

Table S3. Plant macrofossils identified at cm-depth intervals noted.

Sample FH1,	+90 to +94	+12 to +14	+10 to +12	+8 to +10	+4 to +6	0 to -1	-1 to -2	-2 to -3	-11 to -12	-12 to -13	-13 to -14	-19 to -20	-21 to -22	-22 to -23	-23* to -24	-26* to -27	-30* to -33	-37 to -39	-43* to -45	-55* to -57	-67* to -69	-101 to -121
Stratigraphic Unit	C	C	C	C	B3	B2	B2	B2	B2	B2	B2	B2	B2	B1	B1	B1	B1	B1	B1	A	A	A
Volume (ml)	<10	150	26	24	130	14	10	100	105	14	10	10	120	18	25	105	172	60	116	113	200	50
Plant Macrofossils:																						
<b>Algal remains</b>																						
Characeae																						
<i>Chara</i> sp. (oogonia)																4	62	6		3		
<b>Non-vascular plants</b>																						
Bryophytes						3%	10%	98%	98%	90%	90%	98%	90%	98%	50%	50%	70%	35%		40%	5%	
<b>Vascular plants</b>																						
Equisetaceae ..... "horsetail family"																						
<i>Equisetum</i> sp.																	6 stfr	++ stfr		++ stfr	173 stfr	
Pinaceae ..... "pine family"																						
<i>Picea</i> sp. (not charred)									1sd		1sd	2sd	2sd	2sd ;1nf	2sd	1sd; 3nfr	20nfr ;1sd	4nfr		2nfr		
<i>Picea</i> sp. (charred)						1fr			6nfr	2nfr	2nfr	7nfr	2nfr	12 nfr	19 nfr	13 nfr	11 nfr		2nfr			
Sparganiaceae ..... "bur-reed family"																						
<i>Sparganium</i> sp.									2	3	1	6	3	2	1							
Potamogetonaceae .. "pondweed family"																						
<i>Potamogeton</i> spp.												2	1	2	9	73	15	4		4		
Hydrocharitaceae ..... "tape-grass family"																						
<i>Najas flexilis</i> (Willd.) Rostk. & W.L.E.Schmidt																	1.5	3				
Cyperaceae ..... "sedge family"																						
<i>Carex</i> lenticular type (spp.)					1		1	2			9	47	9	25; 1sp	10	82; 2sp	35; 8sp	68; 21sp; 7per		23; 18pe r	18	
<i>Carex</i> trigonous type (spp.)		1	1		1.5							9			6	148		12; 8sp; 5per		2.5	1	
<i>Carex rostrata</i> Stokes																	26sp; 20pe r					
<i>Eleocharis palustris</i> (L.) Roem. & Schult		2	3		25									1	4	16	35	9		4	1	
<i>Schoenoplectus tabernaemontani</i> (C.C. Gmel.) Palla													5	6	28	18	27	7.5		1	2	
Juncaceae ..... "rush family"																						
<i>Juncus</i> sp.																		2		5		

Table S3 (cont).

Sample FH1,	+90 to +94	+12 to +14	+10 to +12	+8 to +10	+4 to +6	0 to -1	-1 to -2	-2 to -3	-11 to -12	-12 to -13	-13 to -14	-19 to -20	-21 to -22	-22 to -23	-23* to -24	-26* to -27	-30* to -33	-37 to -39	-43* to -45	-55* to -57	-67* to -69	-101 to -121
Stratigraphic Unit	C	C	C	C	B3	B2	B2	B2	B2	B2	B2	B2	B2	B1	B1	B1	B1	B1	B1	A	A	A
Volume (ml)	<10	150	26	24	130	14	10	100	105	14	10	10	120	18	25	105	172	60	116	113	200	50
Salicaceae ..... "willow family"																						
<i>Salix</i> sp.									2pb	1tw	2tw; 1pb		1pb					4pb		3tw; 3pb	3tw	
Polygonaceae ..... "buckwheat family"																						
<i>Polygonum</i> sp.																				2		
Rosaceae ..... "rose family"																						
<i>Potentilla</i> sp.																11						
<i>Potentilla anserina</i> L.																		0.5				
Violaceae ..... "violet family"																						
<i>Viola</i> sp.		5	2	1	2		0.5															
Haloragaceae ..... "water milfoil family"																						
<i>Myriophyllum sibiricum</i> Kom.												6	51		1	4	40		1			
Menyanthaceae ..... "bog bean family"																						
<i>Menyanthes trifoliata</i> L.						12	11	30.5	18	32	177	48.5	68	12	15	28	8					
Plantaginaceae ..... "plantain family"																						
<i>Hippuris vulgaris</i> L.																1	7	1	1			
Unidentifiable plant taxa													4									
<b>Other:</b>																						
pre-Quaternary unknown 'A'		8	3	4	6		1															
Eocene coal															2			5	10	9	+++	+++
charcoal		40	49	15	1	1			3								1	6	7		3	
aquatic filamentous plant fragments		+	+	+	+	+	+												+			
wood/twigs		6	+	+	+	+			10	+	+											
aged rhizomes	+																				+	
woody herbaceous stem fragments										+	+	+		10%	+		15	+	+			
deciduous leaf													1							7		
carbonate precipitate		+	+	+		+		+											++	+	++	
Fe (orange) stained peds						+									+							
compacted sediment & peat peds						++	++	+	+	+	+	++	++	++	++	++		+				

Key: fr=fragment, nfr=needle fragment; pb=persistent bud; per=perigynium; sd=conifer seed; sdw=conifer seed wing; sp=seed & partial perigynium; sfr=stem fragments; tw=twig; +=present; ++=abundant; +++=very abundant

\*duplicate samples