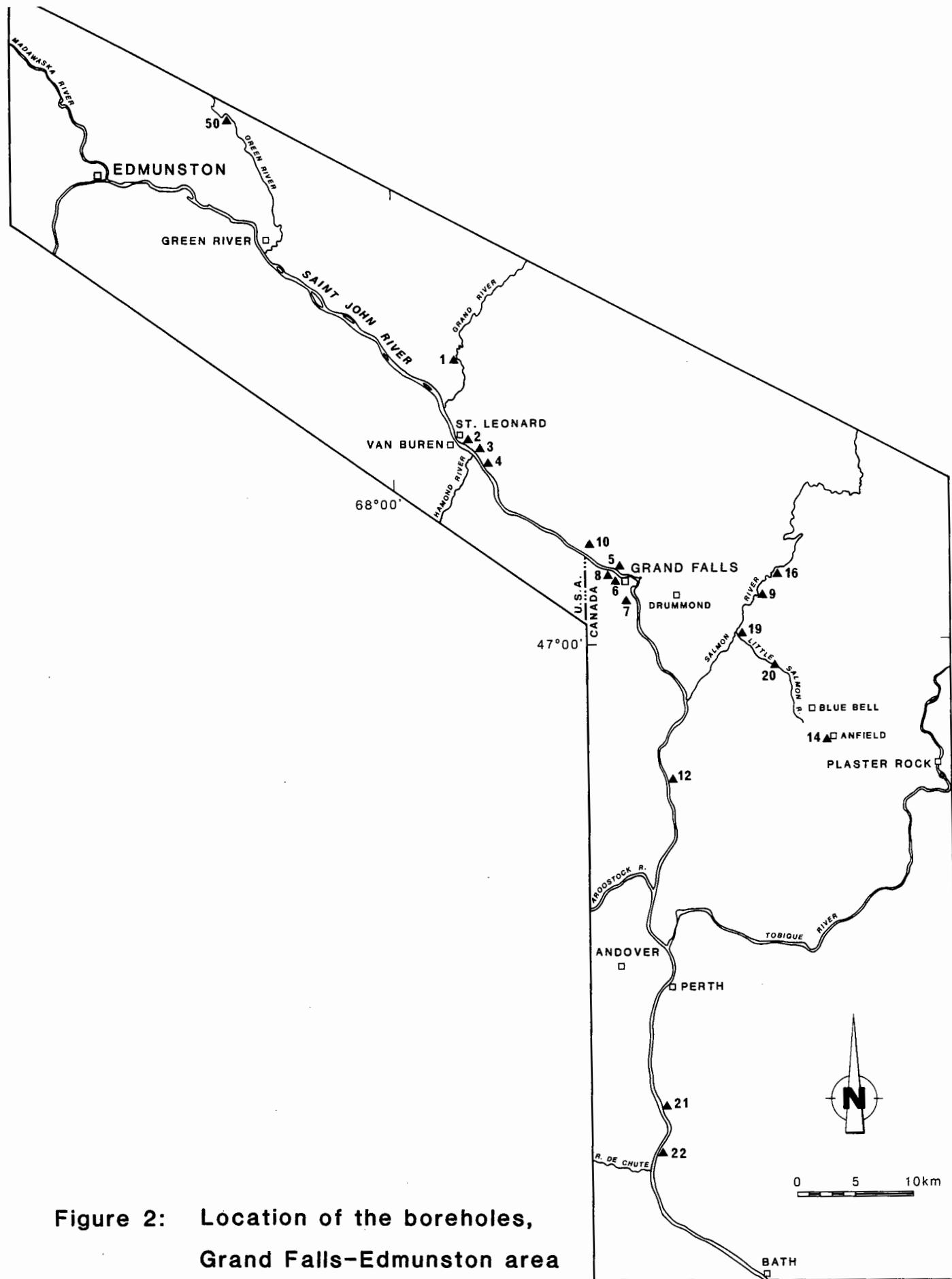
### **B) TILL GEOCHEMISTRY**

Two grain-size fractions have been analyzed for each till sample.

- (1) The clay-sized fraction ( $< 2\mu\text{m}$ ) was analyzed for As, Co, Cr, Cu, F, Fe, Hg, Mn, Mo, Ni, Pb, Sn, U, W, and Zn.
- (2) The silt plus clay fraction ( $< 63 \mu\text{m}$ ) fraction was analyzed by neutron activation by two different companies. The reasons for this are explained in Lamothe (1988) . Samples with observation code #1, 2 were analyzed by Bondar Clegg and Co. Ltd (Ottawa). Samples with

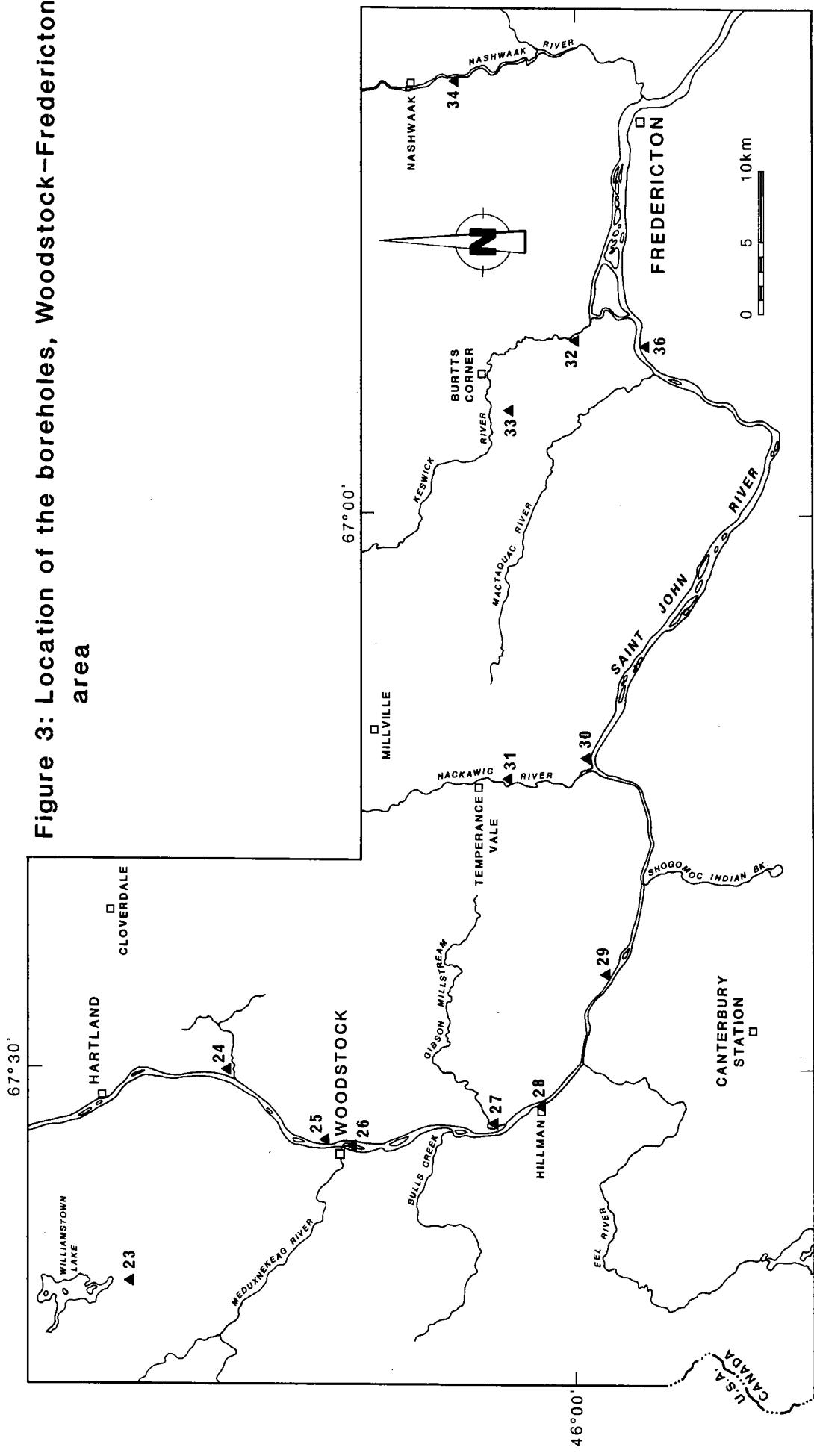


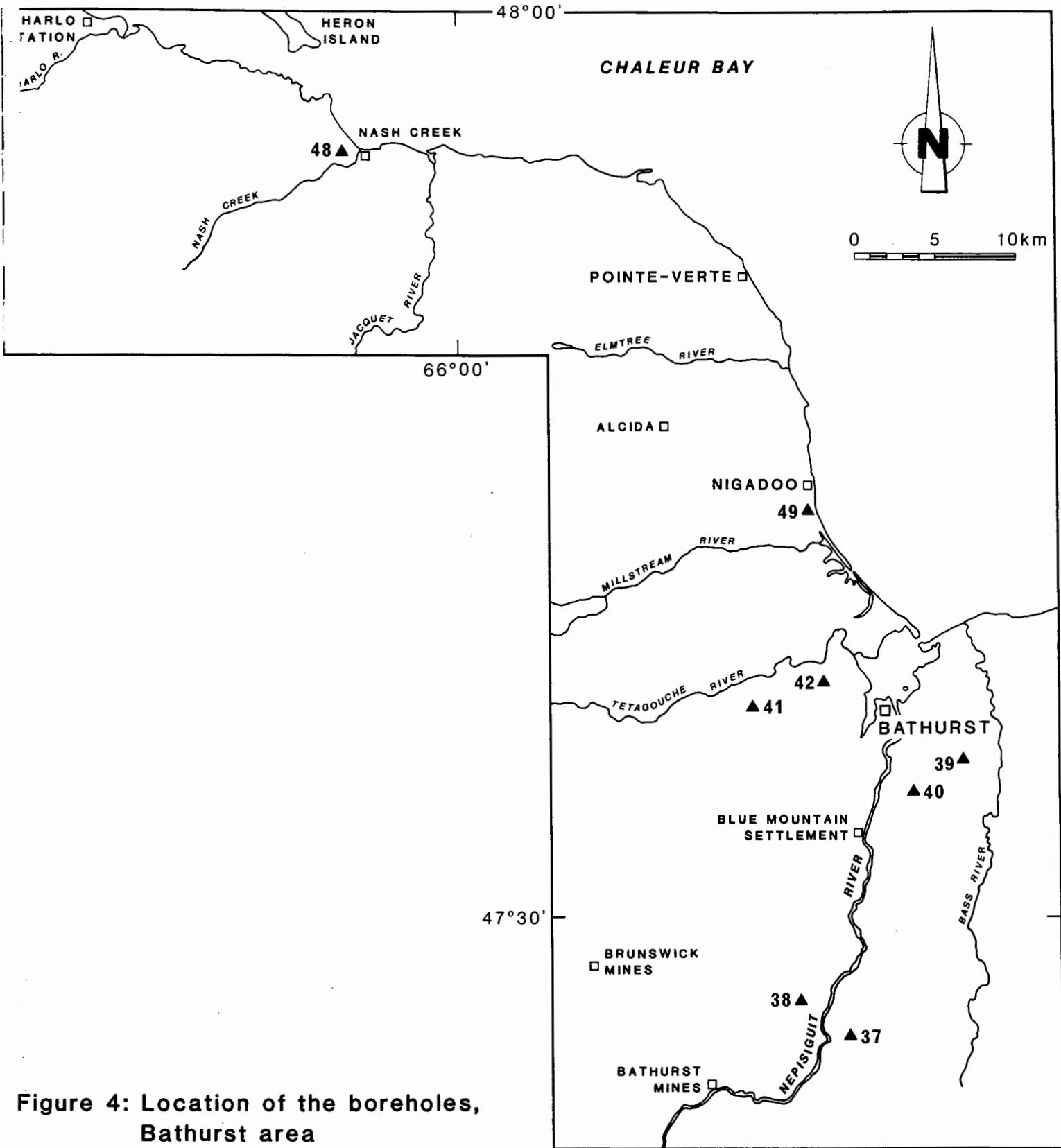
**Figure 1: Location of the Grand Falls-Edmunston, Woodstock-Fredericton and Bathurst zones where overburden drilling was conducted (shaded areas)**



**Figure 2: Location of the boreholes,  
Grand Falls-Edmunston area**

**Figure 3: Location of the boreholes, Woodstock–Fredericton area**





**Figure 4: Location of the boreholes,  
Bathurst area**

observation code numbers 10, and 11 were analyzed by Chemex Labs Ltd. (Vancouver).

The detection limits, methods, and notes to geochemical tables are listed in Table I. Geochemical analyses of samples which were lower than the detection limit are given at half this value. The geochemistry of the clay fraction of the till samples is presented on Table II, whereas the geochemistry of the silt plus clay fraction is presented on Table III. Table IV shows the geochemical results obtained on the bedrock sampled at the bottom of the boreholes. A list of the duplicate analyses for selected elements for the clay and the clay plus silt fraction of the till samples can be found on Tables V and VI. Reproducibility for antimony (Sb), arsenic (As), copper (Cu), uranium (U), zinc (Zn), mercury (Hg), and tin (Sn) are presented graphically on Figures 52 to 58.

## ACKNOWLEDGEMENTS

Assistance during field work was provided by several students and colleagues of the Geological Survey. Special thanks are given to A. Plouffe, N. Brunet, M. Lockhart, and E. Boisvert.

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- Lamothe, M., 1988 Till geochemistry over the northern part of the Miramichi Zone and its vicinity, New Brunswick, Geological Survey of Canada Open File 1909.
- Rampton, V.N., Gauthier, R.C., Thibault, J. and Seaman, A.A., 1984: Quaternary geology of New Brunswick, Geological Survey of Canada Memoir 416, 77p.

## G.S.C New Brunswick Drilling Program

### Guide To Borehole Log Interpretation

#### Legend

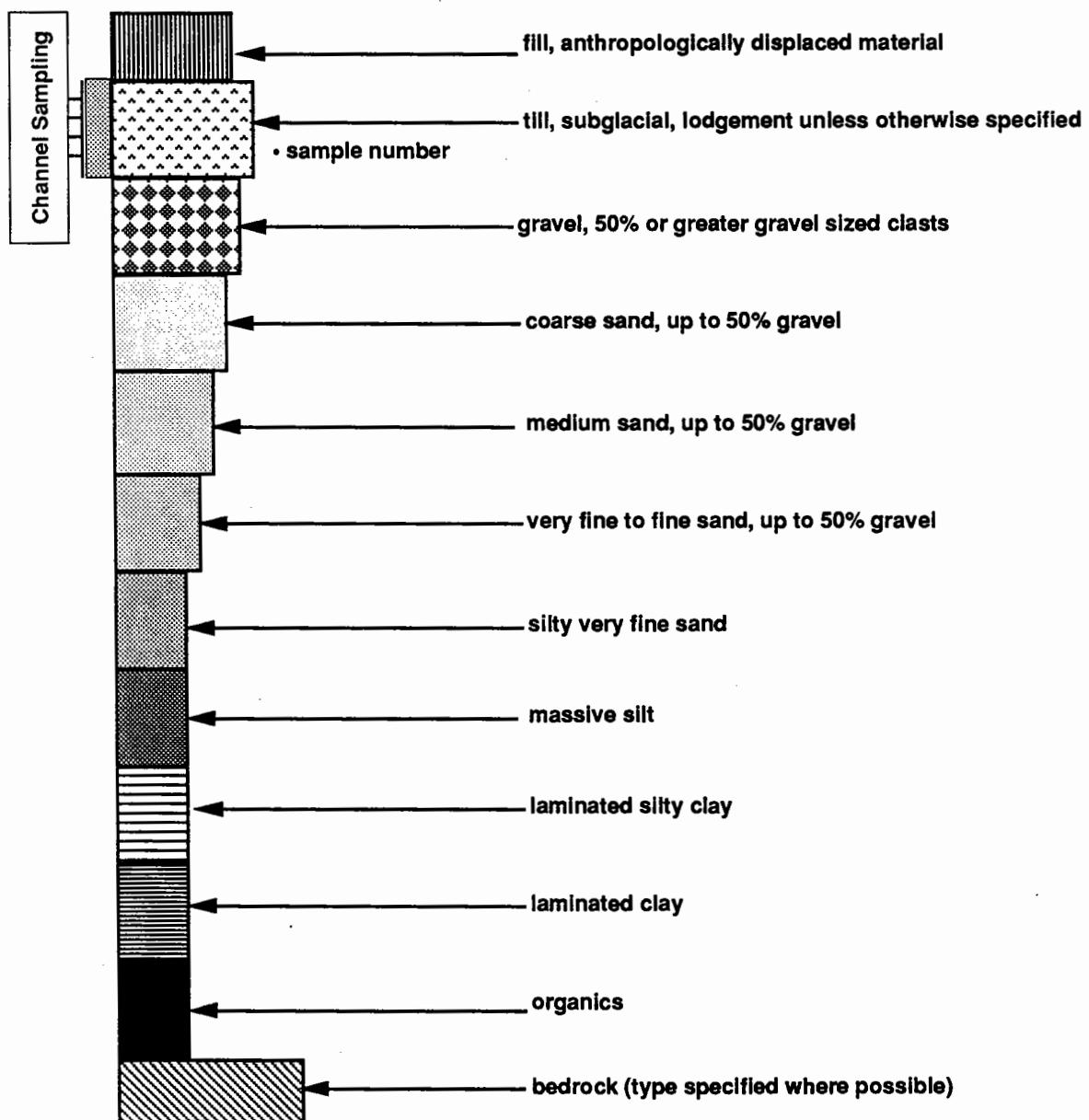


Figure 5: Guide to borehole log interpretation

<b>3001</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting : 581200	St.Andre
northing : 5230250	21O/4
Depth Drilled 78 ft	Elevation : 500 ft

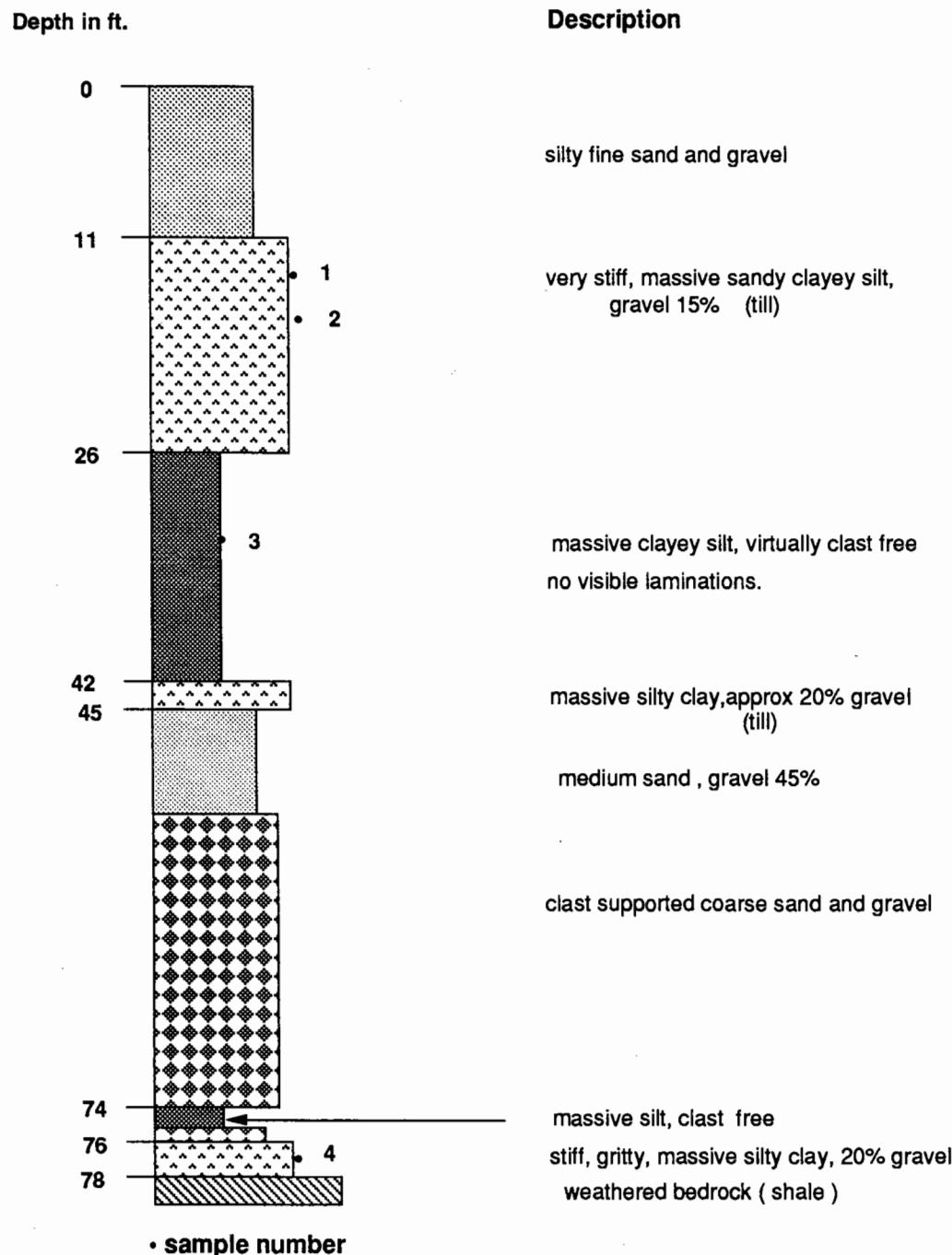
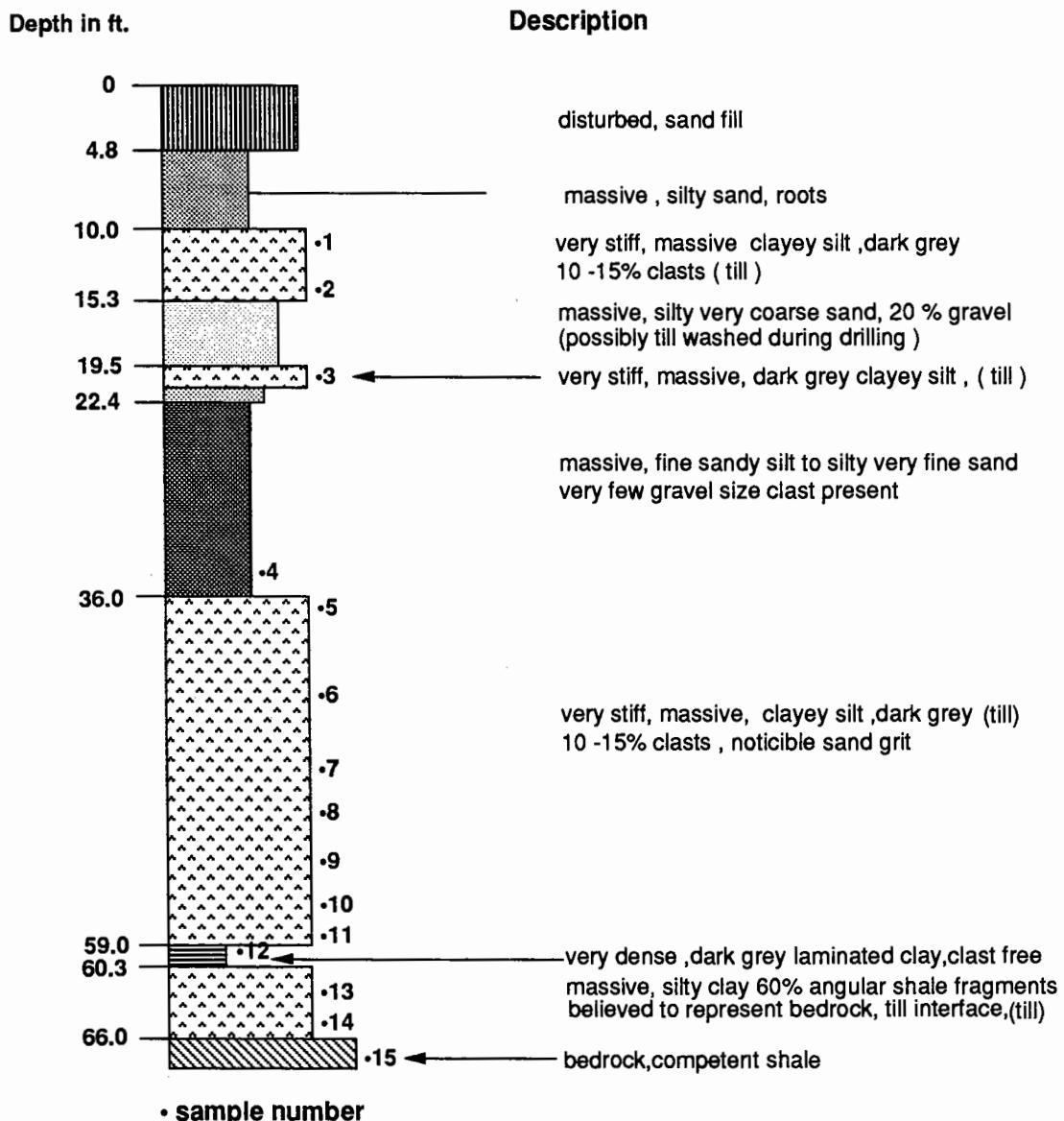


Figure 6: Borehole No. 1

**3002**



**Figure 7:** Borehole No. 2

<b>3003</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 583150	<b>St. Andre</b>
<b>northing</b> 5222050	<b>21N/1</b>
<b>Depth Drilled : 72 ft.</b>	<b>Elevation : 500 ft</b>

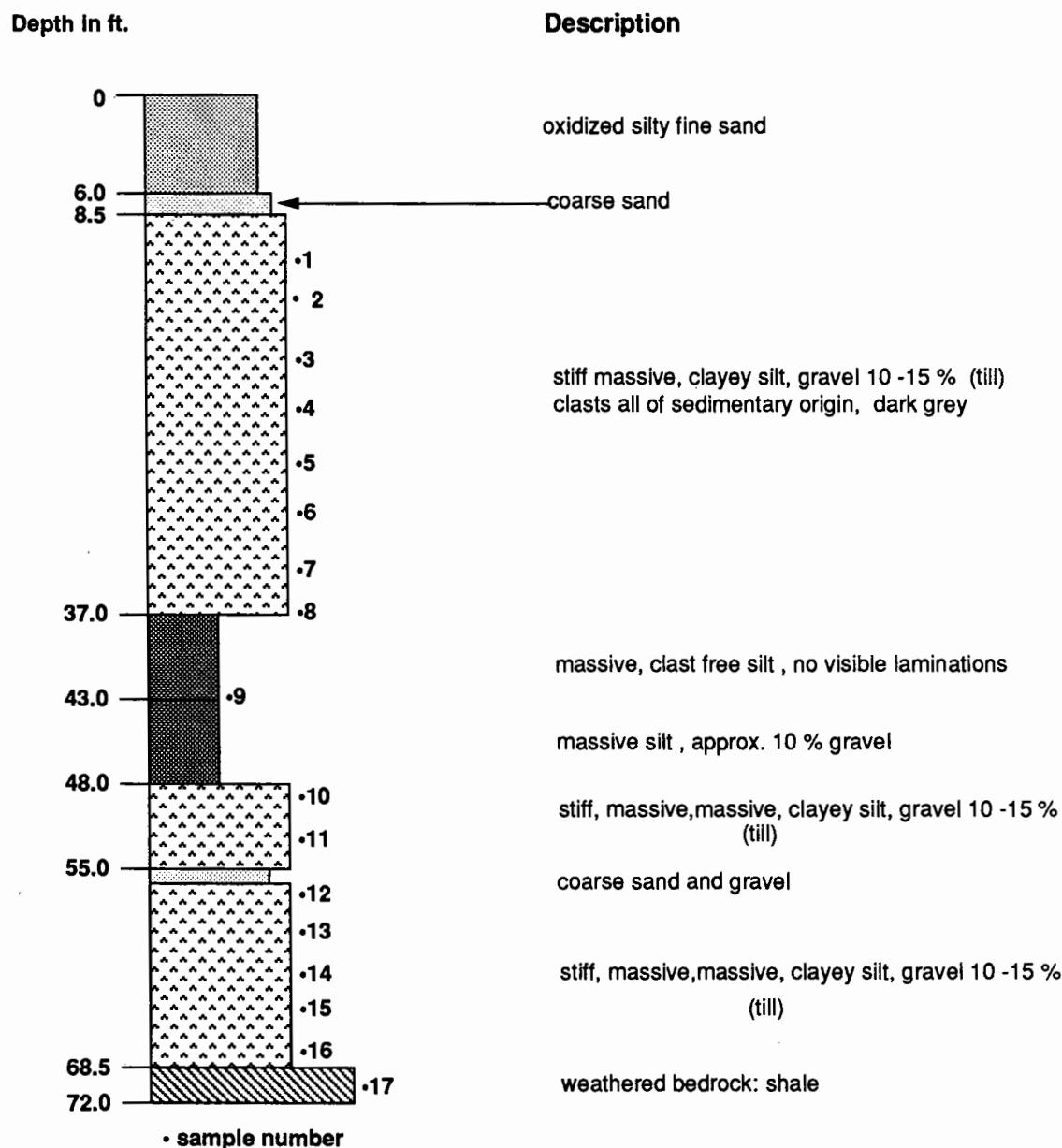


Figure 8: Borehole No. 3

# 3004

<b>Location</b>	<b>NTS Map Sheet</b>
easting   583250	St. Andre
northing  5221150	21N/1
<b>Depth Drilled : 132 ft.</b>	<b>Elevation : 475 ft</b>

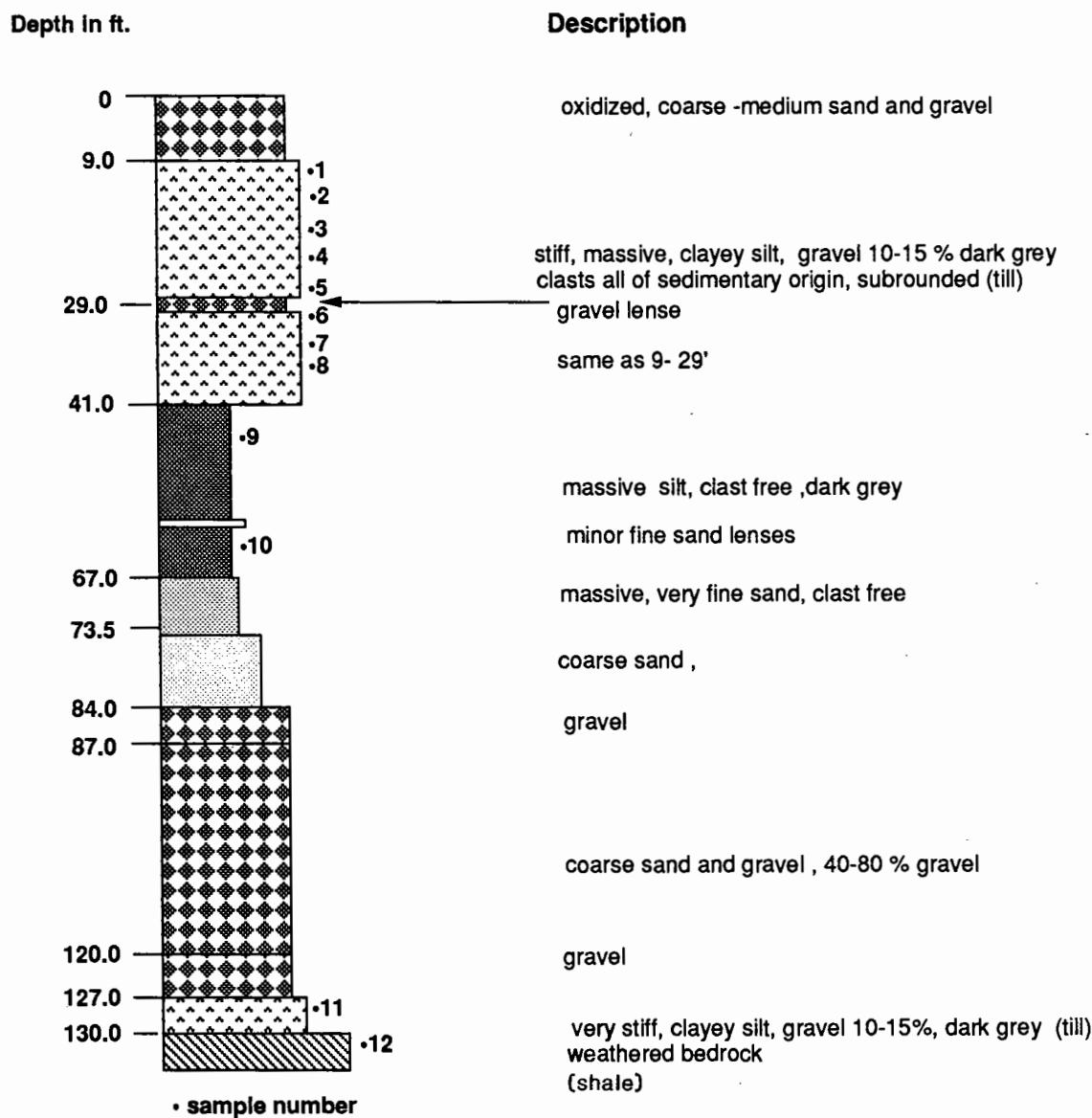


Figure 9: Borehole No. 4

# 3005

<b>Location</b>	<b>NTS Map Sheet</b>
easting 595100	St. Andre
northing 5211400	21N/1
<b>Depth Drilled : 118 ft.</b>	<b>Elevation : 500 ft</b>

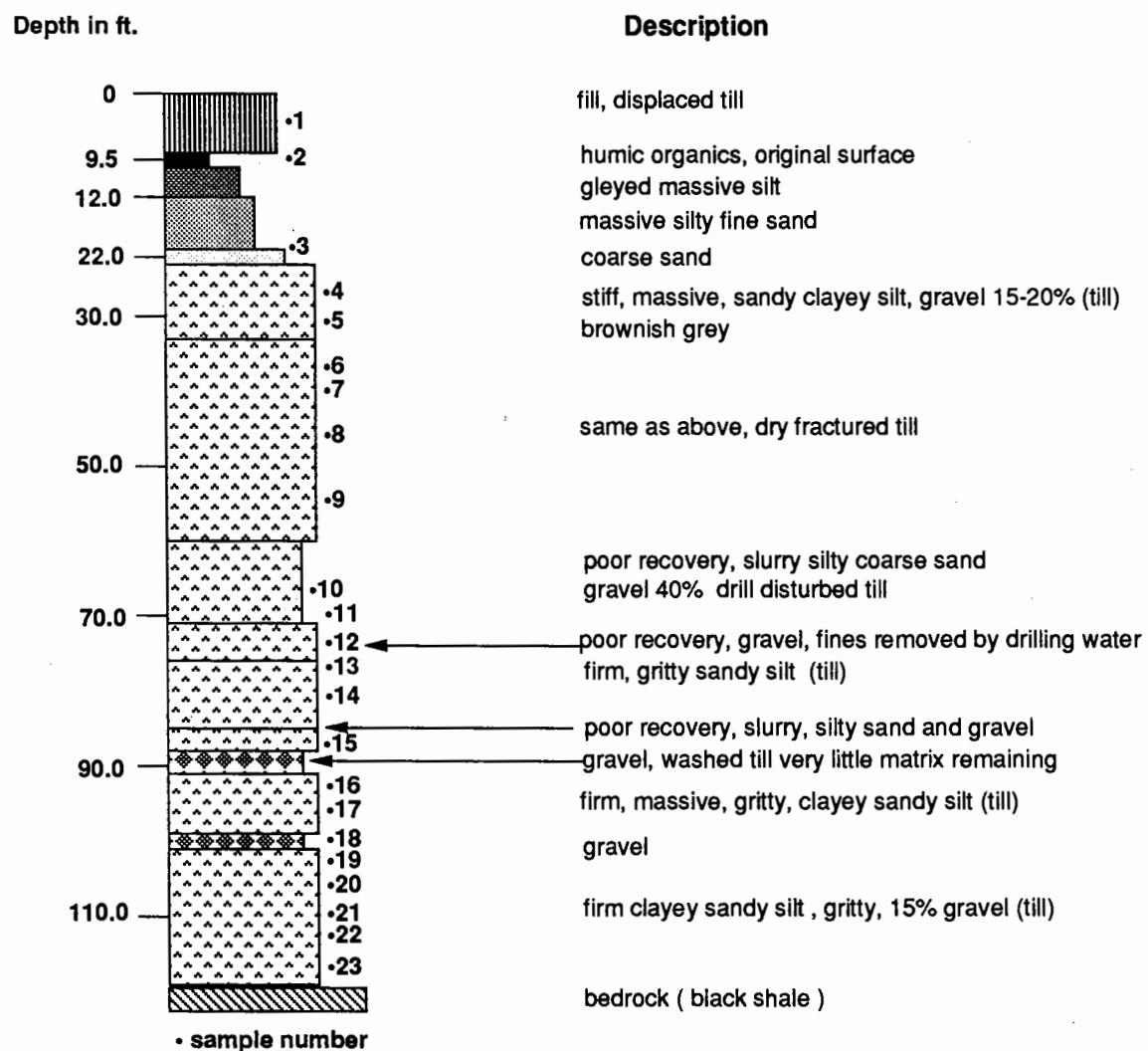


Figure 10: Borehole No. 5

<b>3006</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   594950	St. Andre
northing  5210950	21N/1
<b>Depth Drilled : 197 ft</b>	<b>Elevation : 475 ft</b>

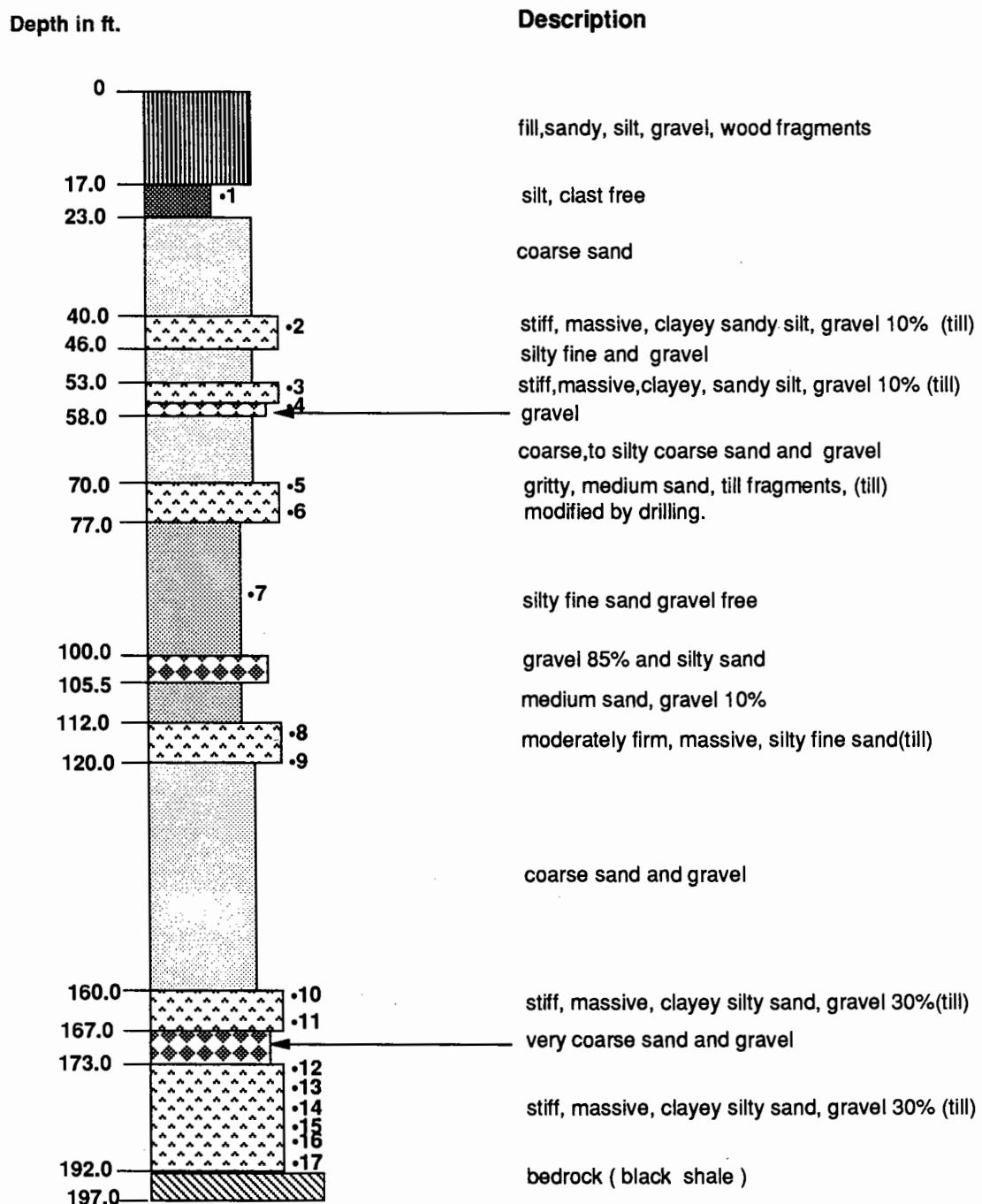


Figure 11: Borehole No. 6

# 3007

<b>Location</b>	<b>NTS Map Sheet</b>
easting 595750	St. Andre
northing 5209300	21N/1
Depth Drilled : 68 ft	Elevation : 475 ft

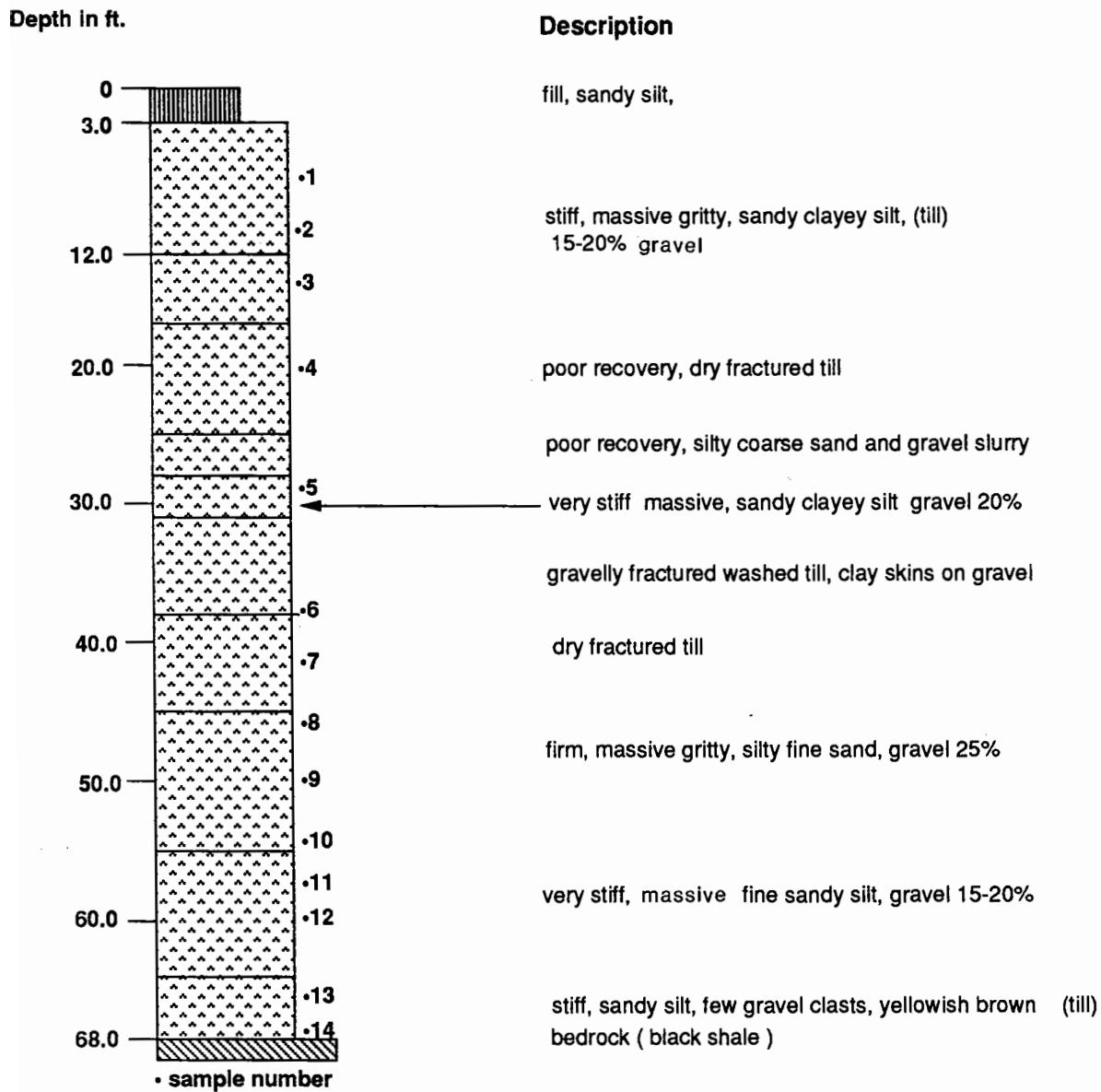


Figure 12: Borehole No. 7

<b>3008</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting 594500	St. Andre
northing 5211400	21N/1
<b>Depth Drilled : 203 ft.</b>	<b>Elevation : 475 ft</b>

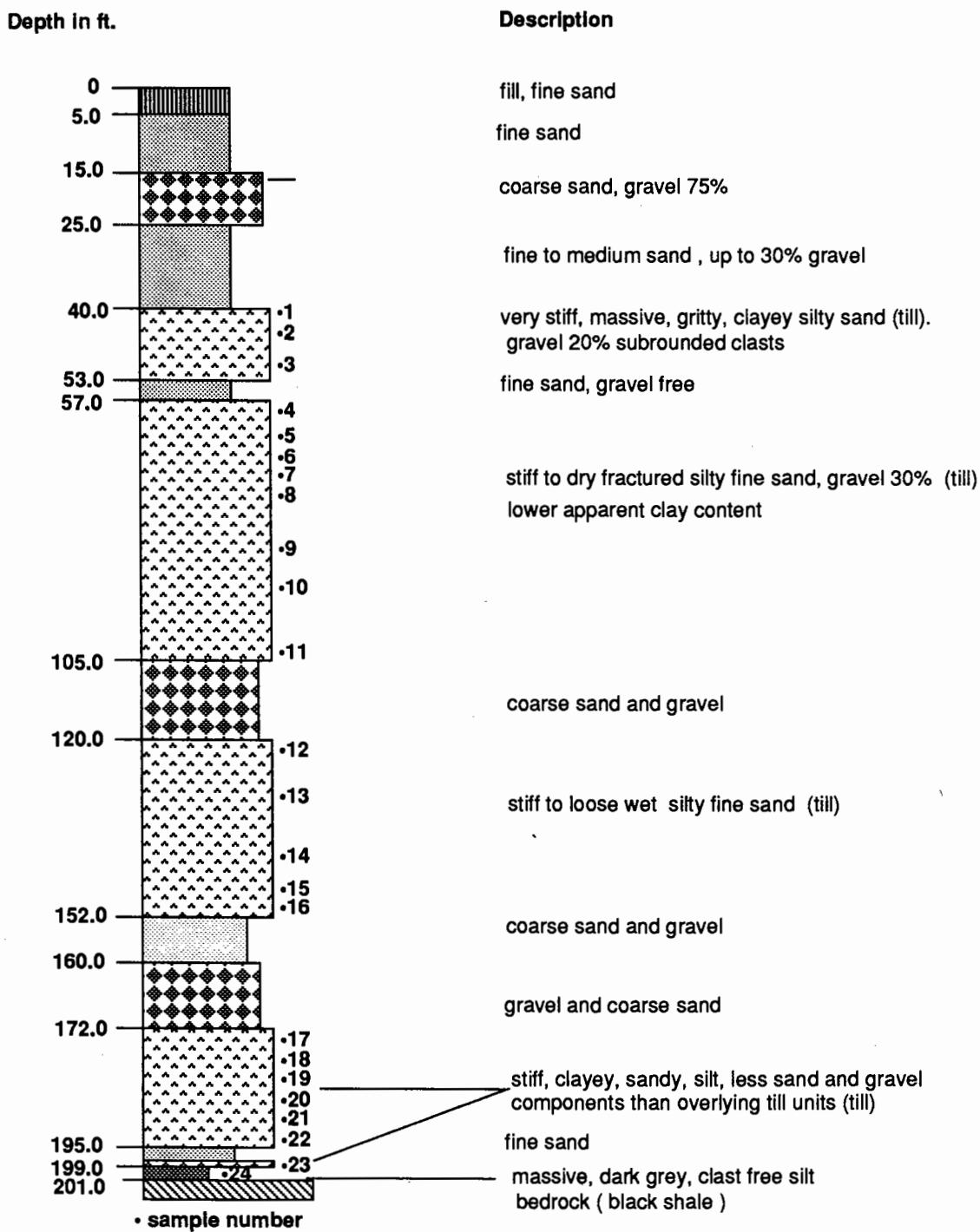


Figure 13: Borehole No. 8

<b>3009</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   607300	St. Andre
northing  5209900	21O/4 and 21N/1
<b>Depth Drilled :63 ft</b>	<b>Elevation : 475 ft</b>

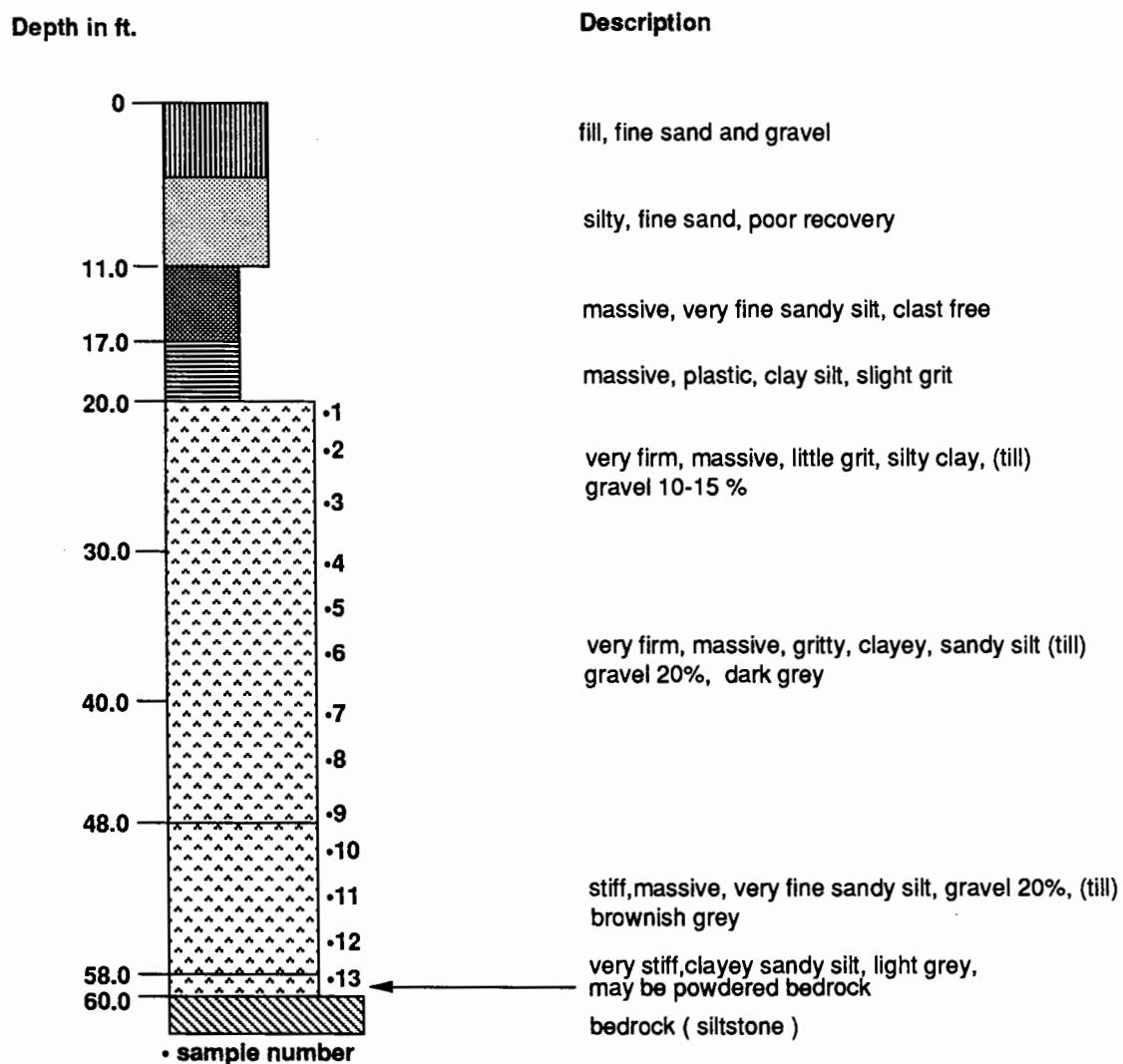
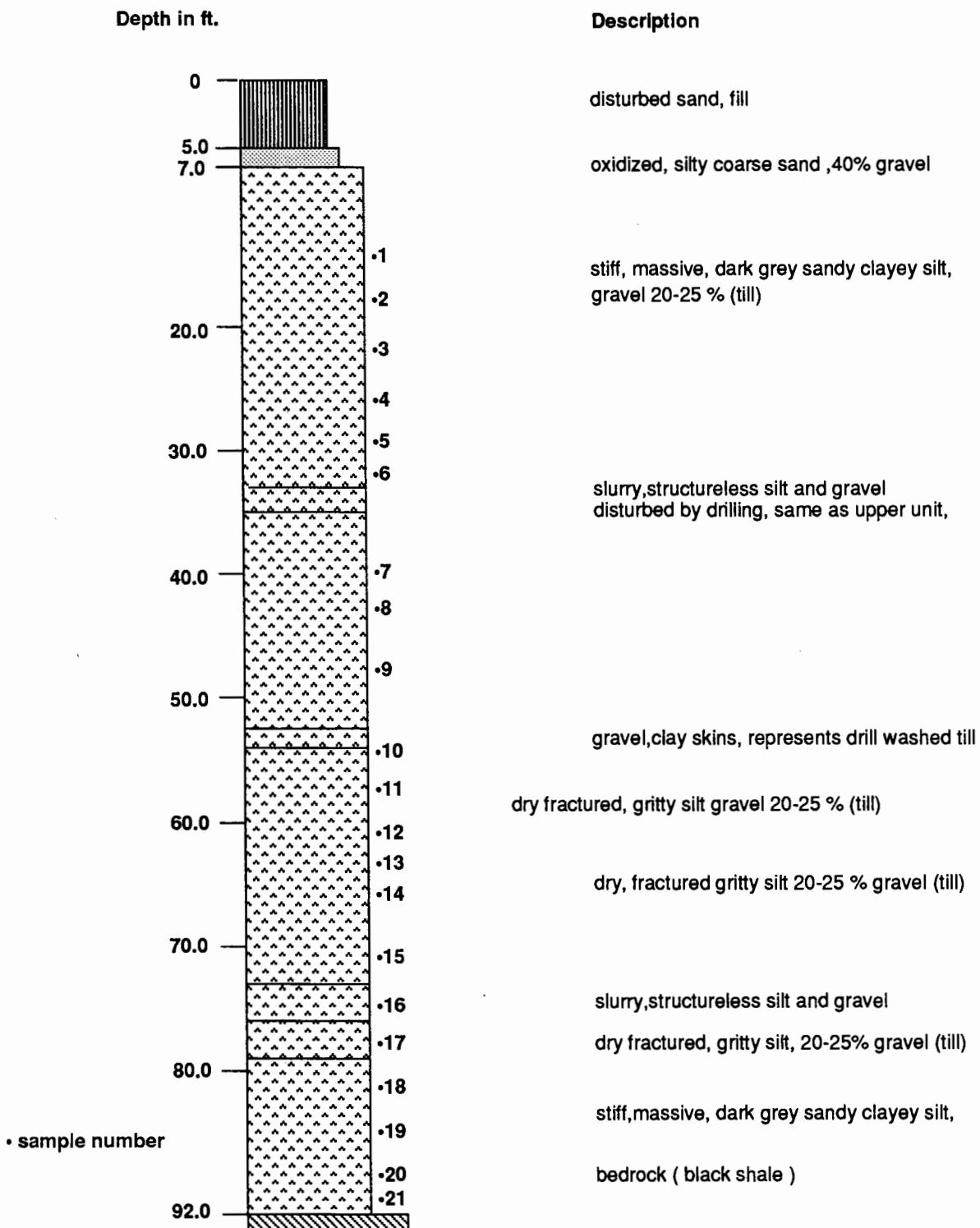


Figure 14: Borehole No. 9

**3010**



**Figure 15:** Borehole No. 10

<b>3012</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   599800	Aroostook
northing  5191200	21J/13
<b>Depth Drilled : 120 ft.</b>	<b>Elevation : 311 ft</b>

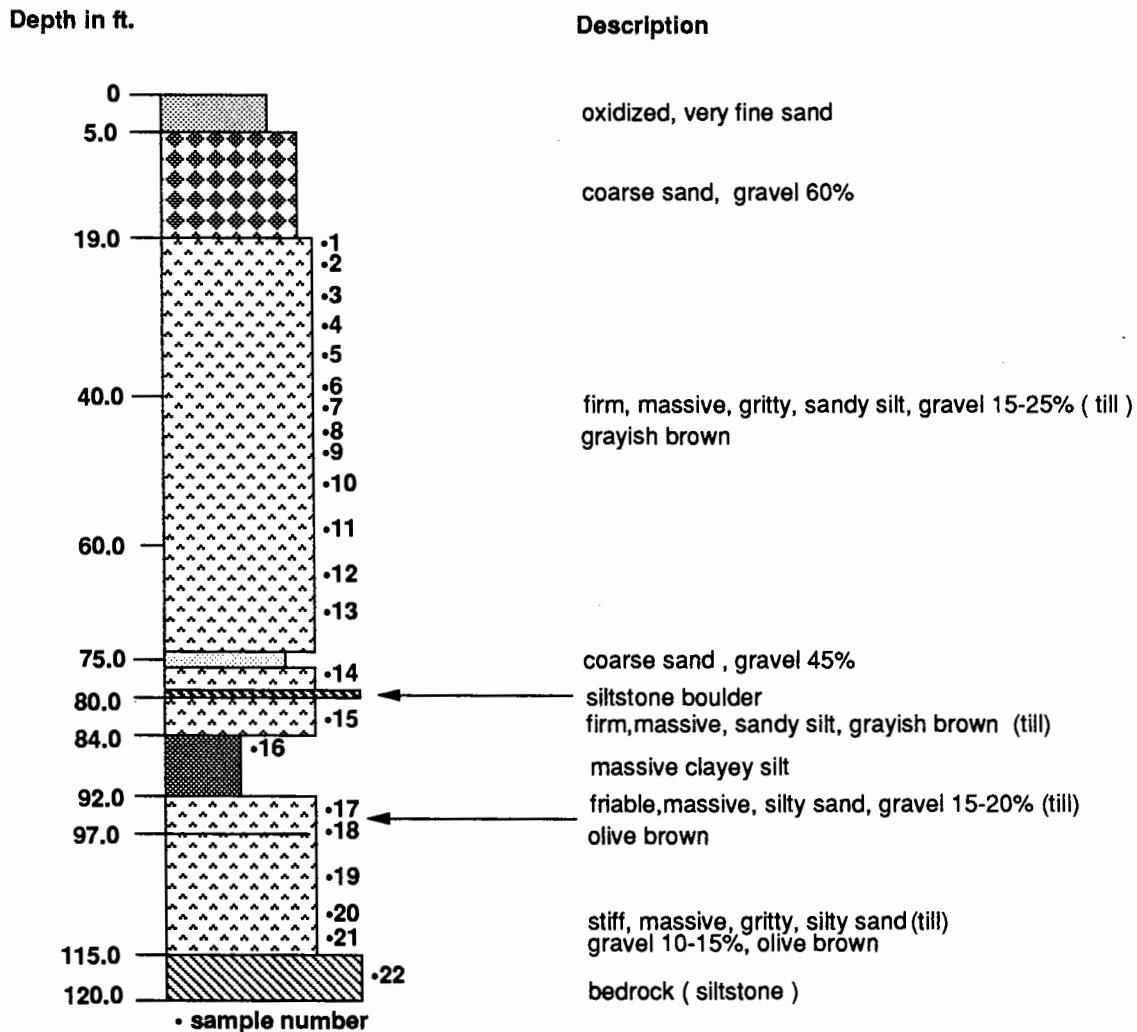


Figure 16: Borehole No. 12

<b>3014</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   612700	Aroostook
northing  5198200	21J/13
<b>Depth Drilled : 210 ft.</b>	<b>Elevation : 235 m</b>

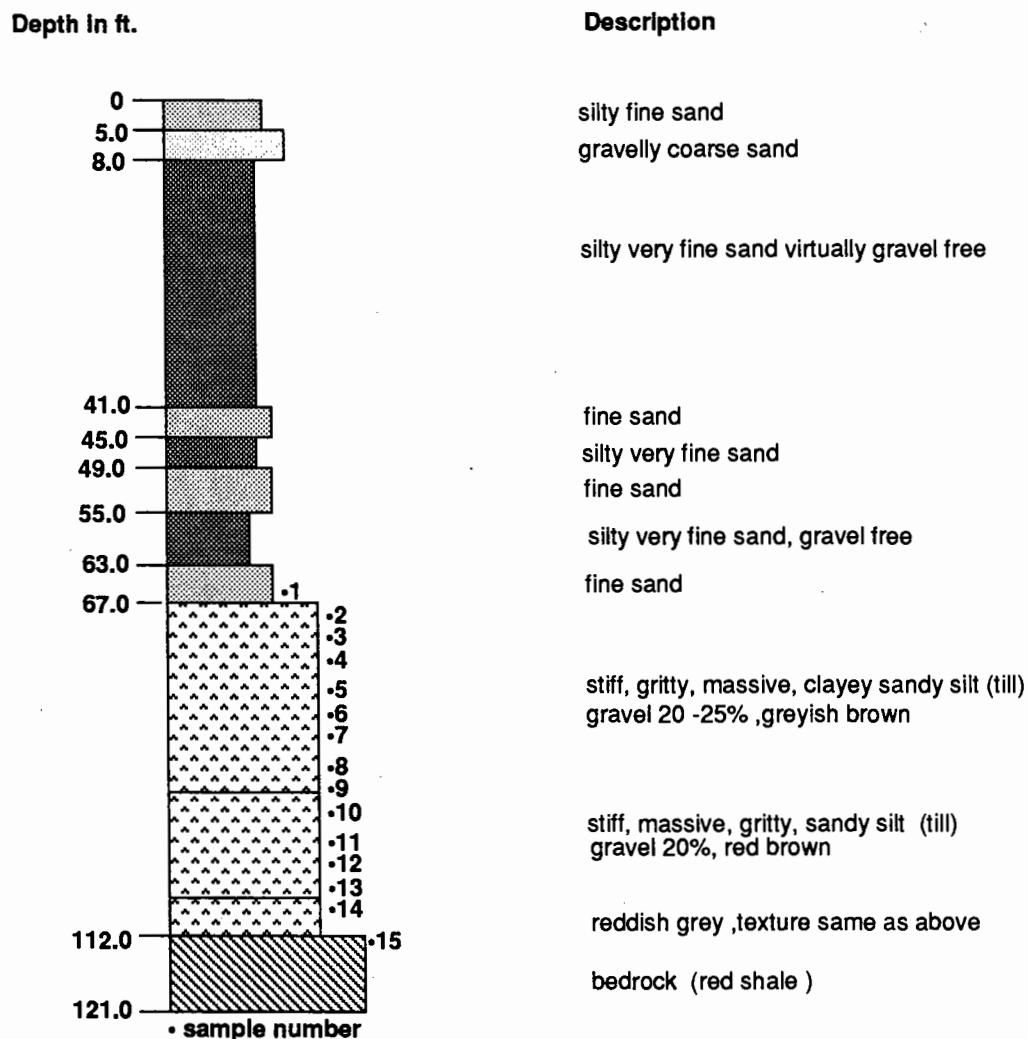


Figure 17: Borehole No. 14

<b>3016</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting 608300	St. Andre
northing 5211550	21-O/4 21-N/1
<b>Depth Drilled :118 ft</b>	<b>Elevation : 475 ft.</b>

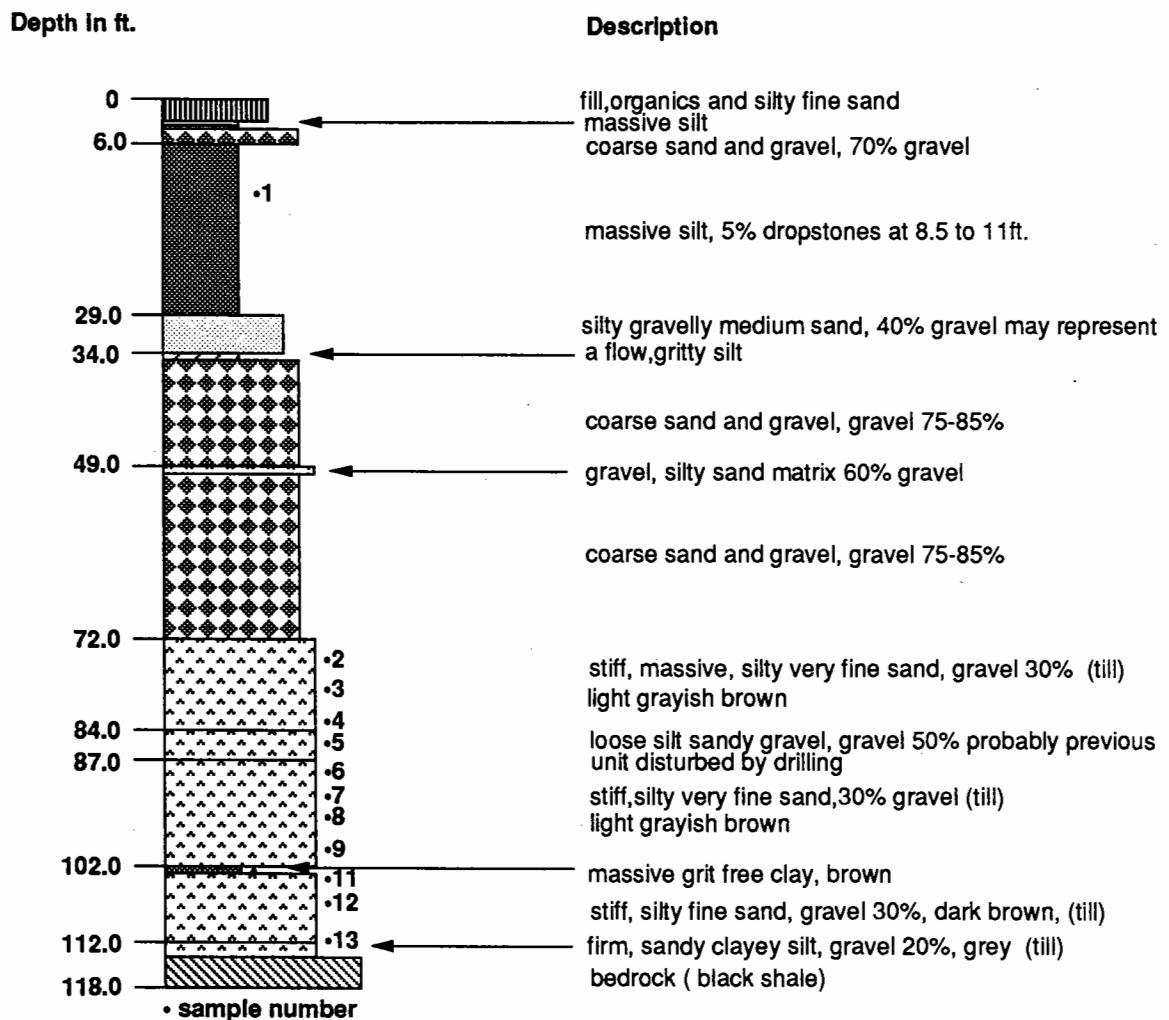


Figure 18: Borehole No. 16

3019	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   605650	St. Andre
northing  5207350	21O/4 21N/1
<b>Depth Drilled : 55 ft</b>	<b>Elevation : 400 ft.</b>

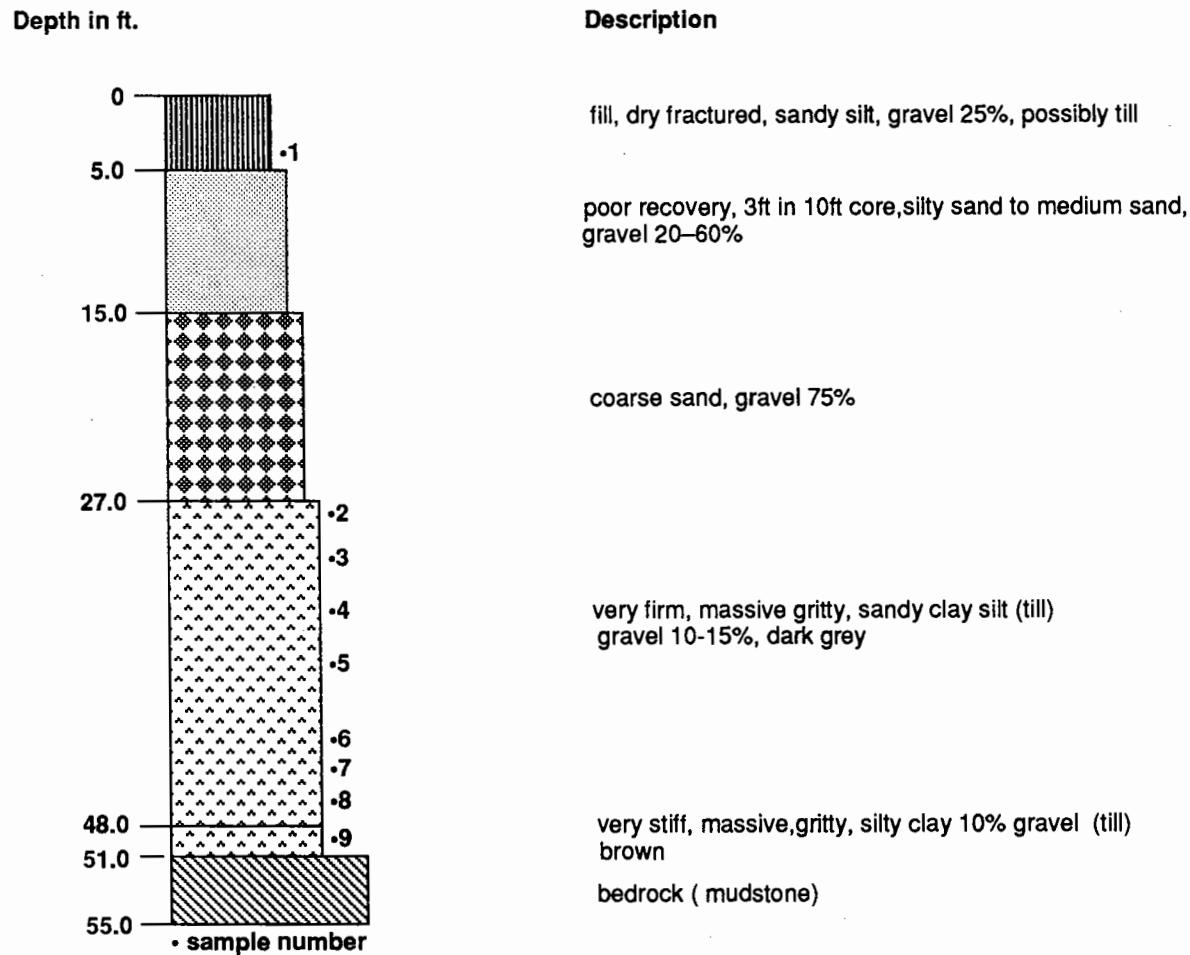
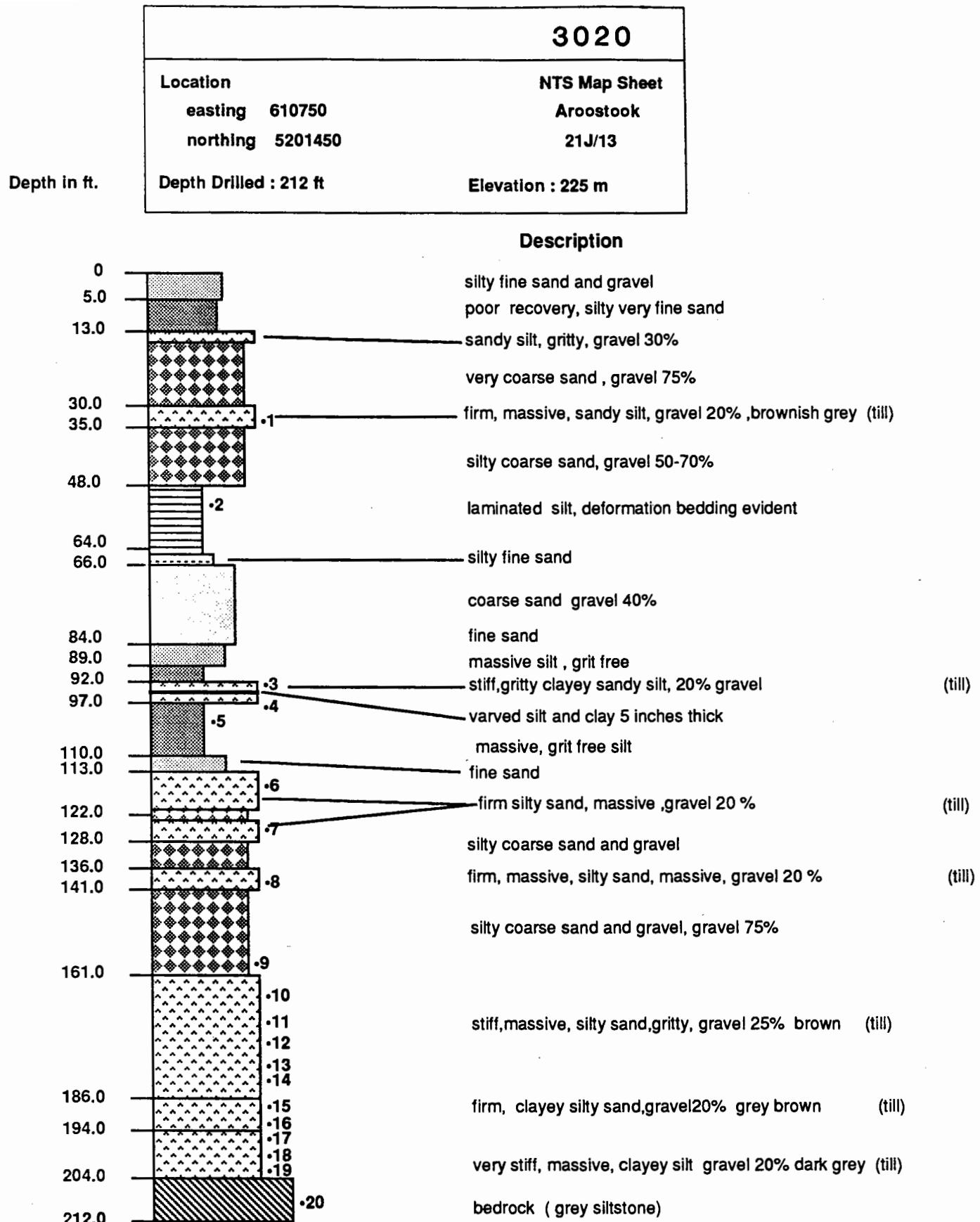


Figure 19: Borehole No. 19



• sample number

Figure 20: Borehole No. 20

# 3021

**Location**  
easting 598750  
northing 5166000  
Depth Drilled : 95 ft

**NTS Map Sheet**  
Perth Andover  
21J/12  
**Elevation : 312 ft**

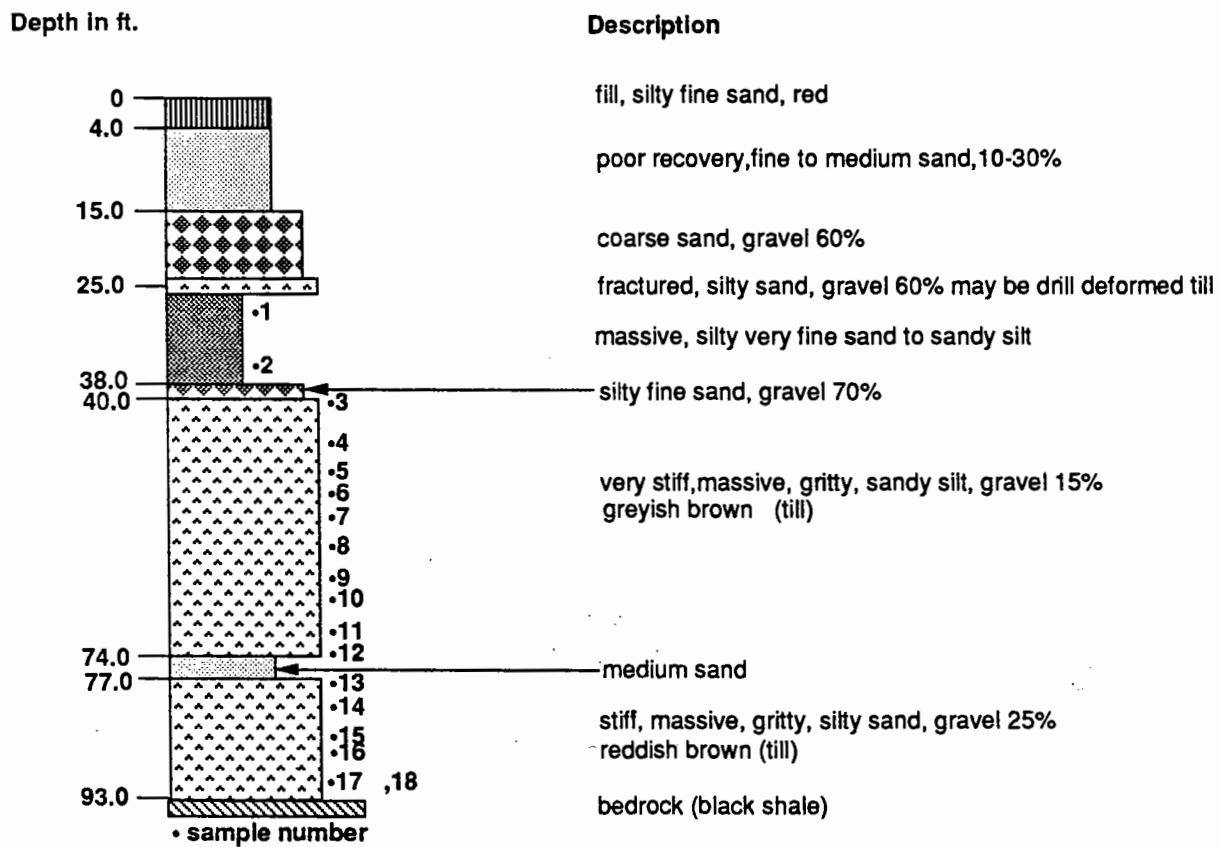


Figure 21: Borehole No. 21

<b>3022</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   598500	Perth Andover
northing  5162200	21J/12
<b>Depth Drilled : 104 ft</b>	<b>Elevation : 295 ft</b>

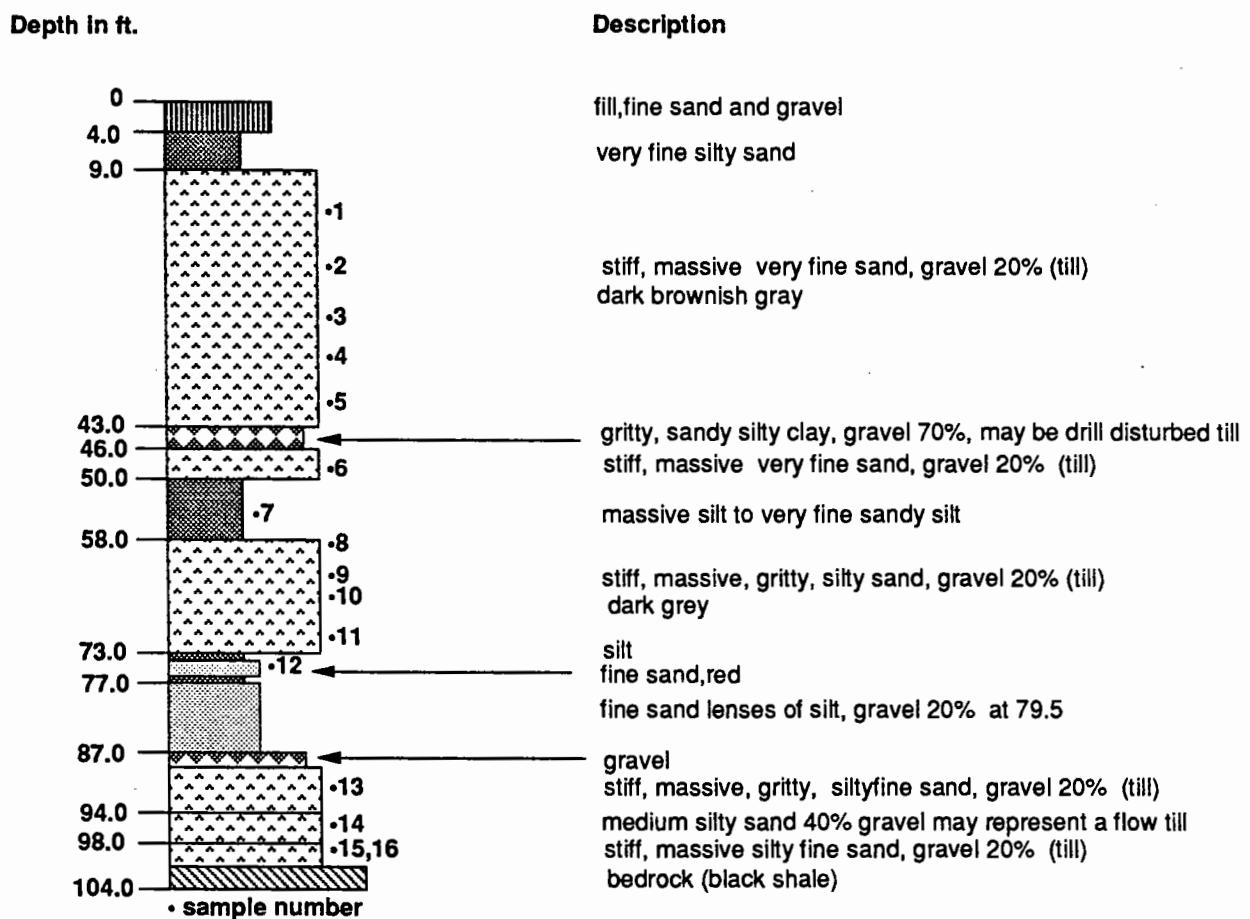


Figure 22: Borehole No. 22

<b>3023</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 600300	<b>Florenceville</b>
<b>northing</b> 5125950	<b>21J/5</b>
<b>Depth Drilled :22 ft</b>	<b>Elevation :130 ft</b>

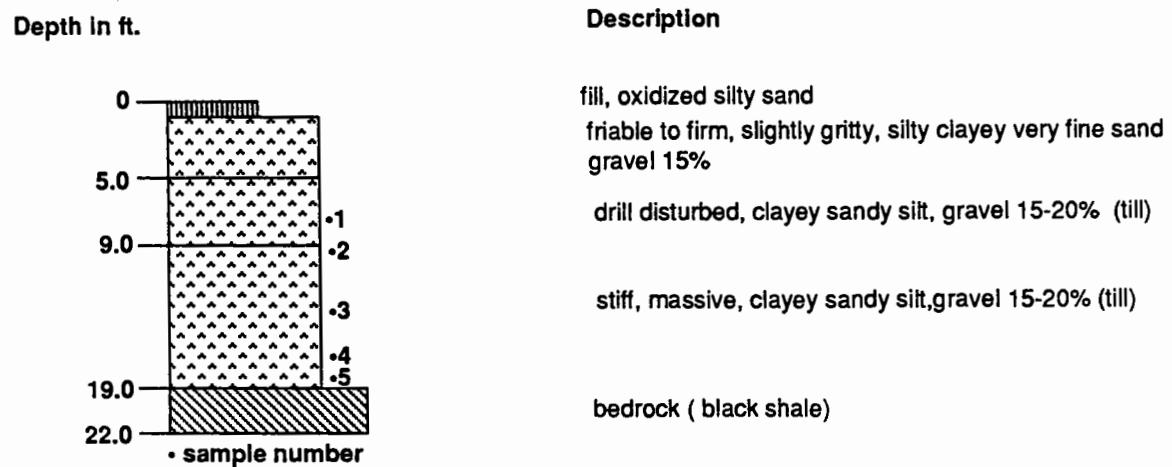


Figure 23: Borehole No. 23

<b>3024</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 615250	<b>Woodstock</b>
<b>northing</b> 5119250	<b>21J/4</b>
<b>Depth Drilled :24.5 ft</b>	<b>Elevation : 80 m</b>

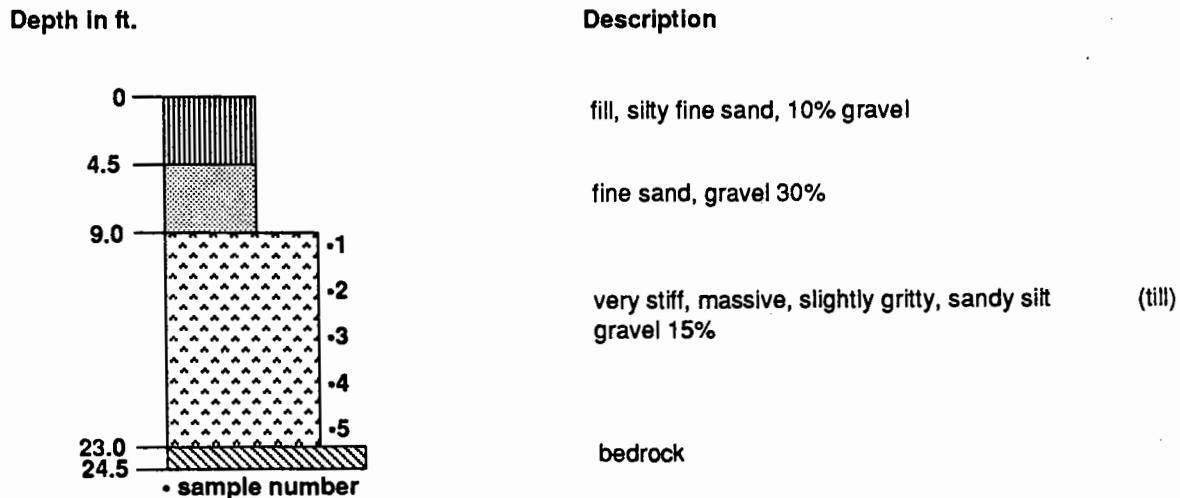


Figure 24: Borehole No. 24

<b>3025</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 610750	<b>Woodstock</b>
<b>northing</b> 5111900	<b>21J/4</b>
<b>Depth Drilled :125 ft</b>	<b>Elevation : 50 m</b>

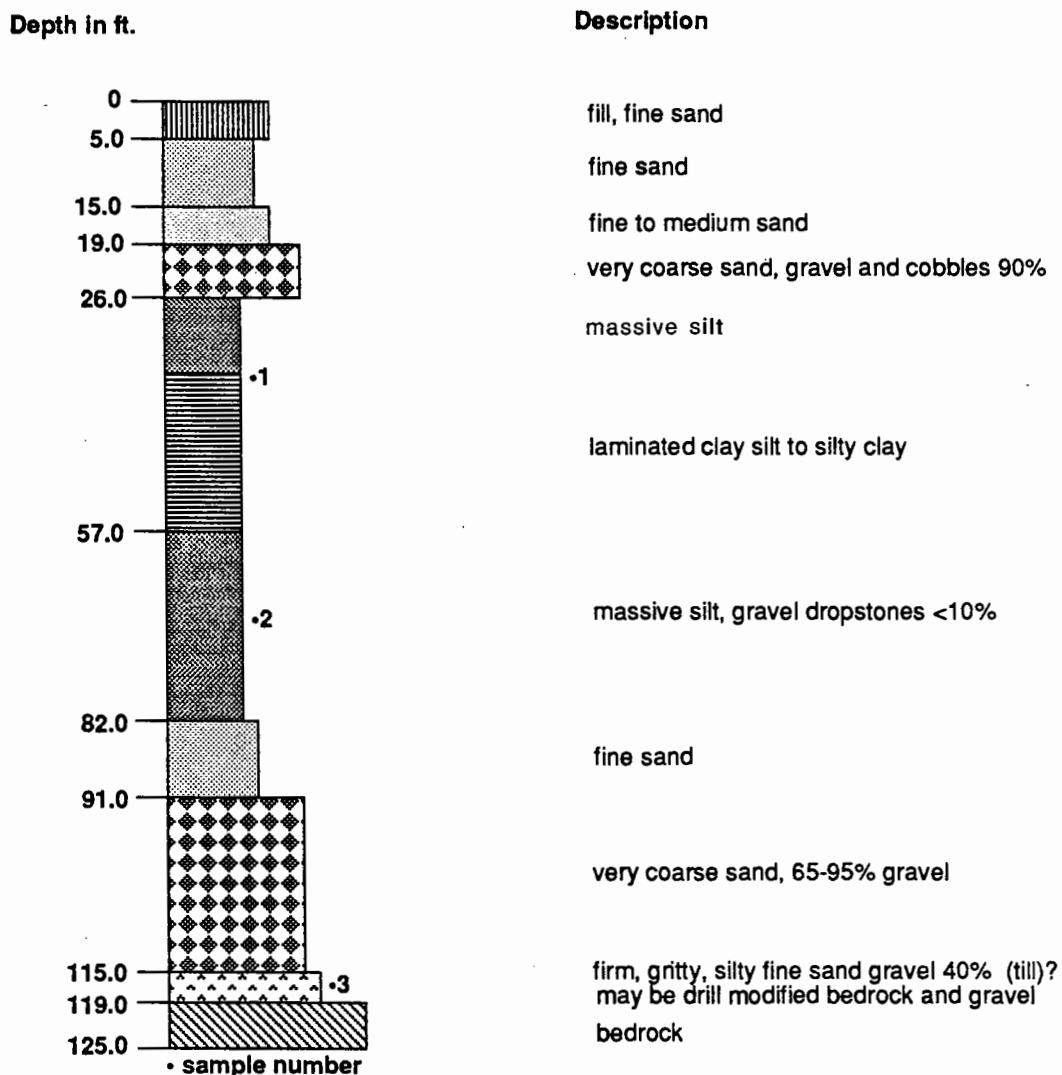


Figure 25: Borehole No. 25

<b>3026</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   610100	Woodstock
northing  5110200	21J/4
<b>Depth Drilled :160 ft</b>	<b>Elevation : 147 ft.</b>

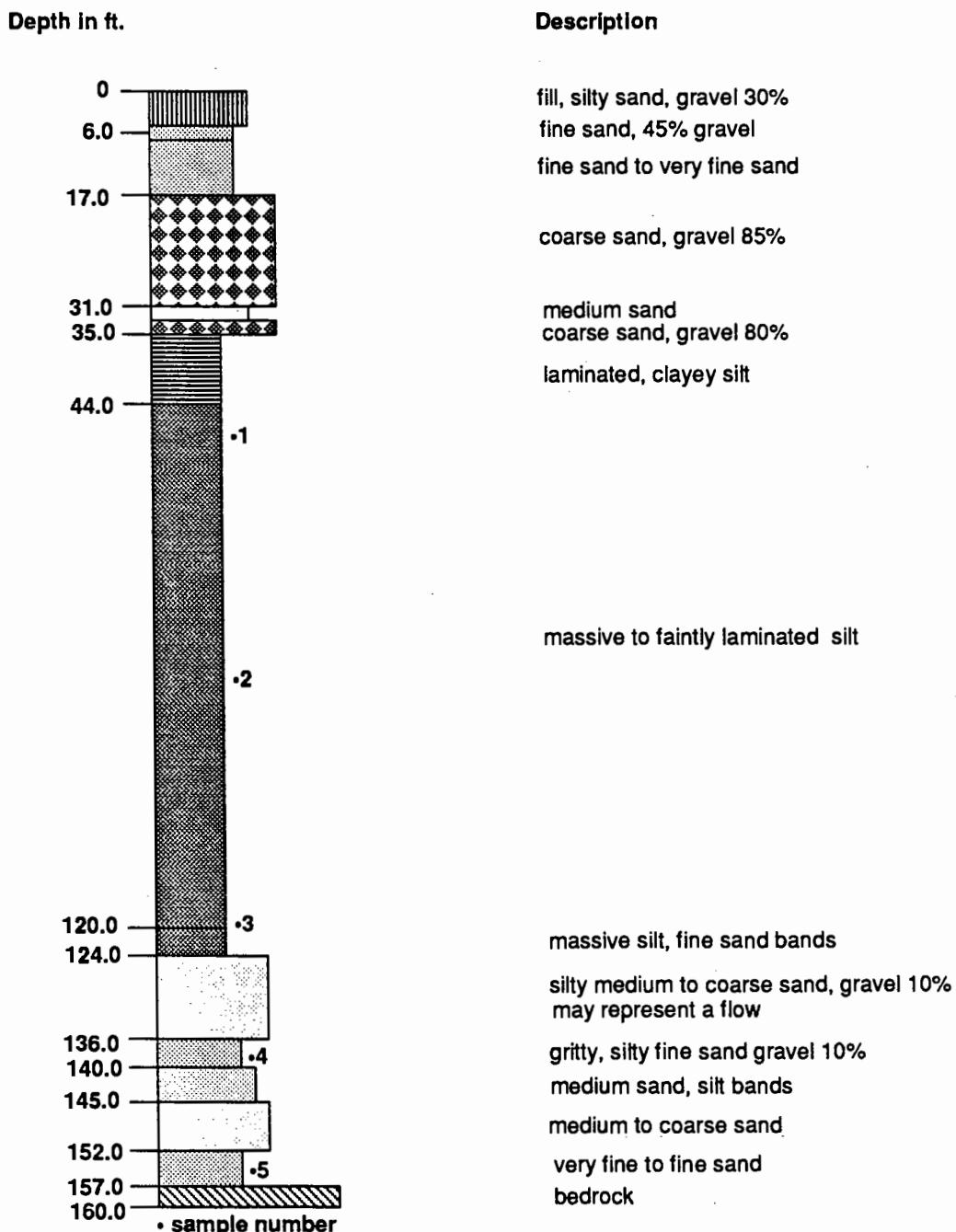
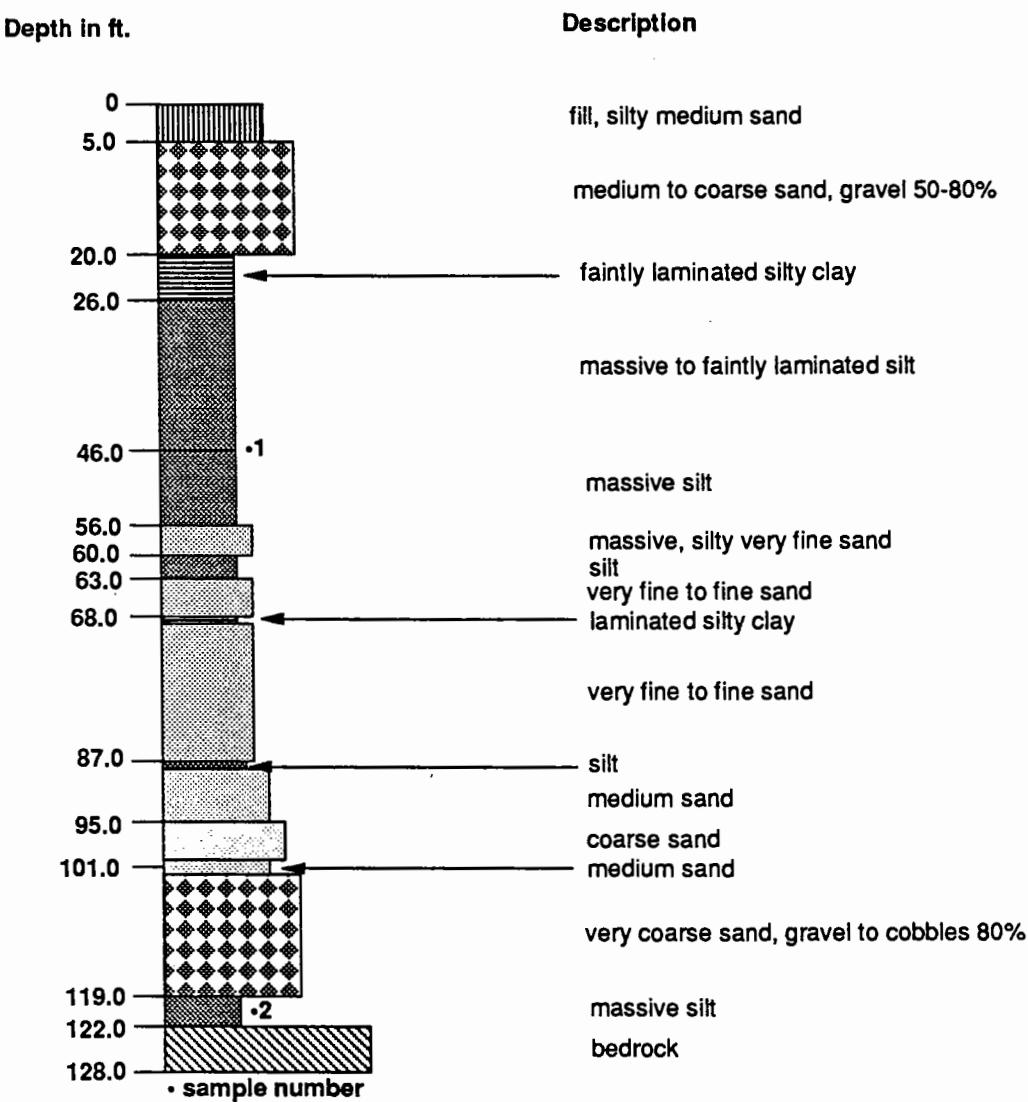


Figure 26: Borehole No. 26

**3027**

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<b>Location</b>	<b>NTS Map Sheet</b>
easting    611500	Woodstock
northing    5101050	21J/4
<b>Depth Drilled :128 ft</b>	<b>Elevation :50 m</b>



**Figure 27:** Borehole No. 27

<b>3028</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   613700	Woodstock
northing  5096800	21J/4
<b>Depth Drilled : 124 ft</b>	<b>Elevation : 164 ft</b>

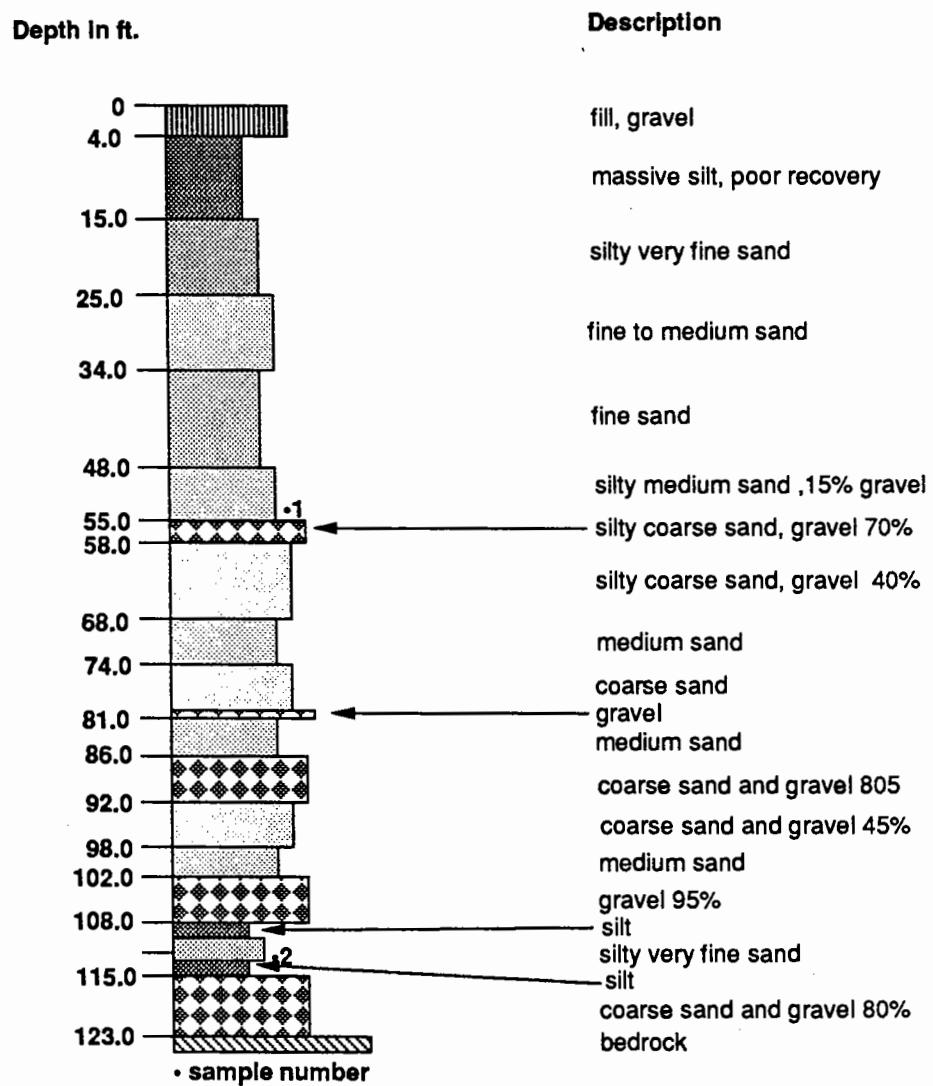


Figure 28: Borehole No. 28

3029

**Location**  
easting 621900  
northing 5093600  
**Depth Drilled :163 ft**

**NTS Map Sheet  
Canterbury  
21G/14  
Elevation : 50 m**

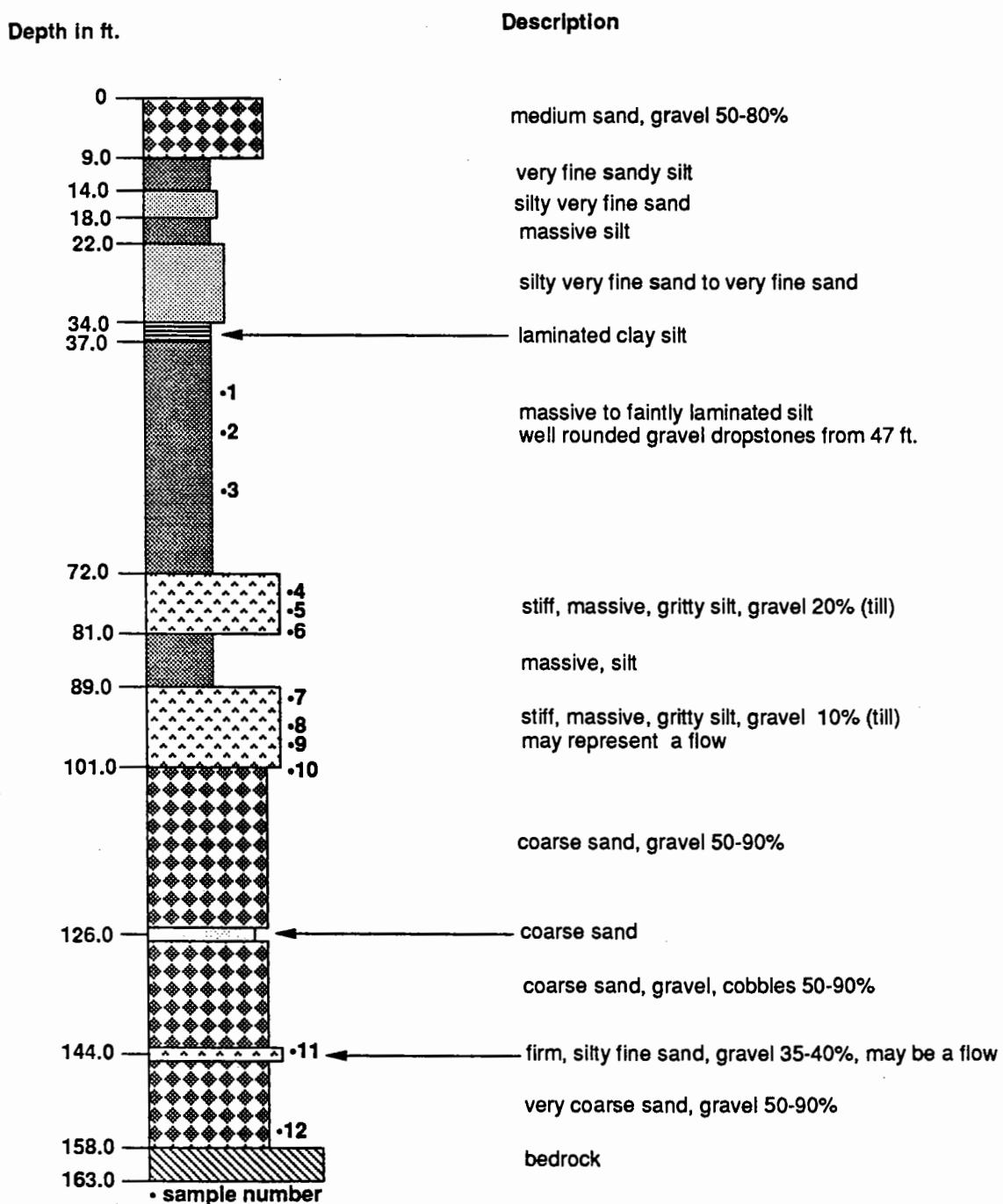


Figure 29: Borehole No. 29

<b>3030</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 636400	Millville
<b>northing</b> 5095900	21J/3
<b>Depth Drilled : 25 ft</b>	<b>Elevation : 197 ft</b>

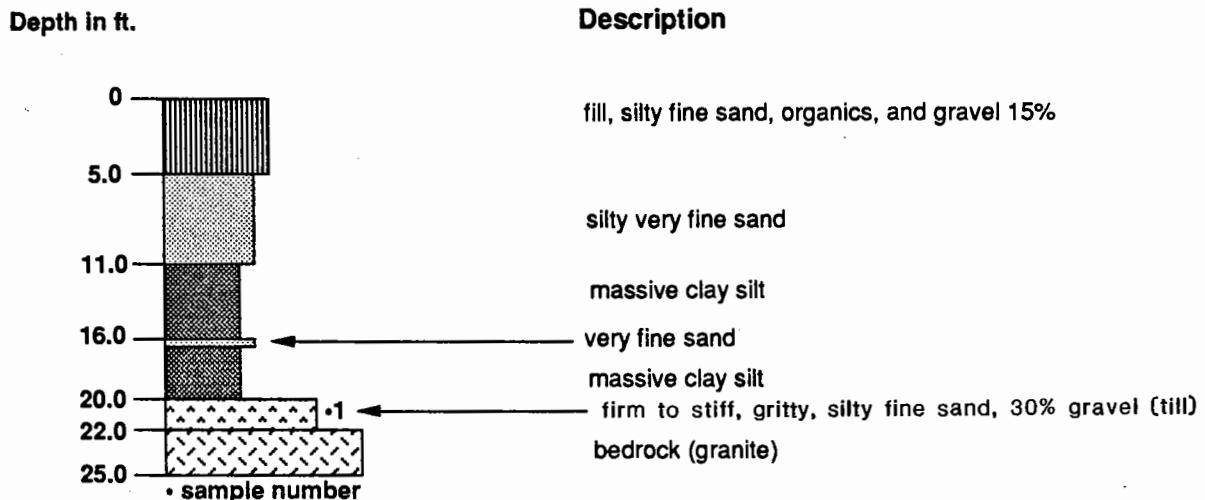


Figure 30: Borehole No. 30

<b>3031</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 636200	Millville
<b>northing</b> 5100400	21J/3
<b>Depth Drilled : 25 ft</b>	<b>Elevation : 230 ft</b>

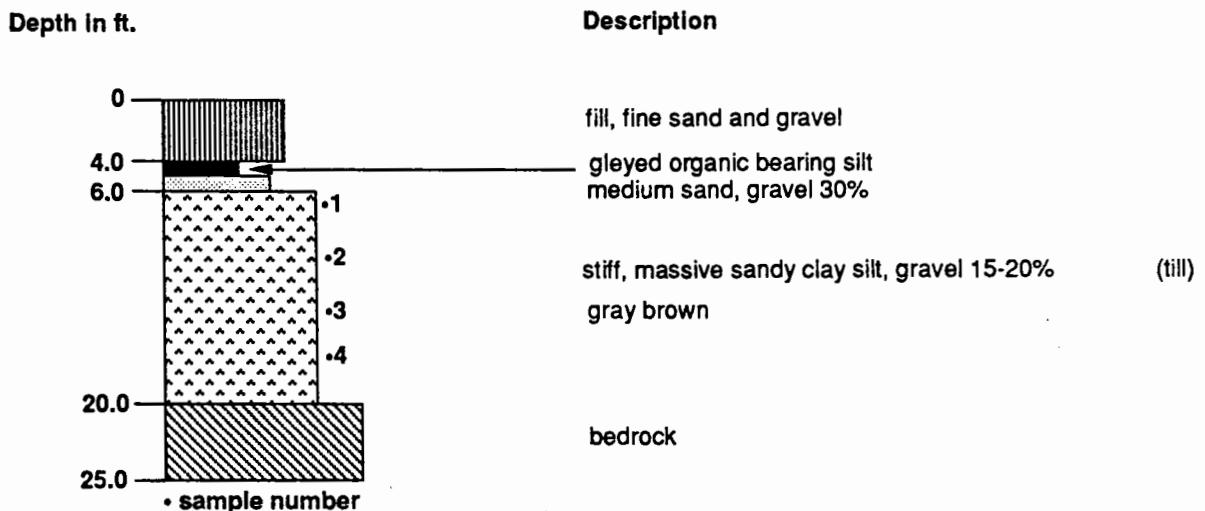
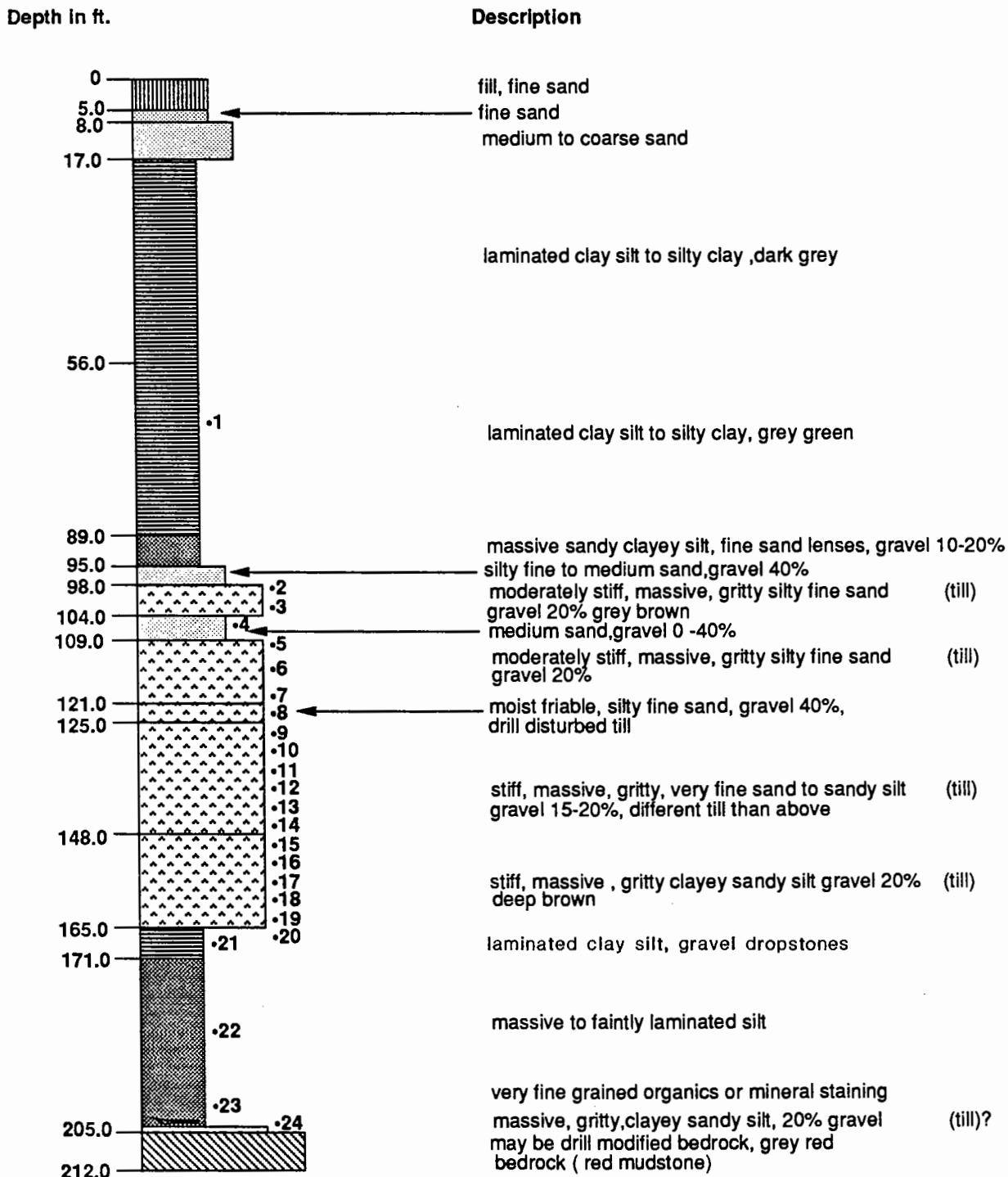


Figure 31: Borehole No. 31

**3032**

**Location**  
easting 667300  
northing 5095800  
**Depth Drilled :212 ft**

**NTS Map Sheet**  
Fredericton  
21G/15  
**Elevation : 10 m**



**Figure 32: Borehole No. 32**

<b>3033</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   660300	Burts Corner
northing  5100700	21J/2
<b>Depth Drilled : 268 ft</b>	<b>Elevation : 180 ft</b>

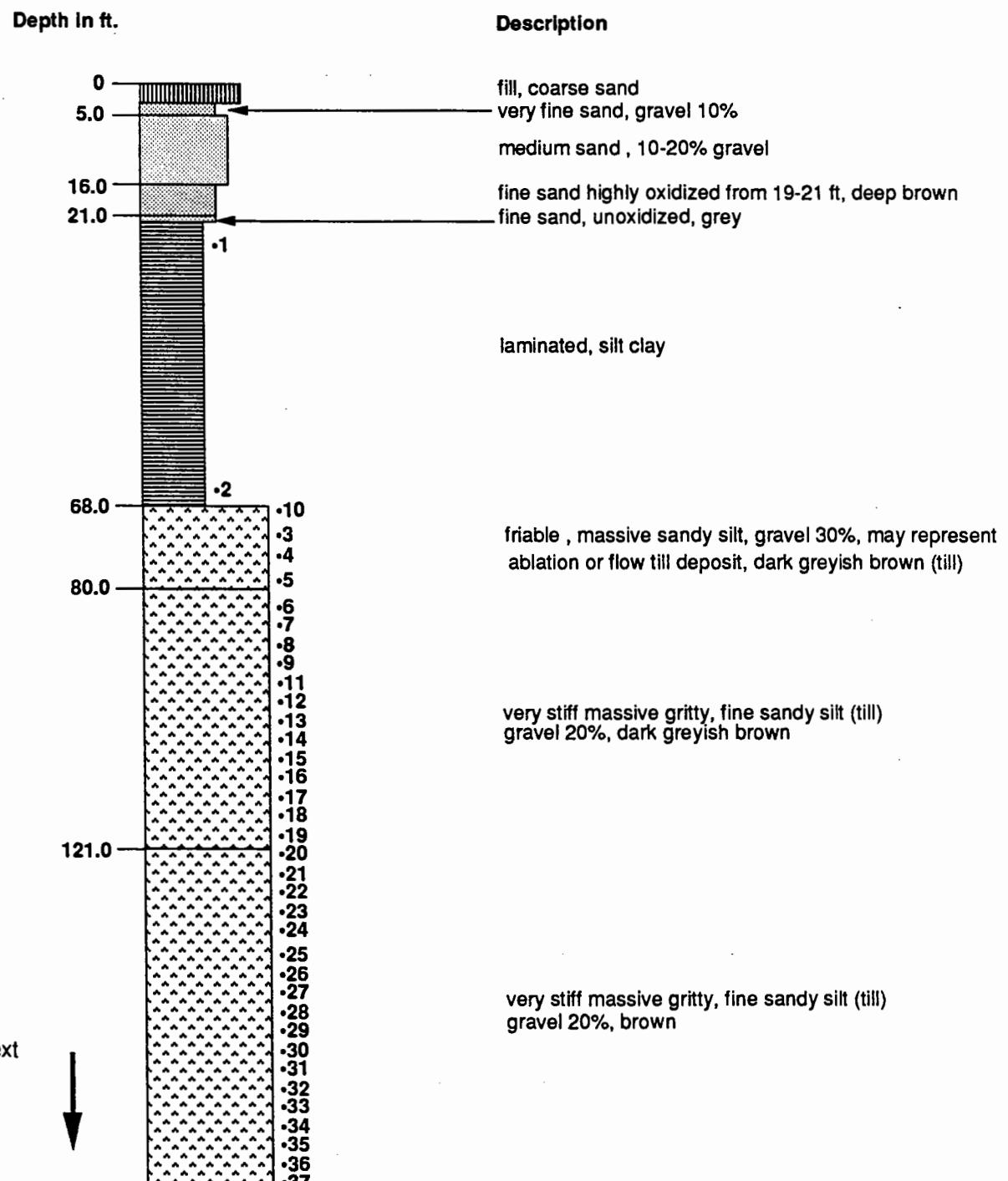


Figure 33: Borehole No. 33

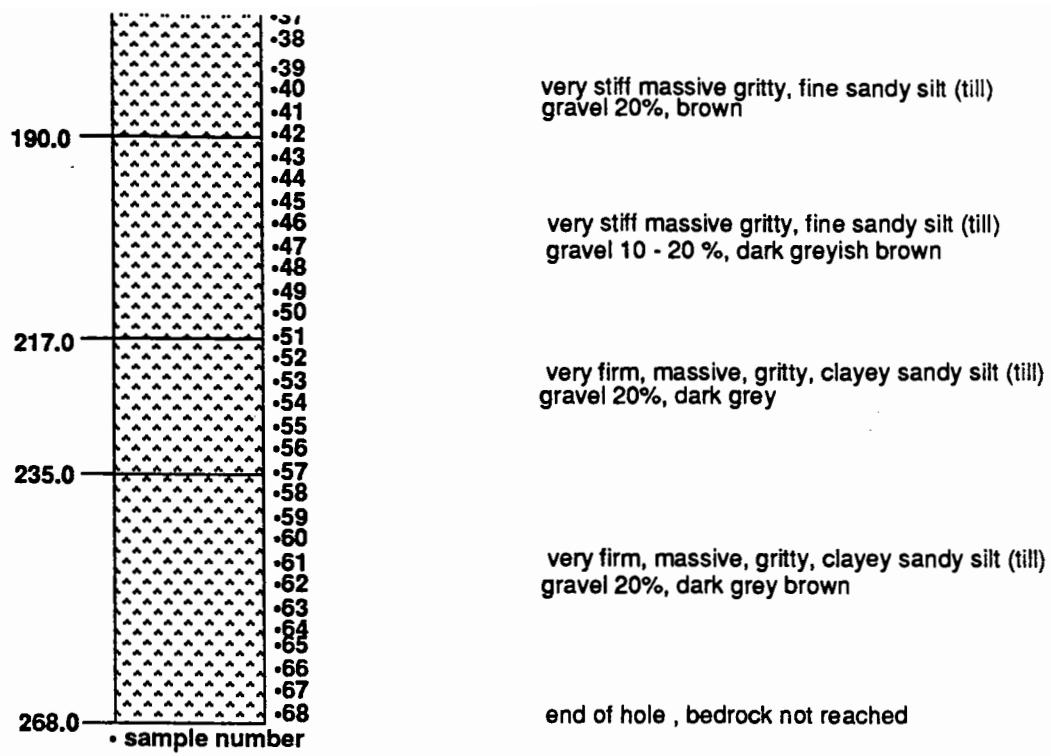


Figure 33: Borehole No. 33 (continued)

<b>3034</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   685250	Burts Corner
northing  5105850	21J/2
<b>Depth Drilled :135 ft</b>	<b>Elevation : 63 ft</b>

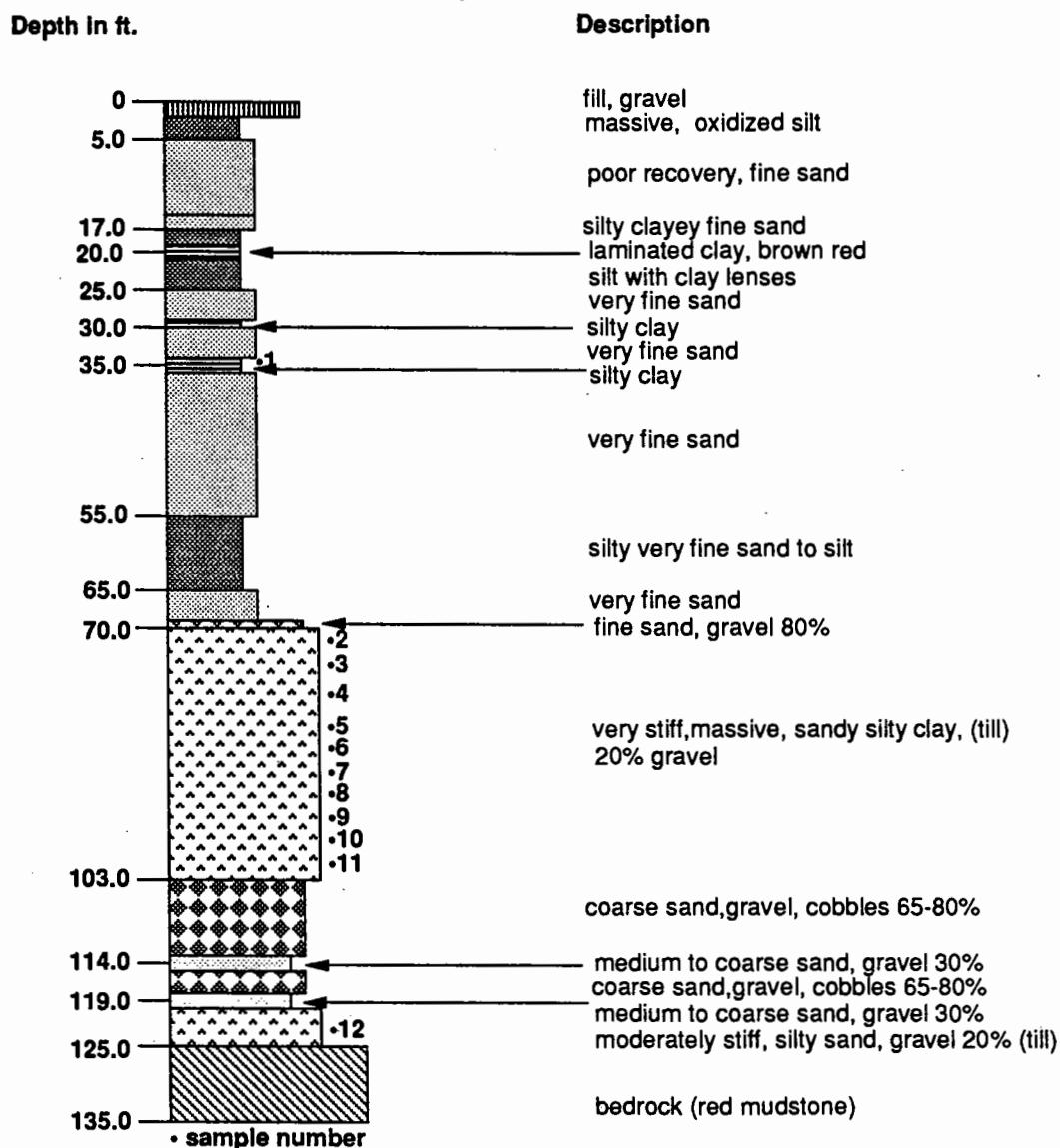
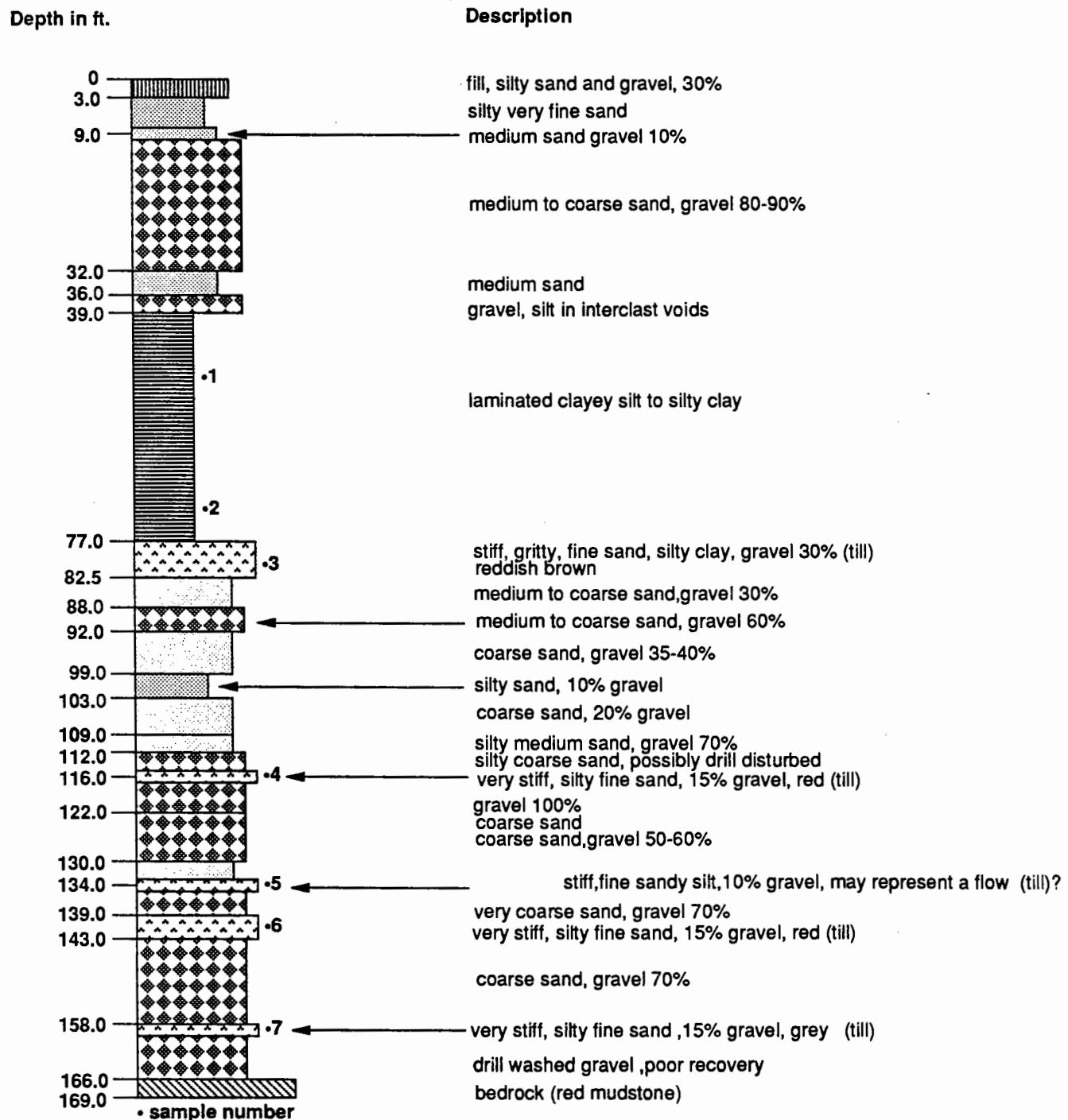
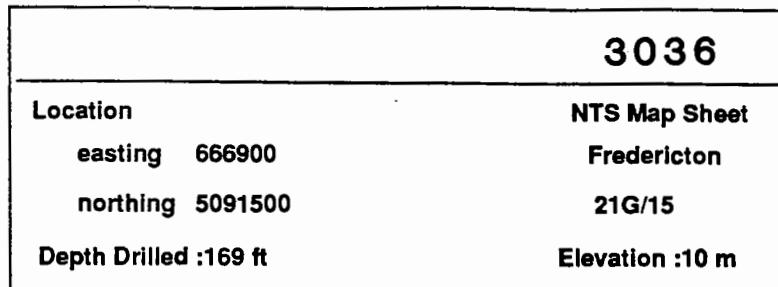


Figure 34: Borehole No. 34



**Figure 35:** Borehole No. 36

<b>3037</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 297900	<b>Nipisiquit Falls</b>
<b>northing</b> 5257100	<b>21P/5</b>
<b>Depth Drilled : 45 ft</b>	<b>Elevation : 200 ft</b>

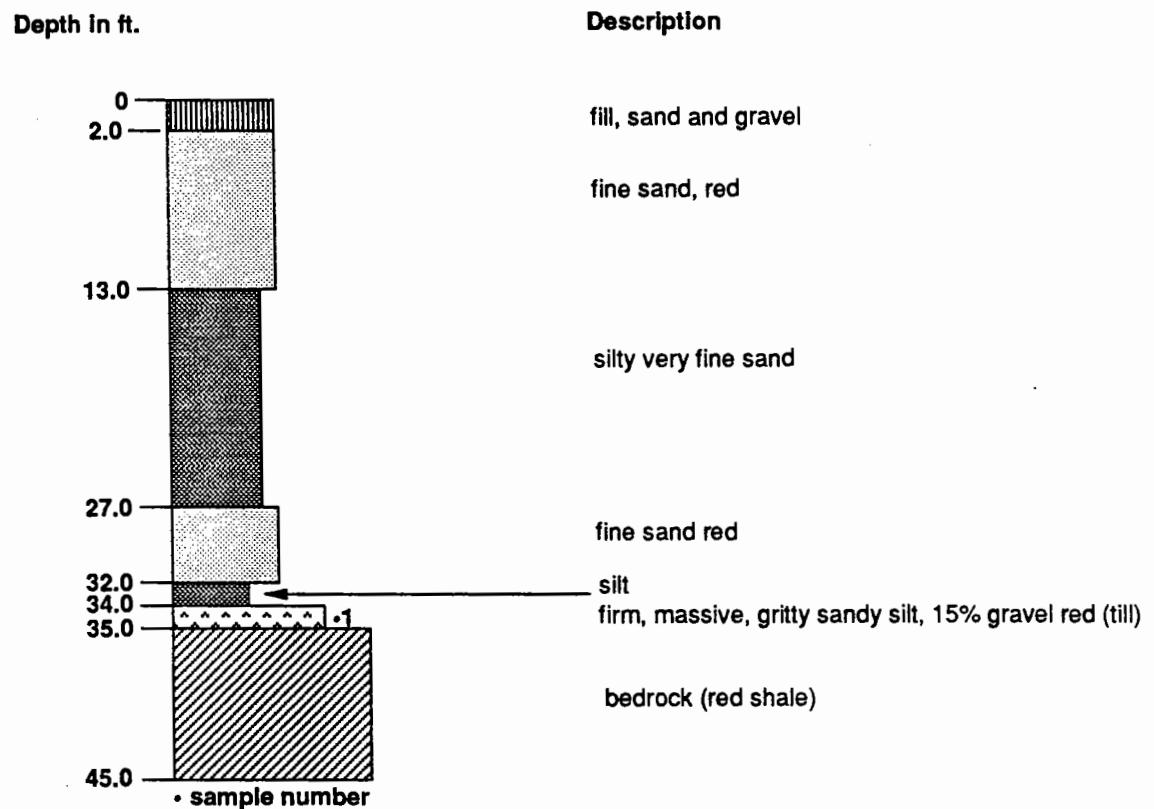


Figure 36: Borehole No. 37

<b>3038</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 294800	<b>Nipisiguit Falls</b>
<b>northing</b> 5259200	<b>21P/5</b>
<b>Depth Drilled : 35 ft</b>	<b>Elevation : 225 ft</b>

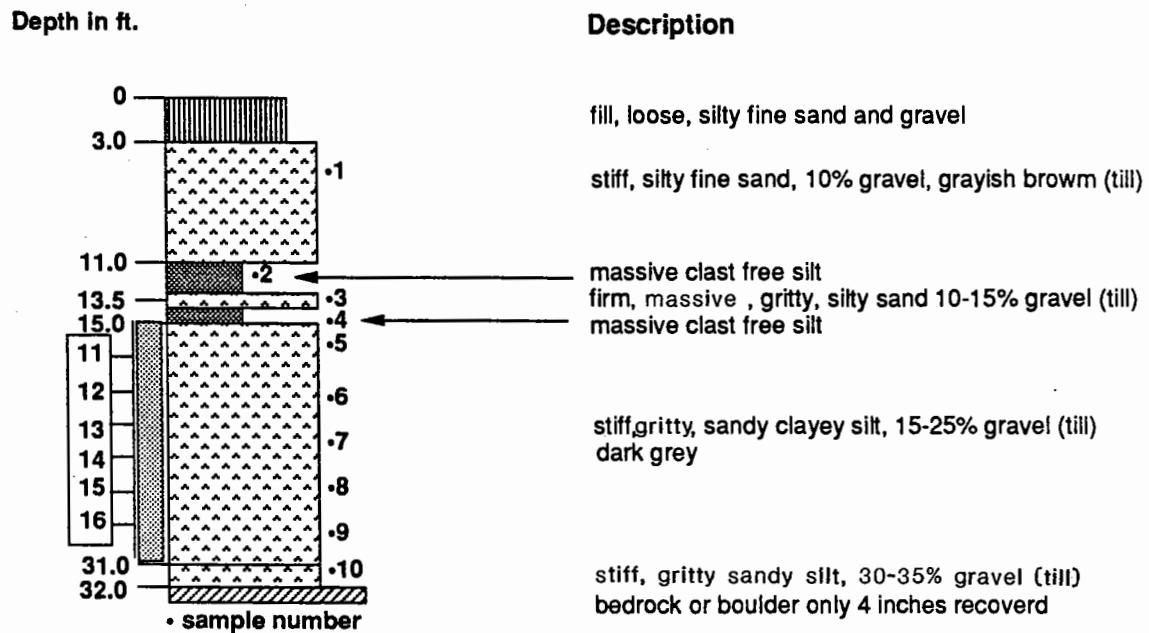


Figure 37: Borehole No. 38

<b>3039</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   304800	Bathurst
northing  5274500	21P/12
<b>Depth Drilled : 92 ft</b>	<b>Elevation : 140 ft</b>

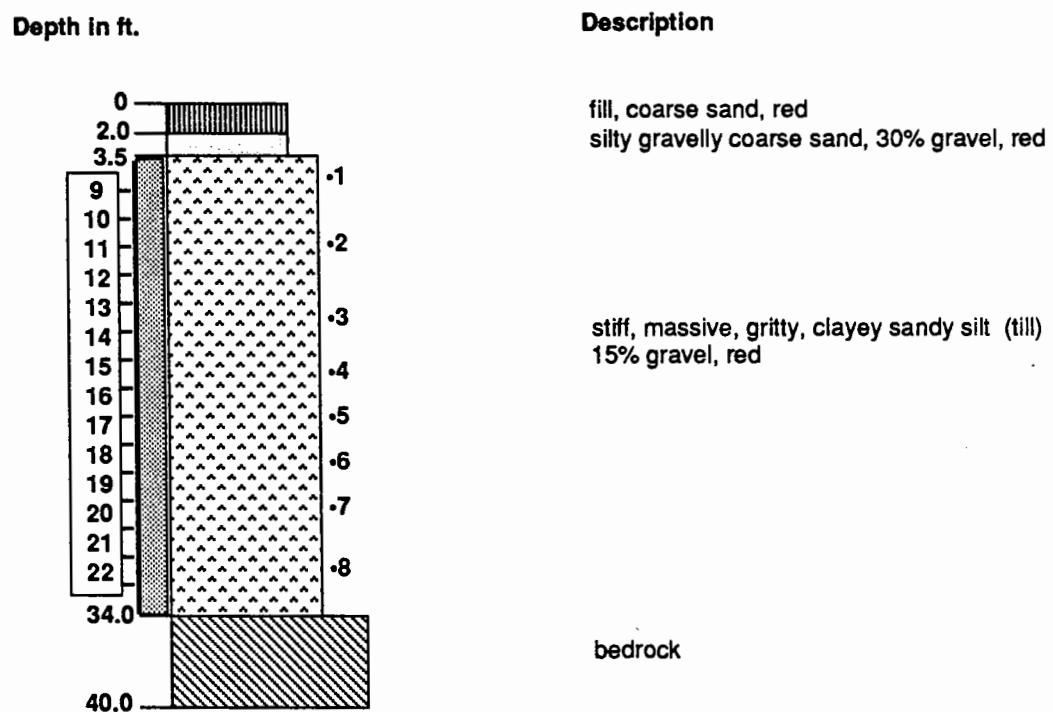


Figure 38: Borehole No. 39

<b>3040</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
easting   302800	Bathurst
northing  5271600	21P/12
<b>Depth Drilled : 50 ft</b>	<b>Elevation : 175 ft</b>

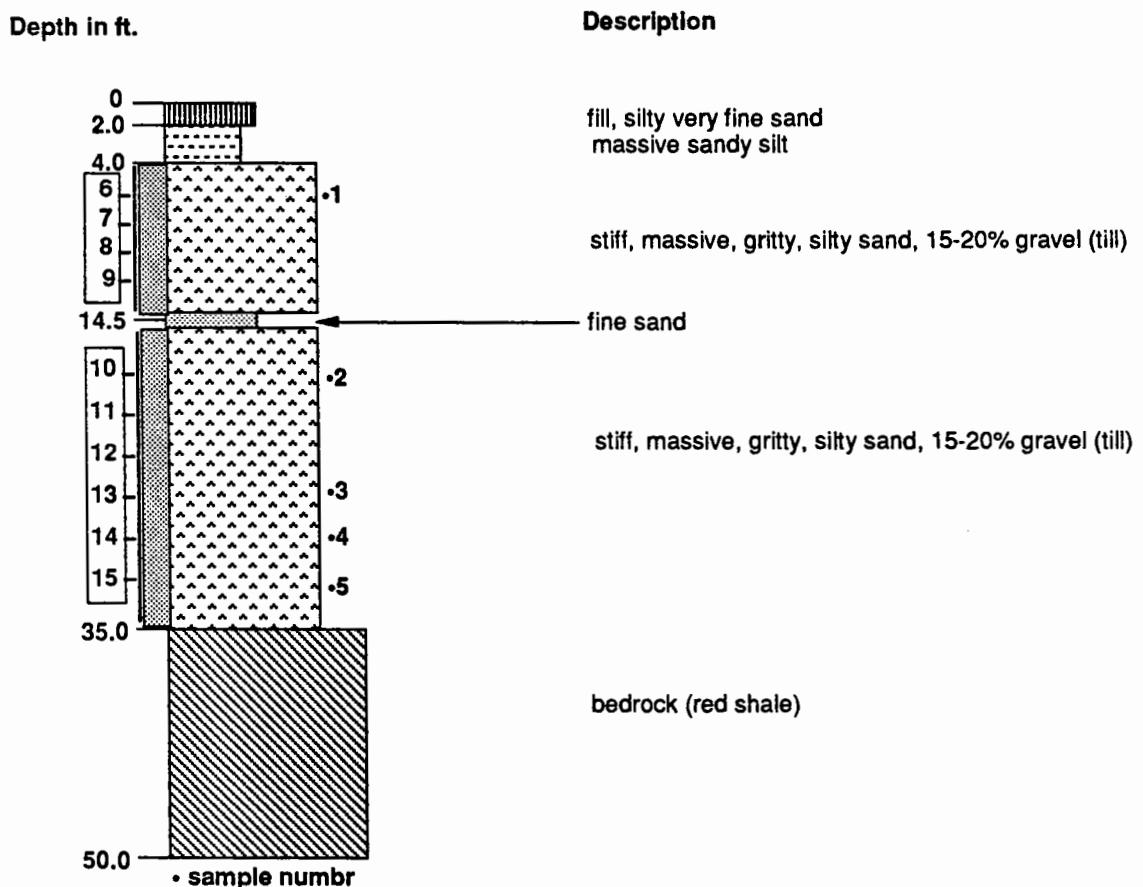


Figure 39: Borehole No. 40

# 3041

Location	NTS Map Sheet
easting 293200	Bathurst
northing 5277000	21P/12
Depth Drilled : 72.5 ft	Elevation : 175 ft

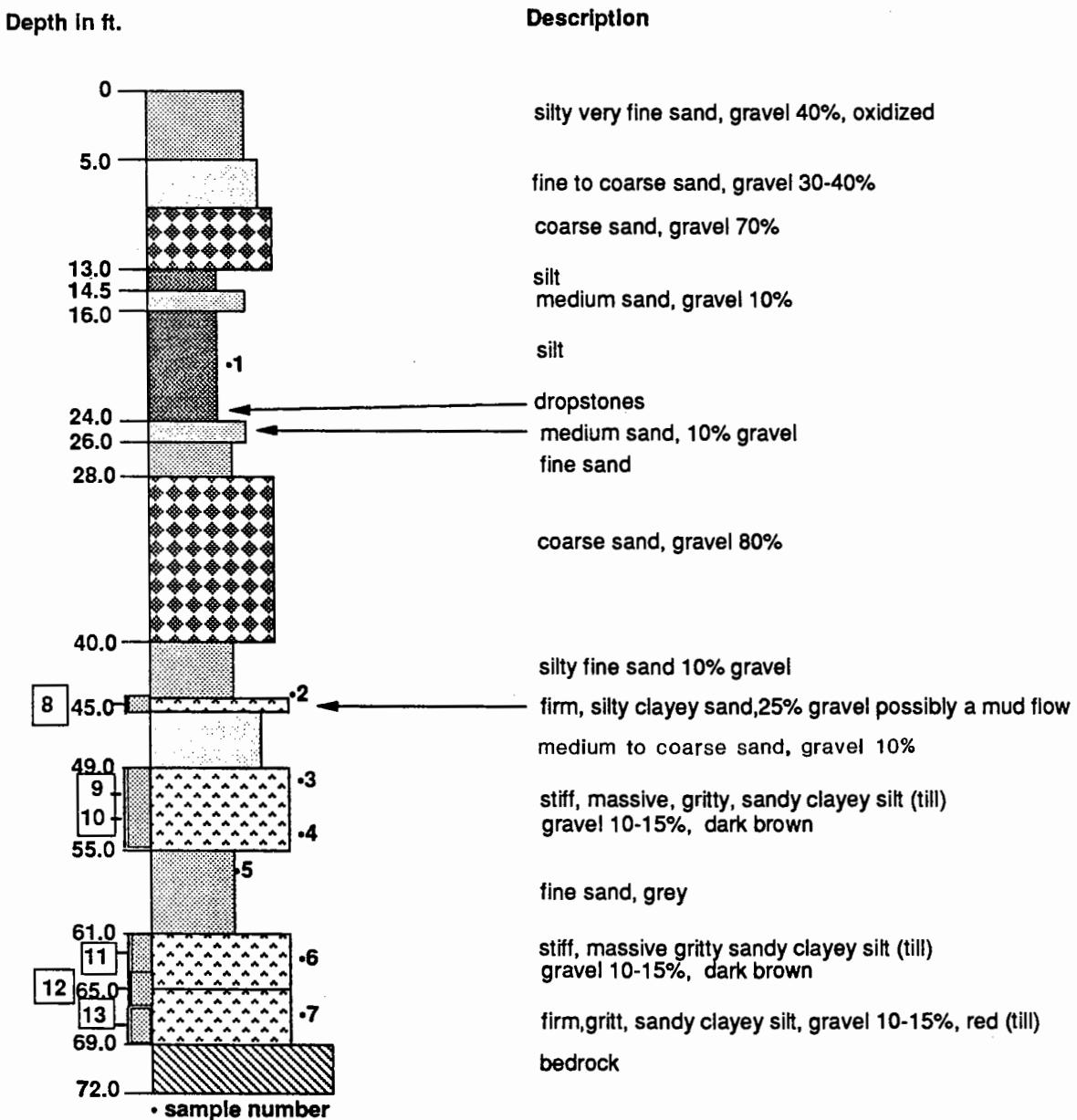


Figure 40: Borehole No. 41

**3042**

<b>Location</b>	<b>NTS Map Sheet</b>
easting 297000	Bathurst
northing 5278600	21P/12
<b>Depth Drilled : 92 ft</b>	<b>Elevation : 100 ft</b>

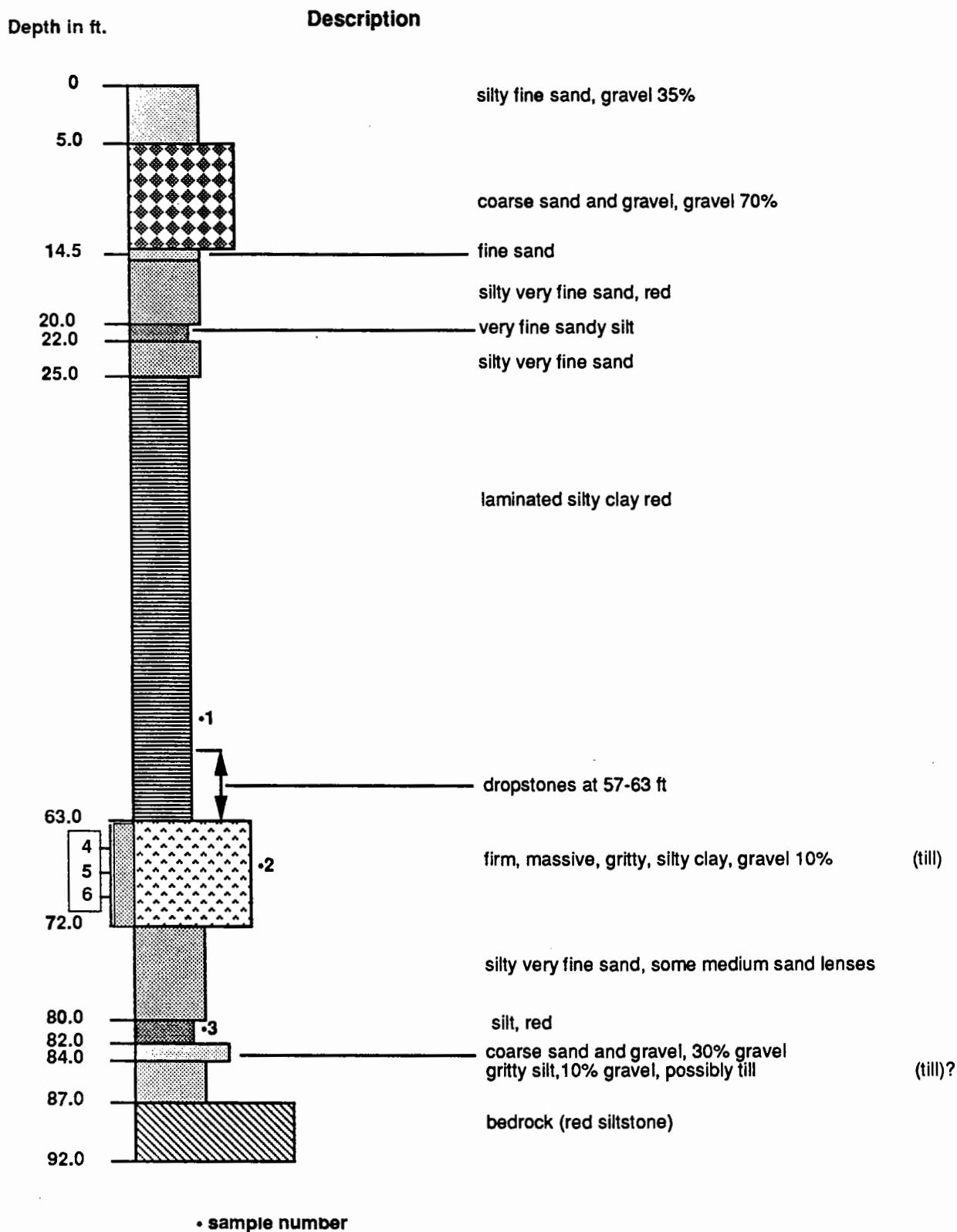


Figure 41: Borehole No. 42

3048

## **Location**

**NTS Map Sheet**

**easting 717500**

Chario

**northIng 5312700**

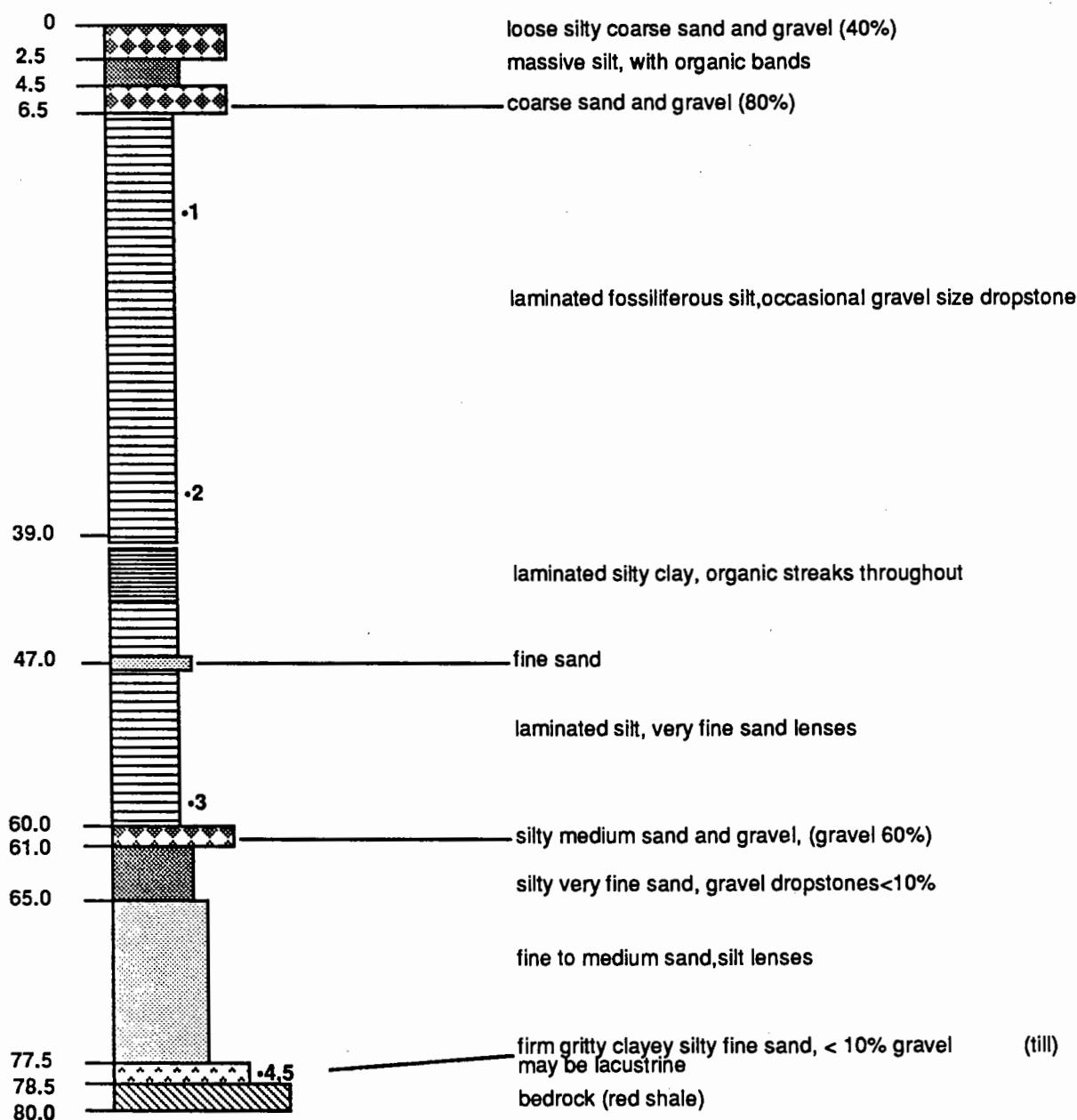
210/16

**Depth Drilled : 80 ft**

**Elevation : 25 ft**

**Depth in ft.**

### Description



- sample number

**Figure 42:** Borehole No. 48

<b>3049</b>	
<b>Location</b>	<b>NTS Map Sheet</b>
<b>easting</b> 296600	Bathurst
<b>northing</b> 5289200	21P/12
<b>Depth Drilled : 25 ft</b>	<b>Elevation : 20 ft</b>

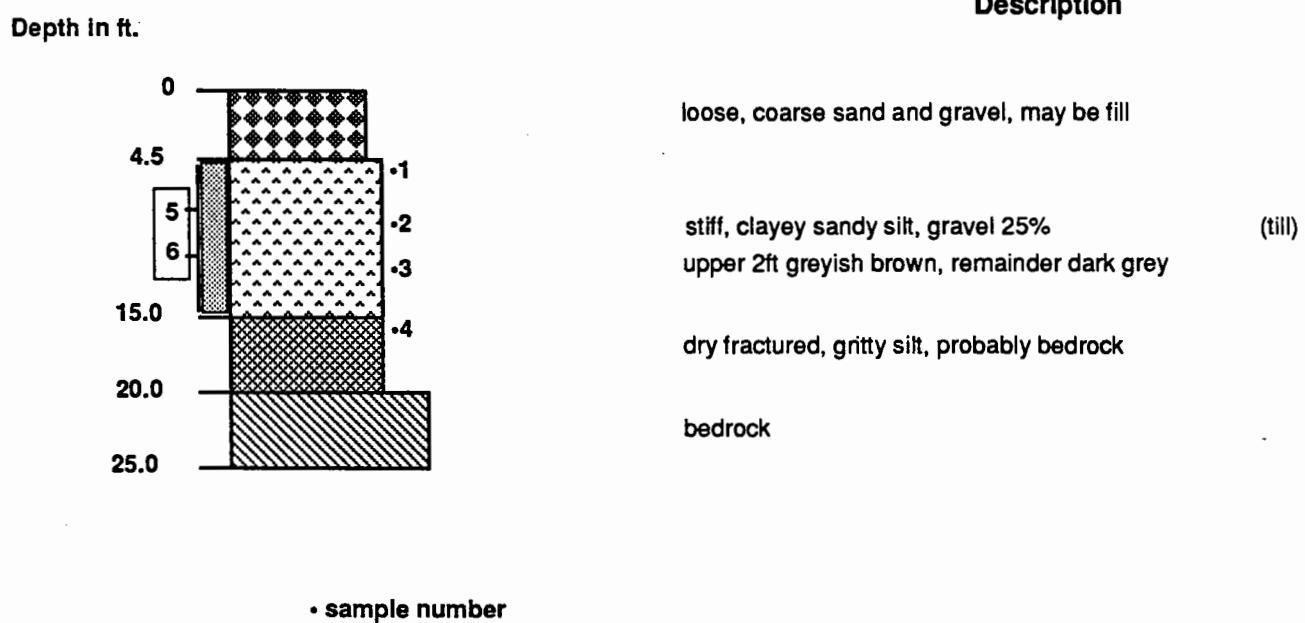
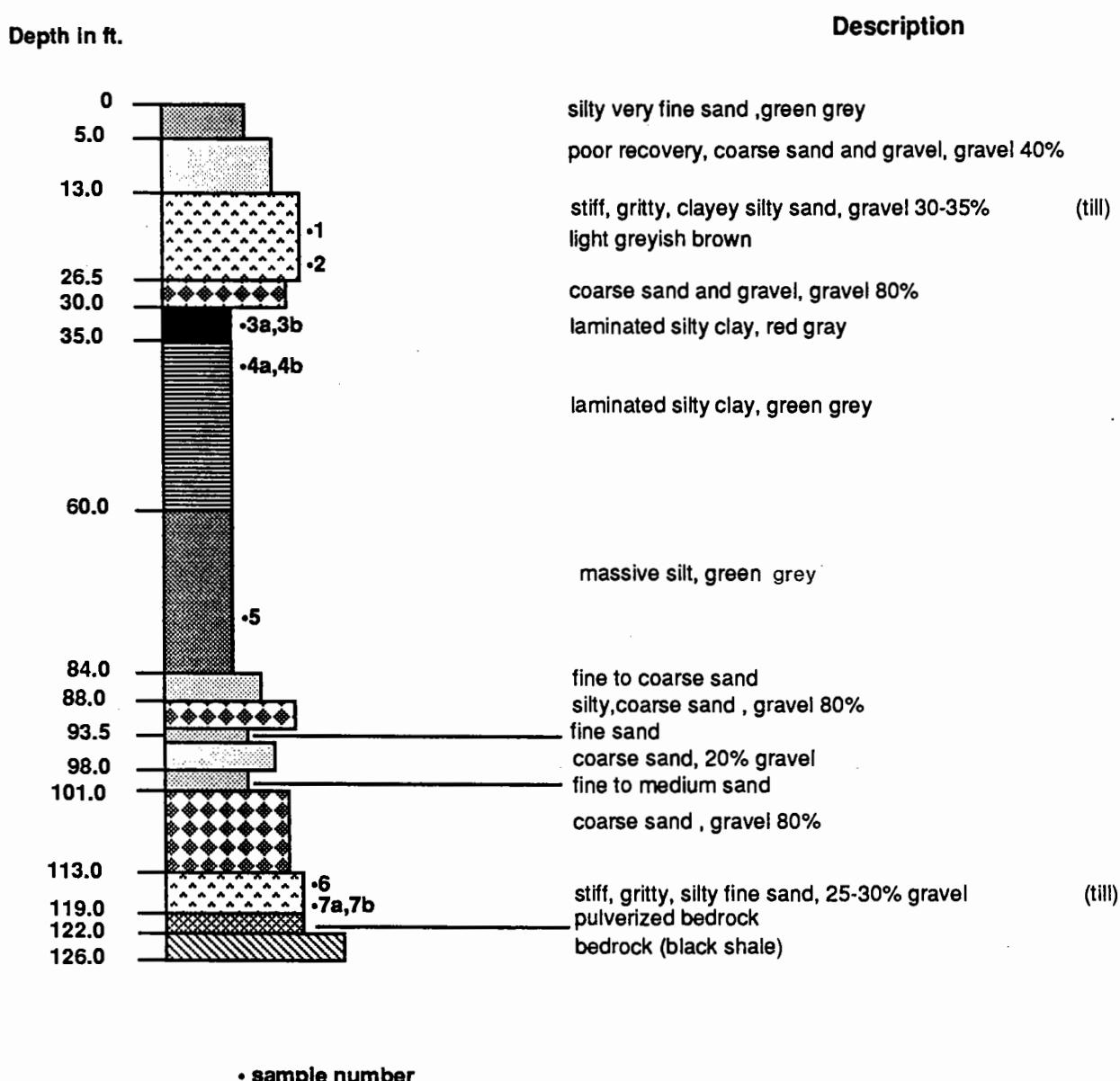
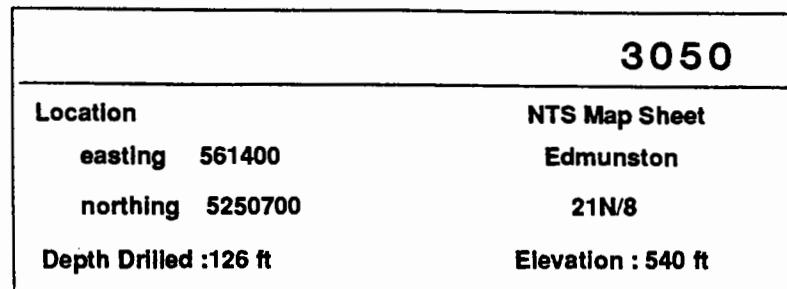


Figure 43: Borehole No. 49



**Figure 44:** Borehole No. 50

**TABLE I**  
**GEOCHEMICAL METHODS, DETECTION LIMITS, AND NOTES TO GEOCHEMICAL TABLES**

**<2 µm Fraction**

As Arsenic	Colourimetric	2.0 ppm
Co Cobalt	Atomic Absorption	1.0 ppm
Cr Chromium	Atomic Absorption	2.0 ppm
Cu Copper	Atomic Absorption	1.0 ppm
F Fluorine	Specific Ion	20.0 ppm
Fe Iron	Atomic Absorption	0.1 ppm
Hg Mercury	Atomic Absorption	5.0 ppb
Mn Manganese	Atomic Absorption	1.0 ppm
Mo Molybdenum	Atomic Absorption	1.0 ppm
Ni Nickel	Atomic Absorption	2.0 ppm
Pb Lead	Atomic Absorption	2.0 ppm
Sn Tin	X-Ray Fluorescence	1.0 ppm
U Uranium	Fluorometric	0.1 ppm
W Tungsten	Colourimetric	2.0 ppm
Zn Zinc	Atomic Absorption	1.0 ppm

**<63 µm Fraction**

Element	Method	Detection Limit
As Arsenic	Neutron Activation	0.5 ppm
Au Gold	Neutron Activation	2.0 ppb
Ba Barium	Neutron Activation	50.0 ppm
Co Cobalt	Neutron Activation	5.0 ppm
Cr Chromium	Neutron Activation	20.0 ppm
Fe Iron	Neutron Activation	0.2 pct
Hg Mercury	Cold Vapor AA	5.0 ppb
Mo Molybdenum	Neutron Activation	1.0 ppm
Ni Nickel	Neutron Activation	20.0 ppm
Rb Rubidium	Neutron Activation	5.0 ppm
Sb Antimonium	Neutron Activation	0.1 ppm
Th Thorium	Neutron Activation	0.2 ppm
U Uranium	Neutron Activation	0.2 ppm
W Tungsten	Neutron Activation	0.1 ppm
Zn Zinc	Neutron Activation	100.0 ppm

**NOTES TABLES II TO VI**

- 1) "blank" - not analysed
- 2) obs - laboratory; 1,2,3 ... Bondar Clegg and co. Ltd  
10,11,12... Chemex Labs Ltd
- 3) values lower than detection limit indicated as half the detection limit  
e.g. Au - 1.0 ppb means Au <2.0 ppb
- 4) Sample numbering YYLFA XXXX NN  
YY=Year of sampling , LFA=Project leader's code  
XXXX=Code number of sample site , NN = Sample number

TABLE II GEOCHEMISTRY OF THE CLAY FRACTION OF TILL OVERBURDEN DRILLING PROGRAM

\* waterlaid unit

sample	obs	As	Co	Cr	Cu	F	Fe	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn
86LFA300101	1	10	22	67	40	960	5.1	55	830	82	27	2	0.6	2	131	
86LFA300101	10	25	82	35	4.1	990	5.3	740	1	72	18		2	117		
86LFA300102	1	12	26	56	4.1		60	960	85	30	6	0.7	2	139		
86LFA300102	10	25	90	35			840	1	76	19	21	1	0.1	1	121	
86LFA300103	*10	7	22	92	18		4.6	40	1200	1	62	21	1	1	77	
86LFA300104	1	3	16	48	21	975	4.4			58	23	2	0.9	8	72	
86LFA300104	2	2	19	50	21	905	3.6	40	1400	0.5	57	22	4	0.5	4	
86LFA300104	10	20	64	18			3.7		880	1	51	14	1	0.5	70	
86LFA300201	1	8	24	65	40	970	5.9	35	730		88	37	3	0.8	2	
86LFA300202	16	24	67	36	925	5.7	45	820		87	29	3	0.5	2	147	
86LFA300202	10	27	86	34			5.8		700	1	78	20		2	128	
86LFA300203	1	17	22	76	46	1040	6	6.5	1600	1	88	36	1	0.3	2	
86LFA300203	10	26	106	45			6.2		1320	1	86	26		2	156	
86LFA300205	11	24	78	47	970	5.5	70	880		90	26		0.9	2	147	
86LFA300205	10	25	104	40			5.6		820	2	82	17		2	125	
86LFA300206	1	11	22	94	50	950	6.2	80	980	2	94	26		0.7	2	
86LFA300207	1	13	24	88	42	930	6.1	60	900	1	95	25		0.7	2	
86LFA300208	12	24	80	42	995	5.5	65	940		91	26		1	2	142	
86LFA300208	10	9	27	98	42		5.7		980	1	87	19		0.7	1	
86LFA300209	1	10	24	70	41	895	5.6	60	940	3	89	27	1	0.7	2	
86LFA300209	10	25	98	35			5.6		900	1	82	17		2	133	
86LFA300210	1	13	22	72	44	1040	5.4	70	920		89	27	1	0.9	2	
86LFA300210	2	7	25	80	45	950	5.4	65	1000	1	93	25	0.5	0.05	2	
86LFA300210	10	25	92	35			5.2		840		79	16		0.5	0.5	
86LFA300210	10	14	21	66	40	1140	5.1	60	830		93	26		0.9	2	
86LFA300211	1	12	26	82	37		5.6		840	1	86	18	1	0.8	1	
86LFA300211	10	13	22	68	39	1325	5	95	700		72	24		0.5	2	
86LFA300212	*1	13	26	90	34		4.8		660	1	66	14		0.5	2	
86LFA300212	*10	26	91	35	1130	4.9	40	800		68	29		0.7	2		
86LFA300213	1	9	20	82	22		5.6		115	4300		68	31	0.7	2	
86LFA300214	1	12	30	64	32	1155	5.6			1000	0.5	67	27	8	0.05	
86LFA300214	2	8	32	68	32	1180	5	100	1000		85	33		2	136	
86LFA300301	1	13	22	66	41	960	5.4	55	1000		85	33		2	110	
86LFA300301	10	27	90	35			5.6		880	1	78	21		0.7	2	
86LFA300302	1	10	24	72	44	1015	5.5	55	1000		83	27		0.6	2	
86LFA300302	10	26	92	41			5.4		820	2	77	19		0.6	2	
86LFA300303	1	12	24	68	44	840	5.6	65	860		89	27	3	0.7	2	
86LFA300303	10	25	86	38			5.4		820	1	76	17		0.7	2	
86LFA300304	1	12	24	72	44	1005	5.5	70	880	1	90	28	5	0.7	2	
86LFA300304	10	27	92	41			5.5		820	1	83	16		0.5	2	
86LFA300305	1	9	22	70	46	970	5.4	65	800		90	27		0.5	2	
86LFA300306	1	12	24	70	42	935	5.4	80	740		90	26		0.6	2	
86LFA300307	1	12	22	62	44	955	5.6	85	740		83	26		0.3	2	
86LFA300308	14	24	72	47	830	5.5	90	760		90	30	3		0.6	2	
86LFA300308	10	26	90	41			5.4		680	1	80	16		0.6	2	

sample	obs	As	Co	Cr	Cu	F	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn		
86LFA300310	1	14	24	72	4.7	1045	5.7	80	780	86	27	7	0.5	2	14.1		
86LFA300310	2	7	24	80	5.3	1000	4.8	70	750	88	26	3	0.05	2	13.7		
86LFA300311	1	11	22	70	4.3	940	5.3	60	760	88	26	3	0.9	2	15.0		
86LFA300311	2	7	22	70	3.7	1055	5.2	50	820	82	26	2	0.3	2	13.3		
86LFA300312	1	7	23	80	4.1	905	4.2	40	880	0.5	87	26	4	0.3	2	13.7	
86LFA300312	2	5	23	80	4.1	1005	5.8	90	1600	86	24	1	0.4	1	14.8		
86LFA300313	1	12	18	60	3.6	1150	5.5	85	2000	73	21	1	0.4	2	12.0		
86LFA300313	2	10	16	70	3.1	945	5.1	70	3800	2	65	23	2	0.9	2	10.3	
86LFA300314	1	10	21	80	3.1	1005	5.2	40	2700	2	65	15	1	0.4	1	9.5	
86LFA300314	2	14	20	68	4.1	1005	5.8	90	1600	86	24	1	0.5	2	13.5		
86LFA300315	1	9	23	84	4.0	1005	5.3	1420	1	77	16	1	0.4	1	12.0		
86LFA300315	2	10	18	72	3.1	1390	5	35	980	1	89	20	0.5	2	10.8		
86LFA300316	1	9	18	72	3.1	880	5.4	50	800	2	89	29	0.5	2	15.5		
86LFA300401	1	13	24	70	4.3	880	5.6	80	800	2	48	8	0.7	2	7.7		
86LFA300401	2	16	124	22	5.6	700	4.6	65	660	1	73	23	4	0.7	2	11.0	
86LFA300402	1	8	18	56	3.5	700	4.7	4.7	680	1	73	13	0.7	2	10.3		
86LFA300402	2	10	22	92	3.3	945	5.6	80	800	91	31	3	0.7	2	15.7		
86LFA300403	1	13	24	76	5.1	945	5.4	90	720	92	23	2	0.5	2	15.1		
86LFA300404	1	13	24	76	4.7	895	5.4	70	720	1	85	16	2.5	2	13.8		
86LFA300404	2	16	124	22	5.6	855	5.6	85	700	1	85	25	2	0.5	2	15.7	
86LFA300405	1	20	22	72	4.9	895	5.8	100	1100	90	26	2	0.5	2	15.9		
86LFA300406	1	13	24	80	5.2	980	5.7	85	730	94	27	2	0.5	2	18.9		
86LFA300407	1	13	20	84	5.0	895	5.3	70	720	1	96	22	2	0.5	2	16.4	
86LFA300408	1	14	26	80	4.8	855	5.6	85	700	95	25	2	0.3	2	17.7		
86LFA300409	1	20	22	72	4.5	895	5.8	100	700	2	90	18	0.5	2	11.6		
86LFA300411	1	7	20	68	4.2	1085	4.8	85	880	1	75	21	2	0.7	2	13.9	
86LFA300501	1	11	26	68	5.4	1070	5.5	90	1600	85	35	3	0.7	2	13.6		
86LFA300501	2	11	25	66	5.2	980	5.4	100	1300	0.5	92	32	1	0.05	2	13.1	
86LFA300501	3	15	26	69	5.4	965	5.7	90	1400	89	27	3	0.7	2	14.8		
86LFA300501	4	14	26	71	5.0	1095	5.8	75	1200	87	24	28	1	0.4	2	16.1	
86LFA300501	5	11	22	120	58	960	5.7	75	1600	1	122	28	1	0.5	2	15.8	
86LFA300501	6	7	27	124	55	5.8	5.8	1420	1	83	27	3	0.7	2	13.1		
86LFA300504	1	12	20	96	4.4	840	5.6	60	1200	1	99	26	0.5	2	13.5		
86LFA300505	1	13	20	112	4.8	990	5.8	635	2500	2	107	28	2	0.2	2	14.6	
86LFA300506	1	13	18	82	4.4	880	5.4	105	2400	1	89	29	4	0.5	2	12.0	
86LFA300506	2	11	22	120	58	960	5.7	75	1600	1	113	24	1	0.5	1	13.1	
86LFA300506	3	10	7	27	124	55	6.2	1520	1	113	24	1	0.5	1	13.1		
86LFA300507	1	12	20	96	4.4	840	5.6	60	1200	1	99	26	0.5	2	13.5		
86LFA300508	1	13	20	112	4.8	990	5.8	635	2500	2	107	28	2	0.2	2	14.6	
86LFA300509	1	13	18	82	4.4	880	5.4	105	2400	1	89	29	4	0.5	2	12.0	
86LFA300509	2	10	12	18	66	4.1	850	5.2	90	2300	2	70	23	1	0.4	2	10.6
86LFA300510	1	10	19	72	3.7	1025	4.8	100	1000	2	67	15	1	0.1	1	9.5	
86LFA300510	2	20	82	4.8	1025	4.5	4.5	1720	2	88	24	1	0.3	2	13.0		
86LFA300511	1	16	20	96	4.1	780	5.2	85	1200	5	95	20	0.4	2	10.9		
86LFA300512	1	10	14	70	3.4	860	4.3	90	2000	3	63	21	2	0.3	2	9.7	
86LFA300513	1	9	18	80	3.2	900	5	55	900	2	107	20	0.5	2	11.9		
86LFA300514	1	7	20	100	3.9	865	4.8	60	810	1	101	20	2	0.3	2	9.3	
86LFA300514	2	24	110	3.5	4.4	860	4.3	90	2000	3	63	21	2	0.3	2	9.2	
86LFA300515	1	10	14	70	3.4	860	4.3	90	2000	3	63	21	2	0.3	2	10.7	
86LFA300515	2	11	20	80	3.2	900	4.3	1740	2	64	15	1	0.4	2	10.4		
86LFA300515	3	9	18	80	4.2	1115	5	80	1400	2	67	24	1	0.4	2	11.2	
86LFA300516	1	8	16	74	4.4	880	4.9	680	2	98	13	2	0.3	2	10.7		
86LFA300516	2	11	21	96	3.9	910	5.1	75	1900	3	73	24	1	0.4	2	10.4	
86LFA300517	1	11	20	80	3.2	900	4.3	1740	2	64	15	1	0.4	2	11.8		
86LFA300517	2	13	18	72	4.4	880	5.4	90	1600	2	71	26	0.3	2	11.2		
86LFA300518	1	10	23	94	4.0	880	5.1	5.1	1300	1	75	21	0.7	2	11.2		
86LFA300518	2	13	18	72	4.4	880	5.4	90	1600	2	71	26	0.3	2	11.8		
86LFA300519	1	9	18	112	3.9	1000	5.2	65	1000	2	107	21	0.7	2	11.6		

sample	obs	As	Co	Cr	Cu	F	Fe	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn	ppm
86LFA300519	2	6	19	104	4.3	905	3.7	6.5	920	2	116	1.8	0.5	0.05	2	126	
86LFA300520	1	12	22	122	4.9	975	6.4	90	1200	2	113	2.5	0.3	0.3	2	132	
86LFA300521	1	12	24	104	5.2	1135	5.9	80	1600	1	123	2.4	1	0.2	1	135	
86LFA300521	10	9	25	108	4.5	5.5	6	55	1200	2	110	1.5	1	0.2	1	108	
86LFA300522	1	9	20	142	4.2	975	6	55	1100	2	124	2.3	1	0.3	2	123	
86LFA300523	1	5	12	60	19	1130	2.8	15	450	3	61	1.3	3	0.3	2	72	
86LFA300523	10	3	13	92	18	2.8	2.8	420	1	66	8	1	0.2	1	74		
86LFA300602	1	13	24	72	4.8	1070	5.2	65	820	81	26	0.3	2	138			
86LFA300603	1	10	22	70	4.3	855	5.1	65	700	80	25	0.2	2	136			
86LFA300604	1	12	24	72	4.3	895	5.4	65	840	81	25	0.3	2	140			
86LFA300605	1	15	18	82	46	765	5.5	80	1900	1	82	2.8	5	0.5	2	123	
86LFA300606	1	13	16	78	4.1	910	4.9	70	2200	1	2	73	2.6	3	4	112	
86LFA300608	1	13	18	72	4.5	875	4.8	80	860	1	75	2.2	1	0.5	2	117	
86LFA300609	1	14	20	74	4.8	1030	5	90	920	1	78	2.2	1	0.3	2	126	
86LFA300610	1	12	30	136	68	1030	6.5	65	850	1	169	2.7	3	0.6	2	151	
86LFA300611	1	9	20	125	53	1026	6	65	1000	1	150	2.7	3	0.5	2	143	
86LFA300612	1	12	32	154	68	1220	7.6	55	800	1	196	3.3	0.7	2	181		
86LFA300612	10	10	41	184	67	44	1065	5.6	40	860	2	178	2.4	1	0.4	1	141
86LFA300613	1	11	26	150	56	1080	6.8	55	880	1	168	3.0	1	0.5	2	161	
86LFA300614	1	9	24	146	52	1050	6.4	50	840	1	160	2.9	1	0.8	2	155	
86LFA300615	1	7	22	126	44	1065	5.6	40	870	2	142	2.3	0.6	2	125		
86LFA300616	1	10	32	96	43	1171	5.4	45	480	1	107	2.5	2	0.5	2	148	
86LFA300617	1	14	28	114	4.8	885	5.8	75	800	1	132	2.6	2	0.5	2	136	
86LFA300701	1	11	20	68	46	875	5.2	95	1200	1	118	2.9	2	0.3	2	151	
86LFA300702	1	11	20	62	38	745	4.6	75	980	1	69	24	2	0.3	2	116	
86LFA300703	1	11	20	108	47	755	5.1	90	1200	1	99	29	2	0.5	4	122	
86LFA300705	1	12	20	144	52	775	5.5	65	1400	5	81	26	2	0.5	2	116	
86LFA300706	1	11	16	74	32	655	4.9	45	1500	2	56	23	2	0.5	2	96	
86LFA300707	1	10	16	60	31	790	4.1	85	1400	2	53	23	2	0.5	2	93	
86LFA300707	2	9	17	56	34	815	2.8	75	1000	3	69	19	6	0.5	2	92	
86LFA300708	1	12	22	86	44	1185	5.2	140	1600	1	74	27	4	0.3	2	140	
86LFA300709	1	17	24	86	56	1120	5.4	110	1600	3	79	30	2	0.3	2	150	
86LFA300710	1	18	26	70	53	1150	5.7	140	1700	2	74	32	2	0.3	2	158	
86LFA300711	1	12	20	80	46	965	5.2	75	1600	2	89	26	1	0.4	2	129	
86LFA300712	1	12	20	74	41	950	5.1	90	2000	2	87	24	0.3	2	125		
86LFA300713	1	7	26	88	54	1735	6.6	70	790	1	156	30	2	0.3	2	170	
86LFA300714	1	5	32	84	47	1750	7	70	860	4	143	29	3	0.3	2	143	
86LFA300715	1	19	20	116	66	1075	5.8	120	1900	1	87	35	5	0.3	2	162	
86LFA300716	1	18	21	62	67	1205	5.6	135	2600	2	91	40	5	0.5	2	173	
86LFA300802	10	1	28	84	65	6.1	2000	1	83	30	2	0.3	2	116			
86LFA300802	1	12	18	60	47	1095	5.4	70	1400	1	81	32	1	0.7	2	136	
86LFA300803	1	14	21	64	54	870	4	75	1200	1	82	23	2	0.5	2	151	
86LFA300803	2	18	22	68	47	1030	5.4	90	1500	2	85	35	5	0.3	4	149	
86LFA300804	10	16	56	24	6	1030	5.3	85	1400	1	14	3	3	0.7	4	150	
86LFA300804	1	14	24	68	49	1030	5.4	45	1100	1	77	23	2	0.5	2	133	
86LFA300805	10	14	27	80	45	1030	5.2	60	990	1	79	33	6	0.9	4	133	
86LFA300805	1	13	18	67	46	1030	5.1	90	1400	1	71	25	4	0.5	2	142	
86LFA300806	1	14	18	60	49	960	4.8	90	2000	1	78	33	4	0.5	2	134	
86LFA300807	10	15	16	24	74	46	4.7	85	1140	2	71	25	1	119	2	135	
86LFA300808	1	10	20	64	42	800	5.4	90	1700	1	76	29	1	0.7	2	135	

sample	obs	As	Co	Cr	Cu	F	Fe	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn	ppm
86LFA300809	10	1.5	2.0	2.5	7.6	3.9	5.1	1240	2	6.8	20	0.7	2	129			
86LFA300810	10	1.0	1.5	2.0	6.6	5.0	1030	95	1200	87	28					129	
86LFA300810	10	1.0	1.5	2.0	7.8	4.5	3.4	890	5.2	90	8500	1	75	21		129	
86LFA300811	1	8	2.0	6.4	4.5	3.4	890	5.2	950	1	76	24	8	0.7	2	105	
86LFA300811	10	7	2.1	7.0	3.5	4.8	1030	4.8	4900	2	69	15	1	0.2	1	97	
86LFA300812	1	1.4	2.2	6.6	4.8	1030	5.2	110	1800	1	91	30	3	0.7	2	129	
86LFA300812	10	1.4	2.5	7.6	4.3	5.2	1400	1	1400	1	76	22				121	
86LFA300812	1	1.4	1.8	6.0	4.9	1015	5	150	1150	1	83	30	6	0.5	2	125	
86LFA300813	1	1.7	2.1	6.8	6.3	1130	4.5	185	770	81	26	3	0.5	2	135		
86LFA300814	1	1.6	2.1	6.4	6.7	1200	4.4	200	810	72	26	4	0.5	2	140		
86LFA300815	1	1.3	2.0	7.0	4.1	870	3.6	130	1000	1	70	23	4	0.9	2	120	
86LFA300816	1	1.5	1.5	2.1	7.4	5.8	1105	4.8	110	1200	67	29	6	0.5	2	372	
86LFA300817	1	1.5	1.5	2.5	7.8	6.1	1135	5	95	1500	77	27	4	0.7	2	136	
86LFA300818	1	1.3	2.4	7.8	5.0	1080	4.6	65	1500	71	23	6	0.6	2	147		
86LFA300819	1	1.5	2.9	100	70	1310	5.3	65	1400	98	31	1	0.5	2	188		
86LFA300820	1	1.5	2.3	3.1	120	57	6.8	1140	1	118	24	24	3	0.9	2	142	
86LFA300820	10	1.2	2.9	9.2	6.3	1060	4.9	65	1200	1	89	28	3	0.9	2	156	
86LFA300821	10	3.1	11.8	54	6.6	1000	1	113	113	23	30	3	0.9	2	129		
86LFA300821	1	1.5	2.8	7.8	7.6	1125	4.6	90	1200	1	76	30	3	0.9	2	180	
86LFA300822	10	1.7	2.7	7.6	6.6	1080	5.5	105	1100	1	100	23	5	0.7	8	146	
86LFA300823	1	1.2	2.5	6.2	4.5	950	4.8	90	850	1	89	23	5	0.2	2	132	
86LFA300822	1	1.5	2.6	8.6	4.3	5.4	6.5	65	860	1	83	18	4	0.5	2	144	
86LFA300822	10	1.7	3.0	102	62	6.2	6.2	5.2	1000	1	104	22	5	0.7	8	146	
86LFA300823	1	1.2	2.5	6.2	4.5	950	4.8	90	850	1	89	23	5	0.2	2	132	
86LFA300901	1	1.2	2.6	8.6	4.3	5.4	6.5	65	860	1	83	18	4	0.5	2	119	
86LFA300901	10	1.1	1.1	2.4	6.3	4.4	955	5	860	1	84	26	4	0.5	2	126	
86LFA300902	1	1.1	2.6	6.4	4.1	1055	5	55	880	1	80	17	1	0.5	1	111	
86LFA300902	10	6	2.6	6.4	4.1	1075	4.4	40	800	0.5	92	18	4	0.3	2	123	
86LFA300903	1	8	2.6	6.4	4.3	1060	4.8	55	820	1	89	23	2	0.5	2	120	
86LFA300903	10	5	2.4	8.0	3.6	5.1	5.6	60	840	1	79	14	1	0.2	1	103	
86LFA300903	1	1.1	2.6	6.6	4.1	1090	5.1	65	820	1	83	21	3	0.5	2	118	
86LFA300904	1	1.1	2.7	6.2	4.1	1115	5.4	60	840	1	79	14	1	0.2	1	103	
86LFA300904	2	6	2.8	100	3.4	5.6	5.6	5.6	820	1	86	16	1	0.2	1	103	
86LFA300904	10	1.0	2.7	6.2	4.1	1115	5.4	60	840	1	86	21	3	0.9	2	126	
86LFA300905	1	1.0	2.7	6.2	4.2	1090	5.1	65	820	1	83	21	3	0.5	2	142	
86LFA300905	1	1.1	2.6	6.4	4.7	1005	4.2	50	960	1	95	25	6	0.5	2	148	
86LFA300906	1	1.1	2.6	6.4	4.7	1005	4.2	50	960	1	94	22	4	0.7	2	130	
86LFA300907	1	1.1	2.6	6.4	4.3	940	4.6	60	860	1	110	22	5	0.4	2	143	
86LFA300908	1	1.0	2.5	7.2	4.6	975	5.1	70	870	1	145	20	2	0.3	2	132	
86LFA300909	1	1.0	2.5	7.2	4.3	1160	4.8	65	410	1	138	19	5	0.9	2	122	
86LFA300910	1	5	2.6	5.2	4.1	1070	4.2	40	420	0.5	121	18	3	0.3	2	124	
86LFA300911	1	4	2.7	5.0	4.8	1150	4.2	40	400	1	142	23	3	1	112	121	
86LFA300911	10	4	3.2	8.8	3.8	6	4.4	1070	4.2	50	330	1	131	17	1	121	
86LFA300911	10	4	3.1	6.2	4.1	5.8	5.8	5.8	320	1	116	19	2	0.5	2	99	
86LFA300912	1	4	2.3	4.4	3.6	930	3.8	4.5	440	1	86	20	8	0.3	2	126	
86LFA300913	10	2	1.3	5.0	1.8	715	2	2.5	390	3	86	16	1	0.3	2	55	
86LFA300913	10	2	1.6	6.0	1.2	3	3	3.80	1	83	12	1	1.7	1	61	1	
86LFA300914	1	1.2	2.4	6.2	5.1	1130	4.4	80	1200	1	86	22	4	0.5	2	127	
86LFA300915	1	2	1.3	2.3	6.2	5.1	1185	4.2	75	960	0.5	83	20	8	0.3	2	
86LFA300916	10	1.0	1.1	2.5	6.0	4.7	1150	3.8	90	1000	1	84	23	2	0.5	2	129
86LFA300917	10	1.0	1.1	2.5	6.6	4.3	5.4	1220	5	85	1040	1	81	17	1	110	110
86LFA300918	1	1.2	2.4	6.2	4.2	1205	5.6	5.6	1140	1	82	18	1	0.4	1	124	
86LFA300919	1	1.4	2.4	6.2	4.2	1205	5.6	80	1100	1	85	21	1	0.3	2	118	
86LFA300920	14	1.4	2.5	8.2	4.3	5.6	5.6	5.6	1060	1	79	18	1	0.3	1	1	

sample	obs	As	Co	Cr	Cu	F	Fe	Hg	Mn	Ni	Pb	Sn	U	W	Zn
86LFA301005	1	14	24	74	44	680	4.4	80	1400	1	84	21	2	0.3	2
86LFA301006	1	12	26	64	46	935	4.4	100	3200	1	89	24	9	0.3	2
86LFA301006	10	11	22	84	53	880	4	65	1600	4	82	22	1	0.5	2
86LFA301007	10	10	23	94	45		5.3		2900	1	78	20			114
86LFA301008	1	10	21	68	40	800	3	80	1500	4	73	15	1	0.2	1
86LFA301008	2	11	22	76	33	800	3	65	1200	3	80	20	2	0.5	2
86LFA301009	1	18	17	68	41	810	2.6	80	2500	5	72	20	6	0.5	2
86LFA301009	10	21	84	32			4.3		1800	2	67	16			103
86LFA301010	1	10	15	60	31	830	2.5	60	1300	4	60	18			97
86LFA301010	20	17	68	37	735	2.8	80	1200	3	65	20	5	1.4	2	100
86LFA301011	1	14	13	44	29	650	1.9	80	1500	5	48	18			96
86LFA301012	1	7	13	52	30	760	1.8	65	1200	4	47	15	4	0.5	2
86LFA301012	2	11	20	72	41	890	3.7	95	1200	3	74	22	3	0.7	2
86LFA301013	1	10	22	86	38		5		960	1	72	18			90
86LFA301013	10	10	18	72	48	905	3.8	95	1200	4	83	22	5	0.7	2
86LFA301014	1	6	16	58	32	775	2.8	85	1400	4	64	19	1	1.4	2
86LFA301015	1	7	18	80	46	770	2.8	90	1200	6	73	19	3	0.9	2
86LFA301016	1	9	18	66	41	785	2.9	80	950	4	72	20	1	0.7	2
86LFA301017	1	9	5	22	82	47	950	4	80	1200	3	87	23		137
86LFA301018	1	11	23	76	43	885	4	100	1000	1	83	18			153
86LFA301018	10	10	14	26	80	49	755	3.4	100	1400	3	84	23		117
86LFA301019	1	11	25	94	42		5.5		1220	2	83	18	1	0.7	2
86LFA301019	10	10	14	26	80	45	870	5.2	1000	3	95	24			120
86LFA301020	1	5	26	80	45	915	4.8	85	1200	5	85	25			131
86LFA301021	1	6	28	118	23	1230	3	35	1900	3	134	25			120
86LFA301021	14	23	76	50	1050	5	55	1000	1	106	23	6	0.5	2	131
86LFA301022	1	10	27	92	50	855	5.4	85	1800	1	92	22			141
86LFA301022	1	5	26	80	45	870	5.2	85	1400	3	95	24			113
86LFA301023	1	9	25	72	45	915	4.8	85	1200	5	96	22			103
86LFA301023	2	9	19	94	37	790	4	145	1600	3	84	22			137
86LFA301024	1	8	23	108	42	855	4.8	110	1400	2	98	24			120
86LFA301025	1	10	25	102	43		5.4		1660	1	96	18	1	0.2	2
86LFA301025	10	7	21	108	39	810	4.8	70	1400	2	90	21	4	0.5	2
86LFA301026	1	22	106	35			5.5		1120	2	90	16			156
86LFA301026	10	5	19	96	34	720	4.1	80	1500	1	86	21	4	0.5	2
86LFA301027	1	5	19	108	42		5.1		1160	1	88	17			158
86LFA301027	10	10	25	102	43		5.4		1660	1	96	18	1	0.3	2
86LFA301028	1	8	21	84	38	775	4.4	85	1500	2	93	24			127
86LFA301028	10	10	23	90	38		5.3		1320	1	95	17	1	0.3	2
86LFA301029	1	14	25	88	51	1085	5	90	1600	1	116	29	5	0.5	2
86LFA301029	10	21	100	32	51	1045	4.6	65	1540	2	108	21			126
86LFA301208	1	13	24	94	51				1600	2	113	27	2	0.3	2
86LFA301208	10	10	26	100	46		6.5		1280	1	110	17	1	0.4	3
86LFA301208	10	10	25	104	55	950	5.4	70	1100	1	105	29	3	1.4	2
86LFA301209	1	8	24	104	53	865	5	80	1300	2	105	30			143
86LFA301209	10	27	116	47			6.7		1060	3	98	20			126
86LFA301210	1	10	26	90	53	935	4.9	65	1200	1	106	29	3	1.4	2
86LFA301210	10	10	25	92	46	845	6.2	60	1000	0.5	110	24	5	0.4	4
86LFA301211	1	10	25	93	53	950	5.2	80	1200	1	109	31	2	0.5	2
86LFA301212	1	8	24	104	53	865	5	90	1300	2	105	30			130
86LFA301212	10	27	116	47			6.7		1060	3	98	20			157
86LFA301213	1	8	22	90	53	935	4.9	65	1200	1	106	29	3	1.4	2
86LFA301213	2	10	25	92	46	845	6.2	60	1000	0.5	110	24	5	0.4	4
86LFA301214	1	9	23	90	53	950	5.2	80	1200	1	109	31	2	0.5	2
86LFA301214	10	10	29	102	49	1100	5.2	55	1380	1	110	22	1	0.4	2
86LFA301215	1	8	27	84	49	1100	5.2	55	1600	1	109	28	8	0.3	2
86LFA301215	10	28	98	41			6		1300	1	100	20			125

sample	obs	As	Co	Cr	Cu	F	Hg	Mn	Ni	Pb	Sn	U	W	Zn	
86LFA301217	1	5	1.5	6.4	3.1	940	2.6	4.0	780	2	86	2.2	0.9	2	
86LFA301217	10	4	1.8	8.0	2.8	1045	4	70	1700	1	80	1.3	0.2	1	
86LFA301218	1	1.5	2.3	6.8	4.2	1045	3.1	70	1480	1	103	2.3	0.5	2	
86LFA301218	10	2.6	8.4	3.2	5.3	80	2.6	80	1000	1	93	4.4	0.3	2	
86LFA301219	1	1.1	2.1	6.2	3.6	975	4.4	1020	1	91	33	1	1	137	
86LFA301219	10	2.3	8.8	3.1	4.4	860	2.7	65	860	2	89	4.3	0.5	2	
86LFA301220	1	1.8	1.9	6.8	3.9	1000	4.1	65	940	1	80	1.9	0.5	2	
86LFA301221	1	1.2	2.4	6.0	4.5	885	4.1	70	1000	3	65	141	0.5	2	
86LFA301222	*1	9	1.4	5.8	3.0	845	2	70	1100	1	73	113	1	218	
86LFA301222	*10	1.4	1.8	7.2	2.8	3.6	1.1	84	27	1	0.2	1	179	132	
86LFA301402	1	9	2.6	6.8	5.1	905	4.6	70	1100	1	84	27	0.3	2	
86LFA301402	10	1.2	2.7	6.6	4.7	945	5.9	70	1000	1	88	20	0.4	2	
86LFA301403	1	1.4	2.5	7.2	5.6	900	5	65	1200	1	95	26	2	147	
86LFA301404	1	1.1	2.9	8.4	4.7	930	4.4	60	1000	1	89	26	2	151	
86LFA301404	10	1.4	2.7	7.0	4.5	930	4.4	60	1040	1	89	20	1	1	
86LFA301405	1	1.4	2.7	6.4	5.0	750	5.5	70	1200	1	94	23	9	0.5	
86LFA301405	10	9	2.9	8.6	4.6	970	4.5	70	1020	1	83	20	2	122	
86LFA301406	1	1.2	2.7	7.0	5.5	930	4.6	6.2	1300	1	89	19	1	119	
86LFA301406	10	1.4	2.5	6.8	5.4	930	4.6	75	1080	1	80	22	3	2	
86LFA301406	10	1.1	2.9	9.2	4.2	47	6.2	6.2	1020	1	85	19	1	152	
86LFA301407	1	7	2.4	6.4	5.0	750	4.6	70	1300	1	80	22	3	119	
86LFA301407	10	2.6	7.8	3.7	5.5	930	5.5	75	1200	1	94	29	5	0.5	
86LFA301408	1	1.4	2.5	6.8	5.4	930	4.6	75	1040	1	85	19	1	142	
86LFA301408	10	9	2.7	8.2	4.7	930	4.6	80	1200	1	100	24	3	2	
86LFA301409	1	1.1	2.5	7.2	5.8	1020	4.4	80	980	1	88	24	3	129	
86LFA301410	10	1.0	2.2	6.2	3.4	955	4	50	940	1	79	20	1	115	
86LFA301410	14	2.5	8.6	2.8	5.6	930	4.6	75	1040	1	85	19	1	121	
86LFA301410	9	2.7	8.2	4.7	5.0	905	4.6	50	980	1	90	29	5	2	
86LFA301411	1	1.5	2.1	6.4	2.4	905	4.6	4.0	850	1	76	23	6	0.3	
86LFA301412	1	6	2.0	6.0	2.5	915	4.3	40	850	0.5	74	20	5	0.7	
86LFA301412	10	2.2	8.4	2.5	5.1	800	1	800	1	74	19	20	0.3	103	
86LFA301412	10	2.7	8.6	2.8	5.1	895	4.3	30	830	1	71	20	0.3	2	
86LFA301413	1	1.2	1.9	6.2	2.0	86	4.7	3.5	800	1	70	18	2	87	
86LFA301413	10	1.5	2.1	6.4	2.4	905	4.4	3.5	760	2	71	21	5	0.3	
86LFA301414	1	1.3	1.8	6.2	2.9	870	4.4	4.6	790	2	67	15	1	88	
86LFA301414	10	1.0	2.1	14.8	2.7	915	4.2	50	1100	2	84	28	7	0.5	
86LFA301415	*1	1.3	2.3	7.0	4.0	915	4.2	50	1200	2	136	14	6	0.8	
86LFA301415	14	2.1	11.8	5.8	870	5.6	90	1200	2	121	22	1	128		
86LFA301602	1	1.4	1.9	11.4	4.1	1055	6.1	100	940	0.5	129	21	1	118	
86LFA301602	13	1.5	1.9	11.6	6.8	730	6	105	1200	1	145	13	3	1	
86LFA301603	1	2.2	11.6	5.6	875	5.8	90	1300	1	133	15	3	0.8	131	
86LFA301604	1	1.5	2.2	10.4	6.0	820	5.6	85	1200	1	133	11	8	2	
86LFA301605	1	1.2	2.0	10.2	5.9	850	5.7	85	1300	1	133	11	8	137	
86LFA301606	1	1.4	2.3	10.4	6.3	810	5.8	105	1100	1	135	18	1	143	
86LFA301606	13	1.8	10.0	5.6	875	5.8	90	1300	1	136	14	2	148		
86LFA301607	1	1.2	1.8	10.4	5.5	780	5.3	95	1400	1	120	14	4	0.7	
86LFA301608	1	1.2	1.8	10.4	5.5	780	4.8	75	1200	2	121	22	1	129	
86LFA301609	1	1.3	1.9	10.2	3.9	870	5.6	90	1600	2	103	11	1	131	
86LFA301610	1	1.2	1.3	7.6	5.8	3.6	850	3.3	115	940	2	86	1.2	2	
86LFA301611	1	1.2	1.2	2.0	5.8	4.8	1010	4.8	55	1000	2	87	21	8	
86LFA301612	1	1.0	3.6	3.5	2.1	850	1	95	440	3	50	6	1	130	
86LFA301613	1	1.2	1.3	7.6	5.8	930	5.1	90	1600	2	108	23	4	0.7	
86LFA301613	*1	1.2	1.2	7.6	5.8	930	5.1	90	1600	2	108	23	4	154	
86LFA301614	1	1.2	1.3	7.6	5.8	930	5.1	90	1600	2	108	23	4	116	
86LFA301615	*1	1.2	1.3	7.6	5.8	930	5.1	90	1600	2	108	23	4	144	
86LFA301616	1	1.2	1.2	2.0	5.8	4.8	1010	4.8	55	1000	2	87	21	8	
86LFA301617	1	1.1	2.0	6.0	3.8	1030	4.6	55	800	2	87	21	8	130	
86LFA301618	1	1.1	2.0	6.0	3.8	1030	4.6	55	800	2	84	15	6	139	
86LFA301901	*	1	1.2	1.2	2.0	5.8	4.8	1010	4.8	55	1000	2	87	21	8
86LFA301902	-	1	1.2	1.2	2.0	5.8	4.8	1010	4.8	55	1000	2	87	21	8
86LFA301903	-	1	1.1	2.0	6.0	3.8	1030	4.6	55	800	2	84	15	6	139
86LFA301904	-	10	2.0	5.8	4.1	980	4.6	55	800	2	84	15	6	139	

sample	obs	As	Co	Cr	Cu	F	Fe	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn	ppm	
86LFA301905	1	11	22	56	42	1040	4.6	50	800	82	19	4	0.7	2	147	2		
86LFA301906	1	8	19	64	45	1110	4.8	55	900	86	16	2	1.2	2	154	2		
86LFA301907	1	9	22	64	39	1170	4.7	55	780	88	12	2	0.5	2	143	2		
86LFA301908	1	15	25	62	46	1050	5	95	800	96	19	3	1	2	137	2		
86LFA301908	2	16	17	60	45	1340	5.3	100	670	0.5	92	22	4	1	2	138	2	
86LFA301909	1	38	28	70	66	1240	7.6	140	3200	124	16	1	0.6	2	188	2		
86LFA302001	1	11	24	82	56	900	5.2	85	1400	100	34	5	0.3	2	163	2		
86LFA302004	1	8	24	72	53	1120	4.3	70	1200	94	27	2	0.5	2	177	2		
86LFA302004	10	29	92	44	5.8	745	4.8	120	2100	1	88	17	0.6	2	147	2		
86LFA302006	1	11	25	78	49	735	6	120	1400	100	30	5	0.5	2	126	2		
86LFA302006	10	12	26	84	44	44	6	1360	1	86	19	1	0.2	1	108	2		
86LFA302007	1	12	30	92	49	785	5.5	265	2200	106	38	7	0.3	2	135	2		
86LFA302008	1	13	28	84	49	800	5.4	120	1700	1	108	29	3	0.3	2	129	2	
86LFA302009	+	14	26	84	55	745	4.8	120	2100	2	101	29	0.3	2	129	2		
86LFA302010	1	14	24	100	46	720	4.4	75	1900	2	111	25	0.3	2	131	2		
86LFA302011	1	11	33	88	52	915	5.6	45	2600	1	105	23	0.3	2	149	2		
86LFA302011	10	36	110	46	46	1000	5.4	30	2000	2	121	30	2	0.3	2	135	2	
86LFA302012	1	8	31	94	49	995	5	65	1300	0.5	131	27	5	0.3	2	159	2	
86LFA302013	1	9	32	104	47	1015	5.2	40	2200	1	114	25	3	0.3	2	143	2	
86LFA302014	1	7	27	102	38	980	5.2	70	1600	1	113	24	2	0.3	2	135	2	
86LFA302014	2	5	28	100	43	995	5	65	1300	1	114	19	1	0.6	2	133	2	
86LFA302014	10	6	26	106	36	104	47	1030	5	50	1400	135	22	2	0.3	2	142	2
86LFA302015	1	4	30	104	47	1015	5.2	40	1300	1	130	27	8	0.3	2	168	2	
86LFA302016	1	8	30	104	53	1150	5.7	40	1300	104	24	1	2	2	133	2		
86LFA302017	1	9	27	86	48	970	4.6	30	1100	122	24	2	0.3	2	143	2		
86LFA302018	1	15	32	104	53	845	5	75	1100	125	28	3	0.3	2	155	2		
86LFA302019	1	11	34	116	58	715	5.6	40	1000	2	104	12	4	0.1	2	131	2	
86LFA302019	+	16	22	76	42	950	4.4	85	5000	2	104	12	4	0.1	2	151	2	
86LFA302020	1	24	23	64	56	9360	5.3	60	1300	1	102	13	5	1.1	2	143	2	
86LFA302020	1	15	24	70	56	9750	5.4	75	1300	1	104	11	1	1.2	2	148	2	
86LFA302020	1	17	17	72	47	1120	5.3	60	1300	1	104	11	1	0.8	2	140	2	
86LFA302020	1	11	34	116	58	715	5.6	40	1400	4	104	11	8	1	2	134	2	
86LFA302021	1	20	20	98	59	1200	5.2	55	1400	4	104	11	6	0.8	2	147	2	
86LFA302021	1	17	20	68	50	1250	5.3	60	1900	108	13	5	1.1	2	135	2		
86LFA302021	1	23	20	62	50	1390	5.2	70	1200	99	11	7	1.1	2	115	2		
86LFA302020	20	16	96	59	990	5.1	50	1500	4	93	16	1	1	0.8	2	171	2	
86LFA302020	19	19	76	60	1015	4.9	60	1300	2	92	19	4	1.2	2	142	2		
86LFA302021	10	23	18	88	59	1100	5.4	55	1200	2	98	13	5	1	4	145	2	
86LFA302021	11	18	26	88	51	940	5.5	75	1600	109	26	7	0.3	2	152	2		
86LFA302021	14	15	82	41	920	4.6	55	1200	91	20	1	0.4	2	115	2			
86LFA302021	15	18	100	46	915	4.9	55	1500	1	95	21	7	0.6	4	124	2		
86LFA302021	14	14	21	84	52	850	5.3	110	1600	2	88	28	2	0.5	2	173	2	
86LFA302021	15	15	17	84	54	830	5.3	75	1500	1	93	25	3	1	4	137	2	
86LFA302021	16	14	17	84	46	775	5	75	1300	2	90	23	4	1	2	125	2	
86LFA302021	17	14	17	84	46	775	5	65	2000	2	107	27	1	1.2	2	143	2	
86LFA302021	2	14	19	86	40	665	5.4	85	1300	1	88	18	7	0.8	2	126	2	
86LFA302021	15	15	18	66	51	990	5.1	90	2000	94	28	2	0.3	2	137	2		
86LFA302021	15	15	17	84	46	775	5	1270	5.4	195	1400	134	30	1	4	137	2	
86LFA302021	16	24	72	59	1270	5.4	1270	5.4	65	2000	2	107	27	1	1.2	2	143	2
86LFA302021	17	17	23	84	55	1000	5.7	65	1500	1	91	26	1	1.1	2	130	2	
86LFA302021	14	14	19	76	39	865	4.5	80	1500	2	91	21	1	0.8	2	128	2	
86LFA302021	15	15	18	66	51	885	4.7	60	1200	3	91	27	1	1.1	2	105	2	
86LFA302021	12	11	100	51	885	4.7	55	1100	2	77	20	1	1	2	128	2		
86LFA302021	10	12	66	43	780	3.4	55	995	5.8	90	1600	1	5	0.5	2	151	2	

sample	obs	As	Co	Cr	Cu	F	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn	
86LFA302208	1	30	20	5.8	4.0	850	4.6	5.5	1400	1	80	20	1	2	100	
86LFA302209	1	17	26	74	4.9	1125	5.6	6.0	1800	1	101	28	7	1	139	
86LFA302210	1	16	25	70	5.5	1120	5.8	7.0	1200	1	105	26	3	0.7	2	
86LFA302213	1	12	19	82	4.7	885	5.1	85	1400	1	90	27	2	0.6	2	
86LFA302214	1	22	20	80	5.0	960	5.2	7.0	1000	2	97	26	2	0.8	4	
86LFA302216	1	8	20	80	3.5	1015	3.2	3.0	1100	2	95	19	2	0.8	2	
86LFA302216	2	9	14	74	3.0	1025	3.5	2.0	930	2	92	15	4	0.3	2	
86LFA302301	1	16	24	82	5.6	1235	5.9	85	1400	1	116	20	2	0.3	2	
86LFA302302	1	15	24	86	5.2	1265	6	6.0	1500	1	111	19	1	0.6	2	
86LFA302303	1	15	23	84	4.5	1235	5.3	5.5	1400	1	104	18	7	0.3	2	
86LFA302304	1	13	23	80	5.0	1200	5.5	6.0	1600	1	105	19	6	0.7	2	
86LFA302305	1	31	30	80	5.3	1370	5.7	5.5	1800	1	122	25	4	0.6	2	
86LFA302401	1	14	18	76	4.6	1130	5.3	4.5	1400	1	100	20	1	0.3	2	
86LFA302402	1	15	18	76	4.7	1100	5.2	4.5	1800	1	102	19	1	0.6	2	
86LFA302403	1	14	23	76	4.4	1045	5	4.0	1700	1	99	19	4	0.6	2	
86LFA302404	1	12	21	82	4.4	1080	5.4	4.0	1600	1	101	20	3	0.8	2	
86LFA302405	1	12	23	76	4.6	1115	5.2	4.0	2000	1	100	22	3	0.7	2	
86LFA302503	1	31	27	52	4.8	895	4.4	3.5	1500	1	72	29	1	0.7	2	
86LFA302402	1	15	18	76	4.7	1100	5.2	4.5	1800	1	102	19	1	0.6	2	
86LFA302403	1	14	23	76	4.4	1045	5	4.0	1700	1	99	19	4	0.6	2	
86LFA302604	1	32	25	66	5.7	970	5.3	7.0	2100	1	90	30	2	0.6	2	
86LFA302801	1	42	34	48	128	1040	5.4	4.5	1900	1	76	49	2	0.6	2	
86LFA302902	1	15	24	66	7.3	1200	5.5	5.0	1800	1	97	34	1	0.8	2	
86LFA302903	1	17	23	62	6.2	1040	4.9	5.0	1900	1	91	36	6	0.3	2	
86LFA302904	1	13	25	60	6.0	1220	5	5.0	1800	1	88	26	1	0.5	2	
86LFA302904	2	14	18	58	5.0	1130	5.5	5.40	1600	0.5	86	24	7	1	2	
86LFA302905	1	17	21	62	6.7	1115	5	5.5	2200	1	89	27	5	0.6	2	
86LFA302906	1	21	19	64	6.5	1090	5	3.5	1900	1	91	29	4	0.6	2	
86LFA302907	1	16	25	62	7.1	1150	5.2	3.5	1800	1	91	33	1	1	2	
86LFA302908	1	17	21	62	6.9	1120	5.2	3.5	1800	1	89	34	3	0.6	2	
86LFA302909	1	19	22	60	6.4	1045	5.3	3.5	1700	1	86	36	3	0.6	2	
86LFA302910	1	23	24	64	89	890	5.4	4.0	1900	2	87	40	4	1	2	
86LFA302911	1	7	18	52	6.0	980	4.8	3.5	1400	1	63	29	2	0.8	2	
86LFA302907	1	12	13	52	7.4	980	5.1	3.0	1800	1	66	37	2	1	2	
86LFA302908	1	24	25	68	6.9	1100	6.1	4.0	3000	1	82	23	8	1.2	2	
86LFA302909	1	21	14	66	7.7	915	5.7	6.0	1600	1	92	18	4	1	2	
86LFA302911	1	7	18	65	915	5.4	4.0	1400	1	93	15	3	0.6	2		
86LFA302912	1	12	13	52	7.4	980	5.1	3.0	1800	1	66	37	2	1	2	
86LFA303001	1	24	25	68	6.9	1100	6.1	4.0	3000	1	82	23	8	1.2	2	
86LFA303101	1	21	14	66	7.7	915	5.7	6.0	1600	1	92	18	4	1	2	
86LFA303102	1	20	25	78	6.5	915	5.4	4.0	1400	2	93	15	3	0.6	2	
86LFA303103	1	24	24	62	5.2	785	4.6	4.0	1800	2	83	19	8	2.9	2	
86LFA303104	1	14	26	66	6.0	945	5.1	4.0	1600	1	86	15	5	2.1	2	
86LFA303202	1	19	20	88	4.7	845	4.7	4.7	20	1400	2	75	18	3	2.1	2
86LFA303203	1	19	20	88	4.7	845	4.7	4.7	20	1400	2	74	13	5	1.6	2
86LFA303204	1	33	23	90	6.1	855	5.7	2.0	1900	2	88	15	6	1.2	8	
86LFA303205	1	31	26	80	6.7	875	5.9	2.0	1600	1	88	17	6	1.1	8	
86LFA303206	1	24	24	104	5.8	910	6	2.5	1900	1	87	20	3	1.2	8	
86LFA303207	1	24	24	100	4.6	900	5.6	2.0	1500	2	85	16	3	1.2	8	
86LFA303208	1	26	22	108	4.9	945	5.4	3.0	1400	1	85	13	5	1.6	2	
86LFA303209	1	17	22	68	3.9	925	4.9	2.0	1600	2	79	20	7	2.2	2	
86LFA303210	1	26	23	74	4.3	965	5.2	3.0	1600	2	81	16	6	2.3	2	
86LFA303211	1	24	24	72	4.1	995	5.3	2.5	1600	2	82	12	7	2.7	2	
86LFA303212	1	22	19	74	4.2	1015	5.2	2.0	1400	2	81	13	7	2.4	4	
86LFA303213	1	28	18	92	4.5	920	5.5	3.0	1800	2	83	14	8	2	138	
86LFA303213	2	24	90	39	1100	5.9	4.0	1500	2	81	21	7	2	143		

sample	obs	As	Co	Cr	Cu	Fe	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn
86LFA303214	1	2.1	7.0	3.9	9.85	5	20	1600	1	7.9	1.3	1.3	1.2	2	123
86LFA303215	1	2.4	1.4	7.2	3.7	9.85	5.1	25	1400	1	7.9	1.3	5	1.1	2
86LFA303216	1	2.3	1.4	7.2	4.3	10.40	5	30	1500		7.9	1.2	11	2.5	2
86LFA303217	1	2.4	1.7	7.6	4.4	9.35	5	30	1200		8.1	1.5	7	2.3	2
86LFA303218	1	2.8	1.8	8.0	4.8	10.35	5	30	1400	2	8.3	1.5	2	1.6	8
86LFA303219	1	3.2	2.1	8.2	5.3	8.50	5.5	40	1700	2	9.1	1.7	5	2.3	2
86LFA303220	1	3.0	2.2	7.6	5.4	10.30	5.5	30	1900	2	9.3	2.8	7	2	161
86LFA303224	1	1.2	1.4	8.4	4.5	8.35	4.5	20	960	70	28	8	1.2	2	102
86LFA303303	1	2.1	2.3	7.6	6.0	11.15	5.4	30	1500	2	8.6	3.7	8	2.6	2
86LFA303304	1	2.3	1.9	8.0	6.6	10.10	5.2	25	1400	2	7.8	2.8	9	2.2	2
86LFA303305	1	1.1	1.5	6.7	6.0	11.45	4.9	35	1800	1	7.8	2.0	10	1.4	2
86LFA303305	2	1.2	1.4	8.4	4.5	8.35	5.5	35	1700	0.5	7.5	1.7	6	1.7	2
86LFA303306	1	1.1	1.6	6.8	5.3	9.70	5	30	1400		7.7	2.1	2	0.9	2
86LFA303307	1	1.2	1.1	6.6	4.8	7.95	4.2	40	1200	2	7.1	1.9	3	1	2
86LFA303308	1	1.0	1.3	6.4	4.7	9.60	4.6	40	1500		7.5	1.8	7	1.3	2
86LFA303308	2	1.0	1.1	6.8	4.8	12.35	5.5	35	1200	0.5	7.5	1.7	6	1.4	2
86LFA303309	1	9	1.7	6.8	4.7	9.00	4.2	30	1200		7.2	2.1	4	1.1	2
86LFA303310	1	2.2	2.0	6.6	5.9	9.60	5.2	20	1300		7.7	3.9	11	6.4	2
86LFA303311	1	1.0	1.5	6.2	5.0	10.65	5	20	1800	1	8.0	2.1	4	1	2
86LFA303312	1	1.2	1.5	6.2	4.1	10.25	5	35	1200		7.3	1.7	5	1.2	2
86LFA303313	1	1.2	1.5	6.8	5.5	9.30	5	30	1800		7.2	2.1	4	1.1	2
86LFA303314	1	1.2	1.5	7.2	5.3	9.55	5.1	30	1900		7.7	3.9	11	6.4	2
86LFA303314	2	1.0	1.5	6.2	5.0	10.65	5	20	1500	1	8.0	2.1	4	1	2
86LFA303315	1	1.2	1.5	6.6	5.1	10.25	5	30	1500	1	7.9	2.5	5	1	2
86LFA303316	1	1.1	1.4	6.8	5.2	9.50	5	25	1800	1	8.0	2.4	7	1.8	2
86LFA303317	1	1.3	1.3	6.6	5.4	9.15	5	25	1900	1	7.9	2.3	5	1.5	2
86LFA303318	1	1.3	1.8	7.0	4.2	10.95	5.5	40	1800	0.5	7.9	2.0	9	0.8	2
86LFA303318	2	1.2	1.8	7.0	4.2	10.95	5.5	40	2300	2	8.0	2.5	7	1.8	2
86LFA303319	1	1.1	1.3	6.8	5.1	11.20	5.2	30	2000	2	7.5	2.7	4	1.6	2
86LFA303320	1	1.1	1.3	6.8	5.2	9.95	5.2	25	1800	2	7.9	2.5	7	1.3	2
86LFA303320	2	1.1	1.9	6.4	3.0	12.80	5.5	35	1900	1	7.9	2.4	5	1.7	2
86LFA303321	1	1.2	1.8	7.0	4.9	11.35	5.2	25	2100	1	8.1	2.5	10	0.8	2
86LFA303321	2	1.1	1.7	6.8	4.3	11.80	5.2	25	2000	2	7.5	2.7	8	1.7	2
86LFA303322	1	1.8	1.7	7.0	4.4	10.40	5	40	2000		7.7	2.7	8	1.8	2
86LFA303323	1	1.8	1.8	6.8	4.7	11.70	5.1	35	2000		7.9	2.7	6	1.8	2
86LFA303324	1	1.6	1.6	6.8	4.1	11.55	4.8	40	1900		7.4	2.7	6	1.8	2
86LFA303325	1	1.7	1.4	6.4	4.3	10.35	4.9	40	1700		7.6	3.0	7	2.2	2
86LFA303325	1	1.4	1.5	7.0	4.9	11.50	5.1	20	1800		8.1	2.8	8	2.3	2
86LFA303326	1	2.2	1.9	6.9	4.6	11.50	5.1	20	2000		7.5	2.7	8	2.3	2
86LFA303327	1	1.8	1.8	6.8	4.7	11.70	5.1	40	1900		7.9	2.8	4	2	130
86LFA303328	1	1.6	1.6	6.8	4.1	11.55	4.8	40	1900		7.6	2.8	6	1.6	2
86LFA303328	1	1.7	1.4	6.4	4.3	10.35	4.9	40	1700		7.6	3.0	7	2.2	2
86LFA303329	1	1.3	1.9	6.4	4.0	12.38	5.2	35	1800		8.6	2.7	11	1.4	2
86LFA303329	1	1.4	1.9	6.8	4.3	11.70	5.2	35	1800		8.1	2.8	8	2.3	2
86LFA303330	1	1.5	1.9	6.6	4.3	11.20	5.1	40	2000		8.3	2.6	9	1.2	2
86LFA303331	1	1.6	1.8	7.0	4.1	13.60	5.1	30	1900		7.2	30	10	3	2
86LFA303332	1	1.4	2.1	6.5	4.2	13.55	5.3	30	1850		7.3	26	8	2.5	2
86LFA303333	1	1.3	1.2	8.4	4.7	12.80	4.7	30	2000		6.6	22	6	2.5	2
86LFA303334	1	1.4	1.9	6.8	4.6	13.90	5.2	25	1700		7.9	30	9	2.7	2
86LFA303334	2	1.4	1.7	6.8	3.5	13.60	5.6	40	1800		0.5	75	24	2.7	2
86LFA303332	1	1.4	1.6	6.2	3.3	12.70	5.6	35	1500		2.7	28	7	2.5	2
86LFA303333	1	1.3	1.2	8.4	4.7	12.80	4.7	30	2000		6.6	22	6	2.5	2
86LFA303334	1	1.4	1.9	6.8	4.6	13.90	5.2	25	1700		7.9	30	9	2.7	2
86LFA303335	1	1.6	1.7	6.8	3.5	11.70	5.7	35	1600		1	72	1	2.7	2
86LFA303336	1	1.6	1.7	6.8	3.5	11.70	5.7	35	1600		2.7	24	8	1.7	2
86LFA303337	1	1.7	1.5	6.8	3.5	11.70	5.7	35	1600		1	70	1	1.8	2
86LFA303338	1	1.7	1.6	6.8	3.0	9.20	5.6	30	1700		8.0	24	7	2.1	2
86LFA303339	1	1.7	1.6	6.8	3.3	8.75	5.3	35	1400		7.2	27	7	2.1	2

sample	As	Cd	Cr	Cu	F	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn		
sample	obs	obs	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
86LFA303341	1	1.5	1.4	6.0	3.1	935	5.1	25	1400	1	72	22	2.5	12.0		
86LFA303342	1	1.4	1.1	5.0	2.6	1020	4.8	3.0	1100	59	21	6	2.2	11.0		
86LFA303343	1	1.9	1.9	6.2	2.7	825	5.6	3.0	1400	70	22	12	1.7	13.0		
86LFA303344	1	2.2	2.1	6.6	3.1	920	6.1	3.0	1400	75	26	7	2.2	14.4		
86LFA303344	2	2.4	1.8	7.2	4.1	960	5.9	4.0	1200	0.5	75	24	5	2.3	14.7	
86LFA303345	1	2.1	2.0	6.4	2.3	860	6	3.0	1200	77	24	1	2.5	15.2		
86LFA303346	1	2.1	1.8	6.0	1.9	835	5.8	3.0	1200	1	74	26	8	2.7	14.3	
86LFA303347	1	1.5	1.9	5.8	2.6	800	5.9	3.0	1200	75	27	7	3.7	2	14.3	
86LFA303348	1	1.9	2.2	6.4	3.1	895	6.1	4.0	1400	76	27	13	3.6	2	16.1	
86LFA303349	1	1.8	2.1	6.8	3.1	860	6.1	3.5	1500	82	26	8	4.1	2	14.5	
86LFA303350	1	2.6	1.9	7.0	3.0	905	6	3.5	1300	83	25	9	2.7	2	14.5	
86LFA303351	1	2.4	1.8	6.8	2.9	935	6	3.0	1600	82	22	12	2.1	2	14.4	
86LFA303352	1	2.6	2.3	7.4	4.0	1090	6	4.5	1400	1	83	29	7	2.2	2	15.2
86LFA303353	1	2.8	2.6	7.6	3.5	980	5.9	3.5	1300	1	86	20	10	1.5	2	14.9
86LFA303354	1	2.6	2.5	7.2	3.7	935	5.9	2.5	1600	1	82	27	12	2.5	2	14.5
86LFA303355	1	2.7	2.2	8.6	3.2	985	6.4	3.0	1200	2	85	25	6	3.4	4	15.4
86LFA303356	1	2.9	2.3	8.0	3.4	1020	6.2	3.0	1600	2	90	24	6	2.5	2	14.2
86LFA303357	1	2.8	2.8	8.6	4.0	1070	6.2	3.0	1400	2	85	22	6	2.6	4	21.0
86LFA303357	2	3.3	2.1	8.3	4.6	1135	5.7	3.5	1600	1	81	20	12	2.6	4	20.6
86LFA303358	1	5.3	2.1	108	4.4	1105	6.3	2.0	1300	3	92	27	3	2.5	4	15.4
86LFA303359	1	4.2	2.5	7.6	3.0	1100	6.3	2.5	1400	2	91	24	11	2.7	2	14.8
86LFA303360	1	3.8	2.9	8.6	4.1	1170	6.3	3.0	1400	2	90	23	4	2.5	2	14.3
86LFA303361	1	4.3	2.0	7.4	4.3	1100	6.2	2.5	1800	2	91	20	4	3.7	2	14.4
86LFA303362	1	3.7	2.0	7.4	2.9	1140	5.8	4.0	1800	2	87	21	4	1.1	2	14.2
86LFA303363	1	3.5	2.8	7.6	3.1	1140	6	4.0	1900	2	90	22	7	1.5	2	14.9
86LFA303364	1	2.8	1.7	8.0	3.4	1085	6.1	3.5	2400	2	86	18	3	2	15.0	
86LFA303365	1	2.6	2.3	8.8	3.0	1035	6.2	3.5	2000	2	87	21	5	2.3	4	14.1
86LFA303366	1	4.1	2.6	106	4.7	1045	6.3	2.5	1700	4	95	24	6	3.3	4	16.6
86LFA303367	1	4.4	2.3	8.6	3.9	1195	6.6	3.5	1600	2	91	27	8	3	2	17.8
86LFA303368	1	6.6	2.5	106	3.9	1230	6.7	3.5	1400	2	92	22	4	3	2	16.6
86LFA303402	1	1.0	2.2	4.0	2.9	640	5	20	840	56	22	3	0.7	2	12.5	
86LFA303403	1	1.2	1.7	4.7	1.7	550	5.1	20	700	53	18	3	0.6	4	10.9	
86LFA303404	1	1.2	1.9	3.6	2.4	655	4.3	15	540	4.5	18	7	0.6	2	12.2	
86LFA303404	2	1.3	1.2	3.5	2.3	710	3.8	20	760	0.5	44	15	8	0.9	2	11.7
86LFA303405	1	9	1.4	3.6	2.6	645	4.6	20	490	4.6	17	7	0.8	2	9.9	
86LFA303405	1	1.2	1.4	3.8	2.5	630	4.7	20	700	54	18	6	1.3	2	11.0	
86LFA303406	1	9	1.7	4.4	2.6	585	4.7	15	700	51	17	1	1	2	11.2	
86LFA303407	1	8	1.4	3.6	2.3	655	4.6	20	480	4.8	17	5	1	2	9.8	
86LFA303408	1	1.2	1.8	4.0	2.5	615	5	20	440	55	19	7	1	2	12.5	
86LFA303409	1	1.2	1.8	4.2	2.4	576	4.8	20	420	53	19	1	1	2	10.4	
86LFA303410	1	1.0	1.9	4.6	2.3	610	5	35	520	53	18	4	0.8	2	11.2	
86LFA303411	1	9	1.5	4.8	3.3	430	4.9	30	560	67	24	4	1.1	8	9.5	
86LFA303412	1	3.1	1.1	6.4	2.0	650	4.8	20	540	58	26	1	1	8	7.6	
86LFA303603	1	1.9	1.6	7.6	4.5	650	5.4	55	740	75	23	9	1.4	8	13.1	
86LFA303604	1	1.10	2.0	8.8	2.6	755	4.8	20	400	59	24	1	1.7	8	12.1	
86LFA303605	1	5.3	2.1	5.2	8.1	1070	6.6	25	1100	2	65	51	10	3.4	8	17.8
86LFA303606	1	5.0	1.6	4.8	4.6	945	6	20	840	59	45	12	3.1	8	16.6	
86LFA303607	1	6.2	1.7	5.2	67	1040	5.8	30	680	2	60	52	1.4	4	17.9	

sample	obs	As	Co	Cr	Cu	F	Hg	Mn	Mo	Ni	Pb	Sn	U	W	Zn
86LFA303806	1	50	19	6.5	1130	6.4	20	960	2	66	54	7	2.2	4	16.5
86LFA303807	1	36	20	56	1160	6.3	20	1200	2	61	50	11	2.7	4	17.2
86LFA303808	1	33	22	58	1110	6.5	20	1000	2	64	51	11	2	2	18.4
86LFA303809	1	28	22	56	58	965	6.4	20	800	2	62	4.8	8	2.3	2
86LFA303810	1	99	19	52	91	1100	7.2	20	1000	2	67	36	14	2.2	8
86LFA303901	1	19	20	74	28	945	5.1	20	800	80	28	11	1.2	2	9.3
86LFA303901	2	23	11	60	27	975	3.9	25	770	0.5	67	26	8	0.7	2
86LFA303902	1	21	21	68	27	845	5.2	20	640	79	30	8	0.9	2	8.2
86LFA303903	1	12	16	69	19	875	4.2	20	420	77	25	11	0.7	2	6.7
86LFA303904	1	16	22	70	36	1000	5.2	30	1400	75	26	10	0.5	2	10.1
86LFA303904	2	19	18	74	41	665	5.4	25	1500	79	29	6	1.6	4	12.5
86LFA303905	1	13	19	74	34	730	5.3	25	940	74	27	10	1.1	4	10.2
86LFA303906	1	18	18	74	36	805	5.9	25	1000	79	28	2	1.7	4	11.4
86LFA303907	1	22	18	72	34	965	5.3	30	1000	0.5	79	28	11	1.1	2
86LFA303907	2	31	16	80	39	975	5.7	60	1400	68	29	6	0.9	2	12.5
86LFA304001	1	9	35	132	22	825	6.7	40	560	76	22	1	0.7	8	7.6
86LFA304002	1	8	22	112	17	870	5.6	30	580	89	19	5	0.4	2	7.7
86LFA304003	1	7	17	106	16	890	5.1	25	570	88	18	3	0.7	2	7.5
86LFA304004	1	13	25	106	15	945	5.4	30	590	91	16	5	1	2	7.5
86LFA304005	1	23	20	64	42	1050	6.1	40	2500	2	67	32	5	1.8	4
86LFA304102	1	15	20	60	54	1000	4.9	60	800	2	59	35	8	0.9	4
86LFA304103	1	24	25	68	48	915	6.2	55	2200	2	79	29	3	1.1	2
86LFA304104	1	19	18	58	49	1010	5.9	40	2000	2	61	33	10	1.1	2
86LFA304106	1	15	16	56	50	870	6.4	40	1700	68	33	5	3.3	2	13.7
86LFA304107	1	17	20	58	51	1015	6	40	2300	1	69	39	10	1.6	4
86LFA304108	1	28	22	66	39	1075	5.3	40	1300	74	31	8	1	2	17.7
86LFA304202	1	13	21	76	28	940	5.2	40	830	101	21	7	0.5	2	13.0
86LFA304804	1	34	28	64	60	1170	5.7	50	1200	2	84	32	5	0.7	2
86LFA304901	1	26	26	84	60	1190	6.2	125	1400	2	80	30	8	0.9	2
86LFA304902	1	34	24	72	71	1390	6	155	1700	2	81	32	4	1.1	2
86LFA304903	1	27	15	70	72	1280	5.5	160	1500	0.5	80	26	8	0.9	2
86LFA304903	2	6	17	86	36	1020	5.2	40	520	90	29	7	0.9	2	12.5
86LFA304904	1	11	17	86	43	840	5.5	100	830	93	23	4	0.8	4	13.8
86LFA305001	1	10	20	120	43	905	5.9	60	960	1	101	25	12	0.6	2
86LFA305002	1	6	17	86	36	1275	4.7	40	700	47	20	5	0.8	2	16.2
86LFA305006	1	6	16	36	36	1265	4.9	60	700	83	25	4	1	2	13.5
86LFA30503A	*1	12	17	56	38	1085	4.9	35	1085	0.5	82	23	4	0.7	2
86LFA30504A	*2	10	14	52	44	990	5.4	40	500	93	34	8	0.3	2	13.9
86LFA30507A	1	3	17	84	44	990	5.4	40	500	93	34	8	0.3	2	

TABLE III GEOCHEMISTRY OF THE CLAY PLUS SILT FRACTION OF TILL OVERBURDEN DRILLING PROGRAM

\* Waterlaid sediment

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn
		ppm	ppb	ppm	ppm	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
86LFA300101	1	1.1	1	4.60	1.5	8.8	3.5	4.5	4.5	9.5	0.6	1.1	2.3	5.0	5.0	5.0
86LFA300102	1	1.0	3	5.30	1.8	11.0	4.3	1.5	4.6	12.0	0.7	1.1	2.5	14.0	14.0	14.0
86LFA300104	1	7	1	4.20	1.4	12.0	3.5	2.0	1	4.4	13.0	0.5	9.3	2.5	7	19.0
86LFA300201	1	5.9	1	5.20	1.6	10.0	4.2	3.5	1	4.6	11.0	0.6	1.1	2.1	2	5.0
86LFA300202	1	1.2	1	4.10	1.3	11.0	3.9	3.0	2	4.7	9.4	0.6	1.1	2.1	2	5.0
86LFA300203	1	1.6	3	5.10	1.5	13.0	4.6	5.5	5	4.5	10.0	0.7	1.2	2.4	2	14.0
86LFA300205	1	1.1	1	4.50	1.5	10.0	4	5.0	3	5.3	9.7	0.8	1.1	2.8	2	13.0
86LFA300206	1	9.4	1	3.70	1.2	11.0	3.7	4.53	5	3.8	8.7	0.7	1.0	2.5	2	17.0
86LFA300207	1	1.1	1	4.40	1.7	11.0	3.9	6.5	2	3.6	13.0	0.6	1.1	1.8	2	5.0
86LFA300208	1	1.1	1	4.50	1.5	12.0	4.1	5.0	2	4.7	11.0	0.7	1.1	2.6	2	5.0
86LFA300209	1	1.0	1	5.20	1.5	11.0	4.3	5.0	3	5.9	12.0	0.8	1.2	2.8	2	14.0
86LFA300210	1	1.1	1	5.30	1.8	12.0	4.6	6.0	2	6.3	12.0	0.8	1.2	2.8	2	5.0
86LFA300211	1	1.3	1	4.60	1.7	11.0	4.6	8.5	1	5.6	13.0	1	1.1	2.8	1	5.0
86LFA300212	1	8.4	1	4.10	1.5	10.0	3.8	5.0	1	3.9	12.0	0.5	1.1	2	1	5.0
86LFA300213	1	1.1	1	4.00	1.6	12.0	3.4	3.5	2	3.6	12.0	0.6	1.1	2.2	2	200
86LFA300214	1	1.0	1	3.40	1.6	11.0	3.6	5.0	2	3.8	10.0	0.8	1.0	2.4	2	50
86LFA300215	1	9.4	1	4.50	1.5	12.0	4.3	3.5	2	4.3	9.9	0.6	1.1	2.1	2	150
86LFA300301	1	8.8	1	4.80	1.1	100	3.9	4.0	3	4.0	99	0.6	1.1	2.1	2	130
86LFA300302	1	8.6	1	4.10	1.6	11.0	3.9	4.0	2	5.2	89	0.6	1.0	2.2	1	150
86LFA300303	1	9.1	2	4.20	1.1	9.7	4	4.0	2	4.3	94	0.6	1.1	2.2	1	50
86LFA300304	1	7.8	2	3.20	1.3	8.3	3.4	3.0	2	4.2	80	0.5	1.0	2.2	2	50
86LFA300305	1	7.8	1	3.70	1.3	9.3	3.6	4.5	2	3.7	83	0.6	1.0	2.1	1	180
86LFA300306	1	8.5	1	3.80	1.2	100	3.9	3.5	2	3.6	86	0.6	1.1	2.3	1	110
86LFA300307	1	9.1	1	4.00	1.5	11.0	3.8	4.0	2	2.8	88	0.6	1.1	2.3	2	110
86LFA300308	1	7.8	2	3.20	1.3	8.3	3.4	3.0	2	4.2	80	0.5	1.0	2.2	2	50
86LFA300308	2	7.3	1	3.30	1.2	8.6	3.3	3.3	1	1.0	70	0.5	1.0	2.1	1	110
86LFA300308	1	8.9	1	4.10	1.2	8.8	3.6	4.0	2	3.0	88	0.6	1.1	2.4	1	55
86LFA300310	1	1.0	2	4.20	1.3	9.5	3.9	3.5	2	4.4	89	0.6	1.1	2.3	1	150
86LFA300311	1	9.5	1	4.60	1.3	8.9	3.8	4.0	3	4.6	97	0.6	1.1	2.4	1	140
86LFA300312	1	9.3	4	3.50	1.3	9.3	3.6	5.0	2	3.1	94	0.6	1.1	2.2	2	50
86LFA300313	1	9.3	1	3.80	1.2	8.4	3.6	4.0	4	4.4	79	0.7	1.1	2.3	2	140
86LFA300314	1	1.1	3	4.20	1.3	9.5	3.9	3.5	2	4.4	76	1.00	0.7	2.3	1	50
86LFA300315	1	8.8	1	3.80	1.6	100	3.8	5.0	2	5.2	100	0.6	1.1	2.3	2	210
86LFA300316	1	8.8	1	3.00	1.4	100	3.4	2.5	4	2.7	100	0.4	1	2.3	2	160
86LFA300401	1	8.9	1	3.80	1.5	11.0	3.8	2.5	2	5.2	100	0.6	1.1	2.3	2	110
86LFA300402	1	6.4	3	3.80	1.5	100	3.6	4.5	1	4.3	89	0.6	1.2	2.4	2	150
86LFA300403	1	7.5	1	3.80	1.4	7.7	3.7	4.0	2	3.5	79	0.6	1.1	2.4	2	160
86LFA300404	1	8.4	1	3.90	1.4	9.2	3.6	4.5	1	4.1	74	0.6	1.1	2.3	2	190
86LFA300405	1	1.2	1	4.00	1.3	100	3.9	5.5	1	5.0	100	0.7	1.2	2.5	2	130
86LFA300406	1	9	3	3.50	1.5	100	3.9	4.5	1	5.7	87	0.6	1.1	2.3	2	140
86LFA300407	1	8.9	1	3.70	1.3	110	3.5	4.5	3	2.8	82	0.5	1.0	2.2	1	150
86LFA300408	2	8.5	1	3.50	1.5	9.9	3.9	5.5	3	5.1	86	0.6	1.1	2.3	2	150
86LFA300409	1	8	1	4.10	1.4	100	4	5.0	3	5.1	100	0.6	1.0	2.3	2	110
86LFA300410	1	8.4	1	4.20	1.4	9.4	4	4.5	4	4.5	49	0.6	1.1	2.3	2	180
86LFA300501	1	8.1	1	4.00	1.3	100	3.9	4.0	1	5.2	91	0.6	1.1	2.1	2	130
86LFA300504	1	9	1	4.40	1.2	9.5	3.9	5.0	2	4.1	97	0.6	1.0	2.2	2	130

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn
86LFA300506	1	8	1	350	13	140	4.2	30	3	64	89	0.5	8.9	2	2	100
86LFA300507	1	7.8	1	380	13	130	4	30	1	49	87	0.5	10	2.3	1	140
86LFA300508	1	8	1	370	13	140	3.8	35	5	51	80	0.6	10	2.1	3	50
86LFA300508	2	8.6	1	330	17	140	4	2	68	83	0.6	10	2.1	0.5	220	
86LFA300509	1	7.5	1	350	10	93	3.4	40	2	34	80	0.5	8.4	1.9	3	130
86LFA300510	1	8.3	1	320	14	93	3.4	50	2	35	86	0.6	8.5	1.9	2	140
86LFA300511	1	7.4	1	230	12	81	2.9	40	3	31	57	0.7	6.8	1.8	2	110
86LFA300512	1	8.2	1	290	10	97	3.3	40	2	29	83	0.6	8.1	2	3	200
86LFA300513	1	7.5	1	250	13	100	3	50	5	30	67	0.6	6.9	1.7	2	50
86LFA300514	1	10	1	350	14	93	3.4	50	2	42	83	0.6	8.7	2.1	2	170
86LFA300515	1	11	1	290	11	92	3.3	50	3	39	74	0.6	7.9	1.9	2	50
86LFA300516	1	7.9	3	350	13	120	3.3	50	2	50	87	0.5	7.8	1.7	2	190
86LFA300517	1	7.8	1	320	14	150	3.6	40	3	74	87	0.5	8.5	1.9	1	50
86LFA300518	1	7.4	3	320	15	120	3.6	55	2	64	81	0.6	9.2	2	2	130
86LFA300519	1	6.4	1	320	13	130	3.4	40	1	59	77	0.4	7.6	1.7	2	150
86LFA300520	1	7.7	1	370	15	150	4	55	4	62	92	0.6	8.4	2	2	150
86LFA300521	1	8	1	340	14	130	4	70	2	52	96	0.6	8.8	1.8	2	150
86LFA300522	1	7	1	310	16	170	3.8	35	2	67	80	0.5	8	1.8	2	140
86LFA300523	1	3.5	1	180	9	83	2.1	20	1	24	53	0.2	4.5	1	2	130
86LFA300602	1	7.8	4	390	13	79	3.5	45	2	41	86	0.5	11	2.3	2	160
86LFA300603	1	8.4	1	440	16	97	4	40	2	52	96	0.5	11	2.1	1	110
86LFA300604	1	8.7	4	420	13	100	3.9	45	2	45	96	0.6	11	2.1	2	150
86LFA300605	1	8.9	1	360	14	96	3.8	45	2	46	87	0.5	10	2	3	130
86LFA300606	1	8.1	1	290	11	88	3.2	35	2	41	69	0.4	7.6	1.8	3	140
86LFA300608	1	7.7	1	350	11	84	3.2	50	1	46	68	0.5	9	2.1	1	100
86LFA300609	1	8.2	1	370	13	98	3.7	50	2	38	78	0.5	10	2.1	2	160
86LFA300610	1	7.6	1	380	19	190	4.8	35	3	85	110	0.6	11	2	3	220
86LFA300611	1	6.8	1	350	18	180	4.5	30	2	81	110	0.5	9.3	1.9	1	130
86LFA300612	1	6.3	1	400	21	210	5.5	25	1	46	68	0.5	9	2.1	1	230
86LFA300613	1	5.7	1	370	17	170	4.4	25	2	84	100	0.5	8.6	1.7	1	160
86LFA300614	1	5.7	1	310	18	170	4.2	25	2	87	95	0.4	8.3	1.6	2	200
86LFA300615	1	6.1	1	340	17	180	4.4	20	1	89	98	0.5	8.9	1.8	1	130
86LFA300616	1	6.4	1	420	18	160	4.3	40	2	70	110	0.4	10	2.4	1	220
86LFA300617	1	8.5	3	370	19	170	4.4	30	2	82	110	0.6	8.9	1.7	1	150
86LFA300618	1	9.1	1	420	13	90	3.9	50	2	59	92	0.6	10	1.9	1	110
86LFA300701	1	10	1	460	14	110	4.4	20	1	46	100	0.7	11	2.1	0.5	120
86LFA300702	1	8.6	1	370	15	97	3.7	50	2	42	89	0.6	10	2	200	
86LFA300703	1	7.4	2	330	16	150	3.9	40	1	66	85	0.5	9.4	2	100	
86LFA300705	1	7.1	1	270	14	160	3.7	35	1	62	76	0.5	7.1	1.5	3	110
86LFA300706	1	8	1	320	11	96	3.5	35	3	34	76	0.4	8.7	2.2	5	150
86LFA300707	1	6.8	1	250	10	87	2.9	45	2	33	57	0.5	6.5	1.7	3	120
86LFA300708	1	7.1	1	260	13	81	2.9	55	2	44	72	0.5	8.1	1.9	1	160
86LFA300709	1	8	1	310	11	87	2.8	45	2	46	68	0.6	8.6	2	3	190
86LFA300710	1	9.1	1	340	12	87	3.4	55	1	45	75	0.5	8.3	2.1	1	150
86LFA300711	1	8.6	1	300	14	76	3.3	50	5	46	67	0.5	8	1.8	2	130
86LFA300712	1	9.3	4	290	13	99	3.4	50	3	39	72	0.5	7.4	1.9	2	180
86LFA300713	1	6.9	4	410	19	150	4.6	35	2	92	100	0.4	10	1.9	2	110
86LFA300714	1	4.9	1	390	23	180	4.6	40	1	84	110	0.3	11	1.1	2	300
86LFA300801	1	1.2	1	360	15	120	4.1	70	10	35	100	0.7	8.6	1.9	2	210
86LFA300802	1	1.1	1	320	15	100	3.8	80	3	41	91	0.6	8.5	8.5	2	210

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn	
86LFA300803	1	7.8	1	290	11	7.3	3.2	5.5	2	39	79	0.5	8	1.9	2	50	
86LFA300804	1	1.2	1	320	12	8.2	3.5	6.0	2	23	88	0.6	8.5	2.2	3	130	
86LFA300805	1	1.2	1	290	14	9.2	3.7	6.5	2	48	87	0.7	8.2	2	2	280	
86LFA300806	1	9	1	300	11	7.9	3.4	4.5	4	47	74	0.6	7.4	1.7	5	170	
86LFA300806	2	10	1	320	13	9.5	3.4	6.0	5	40	78	0.6	7.7	1.9	6	150	
86LFA300807	1	8.9	1	280	13	7.7	3.2	5.0	2	39	70	0.6	7.6	1.9	3	170	
86LFA300808	1	1.3	1	300	14	110	3.4	6.0	1	52	73	0.6	7.6	2	2	210	
86LFA300809	1	7.9	1	350	11	9.3	3.3	6.0	3	36	72	0.5	8.4	1.9	2	220	
86LFA300810	1	8.7	1	310	13	9.4	3.4	6.0	2	39	79	0.6	8	1.9	100		
86LFA300811	1	9.3	1	360	13	100	3.2	4.5	2	35	77	0.7	7	1.7	2	130	
86LFA300811	1	7.6	1	270	9	76	2.9	4.5	1	32	62	0.5	7	1.7	2	120	
86LFA300812	1	8.9	3	330	14	9.6	3.6	5.5	1	40	92	0.6	8.7	2	2	220	
86LFA300813	1	7.9	1	250	10	72	2.8	6.0	3	36	69	0.6	7.3	1.8	1	50	
86LFA300814	1	9.3	1	360	13	100	3.2	4.5	2	35	77	0.7	7	1.1	2.6	160	
86LFA300815	1	7.5	3	270	11	91	2.8	5.5	2	42	69	0.6	10	2.2	1	120	
86LFA300816	1	8.3	1	280	13	94	3.2	5.5	2	45	74	0.5	7.5	1.7	2	50	
86LFA300817	1	9.2	1	410	14	120	4.3	5.0	2	56	100	0.6	10	2.3	1	50	
86LFA300817	2	10	1	390	13	110	4.4	5.0	2	57	100	0.7	10	2.4	0.5	120	
86LFA300818	1	10	4	420	15	140	4.7	4.0	40	2	61	110	0.7	11	2.7	2	180
86LFA300818	1	10	1	380	17	130	4.6	4.0	2	52	120	0.6	10	2.4	2	120	
86LFA300819	1	9.2	1	390	18	140	4.4	3.0	1	82	110	0.6	11	2.4	1	150	
86LFA300820	1	8.2	1	380	14	140	3.9	3.0	2	62	110	0.6	11	2.9	1	120	
86LFA300821	1	8.2	1	390	13	150	3.9	4.0	3	52	96	0.5	12	3.3	1	140	
86LFA300822	1	8.2	1	390	13	150	3.9	4.0	3	85	120	0.7	14	3.4	0.5	50	
86LFA300823	1	9.3	1	570	25	150	5.3	6.5	1	85	120	0.7	14	3.4	0.5	50	
86LFA300901	1	1.2	3	590	18	100	4.6	6.0	1	53	130	0.8	12	2.6	3	300	
86LFA300902	1	9.1	1	490	16	120	4.2	4.5	2	53	110	0.6	11	2.5	2	170	
86LFA300903	1	8.8	4	470	18	120	4.1	4.0	1	55	110	0.6	11	2.5	2	220	
86LFA300904	1	8.4	1	470	15	110	4.1	5.0	2	46	120	0.6	11	2.4	2	180	
86LFA300905	1	8.7	1	450	17	110	4	4.0	1	46	95	0.6	11	2.5	1	160	
86LFA300906	1	8.9	3	470	18	110	4.1	4.0	2	49	110	0.6	11	2.5	2	210	
86LFA300906	2	8.7	1	460	15	110	3.8	4.1	2	46	110	0.6	10	2.3	2	50	
86LFA300907	1	10	1	470	18	120	4.3	4.5	2	61	120	0.7	11	2.5	3	300	
86LFA300907	1	10	1	530	18	130	4.6	5.0	2	66	120	0.6	12	2.6	3	170	
86LFA300908	1	9.1	1	510	17	150	4.5	4.5	2	60	120	0.6	11	2.4	3	200	
86LFA300909	1	4.1	1	340	17	130	3.5	3.0	1	73	100	0.3	8.4	1.8	1	200	
86LFA300909	1	3	1	290	17	120	3.7	2.5	1	56	110	0.3	8.4	1.8	1	150	
86LFA300911	1	2.7	1	500	16	110	3.5	2.5	1	70	110	0.2	8.3	1.8	2	150	
86LFA300912	1	2.7	1	230	12	89	2.8	3.0	2	54	82	0.2	8.4	1.4	2	180	
86LFA300913	1	2.7	1	360	15	100	3.6	60	2	49	99	0.7	9.3	2.1	50	110	
86LFA301001	1	9.1	1	400	14	97	3.5	50	2	49	99	0.7	9.3	0.8	0	140	
86LFA301002	1	8.9	2	350	15	110	3.3	60	4	38	95	0.7	10	2.2	2	130	
86LFA301003	1	10	4	390	15	100	3.6	60	3	30	100	0.7	10	2.5	2	150	
86LFA301004	1	10	1	320	13	130	3.5	40	2	47	97	0.8	10	2.4	2	190	
86LFA301004	2	11	1	290	12	86	2.9	40	3	35	93	0.8	10	2.5	0.5	110	
86LFA301005	1	11	3	360	15	110	3.9	60	4	45	110	0.7	10	2.4	2	130	
86LFA301006	1	11	1	400	16	100	3.7	60	1	47	100	0.7	10	2.5	2	110	
86LFA301007	1	8.2	1	260	9	77	2.6	35	5	40	83	0.6	8.2	2.1	1	190	
86LFA301008	1	7.3	3	230	10	72	2.5	40	3	42	70	0.5	7	1.7	5	170	
86LFA301014	1	6.2	1	290	11	98	3.1	50	3	33	81	0.5	7	1.8	1	110	
86LFA301016	1	7.8	1	250	10	100	2.9	45	4	33	69	0.6	6.6	1.7	1	120	

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn
86LFA301019	1	8.9	1	7.9	1	7.3	1	7.1	1	7.1	1	7.3	1	7.3	1	150
86LFA301020	1	8.9	3	4.10	16	110	3.8	4.5	3	4.7	91	0.6	1.0	2.1	2	220
86LFA301021	1	8.9	1	7.9	1	7.5	1	7.5	1	7.5	1	7.5	0.6	8.1	2	200
86LFA301201	1	8.9	1	7.9	1	7.9	1	7.9	1	7.9	1	7.9	0.6	7.4	1.8	50
86LFA301202	1	8.9	1	7.9	1	7.9	1	7.9	1	7.9	1	7.9	0.6	8.9	2.1	150
86LFA301203	1	8.9	1	7.9	1	7.9	1	7.9	1	7.9	1	7.9	0.6	8.9	2.1	140
86LFA301204	1	9.2	1	8.1	1	8.1	1	8.1	1	8.1	1	8.1	0.6	7.6	1.7	110
86LFA301205	1	9.2	1	7.1	1	7.1	1	7.1	1	7.1	1	7.1	0.6	7.4	1.7	1
86LFA301206	1	9.2	1	7.5	1	7.5	1	7.5	1	7.5	1	7.5	0.6	7.5	1.7	2
86LFA301207	1	9.2	1	7.9	1	7.9	1	7.9	1	7.9	1	7.9	0.6	7.7	1.8	170
86LFA301208	1	9.2	1	8.1	1	8.1	1	8.1	1	8.1	1	8.1	0.6	7.6	2	120
86LFA301209	1	9.3	1	9.4	1	9.4	1	9.4	1	9.4	1	9.4	0.6	7.6	2	180
86LFA301210	1	9.3	1	9.4	1	9.4	1	9.4	1	9.4	1	9.4	0.6	7.4	2	140
86LFA301211	1	9.4	1	9.4	1	9.4	1	9.4	1	9.4	1	9.4	0.6	7.5	2	120
86LFA301212	1	9.5	1	9.5	1	9.5	1	9.5	1	9.5	1	9.5	0.6	7.5	2	220
86LFA301212	2	9.2	1	9.2	1	9.2	1	9.2	1	9.2	1	9.2	0.6	7.4	2	200
86LFA301213	1	10	2	3.80	15	130	4.2	4.0	4	4.7	73	0.6	1.0	2.1	3	140
86LFA301214	1	10	1	10	1	10	1	10	1	10	1	10	0.6	1.0	2.3	2
86LFA301215	1	11	4	4.20	21	140	4.6	4.0	2	4.7	73	0.6	1.0	2.2	3	130
86LFA301216	1	6.5	1	3.00	12	110	3.3	3.0	1	4.5	79	0.6	7.2	1.6	2	200
86LFA301218	1	9.4	1	9.4	1	9.4	1	9.4	1	9.4	1	9.4	0.6	9.1	2.2	200
86LFA301219	1	9.2	1	9.2	1	9.2	1	9.2	1	9.2	1	9.2	0.6	9.1	2.2	150
86LFA301220	1	13	1	12	1	12	1	12	1	12	1	12	0.6	7.2	1.8	210
86LFA301221	1	12	1	250	15	120	3.6	4.5	2	5.5	78	1.2	6.9	1.7	2	160
86LFA301301	1	9.4	1	4.00	23	130	4.4	4.0	3	4.5	69	1.2	7.1	1.7	2	200
86LFA301302	1	8.5	3	4.90	30	160	5.6	6.5	2	5.8	82	2.1	7.1	1.7	2	170
86LFA301402	1	10	3	3.50	14	110	3.4	4.5	2	5.5	78	1.2	6.9	1.7	2	160
86LFA301402	2	11	1	3.70	16	120	3.8	6.0	2	5.5	73	1.1	6.1	1.4	2	200
86LFA301403	1	10	3	3.50	14	9.8	3.7	6.0	2	4.8	89	1	11	2.4	2	150
86LFA301404	1	11	1	3.50	15	9.9	3.7	5.0	2	4.6	100	0.9	11	2.5	2	130
86LFA301405	1	11	1	4.00	16	120	4	5.0	1	6.0	100	0.9	11	2.2	2	150
86LFA301406	1	11	1	3.90	17	110	4.1	5.5	1	4.5	110	1	11	2.4	1	180
86LFA301407	1	10	1	3.90	17	120	4.5	6.0	2	4.3	110	0.9	11	2.5	1	120
86LFA301408	1	11	1	4.00	14	100	4	5.5	1	5.3	110	1	11	2.6	2	190
86LFA301409	1	11	1	3.60	16	120	3.9	6.0	2	5.3	100	0.9	11	2.6	2	110
86LFA301410	1	11	3	3.20	11	9.1	3.4	4.0	1	4.0	90	1.5	10	2.2	2	130
86LFA301410	2	13	1	3.70	15	9.0	3.5	4.2	4	4.0	1	3.8	94	1.6	2	140
86LFA301411	1	13	1	3.90	17	120	4.2	4.0	2	4.2	120	1.7	1.2	2.5	3	140
86LFA301412	1	12	1	3.60	15	110	4	4.0	2	4.2	120	1.7	1.2	2.6	2	150
86LFA301413	1	14	4	3.80	16	120	4.1	4.0	1	5.4	130	1.8	1.2	2.5	2	130
86LFA301414	1	12	1	3.90	16	110	4.1	4.5	2	5.7	120	1.2	12	2.4	2	140
86LFA301602	1	10	1	4.50	27	170	5	8.0	3	8.0	10	0.7	10	2.3	1	50
86LFA301603	1	10	1	4.30	26	150	5.1	6.0	2	8.5	20	0.8	10	2.4	2	50
86LFA301604	1	9.4	1	4.10	26	160	4.9	6.0	1	7.3	110	0.7	10	2.4	1	50
86LFA301605	1	10	1	4.50	27	170	5	8.0	0.5	70	110	0.8	10	2.3	3	50
86LFA301606	1	11	1	4.30	26	150	5.1	6.0	1	8.8	20	0.8	10	2.4	2	50
86LFA301607	1	10	1	4.40	25	150	5.2	5.0	0.5	71	120	0.8	10	2.4	2	50
86LFA301608	1	10	1	4.20	24	170	4.9	6.5	2	8.0	10	0.7	10	2.1	2	50
86LFA301609	1	10	1	4.30	26	170	5	5.5	2	8.0	10	0.8	10	2.2	2	50
86LFA301611	1	7.5	1	2.50	24	120	4.6	130	1	7.4	100	0.6	7.3	1.8	2	50

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn	
86LFA301612	1	7.3	1	320	2.7	120	4.2	100	1	6.6	110	0.4	8.1	1.8	0.5	50	
86LFA301613	1	4.7	1	1700	1.6	72	3	80	2	54	66	0.2	1.3	0.5	50	50	
86LFA301901	* 1	9	1	370	1.9	130	4.2	60	2	61	99	0.6	10	2.1	2	50	
86LFA301902	1	12	1	630	2.1	140	5.4	60	2	55	150	0.8	12	2.6	0.5	50	
86LFA301903	1	12	1	670	2.4	110	5	60	0.5	64	140	0.8	12	2.6	0.5	50	
86LFA301904	1	12	5	720	2.5	120	5.2	55	2	58	150	0.8	12	2.8	1	50	
86LFA301905	1	13	1	720	2.8	120	5.6	60	0.5	78	150	0.8	14	3.2	1	50	
86LFA301906	1	11	1	530	2.1	140	5	60	1	51	120	0.8	12	2.9	1.3	50	
86LFA301907	1	12	1	630	2.7	120	5.4	60	2	81	130	0.8	12	3	2	50	
86LFA301908	1	14	1	660	2.5	150	5.8	80	3	78	150	0.8	13	2.9	2	50	
86LFA301909	1	33	5	560	3.6	200	6.2	205	3	87	160	1.2	12	2.9	1	50	
86LFA302001	1	12	1	460	1.7	140	4.5	55	2	57	120	0.7	11	2.6	1	170	
86LFA302004	1	11	1	510	1.7	120	4.2	60	2	57	110	0.8	11	2.6	1	150	
86LFA302004	2	12	1	540	1.7	120	4.3	60	2	69	120	0.8	12	2.9	0.5	150	
86LFA302004	1	12	1	420	1.5	140	4.3	75	3	59	110	1.1	10	2.7	1	180	
86LFA302006	1	12	1	400	1.8	140	4.4	80	1	59	110	1.4	10	2.4	1	110	
86LFA302007	1	12	1	400	1.9	150	4.6	80	3	57	120	1	11	2.6	1	150	
86LFA302008	1	14	1	400	2.0	150	4.8	80	4	72	120	1.1	11	2.7	2	250	
86LFA302009	* 1	15	1	410	1.7	120	4.3	75	3	64	93	0.7	8.7	2.2	2	150	
86LFA302010	1	11	1	410	1.6	130	3.9	45	3	64	93	0.7	110	1.2	1	170	
86LFA302011	1	13	1	400	2.0	130	4.1	25	1	67	110	1.1	10	2.5	1	170	
86LFA302012	1	12	1	400	1.8	140	4.1	35	4	52	110	1.5	11	2.7	1	120	
86LFA302013	1	12	1	430	1.8	160	4.4	40	4	67	110	1.1	11	2.8	1	130	
86LFA302014	1	8.4	1	400	1.8	150	4.3	50	2	59	100	1.2	11	3	2	170	
86LFA302014	1	12	1	420	1.5	140	4.3	75	3	59	110	1.1	10	2.7	1	180	
86LFA302015	1	6.9	1	380	1.6	140	3.7	45	2	70	100	0.6	9.5	2.1	2	180	
86LFA302016	1	10	1	390	1.7	130	4.1	40	3	72	100	0.6	11	2.3	2	110	
86LFA302017	1	7	1	430	1.6	120	4.1	30	1	61	100	0.6	11	2.5	1	160	
86LFA302017	2	7.3	1	440	1.5	120	4	30	1	64	100	0.6	11	2.5	2	150	
86LFA302018	1	13	1	310	1.5	120	3.6	70	3	56	90	0.9	10	2.3	2	120	
86LFA302019	1	13	1	400	2.1	160	4.2	20	5	61	97	0.8	10	2.3	5	190	
86LFA302019	* 1	11	1	420	2.2	110	4	45	2	48	91	1	8.9	2.3	4	50	
86LFA3020101	1	14	1	440	1.5	120	4	45	2	50	120	1.5	12	2.9	2	50	
86LFA3020103	1	18	1	490	2.6	100	4.8	50	2	76	110	1.2	13	3	1	50	
86LFA3020104	1	14	1	520	2.1	140	5.1	55	2	43	110	1.1	12	2.7	1	50	
86LFA3020104	2	13	1	480	2.4	130	4.8	50	2	43	110	1.1	12	2.7	1	50	
86LFA3020105	1	14	1	410	1.8	140	4.4	40	2	44	100	1.4	11	2.8	0.5	50	
86LFA3020106	1	16	1	430	2.4	150	4.8	40	5	60	120	1.7	12	2.7	3	50	
86LFA3020106	1	17	6	510	3.1	150	5.8	50	3	79	140	1.9	13	3	3	50	
86LFA3020107	1	17	6	440	2.5	150	5	45	2	54	130	1.5	12	2.8	3	50	
86LFA3020108	1	17	6	470	2.3	120	5.1	40	5	51	110	1.4	11	2.6	3	50	
86LFA3020109	1	16	3	410	2.4	130	4.8	40	4	51	110	1.2	10	2.4	4	50	
86LFA3020110	1	12	1	350	1.8	130	4	40	2	55	120	1.3	11	2.7	2	50	
86LFA302110	2	18	1	380	2.8	160	5.4	40	4	54	120	1.3	11	2.4	5	110	
86LFA302111	1	15	3	410	2.4	140	4.8	30	6	57	120	1.3	11	2.1	4	50	
86LFA302112	1	15	5	480	2.4	150	4.9	45	2	64	130	1.3	11	2.4	4	50	
86LFA302113	1	12	1	320	2.1	120	3.9	40	3	42	91	1.2	9.2	2.1	7	50	
86LFA302114	1	12	1	450	2.2	140	4.5	40	3	55	100	1	9.4	2.1	6	50	
86LFA302115	1	11	1	390	2.0	91	4.1	45	3	46	83	1	9	2.1	8	50	
86LFA302116	1	11	1	350	1.9	100	4.1	40	2	42	83	1.3	9	2.1	7	50	
86LFA302117	1	12	1	570	2.4	150	5.4	40	3	34	91	1.3	9	1.0	2.3	2	50
86LFA302118	1	13	1	450	2.9	180	6.8	60	0.5	79	130	2.3	12	2.9	2	50	
86LFA302201	1	23	1	450	2.4	140	4.5	40	3	68	110	1.1	9.2	2.1	6	50	
86LFA302202	1	12	1	420	2.4	130	4.7	40	4	43	94	1.1	11	2.3	3	50	

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn
86LFA302203	1	9.5	1	4.50	2.0	110	4.5	40	1	4.9	9.3	0.8	9.5	2.2	2	50
86LFA302204	1	10	2	3.60	1.8	140	4.3	35	6	50	8.1	2.2	8.1	2	2	50
86LFA302205	1	7.8	1	3.60	1.6	100	3.9	25	1	49	79	0.6	9.2	2.1	3	50
86LFA302205	2	8.3	1	3.10	1.5	88	4	25	0.5	32	82	0.6	8.7	2.1	3	50
86LFA302206	1	10	4	4.30	2.8	150	5.1	45	2	46	95	0.8	1.3	2.6	2	50
86LFA302206	1	12	6	3.90	2.0	110	4.1	35	2	45	90	1.1	1.1	2.4	1	50
86LFA302208	1	13	1	4.00	1.8	130	4.3	40	2	45	93	1	1	2.7	1	50
86LFA302209	1	13	1	4.00	1.8	130	4.3	40	2	45	93	1	1	2.7	1	50
86LFA302210	1	12	1	4.20	2.0	150	4.6	40	2	42	100	0.8	1.2	2.9	2	50
86LFA302211	1	11	1	3.90	1.8	130	4.3	40	2	52	99	0.9	1.1	2.7	2	50
86LFA302213	1	11	4	3.70	1.7	110	4.3	40	2	39	90	1.1	9.3	2.1	3	50
86LFA302214	1	15	1	4.00	2.1	120	4.9	35	3	53	120	1.6	1.1	2.3	5	50
86LFA302215	1	37	1	510	2.9	160	4.8	30	3	70	140	2.9	1.1	2.3	4	50
86LFA302216	1	10	1	3.70	2.3	150	4.4	15	3	58	110	1.4	8.6	1.7	3	50
86LFA302301	1	14	1	4.40	2.5	150	5.3	60	0.5	67	120	1	1	2.3	0.5	50
86LFA302302	1	12	3	3.90	2.4	140	4.8	40	2	78	110	0.9	10	2	1	50
86LFA302303	1	13	2	4.30	2.7	120	4.7	40	1	71	100	1	10	2.1	1	50
86LFA302304	1	13	1	4.30	3.0	130	4.7	40	0.5	72	96	1	10	2.1	0.5	50
86LFA302305	1	24	1	3.60	2.9	130	4.5	30	2	72	100	3.4	10	2.2	2	50
86LFA302401	1	12	3	3.60	2.1	120	4.3	60	1	43	88	1	10	2	2	50
86LFA302401	2	12	1	3.80	1.9	120	4.3	40	0.5	51	90	1	10	2	2	50
86LFA302402	1	13	4	3.80	2.3	130	4.5	35	1	49	94	1	10	2.1	0.5	50
86LFA302403	1	14	1	4.80	2.7	160	5.4	30	1	70	110	1.1	1.1	2.2	2	50
86LFA302403	1	13	1	3.90	2.0	140	4.9	35	2	51	110	1.1	1.1	2.4	0.5	50
86LFA302404	1	12	1	4.10	2.1	140	4.4	25	1	43	89	1	10	2.2	2	50
86LFA302405	1	13	1	4.60	2.3	110	4.5	15	2	49	120	1.8	11	2.6	7	50
86LFA302405	1	20	1	4.60	2.4	120	5.1	30	1	64	120	1.7	11	2.3	1	50
86LFA302503	1	13	4	550	2.5	100	5.1	25	1	47	130	1.9	1.2	2.6	3	50
86LFA302604	1	12	1	4.40	1.8	100	4.3	25	2	56	95	1.2	11	2.3	1	50
86LFA302604	1	25	9	550	2.5	100	4.6	30	1	52	110	1.2	11	2.6	7	50
86LFA302801	1	11	6	4.40	2.0	100	4.1	30	1	42	110	1.3	11	2.2	2	50
86LFA302902	1	13	4	4.60	1.9	100	4.6	30	1	64	120	1.7	11	2.3	1	50
86LFA302903	1	15	3	4.50	2.2	110	4.7	30	2	53	96	1.2	11	2.2	1	50
86LFA302904	1	12	1	4.50	2.3	100	4.3	25	2	53	97	1.3	10	2.1	0.5	50
86LFA302905	1	12	1	4.50	2.3	100	4.1	30	1	55	97	1.3	10	2.1	0.5	50
86LFA302905	2	11	4	4.40	2.0	100	4.1	30	1	51	100	1.2	11	2.1	0.5	50
86LFA302906	1	13	1	4.30	2.1	97	4.3	30	1	51	100	1.3	12	2.9	2	50
86LFA302907	1	13	1	4.70	2.1	96	4.6	25	0.5	38	100	1.2	11	2.7	2	50
86LFA302908	1	14	4	4.20	2.0	100	4.3	25	1	39	96	1.2	11	2.2	1	50
86LFA302908	1	12	1	4.40	2.0	100	4.4	15	1	41	100	1.3	12	2.8	0.5	50
86LFA302909	1	16	1	4.30	2.5	100	4.1	25	1	41	100	1.3	12	2.8	3	50
86LFA302910	1	20	6	530	2.4	110	4.9	20	2	48	120	1.5	13	3.2	2	50
86LFA302911	1	13	1	590	2.1	80	5.6	15	2	61	150	1.5	13	3.3	0.5	50
86LFA302912	1	20	1	590	2.5	120	5.2	20	2	55	120	1.6	12	2.8	4	50
86LFA302912	1	13	1	380	2.0	110	4.8	15	2	39	110	1.2	12	2.8	3	50
86LFA303001	1	17	1	600	2.1	120	5	30	1	50	120	1.5	12	2.8	2	50
86LFA303101	1	16	1	460	2.2	120	5.1	20	2	39	110	1.4	12	2.9	3	50
86LFA303102	1	13	6	550	2.4	110	5.1	25	2	42	120	1.3	13	3.5	3	50
86LFA303103	1	18	1	470	2.3	120	4.5	20	2	41	110	1.3	13	4.1	2	50
86LFA303104	1	24	1	470	1.9	90	4.3	15	2	43	130	2.2	15	3.8	1	50
86LFA303104	1	15	1	360	1.6	120	4.2	10	4	40	100	1.4	11	2.8	5	50
86LFA303203	1	19	3	400	2.1	120	4.1	15	3	54	120	1.3	14	3.2	5	50
86LFA303204	1	20	1	570	2.7	150	5.4	10	2	42	140	1.8	16	4.1	5	50
86LFA303205	1	17	1	460	2.6	120	5	10	4	42	130	1.3	13	3.1	9	50
86LFA303206	1	18	1	460	2.2	130	4.9	10	4	65	110	1.5	12	3.1	9	50
86LFA303207	1	17	1	420	2.1	110	4.8	10	2	46	120	1.2	14	3.5	8	50

Sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn
86LFA303209	1	19	1	580	27	100	5.4	25	1	53	140	2	17	4.6	6	50
86LFA303210	1	21	1	480	22	130	4.9	20	3	36	140	1.9	1.6	4.1	6	50
86LFA303211	1	21	1	440	23	120	4.3	25	2	45	130	1.8	1.5	3.9	5	50
86LFA303212	1	23	1	470	24	120	4.6	30	2	46	150	1.9	1.6	4.6	5	160
86LFA303213	1	24	1	510	18	130	4.9	25	6	42	150	2	16	4.4	8	50
86LFA303214	1	24	7	500	27	120	4.8	20	4	58	170	2	17	4.7	4	50
86LFA303215	1	25	4	550	23	130	5.4	25	3	64	160	2.2	1.8	5.1	4	50
86LFA303216	1	23	1	670	25	120	5	20	3	63	160	2.1	1.7	4.3	5	50
86LFA303217	1	22	1	460	26	110	4.9	20	2	49	140	1.8	1.6	4.3	5	50
86LFA303218	1	22	1	510	24	120	4.9	25	4	44	160	1.9	1.8	4.3	1.3	50
86LFA303219	1	26	1	560	24	120	5.2	30	4	49	160	2.1	1.8	4.3	4	50
86LFA303220	1	22	1	470	24	130	5	30	4	46	150	2	17	4.6	8	50
86LFA303224	1	12	1	440	17	100	3.6	10	2	36	120	1.2	1.3	3.5	5	50
86LFA303303	1	20	1	450	23	110	4.5	15	1	47	150	1.7	1.8	4.3	3	100
86LFA303303	2	18	1	470	18	93	4.2	20	2	33	140	1.8	1.6	4	3	50
86LFA303304	1	19	8	400	20	94	4.5	20	3	30	170	1.4	2.0	4.4	9	50
86LFA303305	1	25	1	540	24	110	5.3	25	2	42	150	1.5	1.5	3.4	3	50
86LFA303306	1	23	1	530	25	130	5.7	25	3	43	150	1.6	1.6	3.4	7	50
86LFA303307	1	19	4	490	23	110	5.3	30	3	52	140	1.3	1.4	3.3	5	50
86LFA303308	1	19	9	570	22	130	5.2	30	2	60	150	2.5	1.4	3.3	2	50
86LFA303309	1	19	1	530	23	120	4.9	30	2	43	140	1.3	1.4	3.2	3	50
86LFA303310	1	20	1	390	18	97	4.4	20	1	23	150	1.8	20.5	7	3	50
86LFA303311	1	18	1	520	24	110	5.3	30	1	50	140	1.5	1.4	3.4	3	50
86LFA303312	1	20	1	540	22	130	5.6	30	3	46	150	1.4	1.5	3.5	3	50
86LFA303313	1	17	1	430	22	93	4.7	30	3	38	130	1.3	1.4	3.1	2	50
86LFA303313	2	18	1	500	25	100	5.1	30	2	61	140	1.3	1.4	3	2	50
86LFA303314	1	19	1	470	24	120	5.1	30	3	56	140	1.5	1.4	3.4	3	50
86LFA303314	1	21	4	510	25	140	5.5	25	2	62	150	1.4	1.5	3.5	3	50
86LFA303315	1	20	3	490	29	120	5.5	30	3	69	150	1.4	1.5	3.2	3	50
86LFA303316	1	22	1	530	20	120	5.4	30	2	50	150	1.4	1.4	3.3	3	50
86LFA303317	1	22	1	550	27	140	5.2	25	3	53	140	1.5	1.6	3.7	2	50
86LFA303318	1	22	1	440	21	96	4.8	20	4	34	190	1.5	21.4	5.2	7	50
86LFA303319	1	19	1	550	24	110	5.1	30	2	41	180	1.7	20	5	50	
86LFA303320	1	22	1	560	24	110	5	30	3	50	180	1.5	20.3	4.8	4	50
86LFA303321	1	18	1	520	19	99	5	25	2	53	180	1.6	20.3	4.8	4	50
86LFA303322	1	20	1	470	20	110	4.9	25	3	30	160	1.9	1.9	4.4	4	50
86LFA303323	1	20	1	7	5	>1	>1	>1	>1	>1	>1	>1	>1	>1	>1	1
86LFA303701	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303801	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303803	10	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303805	10	36	2	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303806	10	32	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303807	10	24	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303808	10	24	2	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303809	10	23	2	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303810	10	29	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303811	10	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303812	10	25	2	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303813	10	19	2	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303814	10	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303815	10	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86LFA303816	10	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn
		ppm	ppt	ppm	ppm	ppm	pct	ppb	ppm							
86LFA303901	10	11	2													0.6
86LFA303902	10	10	2													0.6
86LFA303903	10	14	2													0.6
86LFA303904	10	11	2													0.8
86LFA303905	10	12	2													1.0
86LFA303906	10	10	2													0.8
86LFA303907	10	11	2													1.0
86LFA303908	10	15	2													0.6
86LFA303909	10	10	4													0.6
86LFA303910	10	6	v1													0.6
86LFA303911	10	11	2													1.0
86LFA303912	10	11	2													0.8
86LFA303913	10	11	2													1.0
86LFA303914	10	16	2													0.9
86LFA303915	10	12	2													0.6
86LFA303916	10	10	3													0.7
86LFA303917	10	10	1													0.7
86LFA303918	10	11	4													0.6
86LFA303919	10	9	1													0.4
86LFA303920	10	10	4													0.6
86LFA303921	10	9	2													0.4
86LFA303922	10	9	2													0.6
86LFA304001	10	15	1													0.4
86LFA304002	10	9	2													0.4
86LFA304003	10	9	3													0.4
86LFA304004	10	10	4													0.4
86LFA304005	10	7	v1													0.3
86LFA304006	10	9	2													0.2
86LFA304007	10	11	2													0.3
86LFA304008	10	7	2													0.3
86LFA304009	10	6	1													0.2
86LFA304010	10	7	1													0.2
86LFA304011	10	6	3													0.2
86LFA304012	10	6	3													0.2
86LFA304013	10	7	3													0.2
86LFA304014	10	7	1													0.2
86LFA304015	10	7	v1													0.2
86LFA304102	10	12	2													1.4
86LFA304103	10	12	3													1.0
86LFA304104	10	9	3													1.0
86LFA304106	10	19	2													1.0
86LFA304107	10	9	5													1.0
86LFA304108	10	10	2													1.2
86LFA304109	10	15	3													1.0
86LFA304110	10	14	4													0.9
86LFA304111	10	12	4													1.2
86LFA304112	10	10	4													1.0
86LFA304113	10	10	1													1.0
86LFA304202	10	14	3													0.9
86LFA304204	10	15	3													0.9
86LFA304205	10	15	2													1.0

sample	obs	As	Au	Ba	Co	Cr	Fe	Hg	Mo	Ni	Rb	Sb	Th	U	W	Zn
		ppm	ppb	ppm	ppm	ppm	pct	ppb	ppm							
86LFA304206	10	10	<1													
86LFA304804	10	7	2													
86LFA304901	10	10	4													
86LFA304902	10	19	3													
86LFA304903	10	14	4													
86LFA304905	10	17	5													
86LFA304906	10	17	6													

TABLE IV GEOCHEMISTRY OF BEDROCK SAMPLES OVERBURDEN DRILLING PROGRAM

Sample	obs	As	Au	Ba	Co	Cr	Fe	Mo	Ni	Rb	Sb	Th	U	W	Zn
		ppm	ppb	ppm	ppm	pct	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
86LFA3001BR	1	93.9	1	240	1.7	4.0	1	7.7	120	41.8	9.2	2.1	4	50	
86LFA3002BR	1	6.9	4	290	1.3	3.2	1	7.4	85	0.4	7.8	1.7	1	50	
86LFA3003BR	1	7	3	290	1.7	3.0	3.7	1	6.9	100	0.3	7.8	1.7	0.5	
86LFA3004BR	1	5.4	4	330	2.2	150	3.4	2	120	110	0.3	9.1	1.9	2	50
86LFA3006BR	1	3.8	1	260	1.3	150	3.0	1	6.9	74	0.2	6.6	1.5	0.5	50
86LFA3007BR	1	1.8	1	170	8	70	2.0	1	3.9	46	0.1	4.4	1.1	0.5	50
86LFA3009BR	1	2	4	170	9	97	3.0	1	6.3	83	0.1	6.5	1.6	0.5	50
86LFA3012BR	1	16	1	200	11	93	2.8	2	43	66	2.4	5.9	1.4	2	200
86LFA3014BR	1	13	4	380	18	120	4.3	1	52	120	1.2	1.2	2.7	1.6	160
86LFA3014BR	1	13	1	240	12	100	4.1	2	50	220	2.7	1.3	2.1	3	50
86LFA3016BR	1	4.7	1	140	13	93	2.9	0.5	55	90	0.2	6.3	1.5	0.5	50
86LFA3019BR	1	11	1	330	11	56	3.4	1	37	59	0.3	4	1	0.5	50
86LFA3020BR	1	17	1	310	19	200	4.4	2	83	94	0.5	1.1	2.8	0.5	50
86LFA3021BR	1	3.3	3	210	5	25	1.7	1	10	10	0.4	8.2	2.7	0.5	50
86LFA3022BR	1	9	1	300	16	120	3.7	0.5	64	86	0.8	7.8	1.8	0.5	50
86LFA3023BR	1	72	14	200	11	80	2.3	0.5	44	63	9.3	5.3	1.2	0.5	50
86LFA3024BR	1	4.9	3	410	11	86	3.5	0.5	36	95	1.8	9.1	1.6	2	50
86LFA3025BR	1	16	1	210	10	34	3.3	1	31	67	1.1	9.3	2.3	2	50
86LFA3026BR	1	13	7	700	6	10	1.7	2	50	48	0.6	4.9	1.6	2	50
86LFA3027BR	1	4.1	4	660	17	100	5.5	2	38	190	0.8	1.5	3	3	50
86LFA3028BR	1	8.7	3	480	15	86	5.6	0.5	43	180	0.8	1.4	3.1	3	50
86LFA3029BR	1	7	1	410	20	140	0.0	0.5	82	100	0.4	9.4	2	2	50
86LFA3030BR	1	1.4	3	500	2.5	10	1.8	2	10	150	0.1	21.9	2	0.5	50
86LFA3031BR	1	1.8	1	540	2.5	10	1.3	2	10	140	0.3	1.1	2	0.5	50
86LFA3032BR	1	5.5	1	310	8	73	2.5	2	10	120	1.1	1.3	3	2	50
86LFA3034BR	1	2.5	1	330	22	110	5.7	2	76	150	0.8	1.2	2.7	1	110
86LFA3036BR	1	8.7	1	440	10	96	3.0	1	44	110	1.5	8.3	2	2	50
86LFA3037BR	1	3.0	1	370	48	140	5.4	2	110	180	1	1.2	3.3	2	50
86LFA3038BR	1	1.3	2	430	10	28	4.1	1	10	110	0.2	1.2	2.2	5	170
86LFA3039BR	1	9.1	1	130	23	170	4.1	1	140	59	0.7	1.3	2.9	2	50
86LFA3040BR	1	9.2	1	230	9	200	6.2	1	99	120	0.8	1.1	2.3	1	50
86LFA3041BR	1	10	1	130	8	22	3.1	2	10	23	0.2	9.4	2	7	50
86LFA3042BR	1	24	3	570	9	91	4.2	3	10	220	4.8	1.6	5.1	3	50
86LFA3048BR	1	16	1	420	15	73	5.0	3	24	72	1.4	9.4	2.8	0.5	110
86LFA3049BR	1	6.8	1	420	15	140	4.3	2	48	100	0.5	10	2.7	0.5	130
86LFA3050BR	1	5.3	4	210	19	86	4.5	0.5	36	89	0.8	10	2	1	50

TABLE V LIST OF DUPLICATE ANALYSES FOR SELECTED ELEMENTS IN CLAY FRACTION OF TILL  
SAMPLES ANALYZED BY BONDAR-CLEGG AND CO. LTD

sample	obs	As 1	As 2	Cu 1	Cu 2	Hg 1	Hg 2	Pb 1	Pb 2	Sn 1	Sn 2	U 1	U 2	Zn 1	Zn 2	
		ppm	ppm	ppm	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
86LFA300104	2	3	2	21	21	40	40	23	22	2	2	0.9	0.5	72	71	
86LFA300210	2	1.3	7	4.4	4.5	7.0	6.5	27	25	1	0.5	0.9	0.1	130	133	
86LFA300214	2	1.2	8	3.2	3.2	11.5	100	3.1	2.7	8	0.0	0.1	109	101		
86LFA300310	2	1.4	7	4.7	5.3	8.0	7.0	27	26	7	3	0.5	0.1	141	137	
86LFA300312	2	7	5	3.7	4.1	5.0	4.0	26	26	2	4	0.3	0.3	137	148	
86LFA300501	2	1.1	1.1	5.4	5.2	9.0	100	3.5	3.2	3	1	0.7	0.1	139	136	
86LFA300519	2	9	6	3.9	4.3	6.5	6.5	2.1	1.8	0.5	0.7	0.1	116	126		
86LFA300707	2	1.0	9	3.1	3.4	8.5	7.5	23	19	6	0.0	0.5	93	92		
86LFA300803	2	1.2	1.4	4.7	5.4	7.0	7.5	3.2	2.3	1	2	0.7	0.5	136	151	
86LFA300904	2	1.1	6	4.1	4.1	5.5	4.0	2.1	1.8	3	4	0.5	0.3	118	114	
86LFA300910	2	5	4	4.3	4.8	6.5	4.0	20	19	2	5	0.3	0.9	132	122	
86LFA301001	2	1.2	8	5.1	5.1	8.0	7.5	24	20	5	8	0.7	0.3	127	126	
86LFA301008	2	1.0	1.1	4.0	3.3	8.0	6.5	20	17	2	5	0.5	0.7	103	97	
86LFA301012	2	1.4	1.7	2.9	3.0	8.0	6.5	1.8	1.5	4	4	0.4	0.5	82	75	
86LFA301203	2	5	9	4.5	4.5	8.5	6.5	2.2	2.2	9	9	0.5	0.3	127	129	
86LFA301213	2	8	10	5.3	4.6	6.5	6.0	29	24	3	5	0.0	0.4	157	145	
86LFA301412	2	1.5	6	2.4	2.5	4.0	4.0	23	20	6	5	0.3	0.7	97	99	
86LFA301602	2	1.4	1.5	5.8	4.1	9.0	100	14	21	6	1	0.8	0.1	128	128	
86LFA301908	2	2	1.5	1.6	4.6	4.5	9.5	100	19	22	3	4	1.0	1.0	137	138
86LFA302014	2	7	5	3.8	4.3	7.0	6.5	25	24	3	3	0.3	0.6	143	133	
86LFA302117	2	1.4	1.4	4.6	4.0	7.5	8.5	23	18	4	7	1.0	0.8	125	126	
86LFA302216	2	8	9	3.5	3.0	3.0	20	19	15	2	4	0.8	0.3	91	86	
86LFA302904	2	1.3	1.4	6.0	5.0	5.0	4.0	26	24	1	7	0.5	1.0	125	129	
86LFA303207	2	2.4	2.6	4.6	4.5	2.0	2.0	16	23	3	8	1.2	1.6	131	126	
86LFA303213	2	2.8	2.4	4.5	3.9	3.0	4.0	14	21	8	7	2.0	2.0	138	143	
86LFA303305	2	1.1	1.1	6.0	4.8	3.5	3.5	20	17	10	6	1.4	1.7	111	119	
86LFA303308	2	1.0	1.0	4.7	4.1	4.0	3.5	18	17	7	5	1.3	1.2	118	109	
86LFA303314	2	1.2	1.2	5.3	4.2	3.0	4.0	23	20	5	9	1.5	0.8	122	118	
86LFA303320	2	1.8	1.9	4.4	3.0	2.5	3.5	27	27	8	6	1.8	1.8	135	132	
86LFA303334	2	1.4	1.4	4.6	3.5	4.0	3.0	24	24	9	12	2.7	2.3	141	127	
86LFA303344	2	2.2	2.4	3.1	4.1	3.0	4.0	26	24	7	5	2.2	2.3	144	147	
86LFA303357	2	2.8	3.3	4.0	4.6	3.0	3.5	22	20	6	12	2.6	2.6	210	206	
86LFA303404	2	1.2	1.3	2.4	2.3	1.5	2.0	18	15	7	8	0.6	0.9	122	117	
86LFA303901	2	1.9	2.3	2.8	2.7	2.0	2.5	28	26	11	8	1.2	0.7	93	81	
86LFA303907	2	1.8	2.2	3.6	3.4	2.5	3.0	28	28	2	11	1.7	1.1	116	116	
86LFA304903	2	3.4	2.7	7.1	7.2	15.5	16.0	3.2	2.6	4	8	1.1	0.9	167	156	
86LFA30504A	2	1.2	1.0	3.8	3.5	6.0	6.0	25	23	4	4	1.0	0.7	135	125	

TABLE VI LIST OF DUPLICATE ANALYSES FOR SELECTED ELEMENTS IN CLAY FRACTION OF TILL  
SAMPLES ANALYZED BY BONDAR-CLEGG AND CO., LTD (1) AND CHEMEX LABS LTD (10)

sample	obs	As 1	As 10	Cu 1	Cu 10	Hg 1	Hg 10	Pb 1	Pb 10	Sn 1	Sn 10	U 1	U 10	Zn 1	Zn 10
		ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm
86LFA300101	10	10	4.0	3.5	5.5	2.7	1.8	2	0.6	1.31	1.17				
86LFA300102	10	1.2	4.1	3.5	6.0	3.0	1.9	6	0.7	1.39	1.21				
86LFA300104	10	3	2.1	1.8	4.0	2.3	1.4	2	0.9	7.2	7.0				
86LFA300202	10	1.6	3.6	3.4	4.5	2.9	2.0	3	0.5	14.7	12.8				
86LFA300203	10	1.7	4.6	4.5	6.5	3.6	2.6	1	0.3	1.56	1.47				
86LFA300205	10	1.1	4.7	4.0	7.0	2.6	1.7	0	0.9	1.39	1.25				
86LFA300208	10	1.2	9	4.2	4.2	6.5	2.6	1.9	0	1	0.9	0.7	1.42	1.25	
86LFA300209	10	1.0	4.1	3.5	6.0	2.7	1.7	1	0.7	1.33	1.21				
86LFA300210	10	1.3	4.4	3.5	7.0	2.7	1.6	1	0.9	1.30	1.10				
86LFA300211	10	1.4	1.2	4.0	3.7	6.0	2.6	1.8	0	1	0.9	0.8	1.16	1.14	
86LFA300212	10	1.3	3.9	3.4	9.5	2.4	1.4	0	0.5	1.29	1.08				
86LFA300301	10	1.3	4.1	3.5	5.5	3.3	2.1	0	0.0	1.36	1.10				
86LFA300302	10	1.0	4.0	3.5	5.5	2.7	1.9	0	0.6	1.43	1.22				
86LFA300303	10	1.2	4.4	3.8	6.5	2.7	1.7	3	0.7	1.49	1.31				
86LFA300304	10	1.2	4.4	4.1	7.0	2.8	1.6	5	0.7	1.45	1.32				
86LFA300308	10	1.4	4.7	4.1	9.0	3.0	1.6	3	0.6	1.41	1.21				
86LFA300311	10	1.1	4.3	3.7	6.0	2.6	1.6	3	0.9	1.50	1.33				
86LFA300314	10	1.0	3.1	3.1	7.0	2.3	1.5	2	1	0.9	0.4	1.03	0.95		
86LFA300315	10	1.4	4.1	4.0	9.0	2.4	1.6	0	0.5	0.4	0.4	1.35	1.20		
86LFA300401	10	1.3	4.3	2.2	5.0	2.9	8	0	0.5	1.55	1.31				
86LFA300402	10	8	3.5	3.3	6.5	2.3	1.3	4	0.7	1.10	1.03				
86LFA300404	10	1.3	4.7	4.3	9.0	2.3	1.6	2	0.5	1.51	1.38				
86LFA300501	10	1.1	5.4	5.3	9.0	3.5	2.7	3	0.7	1.39	1.31				
86LFA300506	10	1.1	7	5.8	5.5	2.8	2.4	0	0.4	0.5	0.58				
86LFA300510	10	1.2	1.0	4.1	3.7	9.0	2.3	1.5	0	0.4	0.1	1.06	0.95		
86LFA300514	10	7	3.9	3.5	6.0	2.0	1.3	2	0.3	0.97	0.92				
86LFA300515	10	1.0	7	3.4	3.2	9.0	2.1	1.5	2	1	0.3	0.4	1.35	1.08	
86LFA300516	10	8	4.2	3.9	8.0	2.4	2.0	0	0.0	0.2	0.2	1.12	1.07		
86LFA300517	10	1.1	4.1	3.6	7.5	2.4	1.7	0	0.3	1.07	1.04				
86LFA300518	10	1.3	4.4	4.0	9.0	2.6	1.9	0	0.3	1.18	1.12				
86LFA300521	10	1.2	9	5.2	4.5	8.0	2.4	1.5	0	0.0	0.2	1.49	0.78		
86LFA300523	10	5	3	1.9	1.8	1.5	1.3	8	1	0.3	0.2	1.50	1.33		
86LFA300612	10	1.2	1.0	6.8	6.7	5.5	3.3	2.4	0	0.7	0.4	1.81	1.41		
86LFA300802	10	1.8	6.7	6.5	13.5	4.0	3.0	5	0.5	1.73	1.16				
86LFA300804	10	1.8	4.7	2.4	9.0	3.5	1.4	5	0.3	1.49	0.78				
86LFA300805	10	1.4	4.9	4.5	8.5	3.2	2.3	3	0.7	1.50	1.33				
86LFA300807	10	1.4	4.6	9.0	3.3	2.5	0.9	0.9	0.5	1.42	1.34				
86LFA300809	10	1.0	4.2	3.9	9.0	2.9	2.0	0	0.7	1.35	1.29				
86LFA300810	10	1.5	5.0	4.5	9.5	2.8	2.1								

sample	obs	As 1	As 10	Cu 1	Cu 10	Hg 1	Hg 10	Pb 1	Pb 10	Sn 1	Sn 10	U 1	U 10	Zn 1	Zn 10	
		ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	
86LFA300811	10	8	7	34	3.5	9.0	24	1.5	8	1	0.7	0.2	105	97		
86LFA300812	10	14	48	4.3	11.0	3.0	22	3	0.7		1.29	1.21				
86LFA300820	10	15	70	57	6.5	3.1	24	1	0.5		1.88	1.42				
86LFA300821	10	12	63	54	6.5	2.8	23	3	0.9		1.56	1.29				
86LFA300822	10	15	76	62	9.0	3.0	23	3	0.9		1.80	1.44				
86LFA300901	10	12	4.5	4.3	9.0	2.3	18	5	0.2		1.32	1.19				
86LFA300902	10	11	6	4.4	4.2	2.6	17	4	1	0.5	0.5	1.26	1.11			
86LFA300903	10	8	5	43	36	2.3	14	2	1	0.5	0.2	123	103			
86LFA300904	10	11	4.1	34	5.5	2.1	16	3	0.5		118	120				
86LFA300910	10	5	43	3.8	6.5	2.0	18	2	0.3		132	124				
86LFA300911	10	4	4	4.1	5.0	2.3	17	3	1	0.3		112	121			
86LFA300913	10	2	2	18	12	1.6	12	0	1	0.3	0.4	55	61			
86LFA301002	10	13	11	4.7	4.3	2.3	17	2	1	0.5	0.2	129	110			
86LFA301003	10	13	10	4.4	4.3	2.2	18	4	1	0.5	0.4	135	124			
86LFA301004	10	14	14	4.2	4.3	2.1	18	0	1	0.3	0.3	118	109			
86LFA301006	10	12	4.6	4.0	10.0	2.4	20	9	1	0.3		119	114			
86LFA301007	10	11	10	53	4.5	6.5	2.2	15	1	0.5	0.2	123	100			
86LFA301009	10	18	41	32	8.0	2.0	16	6	0.5		96	93				
86LFA301013	10	11	41	38	9.5	2.2	18	3	0.7		153	117				
86LFA301018	10	5	47	4.2	8.0	2.3	18	0	1	0.3		119	120			
86LFA301019	10	11	43	4.2	10.0	2.3	18	6	1	0.5	0.2	131	109			
86LFA301205	10	8	10	4.2	4.3	1.0	24	18	0	0.9	0.3	139	122			
86LFA301206	10	7	39	3.5	7.0	2.1	16	4	0.5		115	112				
86LFA301207	10	5	34	3.2	8.0	2.1	17	4	1	0.5		126	107			
86LFA301208	10	8	10	38	3.8	2.4	17	0	1	0.3	0.3	121	108			
86LFA301209	10	14	51	50	9.0	2.9	21	5	1	0.0		146	134			
86LFA301210	10	13	10	51	4.6	6.5	2.7	17	2	1	0.0		179	126		
86LFA301212	10	8	53	4.7	8.0	3.0	20	0	1	0.3		143	130			
86LFA301214	10	9	10	53	4.9	8.0	3.1	22	2	1	0.5	0.4	152	130		
86LFA301215	10	8	49	4.1	5.5	4.0	28	20	8	0.3		148	125			
86LFA301217	10	5	4	31	2.8	4.0	22	13	4	1	0.9	0.2	101	85		
86LFA301218	10	15	42	3.2	7.0	2.3	20	3	1	0.5		137	112			
86LFA301219	10	11	10	36	3.1	8.0	4.4	33	0	1	0.3		171	128		
86LFA301222	10	9	14	30	2.8	7.0	141	13	0	0.5		218	179			
86LFA301402	10	9	51	4.2	7.0	2.7	20	1	1	0.0		152	134			
86LFA301404	10	14	11	56	4.7	6.5	2.6	19	2	1	0.5	0.5	151	119		
86LFA301405	10	14	9	45	4.6	6.0	2.6	20	3	1	0.7	0.4	152	119		
86LFA301406	10	12	55	4.2	7.0	2.3	20	9	0.5		142	122				
86LFA301407	10	7	37	7.0	3.7	2.2	17	3	1	0.0		129	115			
86LFA301408	10	14	9	54	4.7	7.5	2.6	19	5	1	0.3	0.2	151	121		
86LFA301410	10	10	34	2.8	5.0	2.4	20	3	0.5		123	110				
86LFA301412	10	15	24	2.5	4.0	2.3	19	6	0.3		97	103				
86LFA301413	10	12	20	2.0	3.0	2.0	18	0	0.3		87	91				

sample	obs	As 1	As 10	Cu 1	Cu 10	Hg 1	Hg 10	Pb 1	Pb 10	Sn 1	Sn 10	U 1	U 10	Zn 1	Zn 10
		ppm	ppm	ppm	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
86LFA301414	10	13	10	2.9	2.7	3.5	2.1	1.5	5	1	0.3	0.4	9.2	8.8	
86LFA302004	10	8	5.3	4.4	7.0	2.7	1.7	2		0.5	0.5	1.77	1.47		
86LFA302006	10	11	1.2	4.9	4.4	12.0	3.0	1.9	5	1	0.5	0.2	1.26	1.08	
86LFA302011	10	11	6	5.2	4.6	4.5	2.8	2.3	6		0.3	0.3	1.49	1.35	
86LFA302014	10	7	3.8	3.6	7.0	2.5	1.9	3	1	0.3	0.8	1.43	1.12		

TABLE VII LIST OF DUPLICATE ANALYSES FOR SELECTED ELEMENTS IN CLAY  
PLUS SILT FRACTION OF TILL

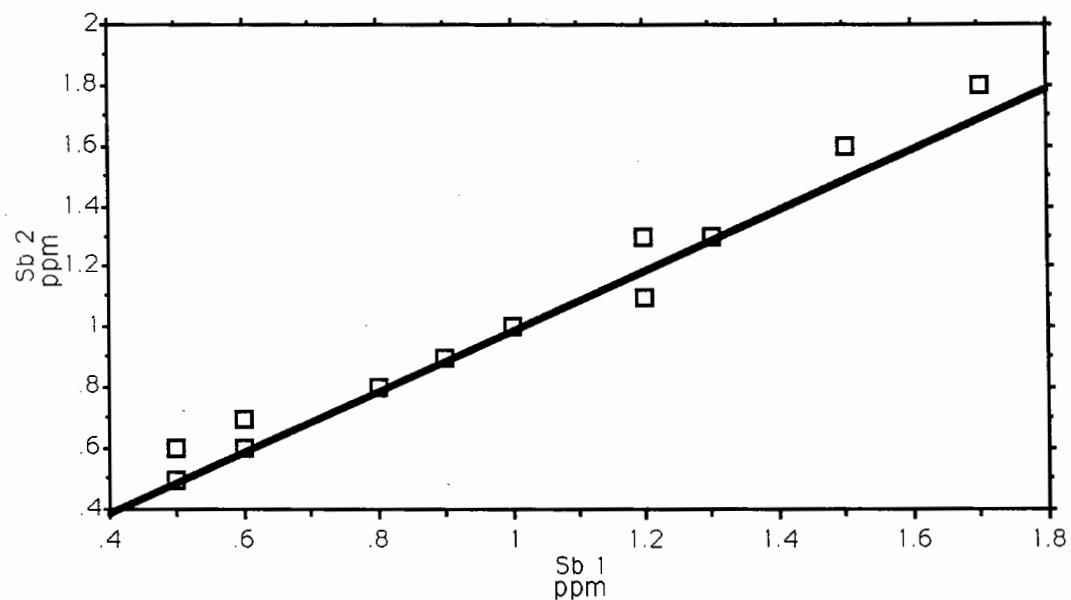
SAMPLES ANALYZED BY BONDAR-CLEGG AND CO. LTD

sample	obs	As 1 ppm	As 2 ppm	Au 1 ppb	Au 2 ppb	Hg 1 ppb	Hg 2 ppb	Sb 1 ppm	Sb 2 ppm
86LFA300308	2	7.8	7.3	2	1	30	1	0.5	0.5
86LFA300408	2	7.7	8.5	1	1	4.5	0.5	0.5	0.6
86LFA300508	2	8	8.6	1	1	3.5	0.6	0.6	0.6
86LFA300701	2	9.1	10	1	1	50	0.6	0.7	
86LFA300712	2	9.3	8.5	4	1	50	0.5	0.5	0.5
86LFA300806	2	9	10	1	1	4.5	0.6	0.6	0.6
86LFA300817	2	9.2	10	1	1	50	0.6	0.7	
86LFA300906	2	8.9	8.7	3	1	40	0.6	0.6	0.6
86LFA301004	2	10	11	1	1	60	0.8	0.8	
86LFA301212	2	9.5	9.2	1	1	40	0.8	0.8	
86LFA301402	2	10	11	3	1	60	0.9	0.9	
86LFA301410	2	11	13	3	1	40	1.5	1.6	
86LFA302004	2	11	12	1	1	60	0.8	0.8	
86LFA302017	2	7	7.3	1	1	30	0.6	0.6	
86LFA302104	2	14	13	1	1	55	50	1.2	1.1
86LFA302110	2	17	18	3	1	40	40	1.2	1.3
86LFA302116	2	11	11	1	1	40	40	1.3	1.3
86LFA302205	2	7.8	8.3	1	1	25	25	0.6	0.6
86LFA302401	2	12	12	3	1	60	40	1	1
86LFA302905	2	12	11	1	4	25	30	1.2	1.3
86LFA303303	2	20	18	1	1	15	20	1.7	1.8
86LFA303313	2	17	18	1	1	30	30	1.3	1.3

Reproductibility in silt fraction

by Bondar Clegg and co. ltd

Sb



As

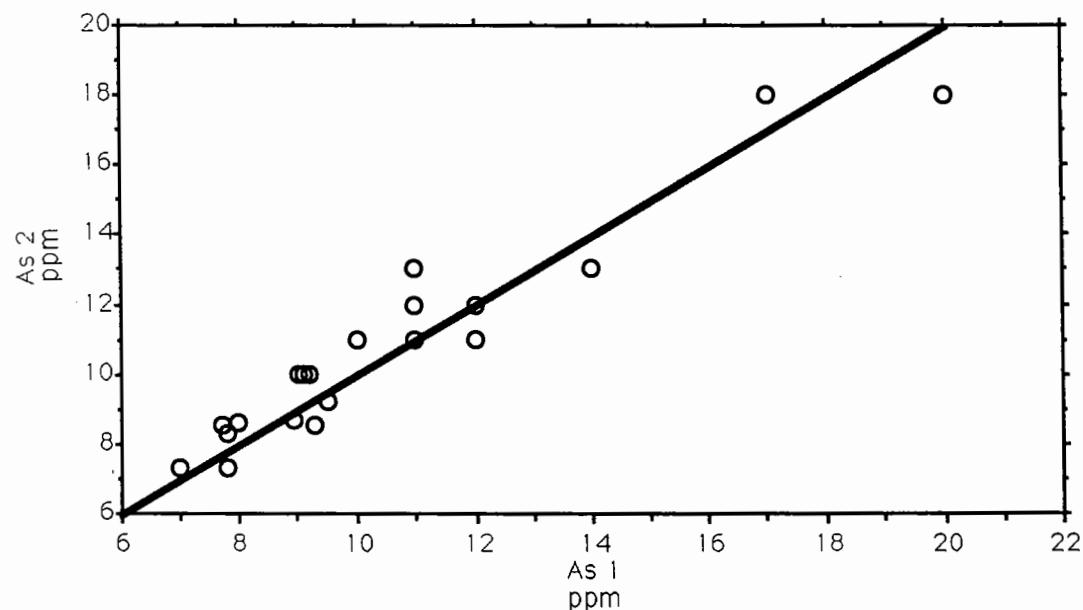


Figure 45: Duplicate analyses for antimony (Sb) and arsenic (As),  
clay plus silt fraction of till Bondar-Clegg and Co. Ltd

Reproductibility in clay  
fraction by Bondar Clegg  
and co. ltd

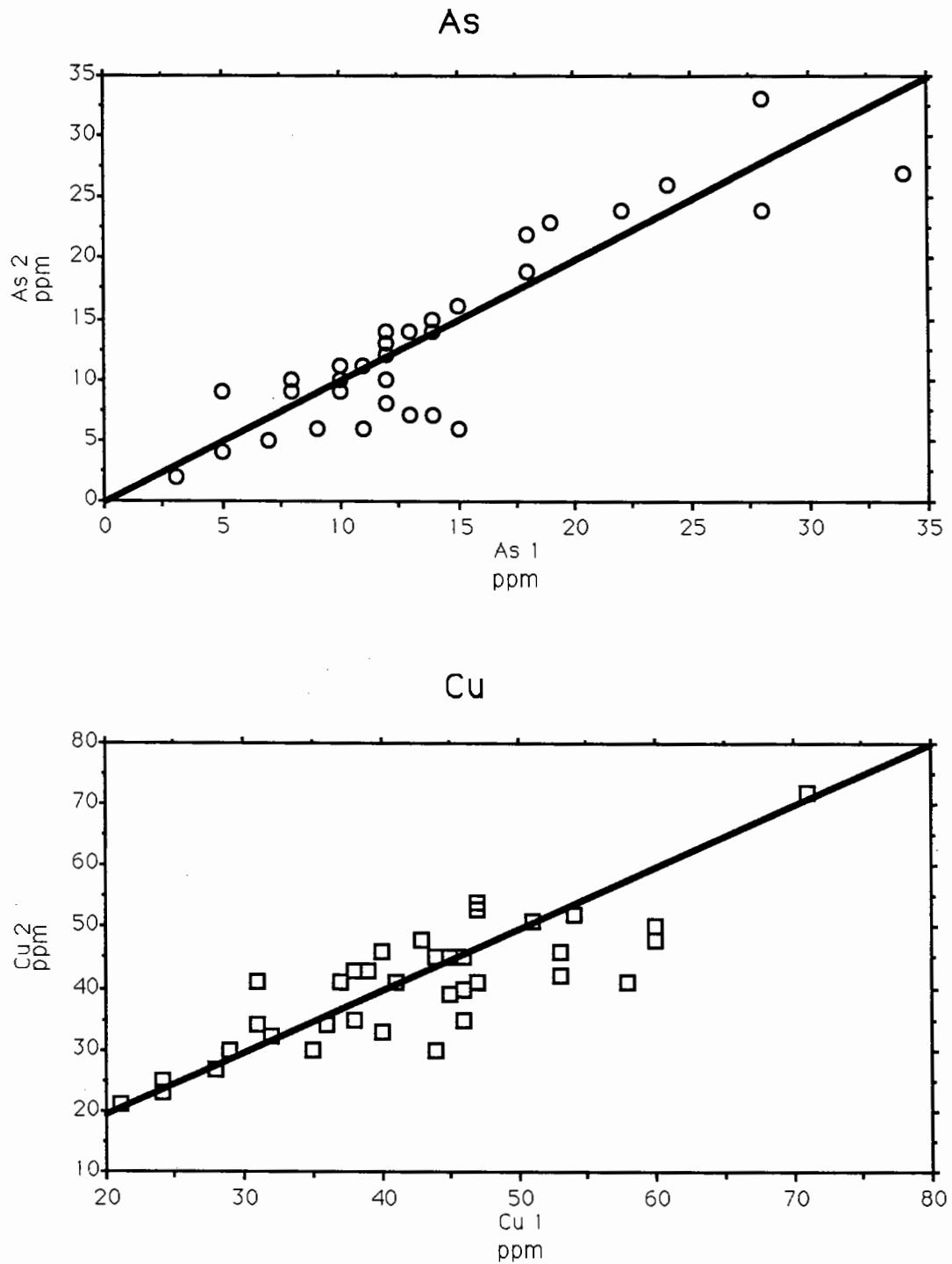


Figure 46: Duplicate analyses for arsenic (As) and copper (Cu),  
clay fraction of till, Bondar-Clegg and Co. Ltd.

Reproductibility in clay  
fraction by Bondar Clegg  
and co. ltd

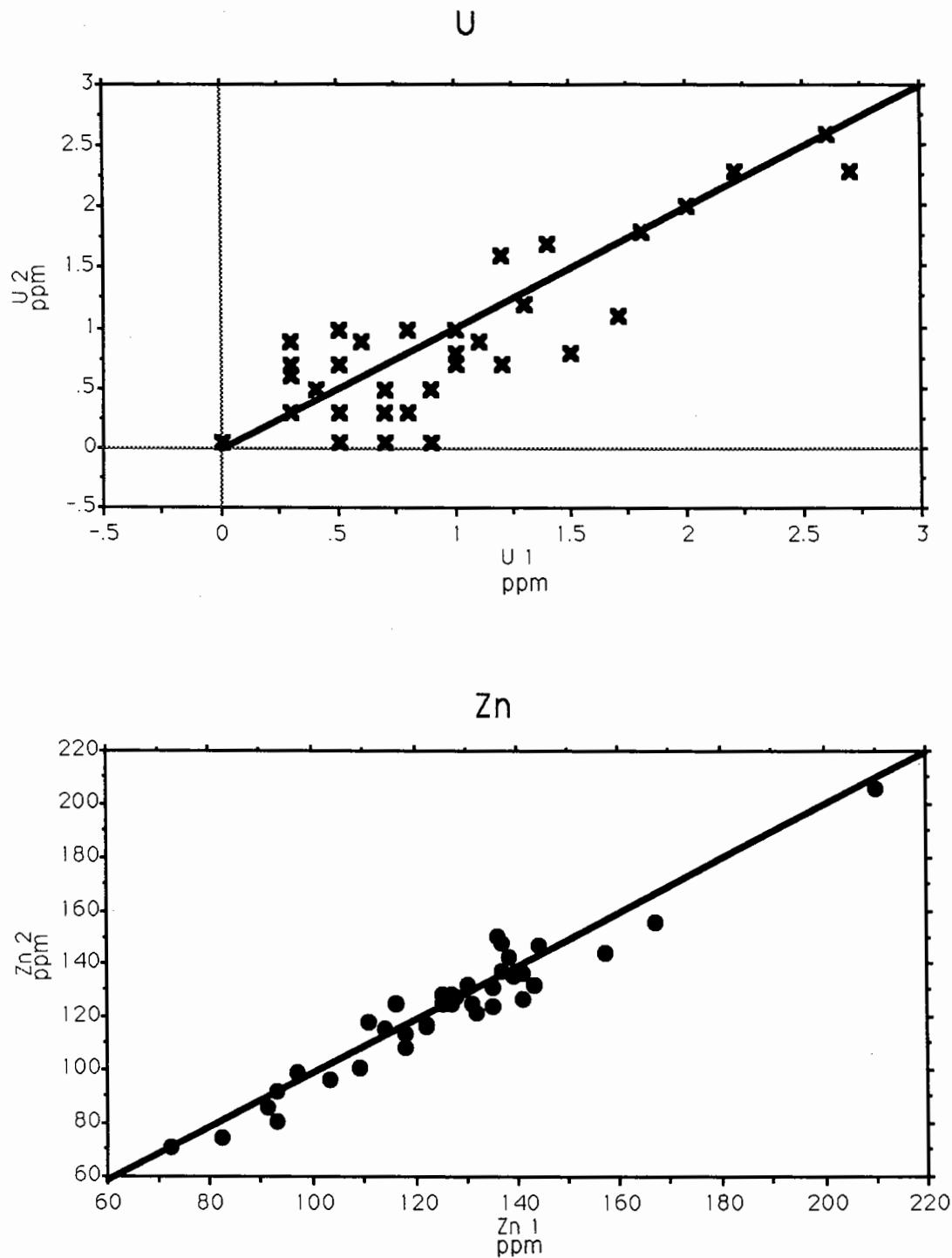


Figure 47: Duplicate analyses for uranium (U) and zinc (Zn),  
clay fraction of till, Bondar-Clegg and Co. Ltd.

Reproducibility in clay  
fraction by Bondar Clegg  
and co. ltd

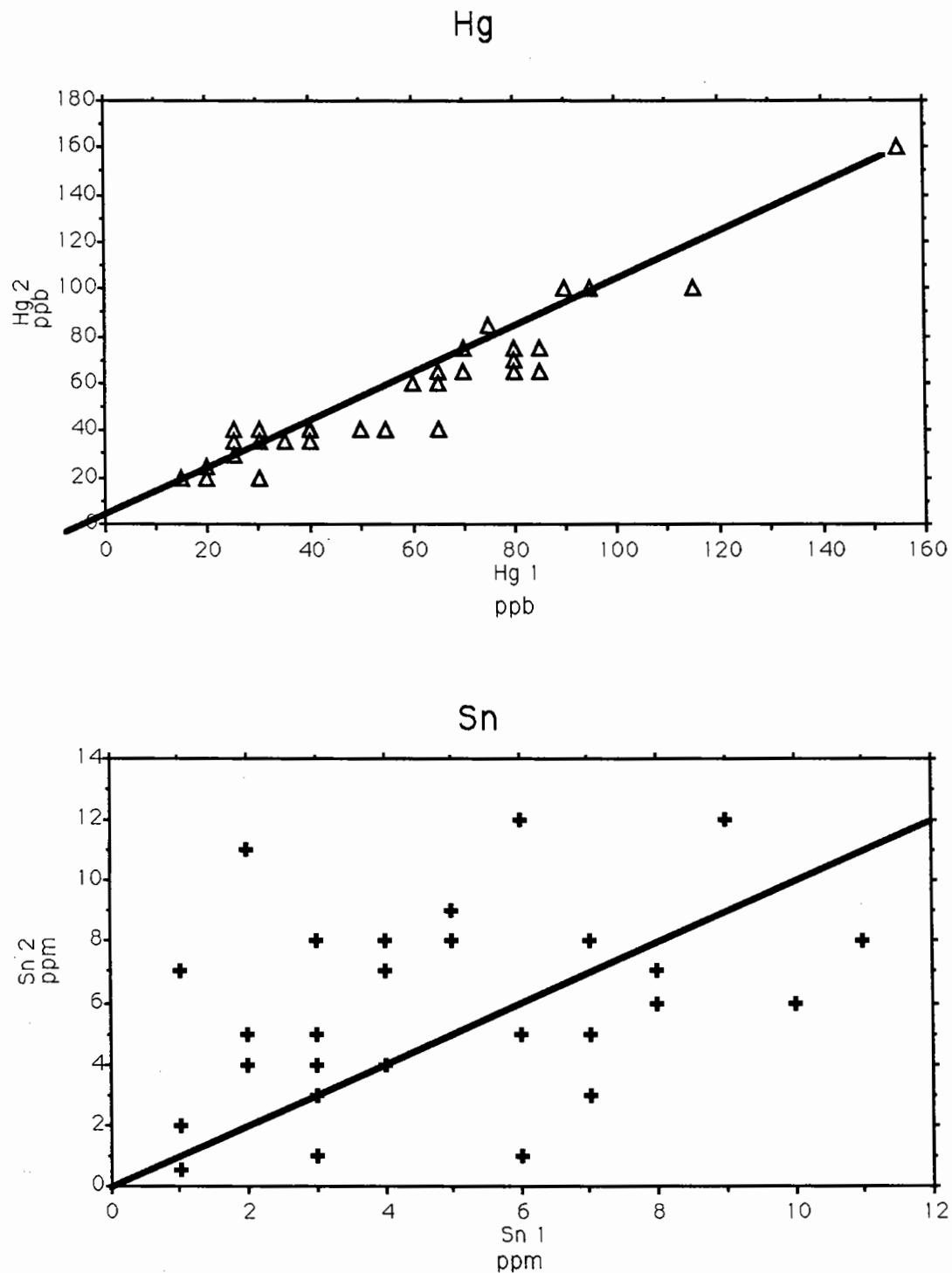


Figure 48: Duplicate analyses for mercure (Hg) and tin (Sn), clay fraction of till, Bondar-Clegg and Co. Ltd.

Reproducibility for clay fraction  
First Results from Bondar Clegg and co. ltd  
Second Results from Chemex Labs ltd

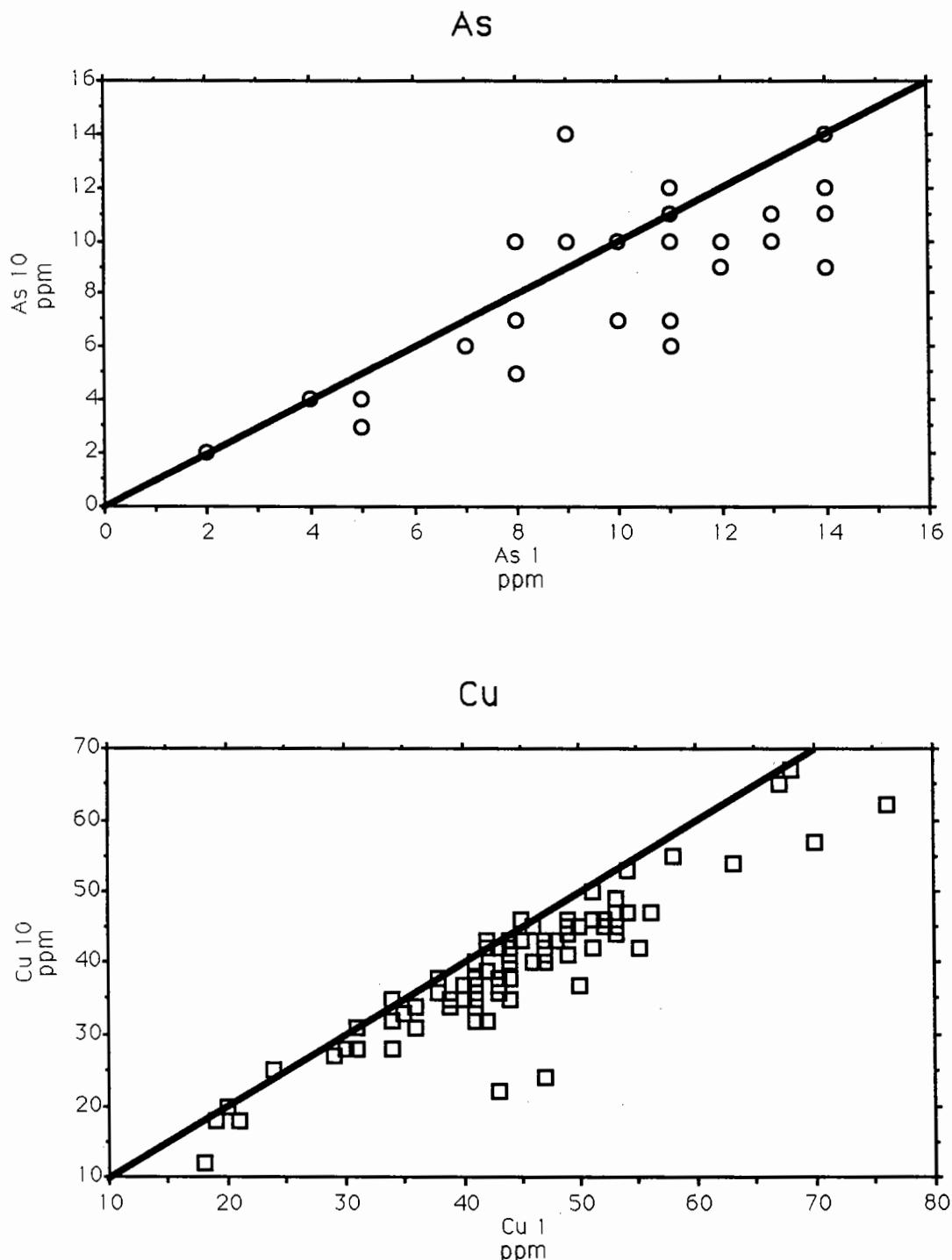
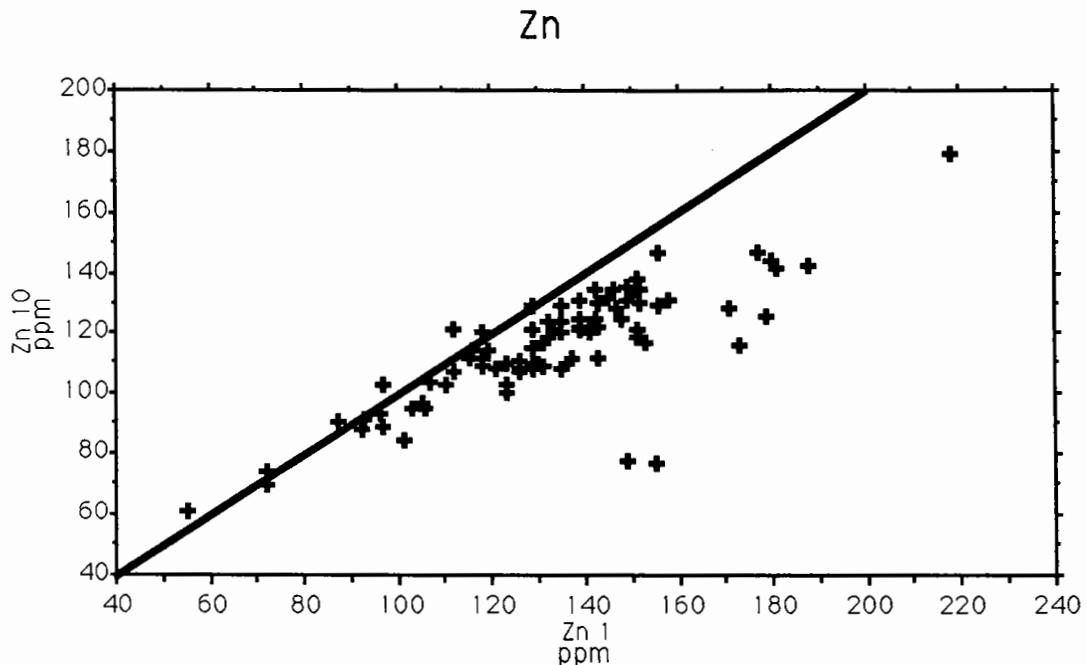


Figure 49: Duplicate analyses for arsenic (As) and copper (Cu), clay fraction of till, Bondar Clegg and Co. Ltd(1) and Chemex Labs Ltd (10).

Reproducibility for clay fraction  
First Results from Bondar Clegg and co. ltd  
Second Results from Chemex Labs ltd



**Figure 50:** Duplicate analyses for zinc (Zn), clay fraction of till,  
Bondar Clegg and Co. Ltd(1) and Chemex Labs Ltd (10).