

Appendix II. Porosity and Permeability from Core Samples.

[Well locations are shown in figure 1; well depth in feet below land surface; mD, millidarcy; g/cm, grams per centimeter]

Acronyms

ASC	aggradational subtidal cycle
BE	brackish environment
FE	freshwater environment
HFC	high frequency cycle
ME	marine environment
TF	Tamiami Formation
USPC	upward-shallowing paralic cycle
USSC	upward-shallow subtidal cycle

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Appendix II. Porosity and permeability from core samples.

Depth	HFC formation	Whole core					Helium porosity (percent)	Grain density (g/cm)	Lithofacies	Comments	
		Air permeability (mD)			Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$					Vertical K_{air}
		Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$	Vertical K_{air}							
Well G-3733											
46.25-46.44	HFC2d/2c2	138	94	66	17.4	2.70	Very sandy pelecypod floatstone and rudstone	Top and base of two USSCs			
48.63-48.79	HFC2c2	101	18	202	23.6	2.71	Very sandy pelecypod rudstone	Middle USSC			
49.04-49.42	HFC2c2	3,932	2,449	59	26.1	2.70	Same as above	Middle USSC			
49.67-49.92	HFC2c2	1,432	249	112	21.7	2.70	Same as above	Middle USSC			
Well G-3770											
4.05-4.22	HFC5e	4,564	1,531	7,099	41.6	2.66	Peloid packstone and grainstone	Lower ASC			
4.38-4.59	HFC4	2	0.3	0.02	10.1	2.70	Pedogenic limestone	Upper ASC			
4.76-5.01	HFC4	1,067	949	1,090	27.3	2.69	Peloid wackestone and packstone	Upper ASC			
9.00-9.29	HFC3b	0.2	0.03	0.02	12.5	2.70	Mudstone and wackestone	Upper USPC			
9.46-9.67	HFC3b	20	11	167	14.9	2.69	Same as above	Middle USPC			
9.94-10.23	HFC3b/a	1,345	1,125	1,142	22.7	2.69	Gastropod floatstone and rudstone	Top & base of two USSCs; gastropods indicate ME			
10.86-11.19	HFC3a	1,637	1,059	648	26.4	2.70	Skeletal packstone and grainstone	Upper USPC			
13.9-14.34	HFC3a	2,389	2,296	20,140	46.8	2.70	Same as above	Middle USPC			
14.34-14.74	HFC3a	3,471	2,726	18,802	45.8	2.70	Same as above	Middle USPC			
14.74-15.07	HFC3a	3,389	3,389	17,827	48.3	2.70	Same as above	Middle USPC			
18.49-18.78	HFC3a	3,278	3,278	13,992	26.6	2.69	<i>Planorbella</i> floatstone and rudstone	Lower USPC			
20.50-20.79	HFC2h	3,830	3,458	13,701	34.2	2.70	Skeletal packstone and grainstone	Upper USSC			
24.26-24.47	HFC2g3	11,232	11,232	10,294	47.7	2.70	Same as above	Lower USSC			
25.03-25.34	HFC2g2	5,616	5,616	14,886	32.6	2.70	Pelecypod floatstone and rudstone	Upper USSC			
25.63-25.92	HFC2g2	1,742	1,421	12,891	24.9	2.71	Vuggy wackestone and packstone	Upper USSC			
29.47-29.87	HFC2g1	361	2	18,551	22.2	2.71	Pelecypod floatstone and rudstone	Upper USPC			
30.04-30.27	HFC2g1	3,073	1,634	10,694	28.9	2.70	Same as above	Upper USPC			
37.69-38.02	HFC2e2	4,917	4,917	7,419	35.1	2.70	Skeletal packstone and grainstone	Upper USSC			
40.93-41.28	HFC2d	4,470	2,037	5,524	30.8	2.68	Sandy vuggy wackestone and packstone	Upper USSC			
44.88-45.21	HFC2c2	-	0.6	-	30.7	2.69	Skeletal packstone and grainstone	Upper USSC			
45.40-45.63	HFC2c2	7,375	3,361	2,481	27.8	2.70	Same as above	Upper USSC			
50.90-51.13	HFC2c2	0.2	0.2	3	17	2.70	Sandy skeletal packstone and grainstone	Lower USSC			
51.30-51.72	HFC2c2	14	0.2	0.1	17.7	2.71	Same as above	Lower USSC			
51.72-52.14	HFC2c2	0.2	0.1	0.1	16.6	2.69	Same as above	Lower USSC			
52.29-52.62	HFC2c2	20	0.3	0.1	21.1	2.70	Same as above	Lower USSC			
64.59-64.80	TF	1,956	1,831	1,236	28.2	2.74	Sandy pelecypod floatstone and rudstone				
64.92-65.38	TF	1,996	1,996	2,862	29.0	2.72	Same as above				
69.88-70.17	TF	1,983	63	296	19.7	2.72	Pelecypod floatstone and rudstone				
70.17-70.42	TF	1,402	1,329	343	22.6	2.72	Same as above				
70.42-70.67	TF	2,186	1,994	1,878	26.1	2.72	Same as above				
Well G-3771											
6.85-7.10	HFC4	0.04	0.04	13,108	15.0	2.68	Gastropod floatstone and rudstone	Upper ASC; no <i>Planorbella</i> , but FE			
7.10-7.40	HFC4	831	215	2,463	10.1	2.68	Conglomerate	Upper ASC			
7.40-7.70	HFC4	0.02	0.02	0.01	7.8	2.68	Conglomerate and pedogenic limestone	Lower ASC			
7.80-8.10	HFC4	694	600	1	16.9	2.68	Conglomerate	Lower ASC			
8.60-8.85	HFC3b	5	0.2	258	12.2	2.69	Mudstone and wackestone	Upper USPC			
8.85-9.10	HFC3b	1,511	1,151	3,152	15.7	2.68	Same as above	Upper USPC			
9.50-9.77	HFC3b	263	188	194	14.5	2.69	Same as above	Upper USPC			
9.89-10.10	HFC3b	1,717	1,552	1,277	19.7	2.69	Same as above	Upper USPC			

Appendix II. Porosity and permeability from core samples. (Continued)

Depth	HFC formation	Whole core					Helium porosity (percent)	Grain density (g/cm)	Lithofacies	Comments	
		Air permeability (mD)			Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$					Vertical K_{air}
		Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$	Vertical K_{air}							
Well G-3771—Continued											
10.23-10.56	HFC3b	667	601	370	19.7	2.69	Gastropod floatstone and rudstone	Lower USPC; ME			
10.56-10.85	HFC3b	2,350	2,268	13,272	29.7	2.68	Same as above	Lower USPC; ME			
11.15-11.40	HFC3b/a	329	270	317	24.1	2.70	Mudstone and wackestone; gastropod floatstone and rudstone	Top and base of 2 USPCs; gastropods indicate ME			
11.65-11.94	HFC3a	1,427	1,366	363	25.9	2.70	Skeletal packstone and grainstone	Upper USPC			
12.52-12.71	HFC3a	2,459	2,346	8,483	25.2	2.70	Same as above	Upper USPC			
12.98-13.19	HFC3a	1,528	1,251	4,877	26.9	2.71	Same as above	Upper USPC			
13.60-13.89	HFC3a	3,391	3,391	14,564	40.3	2.73	Touching-vug pelecypod floatstone and rudstone	Middle USPC			
14.06-14.40	HFC3a	2,731	1,306	16,468	42.1	2.72	Same as above	Middle USPC			
16.50-16.85	HFC3a	2,783	2,783	15,965	17.6	2.69	<i>Planorbella</i> floatstone and rudstone	Lower USPC			
16.88-17.09	HFC3a	3,427	3,182	9,885	17.6	2.69	Same as above	Lower USPC			
18.00-18.38	HFC2h	983	248	5	19.2	2.71	Skeletal packstone and grainstone	Upper USSC			
18.38-18.67	HFC2h	18	0.07	1	18.6	2.71	Same as above	Upper USSC			
18.67-19.02	HFC2h	10	0.5	1,925	23.3	2.71	Same as above	Upper USSC			
19.29-19.64	HFC2h	2135	813	16,070	24.6	2.70	Same as above	Upper USSC			
19.64-20.02	HFC2h	11,534	11,534	15,745	24.9	2.70	Pelecypod floatstone and rudstone	Lower USSC			
20.15-20.48	HFC2h	11,316	11,316	16,068	31.7	2.71	Same as above	Lower USSC			
20.61-20.98	HFC2h	10,615	10,615	17,158	30.3	2.71	Same as above	Lower USSC			
25.77-26.14	HFC2g2	10,341	5,168	17,428	15.9	2.70	<i>Planorbella</i> floatstone and rudstone	Upper USPC			
27.94-28.27	HFC2g2	11,646	11,646	15,674	25.9	2.70	Sandy skeletal packstone and grainstone	Lower USPC			
29.57-29.84	HFC2g1	1	0.04	1	13.1	2.71	Mudstone and wackestone	Upper USPC			
29.84-30.07	HFC2g1	0.04	0.04	0.5	13.2	2.71	Same as above	Upper USPC			
30.42-30.57	HFC2f	0.2	0.1	634	13.8	2.69	<i>Planorbella</i> floatstone and rudstone	Upper USPC; BE			
30.61-30.76	HFC2f	7	0.3	2057	17.5	2.70	Same as above	Upper USPC; BE			
31.58-31.91	HFC2f	527	41	787	20.1	2.69	Pelecypod floatstone and rudstone	Middle USPC			
32.16-32.41	HFC2f	7,887	7,887	5,732	22.7	2.70	Same as above	Middle USPC			
32.70-32.95	HFC2f	215	37	456	17.3	2.70	Same as above	Middle USPC			
32.95-33.24	HFC2f	314	70	492	18.5	2.71	Same as above	Middle USPC			
33.24-33.53	HFC2f	6,446	6,446	7,001	17.7	2.71	Same as above	Middle USPC			
34.18-34.47	HFC2f	14,112	14,112	6,410	34.9	2.71	Same as above	Lower USPC			
40.49-40.72	HFC2d	922	665	749	25.1	2.71	Skeletal packstone and grainstone	Upper USSC			
40.91-41.12	HFC2d	-	76	-	30.2	2.72	Same as above	Upper USSC			
47.93-48.03	HFC2c2	4	1	81	22.2	2.70	Same as above	Middle USSC			
48.23-48.52	HFC2c2	315	70	394	27.6	2.72	Same as above	Middle USSC			
49.06-49.27	HFC2c2	109	49	38	29.2	2.71	Same as above	Middle USSC			
49.27-49.50	HFC2c2	4,106	2,878	803	31.0	2.71	Same as above	Middle USSC			
49.65-49.88	HFC2c2	5,789	5,789	5,235	34.3	2.71	Same as above	Middle USSC			
50.09-50.15	HFC2c2	4,550	3,327	136	25.7	2.71	Same as above	Middle USSC			
54.21-54.46	TF	13	13	32	23.3	2.74	Same as above				
55.47-55.70	TF	36	12	116	19.0	2.74	Same as above				
55.89-56.08	TF	39	2	37	18.4	2.74	Same as above				
58.93-59.18	TF	2,650	2,467	2,490	26.3	2.77	Pelecypod floatstone and rudstone				
59.93-60.10	TF	4,825	4,669	2,077	38.2	2.79	Same as above				
74.27-74.44	TF	4,302	3,625	4,127	40.6	2.74	Sandy pelecypod floatstone and rudstone				
74.57-74.78	TF	7,091	7,091	5,116	40.3	2.72	Same as above				

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Appendix II. Porosity and permeability from core samples. (Continued)

Depth	HFC formation	Whole core					Helium porosity (percent)	Grain density (g/cm)	Lithofacies	Comments	
		Air permeability (mD)			Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$					Vertical K_{air}
		Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$	Vertical K_{air}							
Well G-3778 (Practice)											
8.46-8.73	HFC5e	1,684	79	220	40.4	2.70	Peloid packstone and grainstone	Upper ASC			
9.40-9.67	HFC5e	11,659	10,201	1,990	45.4	2.70	Same as above	Upper ASC			
9.92-10.11	HFC5e	1,116	966	14,750	46.1	2.70	Same as above	Upper ASC			
11.03-11.24	HFC5e	19,355	19,355	2,291	41.6	2.67	Same as above	Upper ASC			
13.08-13.48	HFC5e	10,178	9,159	3,605	43.2	2.69	Same as above	Upper ASC			
13.48-13.90	HFC5e	8,638	5,757	6,157	43.2	2.69	Same as above	Upper ASC			
13.90-14.28	HFC5e	10,356	10,356	3,727	44.7	2.69	Same as above	Upper ASC			
14.28-14.70	HFC5e	8,357	7312	2,687	44.7	2.68	Same as above	Upper ASC			
15.03-15.36	HFC5e	10,155	8,884	6,520	45.9	2.71	Same as above	Upper ASC			
15.86-16.15	HFC3b	0.02	0.001	0.001	7.2	2.70	Mudstone and wackestone	Upper USPC			
16.15-16.44	HFC3b	0.02	0.02	0.3	6.1	2.71	Same as above	Upper USPC			
16.69-16.82	HFC3b	19	0.3	8	7.2	2.73	Same as above	Upper USPC			
17.24-17.59	HFC3b	2,713	2,469	301	19.3	2.70	Pedogenic limestone	Upper USPC			
Well G-3778											
26.01-26.18	HFC3b	-	-	1,569	48.4	2.75	Pelecypod floatstone and rudstone	Lower USPC			
31.06-31.16	HFC3a	11,797	5,363	951	39.7	2.75	Same as above	Middle USPC			
31.75-31.65	HFC3a	22,704	22,704	2,213	40.8	2.73	Same as above	Middle USPC			
35.00-35.17	HFC3a	3,993	2,966	2,253	41.5	2.71	<i>Planorbella</i> floatstone and rudstone	Lower USPC			
35.54-35.87	HFC3a	217	4	602	24.3	2.70	Same as above	Lower USPC			
38.60-38.88	HFC2h	109	80	100	38.5	2.71	Skeletal grainstone and packstone	Upper USSC			
39.20-39.37	HFC2h	87	81	273	35.6	2.72	Pelecypod floatstone and rudstone	Upper USSC			
40.96-41.25	HFC2h	5,985	5,129	4,145	42.6	2.73	Same as above	Lower USSC			
52.27-52.52	HFC2e2	2,726	1,890	2,321	21.3	2.71	Mudstone and wackestone	Upper USPC			
54.16-54.43	HFC2d	28	4	588	22.2	2.71	Same as above	Upper USPC			
55.13-55.23	HFC2d	77	42	310	20.0	2.72	<i>Planorbella</i> floatstone and rudstone	Upper USPC			
59.20-59.47	HFC2d	20,467	20,467	2,452	23.5	2.70	Sandy pelecypod floatstone and rudstone	Lower USPC			
59.80-60.05	HFC2d	18,720	18,720	3,490	21.5	2.70	Same as above	Lower USPC			
Well G-3779											
14.93-15.26	HFC5e	2,703	2,101	2,121	47.0	2.72	Peloid packstone and grainstone	Upper ASC			
15.26-15.55	HFC5e	4,178	4,178	2,107	46.7	2.72	Same as above	Upper ASC			
15.75-15.96	HFC5e	17,818	9,646	1,347	44.2	2.70	Same as above	Upper ASC			
16.25-16.63	HFC5e	7,566	3,360	3,195	45.5	2.72	Same as above	Upper ASC			
16.63-17.09	HFC5e	7,805	6,829	2,973	47.6	2.72	Same as above	Upper ASC			
17.51-17.93	HFC5e	6,717	4,797	3,023	44.3	2.71	Same as above	Middle ASC			
17.93-18.39	HFC5e	7,101	4,436	2,239	44.4	2.71	Same as above	Middle ASC			
18.39-18.77	HFC5e	8,022	5,728	2,168	44.5	2.70	Same as above	Middle ASC			
21.60-21.85	HFC3b	0.001	0.001	0.001	5.5	2.71	Mudstone and wackestone	Upper USPC			
21.95-22.25	HFC3b	0.2	0.02	0.3	7.1	2.71	Same as above	Upper USPC			
24.38-24.57	HFC3b	5,268	4,811	1,652	46.9	2.79	Skeletal packstone and grainstone	Middle USPC			
25.53-26.03	HFC3b	7,228	6,424	4,169	50.2	2.81	Pelecypod floatstone and rudstone	Lower USPC			
26.95-27.18	HFC3b	14,754	-	2,103	45.5	2.76	Same as above	Lower USPC			
35.06-35.37	HFC3a	9,319	6,211	3,806	28.1	2.72	<i>Planorbella</i> floatstone and rudstone	Lower USPC			
46.80-46.97	HFC2g2	114	91	574	37.1	2.73	Skeletal packstone and grainstone	Upper USSC			
47.39-47.60	HFC2g2	358	26	801	35.4	2.75	Same as above	Middle USSC			

Appendix II. Porosity and permeability from core samples. (Continued)

Depth	HFC formation	Whole core					Helium porosity (percent)	Grain density (g/cm ³)	Lithofacies	Comments	
		Air permeability (mD)			Maximum horizontal K _{air}	Horizontal 90 × K _{air}					Vertical K _{air}
		Maximum horizontal K _{air}	Horizontal 90 × K _{air}	Vertical K _{air}							
Well G-3779—Continued											
47.60-47.81	HFC2g2	873	680	57	36.0	2.73	Same as above	Middle USSC			
49.18-49.31	HFC2f	4,595	3,201	1,682	29.6	2.72	Skeletal wackestone and packstone	Upper USPC			
49.50-49.63	HFC2f	10,813	7,053	893	25.6	2.73	Same as above	Upper USPC			
49.88-50.07	HFC2f	2,137	2,137	1,647	32.2	2.73	Same as above	Upper USPC			
52.19-52.57	HFC2e2	2,165	1,866	4,821	16.8	2.71	Mudstone and wackestone	Upper USPC			
54.30-54.68	HFC2d	49	33	365	24.1	2.72	Same as above	Upper USPC			
54.94-55.06	HFC2d	16	16	926	18.4	2.69	Same as above	Upper USPC			
58.21-58.42	HFC2d	17,621	17,621	4,697	26.7	2.71	Sandy pelecypod floatstone and rudstone	Lower USPC			
58.75-58.92	HFC2d	26,236	26,236	2,252	23.5	2.70	Same as above	Lower USPC			
59.09-59.26	HFC2d	25,120	268	2,588	12.0	2.69	Same as above	Lower USPC			
59.59-60.01	HFC2d	9,599	8,638	5,542	29.4	2.72	Same as above	Lower USPC			
Well G-3789											
10.29-10.46	HFC4	10,040	7,529	2,118	37.2	2.73	Peloid packstone and grainstone	Upper ASC			
13.68-13.93	HFC3b	2,470	1,082	159	8.6	2.70	Mudstone and wackestone	Upper USPC			
14.59-14.76	HFC3b	7,529	6,694	1,333	31.4	2.72	Skeletal packstone and grainstone	Middle USPC			
15.85-16.08	HFC3b	1,249	1,067	512	26.0	2.71	Pelecypod floatstone and rudstone	Lower USPC			
19.63-19.94	HFC3a	12,974	12,974	3,645	31.1	2.74	Mudstone and wackestone	Middle USPC			
20.15-20.44	HFC3a	12,213	10,855	2,566	21.5	2.72	Same as above	Middle USPC			
20.86-21.24	HFC3a	5,315	4,961	3,274	32.6	2.74	Pelecypod floatstone and rudstone	Middle USPC			
21.49-21.93	HFC3a	4,336	3,716	4,770	29.3	2.74	Same as above	Middle USPC			
22.06-22.56	HFC3a	7,484	6,235	4,189	33.5	2.75	Same as above	Middle USPC			
25.32-25.47	HFC3a	54	1	1,578	17.9	2.71	<i>Planorbella</i> floatstone and rudstone	Lower USPC			
27.67-28.00	HFC2h	1,529	782	2,465	23.1	2.72	Skeletal packstone and grainstone	Upper USSC			
28.00-28.27	HFC2h	2,784	2,784	1,966	23.1	2.71	Same as above	Upper USSC			
28.27-28.58	HFC2h	5,618	5,185	2,975	22.8	2.72	Same as above	Upper USSC			
28.88-29.07	HFC2h	5,784	3,439	2,170	20.8	2.72	Same as above	Upper USSC			
29.24-29.39	HFC2h	9,142	8,230	1,615	22.9	2.72	Same as above	Upper USSC			
29.68-30.03	HFC2h	506	250	495	22.6	2.73	Pelecypod floatstone and rudstone	Middle USSC			
31.61-32.15	HFC2h	77	46	4	29.4	2.73	Pelecypod floatstone and rudstone	Lower USSC			
32.23-32.56	HFC2h	214	184	255	32.0	2.73	Same as above	Lower USSC			
33.86-34.19	HFC2g3	41	0.4	0.1	22.1	2.73	Same as above	Upper USSC			
34.40-34.73	HFC2g3	696	365	184	25.1	2.72	Same as above	Middle USSC			
34.90-35.15	HFC2g3	1,096	888	1,232	30.0	2.73	Same as above	Middle USSC			
37.33-37.54	HFC2g2	0.4	0.2	0.05	18.4	2.71	Sandy mudstone and wackestone	Upper USPC			
40.66-40.87	HFC2f	38	0.4	61	18.1	2.73	<i>Planorbella</i> floatstone and rudstone	Upper USPC			
42.57-42.92	HFC2e2	0.02	0.001	2,840	13.5	2.71	Mudstone and wackestone	Upper USPC			
52.00-52.17	HFC2d	28	23	89	17.9	2.69	Sandy pelecypod floatstone and rudstone	Upper USSC			
53.10-53.56	HFC2d	1,874	1,055	238	25.8	2.69	Touching-vug pelecypod floatstone and rudstone with sandstone matrix	Lower USSC			
Well G-3790											
11.60-11.85	HFC4	11,017	9,442	1,727	16.8	2.70	Peloid wackestone and packstone	Upper ASC			
17.43-17.72	HFC4	43	28	31	11.2	2.69	Gastropod floatstone and rudstone	Lower ASC; no <i>Planorbella</i> , but FE			
18.17-18.42	HFC4	708	567	359	15.0	2.70	Conglomerate	Lower ASC			
18.55-18.71	HFC4	3,813	1,670	997	26.0	2.72	Same as above	Lower ASC			

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Appendix II. Porosity and permeability from core samples. (Continued)

Depth	HFC formation	Whole core					Helium porosity (percent)	Grain density (g/cm)	Lithofacies	Comments	
		Air permeability (mD)			Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$					Vertical K_{air}
		Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$	Vertical K_{air}							
Well G-3790—Continued											
22.79-23.00	HFC3a	4,478	4,277	507	27.0	2.73	Skeletal packstone and grainstone	Middle USPC			
24.00-24.33	HFC3a	10,076	7,195	2,084	27.7	2.73	Same as above	Middle USPC			
31.50-31.88	HFC3a	2,566	1,970	2,765	30.2	2.72	<i>Planorbella</i> floatstone and rudstone	Lower USPC			
31.88-32.25	HFC3a/2h	3,335	3,160	3,661	32.6	2.72	Sandy skeletal packstone and grainstone	Top USSC and base USPC			
32.25-32.54	HFC2h	2,016	1,328	3,268	28.2	2.72	Same as above	Upper USSC			
34.20-34.45	HFC2h	952	713	299	37.4	2.72	Sandy pelecypod floatstone and rudstone	Middle USSC			
39.31-39.69	HFC2g3	0.2	0.2	0.2	26.7	2.72	Sandy skeletal packstone and grainstone	Lower USSC			
40.54-40.96	HFC2g2	0.08	0.08	4,391	19.4	2.71	<i>Planorbella</i> floatstone and rudstone	Upper USPC			
41.21-41.50	HFC2g2	0.02	0.02	4	13.0	2.72	Same as above	Upper USPC			
41.68-41.95	HFC2g2	9	9	12	19.3	2.72	Same as above	Upper USPC			
42.38-42.71	HFC2g2	3,539	0.05	1,796	22.5	2.72	Skeletal packstone and grainstone	Middle USPC			
44.63-44.80	HFC2f	24	7	273	14.5	2.71	Mudstone and wackestone	Upper USPC			
49.76-50.01	HFC2e2	9,569	7,973	2,300	21.1	2.71	Same as above	Upper USPC			
50.18-50.42	HFC2e2	9,077	7,260	8	21.5	2.69	Same as above	Upper USPC			
52.98-53.23	HFC2e2	297	282	75	26.8	2.70	Skeletal packstone and grainstone	Middle USPC			
56.17-56.50	HFC2d	309	2	2	19.2	2.70	Sandy pelecypod floatstone and rudstone	Middle USPC			
57.83-57.71	HFC2d	380	6	0.5	22.1	2.70	Same as above	Middle USPC			
Well G-3791											
6.42-6.80	HFC5e	10,733	10,733	4,357	44.5	2.71	Peloid packstone and grainstone	Upper ASC			
7.05-7.38	HFC5e	12,695	12,695	4,423	49.4	2.69	Same as above	Upper ASC			
14.11-14.36	HFC4	734	291	1,750	21.6	2.68	Peloid wackestone and packstone	Middle ASC			
15.45-15.68	HFC4	560	453	255	24.6	2.69	Conglomerate	Lower ASC			
16.06-16.28	HFC3b	0.02	0.02	0.02	12.7	2.69	Mudstone and wackestone	Upper USPC			
16.47-16.80	HFC3b	476	0.2	7	14.7	2.70	Same as above	Upper USPC			
19.30-19.59	HFC3b	5,258	4,343	2,439	29.7	2.71	Skeletal packstone and grainstone	Middle USPC			
23.28-23.74	HFC3a	4,338	4,049	3,037	30.0	2.72	Same as above	Middle USPC			
24.41-24.66	HFC3a	15,535	13,980	2,858	30.0	2.72	Pelecypod floatstone and rudstone	Middle USPC			
24.91-25.24	HFC3a	8,994	8,994	3,097	32.7	2.72	Same as above	Middle USPC			
27.93-28.30	HFC3a	10,831	10,831	4,639	29.6	2.72	Touching-vug pelecypod floatstone and rudstone	Middle USPC			
29.25-29.67	HFC3a	6,663	3,805	4,054	19.7	2.70	<i>Planorbella</i> floatstone and rudstone	Lower USPC			
30.63-30.88	HFC2h	2,101	1,641	1,047	37.8	2.70	Same as above	Upper USPC			
32.00-32.29	HFC2h	1,084	658	1,016	29.5	2.71	Skeletal packstone and grainstone	Middle USPC			
32.83-33.25	HFC2h	8,854	6,885	4,117	45.4	2.73	Same as above	Middle USPC			
33.75-34.21	HFC2h	8,555	8,555	4,957	30.4	2.72	Sandy pelecypod floatstone and rudstone	Middle USPC			
34.38-34.80	HFC2h	8,854	6,885	3,050	22.2	2.71	Same as above	Middle USPC			
38.13-38.42	HFC2g3	6,413	5,557	1,936	31.6	2.72	Pelecypod floatstone and rudstone	Middle USPC			
38.63-38.96	HFC2g3	8,100	6,942	3,334	31.0	2.71	Same as above	Middle USPC			
41.21-41.59	HFC2g2	1,762	1,560	2,110	32.0	2.70	Skeletal packstone and grainstone	Middle USSC			
41.96-42.38	HFC2g2	2,634	2,406	3,304	36.0	2.71	Same as above	Middle USSC			
42.38-42.59	HFC2g2	4,338	3,407	2,223	32.0	2.70	Sandy touching-vug pelecypod floatstone and rudstone	Lower USSC			
43.42-43.65	HFC2f	16,346	14,529	2,125	25.5	2.71	Mudstone and wackestone	Upper USPC			
51.35-51.68	HFC2d	2,612	1,729	1,589	15.4	2.70	Same as above	Upper USPC			
51.68-52.06	HFC2d	2,472	1,831	6	17.7	2.70	Same as above	Upper USPC			

Appendix II. Porosity and permeability from core samples. (Continued)

Depth	HFC formation	Whole core					Helium porosity (percent)	Grain density (g/cm)	Lithofacies	Comments	
		Air permeability (mD)			Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$					Vertical K_{air}
		Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$	Vertical K_{air}							
Well G-3792											
13.15-13.35	HFC4	1	0.05	0.01	6.9	2.69	Conglomerate	Middle ASC			
14.41-14.58	HFC3b	4,247	4,106	769	17.4	2.70	Skeletal wackestone	Middle USPC			
26.06-26.39	HFC2g3	10,954	0.2	764	24.2	2.70	Pelecypod floatstone and rudstone	Upper USSC			
26.39-26.72	HFC2g3	2,082	2,005	1,405	30.1	2.71	Same as above	Upper USSC			
27.14-27.45	HFC2g3	812	462	1,337	18.3	2.71	Same as above	Middle USSC			
27.83-28.25	HFC2g3	4,123	4,123	3,265	16.9	2.71	Same as above	Middle USSC			
28.25-28.58	HFC2g3	7,454	6,211	2,502	20.1	2.72	Same as above	Middle USSC			
32.82-33.24	HFC2g1	3,836	564	296	18.4	2.71	Same as above	Middle USPC			
34.17-34.50	HFC2f	40	39	1	13.4	2.68	<i>Planorbella</i> floatstone and rudstone	Upper USPC			
34.50-34.88	HFC2f	589	346	0.02	15.5	2.69	Mudstone and wackestone	Upper USPC			
34.88-35.09	HFC2f	0.1	0.1	0.2	10.8	2.69	Sandy skeletal packstone and wackestone	Upper USPC			
38.63-38.96	HFC2e2	404	265	6	19.9	2.70	Sandy skeletal packstone	Upper USSC			
43.15-43.53	HFC2d	2	0.04	0.02	13.3	2.70	Skeletal sandstone	Upper USSC			
45.27-45.50	HFC2d	1,736	53	1,517	9.9	2.70	Same as above	Middle USSC			
45.60-45.98	HFC2d	699	470	3,333	8.3	2.69	Same as above	Middle USSC			
50.05-50.30	HFC2c2	15	0.4	591	19.7	2.70	Pelecypod floatstone to pelecypod-rich sandstone	Upper USSC			
51.69-51.98	HFC2c2	13,265	11,938	4,010	23.4	2.71	Sandy touching-vug pelecypod floatstone and rudstone	Upper USSC			
62.71-63.04	HFC2b	533	495	155	21.5	2.72	Pelecypod floatstone	Middle USSC			
66.81-67.06	HFC2a	0.3	0.02	0.2	13.8	2.71	Same as above	Upper USSC			
67.39-67.72	HFC2a	7,869	5,619	0.02	18.3	2.71	Same as above	Middle USSC			
67.72-68.05	HFC2a	8,022	4,199	1	17.5	2.71	Same as above	Middle USSC			
69.47-69.89	HFC2a	273	12	0.03	13.8	2.71	Same as above	Middle USSC			
76.00-76.25	HFC2a	23,984	4,012	1,387	30.8	2.72	Sandy touching-vug pelecypod floatstone and rudstone	Lower USSC			
Well G-3793											
6.98-7.27	HFC3a	283	271	463	13.6	2.71	Mudstone and wackestone	Upper USPC			
13.88-14.21	HFC2h	9,081	3,403	3,906	22.8	2.70	Skeletal packstone	Upper USSC			
17.21-17.63	HFC2h	4,268	3,047	3,067	17.9	2.71	Same as above	Middle USSC			
27.00-27.21	HFC2g2	962	3	5	22.8	2.71	Pelecypod floatstone and rudstone	Lower USSC			
28.68-29.01	HFC2f	12,480	9,599	3,023	31.2	2.72	Sandy skeletal packstone	Middle USSC			
29.18-29.60	HFC2f	19,318	15,000	1,502	23.4	2.73	Same as above	Middle USSC			
31.75-31.94	HFC2f	27,411	21,083	1,290	27.0	2.72	Sandy pelecypod floatstone	Lower USSC			
32.11-32.36	HFC2f	15,136	13,622	1,742	29.3	2.71	Sandy pelecypod floatstone	Lower USSC			
39.52-39.90	HFC2d	929	678	940	22.0	2.71	Sandy skeletal packstone	Middle USSC			
39.90-40.28	HFC2d	1,865	1,678	1,626	22.8	2.71	Same as above	Middle USSC			
40.44-40.73	HFC2d	571	28	1,657	20.1	2.72	Same as above	Middle USSC			
41.15-41.42	HFC2d	52	41	1,853	17.9	2.71	Same as above	Middle USSC			
52.98-53.25	HFC2b	3,616	2,218	357	27.1	2.70	Sandy pelecypod floatstone and rudstone	Upper USSC			
53.79-53.98	HFC2b	327	13	189	22.7	2.70	Same as above	Upper USSC			
63.95-64.12	TF	20,433	15,889	735	11.5	2.69	Same as above				
64.29-64.62	TF	12,171	10,954	2,042	14.5	2.69	Same as above				
64.92-64.96	TF	4,964	4,964	465	11.2	2.69	Same as above				

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Appendix II. Porosity and permeability from core samples. (Continued)

Depth	HFC formation	Whole core					Helium porosity (percent)	Grain density (g/cm)	Lithofacies	Comments	
		Air permeability (mD)			Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$					Vertical K_{air}
		Maximum horizontal K_{air}	Horizontal $90 \times K_{air}$	Vertical K_{air}							
Well G-3794											
6.82-7.09	HFC4	31	19	16	16.1	2.71	Peloid wackestone and packstone	Upper ASC			
7.42-7.67	HFC4	799	671	348	21.4	2.71	Same as above	Middle ASC			
8.65-8.92	HFC4/3b	366	40	19	13.1	2.70	Mudstone and wackestone	Top USPC and base ASC			
12.70-12.89	HFC3a	5,268	2,401	533	20.2	2.71	Laminated peloid packstone and grainstone	Middle USPC			
19.40-19.73	HFC2h	439	316	2,251	15.0	2.77	Skeletal packstone and grainstone	Upper USSC			
30.72-30.97	HFC2f	5,055	226	233	29.6	2.72	Same as above	Middle USPC			
63.13-63.38	TF	61	0.1	204	10.0	2.72	Sandy pelecypod floatstone and rudstone				
6.68-7.10	HFC5e	2,257	1,544	2,044	42.6	2.70	Peloid packstone and grainstone	Middle ASC			
9.38-9.63	HFC4	869	810	391	16.2	2.72	Conglomerate	Middle ASC			
17.63-18.01	HFC3a	10,356	692	1,032	12.8	2.71	Burrowed wackestone with minor quartz sand	Middle ASC			
20.18-20.60	HFC3a	4,333	3,999	1,930	23.2	2.70	<i>Planorbella</i> floatstone and rudstone	Lower ASC			
24.18-24.51	HFC2g3	2,317	1,958	3,592	22.0	2.71	Skeletal packstone and grainstone	Upper USSC			
59.23-59.65	TF	4,690	3,607	2,006	15.7	2.72	Skeletal packstone and grainstone				
61.02-61.52	TF	100	17	11	15.8	2.69	Same as above				
61.94-62.27	TF	2,807	2,010	638	26.4	2.74	Same as above				
64.07-64.57	TF	1,952	837	0.03	21.0	2.76	Pelecypod floatstone and rudstone				

Appendix III. Occurrence of Molluscan Taxa Identified in Selected Whole Core Samples.

[The numbers in column 3 (under reported formations) refer to the citations below for which the taxa (column 1) have been reported in a particular rock formation or formations. Complete references for the list of citations below are given in the "References Cited" section at the end of this report. mg/L, milligrams per liter]

Citations

1	Dall (1903)
2	DuBar (1958)
3	Lyons (1992)
4	Mansfield (1932)
5	Olsson (1967)
6	Olsson and Harbison (1953)
7	Olsson and Petit (1964)
8	Portell and others (1992)
9	Ward and Blackwelder (1987)

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Appendix III. Occurrence of molluscan taxa identified in selected whole core samples.

Taxa identification	Age range	Reported formations	Paleoenvironment	Additional comments
Well S-3168 (40.0-40.33 feet below land surface) – HFC2e2				
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Typically polyhaline-euhaline, 24,000-35,000 mg/L dissolved solids (can tolerate mesohaline to hypersaline, 16,000-40,000+ mg/L dissolved solids). Traditionally considered infaunal in sandy and mixed sand and mud bottoms, but found to be epifaunal in Florida Bay	
<i>Divaricella</i> sp.			Modern species often found in shallow water	
Pectenids				Large and small, relatively abundant
Well S-3168 (48.0-48.5 feet below land surface) – HFC2c2				
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	
<i>Trachycardium egmontium?</i>	Pliocene-Holocene	Bermont, Fort Thompson (8)		
<i>Trachycardium</i> sp.				Large, but only small part visible
Well S-3168 (56.5-56.83 feet below land surface) – HFC2c2				
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	
<i>Dosinia elegans?</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 8)	Typically considered oceanic, shallow shelf less than 40 feet, sandy bottom. Lyons (unpublished faunal list) has reported this species from Florida Bay	
<i>Luciniscia nassula?</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 8)	Common in shallow water; some references say to as deep as 1,200 feet	
<i>Turbo castanea</i>	Pliocene-Holocene	Caloosahatchee, Bermont (2, 3, 8)	Common shallow water species; epiphytic, especially abundant on <i>Thalassia</i> beds. Found in southern Florida today in salinities from about 25,000 mg/L dissolved solids to normal marine salinity	
Well S-3168 (57.0-57.25 feet below land surface) – HFC2c2				
<i>Anodontia alba</i>	Pliocene or Pleistocene-Holocene (some authors synonymize <i>Anodontia alba</i> and <i>Lucina chrysostoma</i> (Pliocene))	<i>Arca</i> and <i>Cancellaria</i> Zones of Choctawhatchee?; Bermont, Fort Thompson (4, 8)	Reported from a wide variety of environments from estuarine to moderate depths. 25,000-40,000 mg/L dissolved solids. Most references mention sand bottom	Very abundant for such a small sample piece. Several individuals articulated
<i>Astrarium phoebium?</i>	Holocene (undocumented reports of Pliocene age)	Undocumented reports of Caloosahatchee.	Common shallow water and intertidal species; typical in <i>Thalassia</i> beds	
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	
<i>Turritella subannulata</i>	Pliocene-Pleistocene, Holocene?	Caloosahatchee, Bermont, Fort Thompson (2, 3, 6, 8)	Typically found in euhaline water (30,000-40,000 mg/L dissolved solids) in 19.7-39.4 feet (6-12 meters) of water.	

Appendix III. Occurrence of molluscan taxa identified in selected whole core samples. (Continued)

Taxa identification	Age range	Reported formations	Paleoenvironment	Additional comments
Well S-3168 (72.0-72.5 feet below land surface) – HFC2a				
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	
<i>Nuculana</i> sp.			Modern species typical of outer estuarine and shallow shelf environments	
<i>Turritella subannulata</i>	Pliocene-Pleistocene, Holocene?	Caloosahatchee, Bermont, Fort Thompson (2, 3, 6, 8)	Same as <i>Turritella subannulata</i> for S-3168 (57.0-57.25 feet)	
Well S-3170 (19.5-20.25 feet below land surface) – HFC3a				
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	Limestone is too coarse and crumbly to preserve details – not able to identify many mollusks
<i>Phacoides (Bellucina) waccamawensis</i>	Late Pliocene-Pleistocene, Holocene? (seems to be synonymous with <i>Linga amiantus</i>)	Caloosahatchee, James City, Bermont, Fort Thompson (2, 8, 9)	Modern <i>Linga amiantus</i> typically lives in shallow estuarine or lower shoreface environments, in sand or mud; salinities range from 25,000-40,000 mg/L dissolved solids	Limestone is too coarse and crumbly to preserve details – not able to identify many mollusks
<i>Anodontia alba</i>	Pliocene or Pleistocene-Holocene (some authors synonymize <i>Anodontia alba</i> and <i>Lucina chrysostoma</i> (Pliocene))	<i>Arca</i> and <i>Cancellaria</i> Zones of Choctawhatchee?; Bermont, Fort Thompson (4, 8)	Same as <i>Anodontia alba</i> for S-3168 (57.0-57.25 feet)	Very abundant for such a small sample piece. Several individuals articulated
<i>Strombus</i> sp. (juvenile)				
<i>Luciniscia nassula</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 8)	Same as <i>Luciniscia nassula</i> for S-3168 (56.5-56.83 feet)	
Well S-3170 (27.0-28.33 feet below land surface) – HFC2g3				
Arcid			Modern Arcids often found in hard-bottom environments nestled into coral, sponge, and algal clumps	
<i>Cerithium</i> sp. cf. <i>C. vicinia</i>	Pliocene for <i>Cerithium vicinia</i>	Caloosahatchee for <i>Cerithium vicinia</i> (2, 6)	Modern <i>Cerithium</i> are found in a variety of environments from inner estuarine to marine. Many species associated with subaquatic vegetation. Recorded mg/L dissolved solids range from 15,000-40,000	
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	
<i>Diodora</i> sp.			Modern <i>Diodora</i> live in a variety of environments. In Florida Bay, they are found attached to <i>Thalassia</i> grass in polyhaline to euhaline water (20,000-37,000 mg/L dissolved solids). More commonly, they are found attached to hard substrates – rocks, coral rubble from intertidal to offshore	
<i>Bulla</i> sp.			Modern species in southern Florida often associated with large mats of macro-benthic algae	
<i>Glycymeris</i> sp.				

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Appendix III. Occurrence of molluscan taxa identified in selected whole core samples. (Continued)

Taxa identification	Age range	Reported formations	Paleoenvironment	Additional comments
<i>Modulus modulus</i>	Pliocene-Holocene	Caloosahatchee, "Bone Bed" at Leisey Pit which is between Bermont and Fort Thompson, Fort Thompson (2, 8)	Found in shallow water, usually protected water living on <i>Thalassia</i> grass; in Florida Bay from 20,000-40,000 mg/L dissolved solids	
Muricid				
Ostreid				
<i>Phacoides (Bellucina) waccamawensis</i>	Late Pliocene-Pleistocene, Holocene? (seems to be synonymous with <i>Linga amiantus</i>)	Caloosahatchee, James City, Bermont, Fort Thompson (2, 8, 9)	Same as <i>Phacoides (Bellucina) waccasmawensis</i> for S-3170 (19.5-20.25 feet)	
<i>Trachycardium</i> sp.				
<i>Vermicularia spirata</i>	Late Pliocene-Holocene	Chowan River, James City, Caloosahatchee, Choctawhatchee, which is equivalent to the James River (2, 6, 9)	Common in shallow water; adults partially embedded in sponges and colonial Ascidians	
Well S-3170 (39.5-40.33 feet below land surface) – HFC2e2				
<i>Anodontia alba</i>	Pliocene or Pleistocene-Holocene (some authors synonymize <i>Anodontia alba</i> and <i>Lucina chrysostoma</i> (Pliocene))	<i>Arca</i> and <i>Cancellaria</i> Zones of Choctawhatchee?; Bermont, Fort Thompson (4, 8)	Same as <i>Anodontia alba</i> for S-3168 (57.0-57.25 feet).	
<i>Cerithium</i> sp. cf. <i>C. vicinia</i>	Pliocene for <i>Cerithium vicinia</i>	Caloosahatchee for <i>Cerithium vicinia</i> (2, 6)	Same as <i>Cerithium</i> sp. cf. <i>C. vicinia</i> for S-3170 (27.0-28.33 feet)	
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chion cancellata</i> for S-3168 (40.0-40.33 feet)	
<i>Codakia orbicularis</i>	Pliocene-Holocene	Caloosahatchee, Bermont (2, 8)	Commonly considered an ocean shelf species, occurring at depths greater than 30 ft in sand; salinities 25,000-40,000 mg/L dissolved solids, but modern Florida species found in shallow water, usually near grass flats	
<i>Conus</i> sp.				
<i>Lithopoma americanum</i>	Only reported as Holocene		Commonly found in shallow water under rocks, around small solitary corals, and in grass beds. Typical of mixed hard bottom communities in southern Florida today. Typical marine salinities	
<i>Modulus modulus</i>	Pliocene-Holocene	Caloosahatchee, "Bone Bed" at Leisey Pit which is between Bermont and Fort Thompson, Fort Thompson (2, 8)	Same a <i>Modulus modulus</i> for S-3170 (27.0-28.33 feet)	
<i>Oliva</i> sp.				

Appendix III. Occurrence of molluscan taxa identified in selected whole core samples. (Continued)

Taxa identification	Age range	Reported formations	Paleoenvironment	Additional comments
Pectenid (juvenile)				
<i>Phacoides (Bellucina) waccamawensis</i>	Late Pliocene-Pleistocene, Holocene? (seems to be synonymous with <i>Linga amiantus</i>)	Caloosahatchee, James City, Bermont, Fort Thompson (2, 8, 9)	Same as <i>Phacoides (Bellucina) waccamawensis</i> for S-3170 (19.5-20.25 feet)	
<i>Trachycardium</i> sp. cf. <i>T. muricatum</i>	Pliocene-Holocene for <i>Trachycardium muricatum</i>	Caloosahatchee, Fort Thompson for <i>T. muricatum</i> (2)		
<i>Turbo castanea</i>	Pliocene-Holocene	Caloosahatchee, Bermont (2, 3, 8)	Same as <i>Turbo castanea</i> for S-3168 (56.5-56.83 feet)	Has high beading around umbilicus
<i>Turritella</i> sp.				
Well S-3170 (46.5-47.33 feet below land surface) – HFC2c2				
<i>Anachis</i> sp.				
<i>Anadara aequalitas</i>	Pliocene-Pleistocene	Caloosahatchee, Bermont (Unit A of Olsson and Petit, 1964) (2, 6, 7)	Same as <i>Arcid</i> for S-3170 (27.0-28.33 feet)	
<i>Carolinapecten eboreus</i> group				
<i>Cerithium</i> sp. cf. <i>C. vicinia</i>	Pliocene for <i>Cerithium vicinia</i>	Caloosahatchee for <i>Cerithium vicinia</i> (2, 6)	Same as <i>Cerithium</i> sp. cf. <i>C. vicinia</i> for S-3170 (27.0-28.33 feet)	
<i>Chione cancellata?</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	Possibly beginning to grade into <i>Chione procancellata?</i> Concentric ribs relatively closely spaced
Well S-3170 (52.42-52.75 feet below land surface) – HFC2c2				
<i>Anodontia alba</i>	Pliocene or Pleistocene-Holocene (some authors synonymize <i>Anodontia alba</i> and <i>Lucina chrysostoma</i> (Pliocene))	<i>Arca</i> and <i>Cancellaria</i> Zones of Choctawhatchee?; Bermont, Fort Thompson (4, 8)	Same as <i>Anodontia alba</i> for S-3168 (57.0-57.25 feet).	
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	Looks like true <i>Chione cancellat</i>
<i>Divaricella compsa</i>	Pliocene-Pleistocene	Caloosahatchee, Fort Thompson? (Olsson and Harbinson's Ft. Thompson locality) (1, 2, 6)	Modern species often found in shallow water	
<i>Dosinia elegans</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 8)	Same as <i>Dosinia elegans</i> for S-3168 (56.5-56.83 feet)	Relatively abundant

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Appendix III. Occurrence of molluscan taxa identified in selected whole core samples. (Continued)

Taxa identification	Age range	Reported formations	Paleoenvironment	Additional comments
<i>Phacoides (Bellucina) waccamawensis</i>	Late Pliocene-Pleistocene, Holocene? (seems to be synonymous with <i>Linga amiantus</i>)	Caloosahatchee, James City, Bermont, Fort Thompson (2, 8, 9)	Same as <i>Phacoides (Bellucina) waccamawensis</i> for S-3170 (19.5-20.25 feet)	
<i>Trachycardium</i> sp.				
<i>Turbo castanea</i>	Pliocene-Holocene	Caloosahatchee, Bermont (2, 3, 8)	Same as <i>Turbo castanea</i> for S-3168 (56.5-56.83 feet)	
<i>Turritella apicalis</i>	Pliocene	Caloosahatchee (2, 6)		Specimens are small juveniles
Well S-3170 (58.33-58.5 feet below land surface) – HFC2b				
<i>Glycymeris</i> sp.				
<i>Turritella</i> sp				
Well S-3170 (70.0-70.42 feet below land surface) – HFC2a				
<i>Chione cancellata</i>	Pliocene-Holocene	Caloosahatchee, Bermont, Fort Thompson (2, 3, 8)	Same as <i>Chione cancellata</i> for S-3168 (40.0-40.33 feet)	
<i>Nuculana acuta</i>	Late Pliocene, Pleistocene, Holocene	Caloosahatchee, Chowan River, James City, Bermont, Fort Thompson (2, 6, 8, 9)	Shallow outer estuarine and shallow shelf environments less than 40 ft; 25,000-40,000 mg/L dissolved solids. In sand or mud	
<i>Parastarte triquetra</i>	Pliocene-Holocene	<i>Cancellaria</i> zone; Caloosahatchee, Fort Thompson (2, 4, 8)	Sand bars and mud flats, relatively shallow water. In Florida Bay, found as far up as Pass Key, which can be mesohaline	
Well S-3170 (95.0-95.58 feet below land surface) – Tamiami Formation				
<i>Chione procancellata?</i>	Pliocene	<i>Cancellaria</i> zone; Pinecrest equivalent (4)		Ribs very closely spaced for typical <i>Chione cancellata</i>
<i>Cyclocardia</i> sp. cf. <i>C. granulata</i>	Early Pliocene-Early Pleistocene for <i>C. granulata</i>	Yorktown, Chowan River, James City for <i>C. granulata</i> (9)		Abundant in sample
<i>Cymatoica marcottae</i>	Pliocene?	“St. Petersburg Fossil Beds”, probably Caloosahatchee (7)		
<i>Lirophora</i> sp.				
<i>Terebra aclinica</i>	Pliocene	Pinecrest Beds, Tamiami (5)		
<i>Turritella</i> sp.				