

## **APPENDIX C**

### **Raw Sediment Sample Data from S & S Analytics**

**S&S Analytics Data Report for percent organic matter**

% Organics

**DRAFT**

Lab ID	pan wt	Pan #	wet wt	dry wt	% Organics	Lab ID
<b>Cove 7 # 1</b>	96.33		249.61	247.65	1.28	Cove 7 # 1
<b>Cove 8 # 1</b>	96.33		191.66	188.57	3.24	Cove 8 # 1
<b>Sioux # 1</b>	96.33		168.00	165.87	2.97	Sioux # 1
<b>11-1</b>	96.33		191.50	189.53	2.07	11-1
<b>4-1</b>	93.83		116.48	110.42	26.75	4-1
<b>4-1</b>	97.18		113.83	106.09	46.49	4-1
Sum of 4-1					<b>73.24</b>	
<b>Cove 11 # 2</b>	96.33		210.89	201.98	7.78	Cove 11 # 2
<b>Cove 6 # 3</b>	96.33		207.04	197.98	8.18	Cove 6 # 3
<b>Cove 7 # 2</b>	96.33		213.24	207.57	4.85	Cove 7 # 2
<b>Cove 7 # 3</b>	96.33		192.86	187.63	5.42	Cove 7 # 3
<b>Cove 8 # 3</b>	96.33		217.25	205.34	9.85	Cove 8 # 3
<b>Sioux cove # 2</b>	96.33		183.24	173.68	11.00	Sioux cove # 2
<b>Cove 8 # 2</b>	96.33		190.81	180.00	11.44	Cove 8 # 2
<b>Cove 6 # 2</b>	96.33		192.48	178.71	14.32	Cove 6 # 2
<b>13-3</b>	96.33		216.49	207.64	7.37	13-3
<b>13-2</b>	96.33		199.83	189.19	10.28	13-2
<b>13-1</b>	96.33		180.18	162.81	20.72	13-1
<b>Cove 6 # 1</b>	96.33		224.21	210.58	10.66	Cove 6 # 1
<b>Cove 11 # 3</b>	96.33		203.10	194.48	8.07	Cove 11 # 3
<b>4-2</b>	97.17		186.72	179.25	8.34	4-2
<b>4-3</b>	96.33		185.43	177.83	8.53	4-3
	96.33				0.00	
	96.33				0.00	

0  
0

**S&S Analytics Report for Particle Size Analysis**

**Sample Name** Cove 4 #1 Primarily  
Organic Matter  
**Sample Pre Wt.** 456.3

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>	<b>mm</b>	<b>in</b>
<b>NO. 4</b>		Unable to Sieve	#VALUE!	#VALUE!	4.76	0.187
<b>NO. 8</b>		Unable to Sieve	#VALUE!	#VALUE!	2.38	0.0937
<b>NO. 16</b>		Unable to Sieve	#VALUE!	#VALUE!	1.19	0.0469
<b>NO. 30</b>		Unable to Sieve	#VALUE!	#VALUE!	0.595	0.0234
<b>NO. 50</b>		Unable to Sieve	#VALUE!	#VALUE!	0.297	0.0117
<b>NO. 100</b>		Unable to Sieve	#VALUE!	#VALUE!	0.149	0.0059
<b>PAN</b>		Unable to Sieve	#VALUE!	#VALUE!	<0.149	

**Smample Final Wt** #VALUE!  
**% Error** #VALUE!

**Sample Name** Cove 4 #2  
**Sample Pre Wt.** 1284.1

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.5	527.5	0	0.00%
<b>NO. 8</b>	728.6	728.6	0	0.00%
<b>NO. 16</b>	431.8	432.2	0.4	0.03%
<b>NO. 30</b>	400.7	623.9	223.2	17.43%
<b>NO. 50</b>	368.7	514.7	146	11.40%
<b>NO. 100</b>	329.9	441.4	111.5	8.71%
<b>PAN</b>	373.2	1172.7	799.5	62.43%

**Smample Final Wt** 1280.6  
**% Error** -0.27%

**Sample Name** Cove 4 #3  
**Sample Pre Wt.** 1279.9

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	528	649.1	121.1	9.47%
<b>NO. 8</b>	728.9	740.6	11.7	0.92%
<b>NO. 16</b>	432.3	571.7	139.4	10.91%
<b>NO. 30</b>	400.9	502.6	101.7	7.96%
<b>NO. 50</b>	368.8	468.8	100	7.82%
<b>NO. 100</b>	330	476.5	146.5	11.46%
<b>PAN</b>	373	1030.9	657.9	51.47%

**Smample Final Wt** 1278.3  
**% Error** -0.13%

**Sample Name** Cove 6 #1

**Sample Pre Wt.** 1486.2

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.5	669.8	142.3	9.59%
<b>NO. 8</b>	729.6	780	50.4	3.40%
<b>NO. 16</b>	432.8	478.2	45.4	3.06%
<b>NO. 30</b>	402.4	641.6	239.2	16.12%
<b>NO. 50</b>	368.9	671.8	302.9	20.41%
<b>NO. 100</b>	329.9	605.9	276	18.60%
<b>PAN</b>	373.8	801.8	428	28.84%

**Smample Final Wt** 1484.2  
**% Error** -0.13%

**Sample Name** Cove 6 #2

**Sample Pre Wt.** 1297.8

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.7	532.6	4.9	0.38%
<b>NO. 8</b>	728.6	733.1	4.5	0.35%
<b>NO. 16</b>	432.6	441	8.4	0.65%
<b>NO. 30</b>	400.8	974.1	573.3	44.20%
<b>NO. 50</b>	368.7	653.6	284.9	21.96%
<b>NO. 100</b>	330	679.1	349.1	26.91%
<b>PAN</b>	373.1	445.2	72.1	5.56%

**Smample Final Wt** 1297.2  
**% Error** -0.05%

**Sample Name** Cove 6 #3

**Sample Pre Wt.** 1004.4

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.4	532.2	4.8	0.48%
<b>NO. 8</b>	728.7	739.2	10.5	1.05%
<b>NO. 16</b>	432.2	532.2	100	9.96%
<b>NO. 30</b>	400.5	638.8	238.3	23.74%
<b>NO. 50</b>	368.5	513.7	145.2	14.47%
<b>NO. 100</b>	329.7	442.5	112.8	11.24%
<b>PAN</b>	372.9	765.1	392.2	39.07%

**Smample Final Wt** 1003.8  
**% Error** -0.06%

**Sample Name** Cove 7 #1 (1 of 2)

**Sample Pre Wt.** N/A

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	528	1059.2	531.2	36.02%
<b>NO. 8</b>	730	867.6	137.6	9.33%
<b>NO. 16</b>	432.9	544.4	111.5	7.56%
<b>NO. 30</b>	401.1	748.7	347.6	23.57%
<b>NO. 50</b>	368.8	552.4	183.6	12.45%
<b>NO. 100</b>	329.9	395.7	65.8	4.46%
<b>PAN</b>	373.1	470.5	97.4	6.60%

**Smample Final Wt** 1474.7  
**% Error** #VALUE!

**Sample Name** Cove 7 #1 (2 of 2)

**Sample Pre Wt.** 1917.1

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.6	1236	708.4	36.99%
<b>NO. 8</b>	728.8	916.1	187.3	9.78%
<b>NO. 16</b>	432.6	572.8	140.2	7.32%
<b>NO. 30</b>	400.7	880.1	479.4	25.03%
<b>NO. 50</b>	368.6	581.3	212.7	11.11%
<b>NO. 100</b>	329.8	381.7	51.9	2.71%
<b>PAN</b>	373.1	508.5	135.4	7.07%

**Smample Final Wt** 1915.3  
**% Error** -0.09%

**Sample Name** Cove 7 #2 (1 of 2)

**Sample Pre Wt.** N/A

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.7	681.3	153.6	11.62%
<b>NO. 8</b>	729	932.9	203.9	15.43%
<b>NO. 16</b>	432.2	663.5	231.3	17.50%
<b>NO. 30</b>	401.2	871.4	470.2	35.58%
<b>NO. 50</b>	368.7	471.2	102.5	7.76%
<b>NO. 100</b>	329.9	447.8	117.9	8.92%
<b>PAN</b>	373.2	415.5	42.3	3.20%

**Smample Final Wt** 1321.7  
**% Error** #VALUE!

**Sample Name** Cove 7 #2 (2 of 2)

**Sample Pre Wt.** 1742.6

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.5	791.3	263.8	15.16%
<b>NO. 8</b>	728.3	991	262.7	15.09%
<b>NO. 16</b>	431.8	776.2	344.4	19.79%
<b>NO. 30</b>	400.9	1048.5	647.6	37.21%
<b>NO. 50</b>	368.8	459.7	90.9	5.22%
<b>NO. 100</b>	330	422.2	92.2	5.30%
<b>PAN</b>	373.1	411.9	38.8	2.23%

**Smample Final Wt** 1740.4  
**% Error** -0.13%

**Sample Name** Cove 7 #3

**Sample Pre Wt.** 2083.2

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.8	535.5	7.7	0.38%
<b>NO. 8</b>	728.3	731.9	3.6	0.18%
<b>NO. 16</b>	432.1	1319.9	887.8	44.26%
<b>NO. 30</b>	401.4	947.1	545.7	27.21%
<b>NO. 50</b>	369.3	804.7	435.4	21.71%
<b>NO. 100</b>	330.4	428.5	98.1	4.89%
<b>PAN</b>	373.2	400.6	27.4	1.37%

**Smample Final Wt** 2005.7  
**% Error** -3.72%

**Sample Name** Cove 8 #1

**Sample Pre Wt.** 1626.9

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.8	592.7	64.9	3.99%
<b>NO. 8</b>	728.2	765.5	37.3	2.29%
<b>NO. 16</b>	432	461.9	29.9	1.84%
<b>NO. 30</b>	400.8	512.3	111.5	6.86%
<b>NO. 50</b>	369.1	1044.8	675.7	41.56%
<b>NO. 100</b>	330	775.2	445.2	27.38%
<b>PAN</b>	373	634.4	261.4	16.08%

**Smample Final Wt** 1625.9  
**% Error** -0.06%

**Sample Name** Cove 8 #2

**Sample Pre Wt.** 1538.3

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.5	533.2	5.7	0.37%
<b>NO. 8</b>	728.3	731.1	2.8	0.18%
<b>NO. 16</b>	431.9	436.1	4.2	0.27%
<b>NO. 30</b>	400.7	811.6	410.9	26.75%
<b>NO. 50</b>	368.9	651.1	282.2	18.37%
<b>NO. 100</b>	330.3	703.1	372.8	24.27%
<b>PAN</b>	373	830.4	457.4	29.78%

**Smample Final Wt** 1536  
**% Error** -0.15%

**Sample Name** Cove 8 #3

**Sample Pre Wt.** 1237.4

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.7	830.1	302.4	24.08%
<b>NO. 8</b>	728.6	766.4	37.8	3.01%
<b>NO. 16</b>	432.4	520.4	88	7.01%
<b>NO. 30</b>	400.6	535.2	134.6	10.72%
<b>NO. 50</b>	369.2	453.6	84.4	6.72%
<b>NO. 100</b>	330.2	513.7	183.5	14.61%
<b>PAN</b>	373	798.3	425.3	33.86%

**Smample Final Wt** 1256  
**% Error** 1.50%

**Sample Name** Cove 11 #1

**Sample Pre Wt.** 2266

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.6	595.2	67.6	3.01%
<b>NO. 8</b>	728.3	762.2	33.9	1.51%
<b>NO. 16</b>	453.2	486.3	33.1	1.48%
<b>NO. 30</b>	404.5	1218.4	813.9	36.27%
<b>NO. 50</b>	369.9	1052.7	682.8	30.43%
<b>NO. 100</b>	330.4	710.3	379.9	16.93%
<b>PAN</b>	373.3	605.9	232.6	10.37%

**Smample Final Wt** 2243.8  
**% Error** -0.98%

**Sample Name** Cove 11 #2

**Sample Pre Wt.** 824.7

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.6	680.6	153	18.60%
<b>NO. 8</b>	728.4	823.8	95.4	11.60%
<b>NO. 16</b>	432.8	472.1	39.3	4.78%
<b>NO. 30</b>	401.6	535.6	134	16.29%
<b>NO. 50</b>	369.2	451.4	82.2	9.99%
<b>NO. 100</b>	330.2	388.9	58.7	7.14%
<b>PAN</b>	373.1	633.1	260	31.61%

**Smample Final Wt** 822.6  
**% Error** -0.25%

**Sample Name** Cove 11 #3

**Sample Pre Wt.** 2043

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.6	849.1	321.5	15.74%
<b>NO. 8</b>	728.9	771.1	42.2	2.07%
<b>NO. 16</b>	432.5	464.9	32.4	1.59%
<b>NO. 30</b>	400.9	765.7	364.8	17.86%
<b>NO. 50</b>	369.1	910.6	541.5	26.52%
<b>NO. 100</b>	330.6	854.6	524	25.66%
<b>PAN</b>	373.1	588.7	215.6	10.56%

**Smample Final Wt** 2042  
**% Error** -0.05%

**Sample Name** Cove 13 #1

**Sample Pre Wt.** 695

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.9	567.2	39.3	5.68%
<b>NO. 8</b>	729.6	879.6	150	21.67%
<b>NO. 16</b>	432.3	598.2	165.9	23.97%
<b>NO. 30</b>	400.8	462.6	61.8	8.93%
<b>NO. 50</b>	368.7	428.2	59.5	8.60%
<b>NO. 100</b>	329.9	404.2	74.3	10.73%
<b>PAN</b>	373.1	514.5	141.4	20.43%

**Smample Final Wt** 692.2  
**% Error** -0.40%

**Sample Name** Cove 13 #2

**Sample Pre Wt.** 1632.3

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.7	588.1	60.4	3.70%
<b>NO. 8</b>	728.8	764.5	35.7	2.19%
<b>NO. 16</b>	432.8	462.1	29.3	1.80%
<b>NO. 30</b>	401.5	842.4	440.9	27.03%
<b>NO. 50</b>	369.2	732.4	363.2	22.27%
<b>NO. 100</b>	330.4	641.5	311.1	19.08%
<b>PAN</b>	373.1	763.4	390.3	23.93%

**Smample Final Wt** 1630.9  
**% Error** -0.09%

**Sample Name** Cove 13 #3

**Sample Pre Wt.** 1657.8

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.7	831	303.3	18.31%
<b>NO. 8</b>	728.9	949.5	220.6	13.31%
<b>NO. 16</b>	431.8	565.9	134.1	8.09%
<b>NO. 30</b>	400.7	517.2	116.5	7.03%
<b>NO. 50</b>	368.6	585.3	216.7	13.08%
<b>NO. 100</b>	329.8	560.4	230.6	13.92%
<b>PAN</b>	372.9	808	435.1	26.26%

**Smample Final Wt** 1656.9  
**% Error** -0.05%

**Sample Name** Sioux #1

**Sample Pre Wt.** 1143.6

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	528	537.2	9.2	0.80%
<b>NO. 8</b>	729.2	735.3	6.1	0.53%
<b>NO. 16</b>	432.2	442.6	10.4	0.91%
<b>NO. 30</b>	400.6	557.9	157.3	13.76%
<b>NO. 50</b>	368.9	517.8	148.9	13.03%
<b>NO. 100</b>	330	477.4	147.4	12.89%
<b>PAN</b>	373.1	1036.9	663.8	58.07%

**Smample Final Wt** 1143.1  
**% Error** -0.04%

**Sample Name** Sioux #2

**Sample Pre Wt.** 959.6

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>	527.9	545.1	17.2	1.79%
<b>NO. 8</b>	728.6	738.7	10.1	1.05%
<b>NO. 16</b>	432.5	436.2	3.7	0.39%
<b>NO. 30</b>	401.3	499.9	98.6	10.28%
<b>NO. 50</b>	369.4	447	77.6	8.09%
<b>NO. 100</b>	330.3	450.7	120.4	12.55%
<b>PAN</b>	373.3	1005	631.7	65.85%

**Smample Final Wt** 959.3  
**% Error** -0.03%

**Sample Name**

**Sample Pre Wt.**

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>			0	#DIV/0!
<b>NO. 8</b>			0	#DIV/0!
<b>NO. 16</b>			0	#DIV/0!
<b>NO. 30</b>			0	#DIV/0!
<b>NO. 50</b>			0	#DIV/0!
<b>NO. 100</b>			0	#DIV/0!
<b>PAN</b>			0	#DIV/0!

**Smample Final Wt** 0  
**% Error** #DIV/0!

**Sample Name**

**Sample Pre Wt.**

	<b>Pan Wt.</b>	<b>Pan &amp; Sample Wt.</b>	<b>Smample Wt.</b>	<b>% of Total</b>
<b>NO. 4</b>			0	#DIV/0!
<b>NO. 8</b>			0	#DIV/0!
<b>NO. 16</b>			0	#DIV/0!
<b>NO. 30</b>			0	#DIV/0!
<b>NO. 50</b>			0	#DIV/0!
<b>NO. 100</b>			0	#DIV/0!
<b>PAN</b>			0	#DIV/0!

**Smample Final Wt** 0  
**% Error** #DIV/0!

<b>Soil Type</b>	<b>Particle Diameter, mm</b>
Coarse sand	0.5 – 1
Medium sand	0.25 – 0.5
Fine sand	0.1 – 0.25
Very fine sand	0.005 – 0.1
Silt	0.002 – 0.05
Clay	<0.002

TSS = portion retained on a 2.0um (0.002mm) filter  
clay passes through, silts and sand retained