

**APPENDIX B**  
**DESORPTION KINETICS EXPERIMENT RESULTS**

**Table 1B Desorption Kinetics Experiment Sampling Event #1  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	<i>1.72</i>	1.20	0.00	0.00	0.00	0.00	10.54	0.00	44.49	58	1	4
SB-1, 5 ft dup	0.00	<i>1.87</i>	1.22	0.00	0.00	0.00	0.00	10.56	0.00	45.91	60	1	4
SB-1, 6 ft	<i>0.00</i>	109.06	626.57	293.07	272.70	106.06	64.03	58.64	146.01	166.97	1843	281	90
SB-1, 6 ft dup	<i>10.27</i>	122.56	654.52	303.26	269.60	109.56	61.09	56.45	144.11	172.87	1904	292	87
SB-1, 7 ft	6047.09	145.29	714.66	333.51	297.20	134.77	63.84	58.02	145.32	166.33	8106	325	89
SB-1, 7 ft dup	3940.79	135.40	678.43	322.35	278.24	131.95	60.71	54.59	144.57	166.55	5914	309	87
SB-2, 5 ft	0.13	<i>2.22</i>	1.29	0.00	4.18	0.00	0.00	10.49	0.00	44.44	63	2	3
SB-2, 5 ft dup	0.54	<i>3.57</i>	0.00	0.00	4.24	0.00	<i>9.61</i>	10.54	0.00	48.68	77	2	7
SB-2, 6 ft	0.00	<i>2.93</i>	8.85	32.93	33.75	8.04	10.69	11.21	38.26	44.21	191	17	20
SB-2, 6 ft dup	0.00	<i>2.79</i>	7.17	29.27	26.40	7.87	10.46	10.99	37.67	43.92	177	15	20
SB-2, 7 ft	0.00	<i>60.71</i>	584.44	282.20	151.98	52.94	72.46	60.82	144.68	165.45	1576	226	93
SB-2, 7 ft dup	0.00	36.94	451.49	284.31	177.54	49.29	68.92	59.48	143.86	170.24	1442	200	91
SB-3, 6 ft	0.00	<i>1.90</i>	1.21	0.00	4.21	0.00	0.00	10.48	0.00	44.19	62	1	3
SB-3, 7 ft	0.00	<i>3.68</i>	13.62	19.44	50.13	12.85	15.46	13.93	37.93	45.12	212	20	22
SB-3, 7 ft dup	0.00	<i>3.69</i>	13.85	22.99	47.01	11.86	14.08	13.02	37.78	43.78	208	20	22
SB-3, 8 ft	9700.49	142.83	596.14	161.37	192.87	59.78	54.55	52.31	143.84	170.47	11275	231	84
SB-3, 8 ft dup	10250.54	143.56	594.14	161.37	199.22	61.42	54.15	50.10	143.72	166.71	11825	232	83
SB-4, 8 ft	<i>0.00</i>	<i>1.20</i>	0.00	0.00	0.00	0.00	0.00	10.83	0.00	51.02	63	0	4
SB-4, 9 ft	0.00	<i>1.22</i>	0.00	0.00	0.00	0.00	0.00	10.51	0.00	43.65	55	0	4
SB-4, 10 ft	<i>3602.37</i>	121.36	598.14	<i>233.34</i>	<i>117.14</i>	78.78	59.52	54.72	144.18	168.15	5178	230	86
SB-5, 8 ft	0.00	<i>1.56</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.89	44	0	0
SB-5, 9 ft	0.00	<i>1.43</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.96	45	0	0
SB-5, 9 ft dup	0.00	<i>1.60</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.98	46	0	0
Blank	0.00	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.95	46	0	0

*\*denotes outlier*

**Table 2B Desorption Kinetics Experiment Sampling Event #2  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	<b>1.69</b>	0.00	0.00	<b>4.23</b>	<b>6.12</b>	<b>9.62</b>	10.58	0.00	44.72	<b>77</b>	2	7
SB-1, 5 ft dup	0.00	<b>1.41</b>	0.00	0.00	0.00	0.00	<b>9.52</b>	10.51	0.00	44.22	<b>66</b>	0	7
SB-1, 6 ft	<b>0.00</b>	<b>79.57</b>	<b>444.61</b>	<b>189.31</b>	167.43	<b>69.36</b>	50.66	48.96	142.94	164.22	1357	190	81
SB-1, 6 ft dup	38.18	110.32	626.39	268.88	237.99	93.85	60.64	55.98	144.18	164.51	1801	267	87
SB-1, 7 ft	5466.52	136.51	681.60	299.50	259.06	117.18	56.75	53.01	144.54	164.79	7379	299	85
SB-1, 7 ft dup	3436.47	126.91	667.92	282.42	254.15	116.92	58.61	53.89	144.51	167.53	5309	290	86
SB-2, 5 ft	0.00	<b>1.47</b>	1.16	0.00	0.00	0.00	0.00	0.00	<b>37.45</b>	43.77	84	1	12
SB-2, 5 ft dup	0.00	<b>1.29</b>	0.00	0.00	0.00	0.00	0.00	0.00	<b>37.45</b>	44.24	83	0	12
SB-2, 6 ft	<b>0.21</b>	<b>1.28</b>	4.14	24.01	29.77	7.76	10.50	11.22	38.77	<b>65.78</b>	193	13	20
SB-2, 6 ft dup	0.00	<b>1.36</b>	3.31	16.87	12.65	7.69	10.25	10.86	37.63	44.73	145	8	20
SB-2, 7 ft	0.00	<b>17.40</b>	<b>166.36</b>	<b>55.51</b>	<b>27.75</b>	<b>30.32</b>	46.64	45.66	141.40	162.09	<b>693</b>	59	78
SB-2, 7 ft dup	0.00	<b>19.26</b>	<b>217.33</b>	<b>113.30</b>	<b>47.53</b>	<b>35.75</b>	53.26	50.22	142.52	161.92	<b>841</b>	87	82
SB-3, 6 ft	0.00	<b>1.94</b>	1.10	0.00	0.00	0.00	0.00	10.58	<b>37.48</b>	44.59	<b>96</b>	1	16
SB-3, 7 ft	0.00	<b>2.80</b>	5.24	5.44	23.97	10.99	14.41	13.44	37.71	46.11	160	10	22
SB-3, 7 ft dup	0.00	<b>2.82</b>	6.07	11.08	31.93	10.13	13.43	13.07	37.70	44.87	171	12	21
SB-3, 8 ft	6677.26	<b>92.78</b>	<b>407.69</b>	110.17	139.29	47.54	47.57	47.34	142.84	163.33	7876	159	79
SB-3, 8 ft dup	9970.85	144.48	664.22	188.75	232.96	62.67	63.36	57.45	145.46	166.36	11697	259	89
SB-4, 8 ft	<b>0.34</b>	<b>1.80</b>	<b>1.11</b>	0.00	0.00	0.00	0.00	0.00	<b>37.49</b>	44.16	<b>85</b>	1	12
SB-4, 9 ft	0.00	<b>2.12</b>	<b>1.05</b>	0.00	0.00	0.00	0.00	10.63	<b>37.58</b>	44.39	<b>96</b>	1	16
SB-4, 10 ft	<b>3751.71</b>	120.33	687.73	<b>262.94</b>	<b>160.72</b>	87.53	62.15	55.89	144.07	168.02	5501	264	87
SB-5, 8 ft	<b>0.45</b>	<b>2.21</b>	<b>1.35</b>	0.00	0.00	0.00	0.00	10.50	<b>37.51</b>	43.42	<b>95</b>	1	16
SB-5, 9 ft	0.00	<b>1.36</b>	0.00	0.00	0.00	0.00	0.00	10.52	<b>37.48</b>	43.80	<b>93</b>	0	16
SB-5, 9 ft dup	0.00	<b>1.70</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.71	45	0	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.99	44	0	0

*\*denotes outlier*

**Table 3B Desorption Kinetics Experiment Sampling Event #3  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-1, 5 ft dup	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-1, 6 ft	<i>0.00</i>	<b>48.48</b>	640.28	346.25	284.76	<b>53.34</b>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	1373	275	0
SB-1, 6 ft dup	50.56	<b>71.53</b>	556.38	289.16	226.52	<b>40.91</b>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>51.23</b>	1286	237	0
SB-1, 7 ft	5722.13	<b>77.94</b>	616.95	327.17	264.99	<b>86.40</b>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>1.80</b>	7097	275	0
SB-1, 7 ft dup	4357.98	<b>85.37</b>	682.70	348.79	293.38	<b>94.47</b>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	5863	301	0
SB-2, 5 ft	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-2, 5 ft dup	0.00	<b>1.15</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>9.88</b>	<b>11</b>	0	0
SB-2, 6 ft	0.00	<i>0.00</i>	<b>0.96</b>	9.36	8.45	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>19</b>	4	0
SB-2, 6 ft dup	0.00	<i>0.00</i>	<i>0.00</i>	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0</i>	0	0
SB-2, 7 ft	<b>31.45</b>	28.77	<b>2498.04</b>	<b>1328.84</b>	<b>389.07</b>	<b>222.33</b>	<b>321.64</b>	<b>203.43</b>	72.86	<b>24.85</b>	<b>5121</b>	893	199
SB-2, 7 ft dup	<b>24.25</b>	<b>4.60</b>	<b>1528.01</b>	<b>1072.24</b>	<b>422.37</b>	<b>161.86</b>	<b>194.28</b>	<b>128.50</b>	<b>51.16</b>	<b>21.94</b>	<b>3609</b>	638	125
SB-3, 6 ft	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-3, 7 ft	0.00	<i>0.00</i>	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0</i>	0	0
SB-3, 7 ft dup	0.00	<i>0.00</i>	3.85	2.44	25.49	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>32</b>	6	0
SB-3, 8 ft	<b>15474.41</b>	140.22	947.14	306.15	357.65	23.02	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>17249</b>	355	0
SB-3, 8 ft dup	<b>11123.28</b>	<b>79.97</b>	634.27	192.24	239.32	6.57	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>12276</b>	230	0
SB-4, 8 ft	<i>0.00</i>	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-4, 9 ft	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-4, 10 ft	5802.69	<b>78.11</b>	832.01	420.90	278.45	<b>58.06</b>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>7470</b>	334	0
SB-5, 8 ft	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-5, 9 ft	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
SB-5, 9 ft dup	0.00	<i>0.00</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0</i>	0	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

*\*denotes outlier*

**Table 4B Desorption Kinetics Experiment Sampling Event #6  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	7.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.86	29	1	0
SB-1, 5 ft dup	0.00	6.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.11	28	1	0
SB-1, 6 ft	15.13	97.87	662.94	336.17	265.76	98.79	54.22	43.88	76.90	85.94	1738	292	58
SB-1, 6 ft dup	36.73	84.95	540.70	269.56	209.95	81.67	46.93	40.21	75.52	84.37	1471	237	54
SB-1, 7 ft	2697.28	<b>83.45</b>	<b>454.16</b>	<b>221.04</b>	<b>165.94</b>	<b>83.09</b>	41.99	35.80	74.94	81.88	3940	202	51
SB-1, 7 ft dup	3396.31	111.65	633.72	318.65	246.12	116.53	49.63	41.88	77.21	83.18	5075	285	56
SB-2, 5 ft	<b>0.90</b>	6.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.73	29	1	0
SB-2, 5 ft dup	0.00	6.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.89	29	1	0
SB-2, 6 ft	0.00	6.21	3.39	4.45	0.00	0.00	9.26	8.16	19.27	21.74	72	3	12
SB-2, 6 ft dup	<b>0.76</b>	7.15	4.20	9.12	7.07	0.00	8.85	7.75	19.25	23.02	87	6	12
SB-2, 7 ft	<b>3.26</b>	36.99	435.94	217.59	81.19	51.45	70.33	52.69	77.53	85.53	1112	165	67
SB-2, 7 ft dup	0.00	27.66	271.08	163.65	60.50	40.52	57.12	44.86	75.28	81.94	823	113	59
SB-3, 6 ft	0.00	9.54	0.00	0.00	0.00	0.00	0.00	<b>1.63</b>	0.00	<b>5.54</b>	17	2	1
SB-3, 7 ft	0.00	8.03	0.00	0.00	0.00	0.00	4.69	3.32	3.61	<b>3.65</b>	23	2	4
SB-3, 7 ft dup	0.00	7.57	0.00	0.00	0.00	0.00	4.92	3.51	3.92	<b>4.80</b>	25	2	4
SB-3, 8 ft	6578.16	151.30	796.50	268.81	308.68	61.86	39.10	28.18	21.23	<b>19.18</b>	8273	317	30
SB-3, 8 ft dup	5220.90	108.20	540.26	184.49	217.52	50.84	28.78	21.68	18.98	<b>13.29</b>	6405	220	23
SB-4, 8 ft	4.97	8.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.65</b>	17	2	0
SB-4, 9 ft	0.00	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.56</b>	10	1	0
SB-4, 10 ft	3607.48	119.67	852.06	392.43	317.44	110.53	42.13	30.26	25.33	<b>16.87</b>	5514	358	33
SB-5, 8 ft	<b>5.09</b>	7.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>2.93</b>	15	1	0
SB-5, 9 ft	0.00	7.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>2.89</b>	10	1	0
SB-5, 9 ft dup	0.00	6.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>4.89</b>	12	1	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.48	4	0	0

\*denotes outlier

**Table 5B Desorption Kinetics Experiment Sampling Event #9  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	6.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.46</b>	10	1	0
SB-1, 5 ft dup	0.00	8.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>4.15</b>	13	2	0
SB-1, 6 ft	22.54	88.27	613.80	328.27	257.84	80.97	27.71	20.80	<b>15.92</b>	<b>14.21</b>	1470	274	21
SB-1, 6 ft dup	0.00	78.90	604.65	324.41	256.65	89.10	27.90	20.39	<b>15.87</b>	<b>15.31</b>	1433	271	21
SB-1, 7 ft	2765.35	125.60	716.72	366.20	272.24	115.91	25.20	20.10	<b>19.67</b>	<b>14.80</b>	4442	319	22
SB-1, 7 ft dup	2396.55	118.00	691.64	337.83	249.38	110.94	25.84	19.92	<b>19.08</b>	<b>19.37</b>	3989	302	22
SB-2, 5 ft	<b>4.87</b>	6.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.85</b>	16	1	0
SB-2, 5 ft dup	0.00	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.58</b>	11	1	0
SB-2, 6 ft	0.00	6.93	3.15	3.82	0.00	0.00	2.76	2.17	<b>0.00</b>	<b>4.24</b>	23	3	2
SB-2, 6 ft dup	<b>4.65</b>	6.88	<b>5.56</b>	4.05	4.15	0.00	1.67	0.00	<b>0.00</b>	<b>3.93</b>	31	4	1
SB-2, 7 ft	<b>19.16</b>	37.58	372.63	159.75	46.89	50.27	48.11	28.79	<b>16.77</b>	<b>14.63</b>	795	133	31
SB-2, 7 ft dup	0.00	33.28	373.37	284.71	<b>178.09</b>	51.02	52.66	34.71	<b>20.20</b>	<b>18.05</b>	1046	184	36
SB-3, 6 ft	0.00	7.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>4.28</b>	11	1	0
SB-3, 7 ft	0.00	7.17	0.00	0.00	0.00	0.00	5.63	4.13	3.71	<b>3.94</b>	25	1	4
SB-3, 7 ft dup	0.00	7.41	0.00	0.00	0.00	0.00	4.36	3.26	3.42	<b>3.78</b>	22	1	4
SB-3, 8 ft	3686.77	135.26	729.48	261.72	288.20	57.75	38.31	27.66	21.87	<b>16.77</b>	5264	294	29
SB-3, 8 ft dup	4523.70	115.62	596.33	213.92	233.61	49.04	29.41	22.28	18.53	<b>12.10</b>	5815	242	23
SB-4, 8 ft	5.00	7.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.97</b>	16	1	0
SB-4, 9 ft	0.00	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.56</b>	10	1	0
SB-4, 10 ft	2451.09	120.54	824.15	374.56	309.74	97.66	38.29	28.64	23.59	<b>18.28</b>	4287	345	30
SB-5, 8 ft	<b>4.77</b>	6.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.55</b>	15	1	0
SB-5, 9 ft	0.00	7.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>4.15</b>	11	1	0
SB-5, 9 ft dup	0.00	6.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.25</b>	9	1	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.73	0.00	4.14	8	0	1

*\*denotes outlier*

**Table 6B Desorption Kinetics Experiment Sampling Event #12  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b) fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.79</b>	11	1	0
SB-1, 5 ft dup	0.00	7.03	0.00	0.00	0.00	0.00	<b>1.66</b>	0.00	0.00	<b>4.10</b>	13	1	1
SB-1, 6 ft	19.14	92.16	<b>739.64</b>	400.65	315.65	88.15	36.69	25.20	<b>19.99</b>	<b>14.08</b>	1751	327	27
SB-1, 6 ft dup	0.00	64.45	481.12	263.14	211.39	73.98	25.14	18.60	<b>15.80</b>	<b>12.96</b>	1167	219	20
SB-1, 7 ft	2170.61	107.13	679.44	336.83	248.75	100.59	25.67	18.38	<b>17.90</b>	<b>12.64</b>	3718	295	21
SB-1, 7 ft dup	1675.29	118.42	758.53	382.25	298.94	120.47	30.28	22.50	<b>18.99</b>	<b>14.42</b>	3440	336	24
SB-2, 5 ft	0.00	7.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.25</b>	11	1	0
SB-2, 5 ft dup	0.00	6.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.06</b>	10	1	0
SB-2, 6 ft	0.00	6.82	0.00	3.67	0.00	0.00	2.26	1.77	<b>2.96</b>	<b>3.27</b>	21	2	2
SB-2, 6 ft dup	0.00	7.62	<b>3.81</b>	3.77	3.15	0.00	1.64	1.51	<b>0.00</b>	<b>3.64</b>	25	4	1
SB-2, 7 ft	0.00	30.51	258.02	115.57	33.78	41.11	37.60	24.00	<b>13.77</b>	<b>12.74</b>	567	96	25
SB-2, 7 ft dup	0.00	27.05	284.83	189.08	79.46	45.70	43.69	29.04	<b>17.07</b>	<b>15.28</b>	731	125	30
SB-3, 6 ft	0.00	6.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.29</b>	10	1	0
SB-3, 7 ft	0.00	7.01	0.00	0.00	0.00	0.00	3.99	2.91	3.49	<b>2.96</b>	20	1	3
SB-3, 7 ft dup	0.00	8.78	0.00	0.00	0.00	0.00	4.22	3.33	3.32	<b>3.83</b>	23	2	4
SB-3, 8 ft	1090.35	126.38	704.52	110.35	207.49	54.25	26.66	20.74	20.56	<b>18.06</b>	2379	241	23
SB-3, 8 ft dup	2824.83	104.51	586.01	219.99	250.59	52.99	30.65	22.66	19.79	<b>12.78</b>	4125	243	24
SB-4, 8 ft	4.59	6.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.74	38	1	0
SB-4, 9 ft	0.00	6.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.53</b>	10	1	0
SB-4, 10 ft	1104.73	100.16	740.02	335.21	273.50	85.43	33.61	25.81	20.54	<b>3.65</b>	2723	307	27
SB-5, 8 ft	0.00	6.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>2.93</b>	9	1	0
SB-5, 9 ft	0.00	8.17	0.00	0.00	0.00	0.00	<b>1.92</b>	1.87	0.00	<b>3.49</b>	15	2	1
SB-5, 9 ft dup	0.00	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>3.74</b>	11	1	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33	3	0	0

\*denotes outlier

**Table 7B Desorption Kinetics Experiment Sampling Event #15  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	5.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.89	18	1	0
SB-1, 5 ft dup	0.00	6.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.15	19	1	0
SB-1, 6 ft	0.00	67.15	610.57	315.14	232.72	82.23	47.33	<b>33.42</b>	54.90	47.23	1491	262	45
SB-1, 6 ft dup	0.00	50.58	502.39	268.54	205.92	70.83	43.00	<b>30.14</b>	52.81	44.49	1269	220	42
SB-1, 7 ft	1458.69	99.46	648.78	303.90	213.70	88.58	41.04	<b>28.16</b>	53.42	45.94	2982	271	41
SB-1, 7 ft dup	818.41	104.95	745.92	353.26	254.10	102.72	46.31	<b>31.25</b>	54.46	45.89	2557	312	44
SB-2, 5 ft	0.00	6.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.03	24	1	0
SB-2, 5 ft dup	0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.40	18	1	0
SB-2, 6 ft	0.00	5.44	0.00	0.00	0.00	0.00	<b>6.98</b>	<b>4.76</b>	<b>0.00</b>	12.01	29	1	4
SB-2, 6 ft dup	0.00	7.56	<b>5.27</b>	0.00	4.98	0.00	<b>6.51</b>	<b>4.49</b>	13.06	11.76	54	4	8
SB-2, 7 ft	0.00	30.13	255.41	112.44	40.84	51.91	68.85	43.76	52.66	46.75	703	98	55
SB-2, 7 ft dup	0.00	28.99	268.38	205.84	<b>129.01</b>	46.47	63.09	40.60	52.17	45.13	880	136	52
SB-3, 6 ft	0.00	6.06	0.00	0.00	0.00	0.00	0.00	0.00	12.98	12.10	<b>31</b>	1	4
SB-3, 7 ft	0.00	5.74	0.00	0.00	0.00	0.00	<b>8.27</b>	<b>5.50</b>	13.73	12.31	46	1	9
SB-3, 7 ft dup	0.00	7.55	0.00	0.00	<b>4.80</b>	6.65	<b>8.59</b>	<b>5.87</b>	0.00	17.60	51	4	5
SB-3, 8 ft													
SB-3, 8 ft dup	1209.50	98.68	633.72	301.68	270.24	55.74	<b>49.73</b>	<b>34.62</b>	56.67	<b>46.25</b>	2757	272	47
SB-4, 8 ft	0.00	5.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.83	17	1	0
SB-4, 9 ft	0.00	6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.07	18	1	0
SB-4, 10 ft	455.16	107.21	762.58	337.08	275.20	88.13	<b>121.54</b>	<b>115.59</b>	<b>191.84</b>	198.91	2653	314	143
SB-5, 8 ft	0.00	6.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.73	19	1	0
SB-5, 9 ft	0.00	5.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.00	18	1	0
SB-5, 9 ft dup	0.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.03	19	1	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.30	12	0	0

\*denotes outlier



**Table 8B Desorption Kinetics Experiment Sampling Event #18  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	4.85	0.00	0.00	0.00	0.00	0.00	<b>4.55</b>	12.91	12.44	<b>35</b>	1	6
SB-1, 5 ft dup	0.00	5.41	0.00	0.00	0.00	0.00	0.00	<b>4.61</b>	13.01	11.65	<b>35</b>	1	6
SB-1, 6 ft	0.00	64.15	579.85	312.53	250.97	77.61	48.70	<b>34.63</b>	55.45	44.46	1468	257	46
SB-1, 6 ft dup	0.00	54.34	538.97	293.15	235.96	72.14	45.70	<b>32.25</b>	55.28	45.46	1373	239	44
SB-1, 7 ft	722.97	76.31	511.98	251.21	187.44	74.06	39.60	<b>27.52</b>	53.56	45.17	<b>1990</b>	220	40
SB-1, 7 ft dup	446.54	88.16	605.20	299.51	218.20	82.54	43.18	<b>30.35</b>	55.28	45.30	<b>1914</b>	259	43
SB-2, 5 ft	0.00	5.12	0.00	0.00	0.00	0.00	0.00	0.00	13.01	12.29	30	1	4
SB-2, 5 ft dup	0.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	12.98	11.84	30	1	4
SB-2, 6 ft	0.00	5.50	0.00	0.00	0.00	0.00	<b>6.74</b>	<b>4.58</b>	12.95	11.67	41	1	8
SB-2, 6 ft dup	0.00	5.17	0.00	0.00	0.00	0.00	0.00	<b>4.50</b>	12.99	11.84	34	1	6
SB-2, 7 ft	0.00	22.36	224.82	96.18	35.61	51.21	72.23	47.35	52.79	46.14	649	86	57
SB-2, 7 ft dup	0.00	21.49	281.88	197.18	<b>121.78</b>	49.66	71.02	45.35	53.36	49.21	891	134	57
SB-3, 6 ft	0.00	4.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.19	16	1	0
SB-3, 7 ft	0.00	5.95	0.00	0.00	0.00	0.00	<b>8.07</b>	<b>5.48</b>	0.00	12.24	32	1	5
SB-3, 7 ft dup	0.00	7.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.18	20	2	0
SB-3, 8 ft	64.42	73.53	584.77	285.80	232.93	50.98	<b>48.36</b>	<b>34.36</b>	55.77	44.66	1476	246	46
SB-3, 8 ft dup	1637.02	103.75	611.76	291.65	253.44	53.53	<b>49.63</b>	<b>35.78</b>	58.28	45.72	3141	263	48
SB-4, 8 ft	0.00	5.92	0.00	0.00	0.00	0.00	0.00	0.00	12.99	11.92	<b>31</b>	1	4
SB-4, 9 ft	0.00	5.18	0.00	0.00	0.00	0.00	<b>6.49</b>	<b>4.63</b>	0.00	12.47	29	1	4
SB-4, 10 ft	65.88	87.22	760.55	341.48	270.53	77.97	<b>54.62</b>	<b>39.63</b>	57.62	46.17	1802	308	51
SB-5, 8 ft	0.00	5.41	0.00	0.00	0.00	0.00	0.00	0.00	12.96	11.93	<b>30</b>	1	4
SB-5, 9 ft	0.00	5.31	0.00	0.00	0.00	0.00	0.00	0.00	13.03	12.69	<b>31</b>	1	4
SB-5, 9 ft dup	0.00	5.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.30	18	1	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.34	11.90	25	0	4

\*denotes outlier

**Table 9B Desorption Kinetics Experiment Sampling Event #21  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b) fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.31	2.59	8	0	2
SB-1, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.34	3.00	8	0	2
SB-1, 6 ft	0.00	38.35	546.46	286.69	222.17	58.20	28.07	19.77	26.46	11.70	1238	230	25
SB-1, 6 ft dup	0.00	10.44	497.79	152.19	<b>2.84</b>	62.32	35.37	21.25	40.67	24.89	848	145	32
SB-1, 7 ft	159.23	85.25	790.04	388.02	271.20	81.11	29.40	20.01	24.26	11.25	1860	323	25
SB-1, 7 ft dup	328.17	83.52	719.20	325.19	222.31	68.25	25.33	15.79	23.31	9.59	1821	284	21
SB-2, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.15	2.52	8	0	2
SB-2, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.33	2.81	8	0	2
SB-2, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.95	1.50	6	0	2
SB-2, 6 ft dup	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	5.00	2.67	8	0	2
SB-2, 7 ft	0.00	0.00	148.98	56.91	12.50	28.92	51.66	31.08	21.50	10.35	362	49	35
SB-2, 7 ft dup	0.00	0.00	50.28	39.26	22.01	<b>10.90</b>	<b>17.53</b>	9.50	18.89	7.99	176	24	15
SB-3, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.05	2.21	7	0	2
SB-3, 7 ft	0.00	1.28	0.00	0.00	0.00	0.00	2.03	0.88	5.20	2.62	12	0	3
SB-3, 7 ft dup	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	5.03	2.33	7	0	2
SB-3, 8 ft	0.00	20.91	<b>294.06</b>	145.26	106.00	22.99	16.33	9.54	23.41	6.11	645	118	16
SB-3, 8 ft dup	143.56	66.04	574.27	256.87	213.04	32.84	28.49	18.93	25.95	9.33	1369	229	24
SB-4, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.19	2.32	8	0	2
SB-4, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.15	2.20	7	0	2
SB-4, 10 ft	0.00	16.55	<b>263.39</b>	118.15	67.43	26.94	14.72	8.28	0.00	8.22	524	98	8
SB-5, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.03	2.66	8	0	2
SB-5, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.17	2.86	8	0	2
SB-5, 9 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.17	2.56	8	0	2
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2	0	0

*\*denotes outlier*

**Table 10B Desorption Kinetics Experiment Sampling Event #24  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b) fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	2.87	8	0	2
SB-1, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.21	2.62	8	0	2
SB-1, 6 ft	0.00	28.29	442.51	231.42	166.94	43.46	22.65	14.65	21.36	9.02	980	183	20
SB-1, 6 ft dup													
SB-1, 7 ft	0.00	31.75	518.04	269.02	149.12	59.14	24.60	14.53	22.67	11.10	1100	205	21
SB-1, 7 ft dup	75.82	60.52	618.92	294.96	216.19	57.62	23.69	14.48	22.23	11.20	1396	250	20
SB-2, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.16	3.15	8	0	2
SB-2, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.17	1.91	7	0	2
SB-2, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.01	2.78	8	0	2
SB-2, 6 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.96	2.65	8	0	2
SB-2, 7 ft	0.00	0.00	118.86	34.13	7.77	28.59	63.92	39.23	23.76	16.69	333	38	42
SB-2, 7 ft dup	0.00	0.00	141.47	92.94	31.89	27.59	48.18	28.27	22.91	12.83	406	59	33
SB-3, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.06	3.10	8	0	2
SB-3, 7 ft	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.66	5.05	3.39	11	0	2
SB-3, 7 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.23	5.11	2.87	9	0	2
SB-3, 8 ft	0.00	29.67	572.03	262.89	63.06	43.88	34.50	21.34	28.25	12.78	1068	194	28
SB-3, 8 ft dup	0.00	31.07	512.29	257.27	110.65	35.62	29.67	17.99	27.03	11.31	1033	189	25
SB-4, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.95	3.30	8	0	2
SB-4, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.07	2.70	8	0	2
SB-4, 10 ft	0.00	32.91	512.45	229.41	114.42	46.69	25.52	14.64	23.04	11.85	1011	187	21
SB-5, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92	2.31	7	0	2
SB-5, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.16	2.80	8	0	2
SB-5, 9 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.10	3.33	8	0	2
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56	3	0	0

\*denotes outlier

**Table 11B Desorption Kinetics Experiment Sampling Event #27  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	3	0	0
SB-1, 5 ft dup	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0	0
SB-1, 6 ft	0.00	12.69	475.91	202.79	<b>11.03</b>	48.42	35.69	14.71	0.00	0.00	801	150	17
SB-1, 6 ft dup	0.00	17.23	393.53	220.47	157.73	29.76	13.90	3.60	0.00	0.00	836	164	6
SB-1, 7 ft	0.00	10.51	196.70	92.36	61.70	14.84	2.22	0.00	0.00	0.00	378	75	1
SB-1, 7 ft dup	0.00	28.30	592.08	297.15	119.16	59.15	24.22	9.89	0.00	0.00	1130	219	11
SB-2, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 7 ft	0.00	0.00	107.55	24.95	2.15	19.64	53.83	27.84	0.00	0.00	236	31	27
SB-2, 7 ft dup	0.00	0.00	130.97	76.91	22.47	21.04	33.43	14.58	0.00	0.00	299	50	16
SB-3, 6 ft	0.00	0.00	0.00	<b>0.56</b>	0.00	0.00	0.00	0.00	0.00	0.00	1	0	0
SB-3, 7 ft	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	1	0	0
SB-3, 7 ft dup	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	1	0	0
SB-3, 8 ft	0.00	22.72	532.92	251.13	48.79	28.35	25.72	10.09	0.00	0.00	920	177	12
SB-3, 8 ft dup	0.00	0.00	<b>111.99</b>	48.05	19.30	6.42	0.00	0.00	0.00	0.00	186	37	0
SB-4, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 10 ft	0.00	0.97	<b>121.62</b>	40.13	19.17	6.77	0.00	0.00	0.00	0.00	189	38	0
SB-5, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-5, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-5, 9 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.23	0.00	0.00	1	0	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

*\*denotes outlier*

**Table 12B Desorption Kinetics Experiment Sampling Event #30  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-1, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-1, 6 ft	0.00	<b>78.05</b>	<b>1438.13</b>	<b>814.49</b>	<b>534.29</b>	<b>101.49</b>	<b>80.78</b>	<b>50.05</b>	0.00	0.00	<b>3097</b>	593	44
SB-1, 6 ft dup	0.00	13.80	363.86	196.49	142.47	32.24	15.00	7.70	0.00	0.00	772	150	8
SB-1, 7 ft	0.00	3.03	107.04	44.05	23.30	6.48	0.00	0.00	0.00	0.00	184	37	0
SB-1, 7 ft dup	0.00	29.30	406.12	187.08	106.56	26.75	7.86	0.00	0.00	0.00	764	151	3
SB-2, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 7 ft	0.00	3.94	68.99	12.37	0.00	8.79	45.32	21.83	0.00	6.88	168	19	22
SB-2, 7 ft dup	0.00	0.00	49.57	23.71	2.96	3.82	8.90	0.02	0.00	0.00	89	16	3
SB-3, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 7 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 7 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 8 ft	0.00	2.19	241.32	58.76	0.00	8.45	9.50	0.00	0.00	0.00	320	62	3
SB-3, 8 ft dup	0.00	19.21	460.88	214.73	38.25	24.11	22.00	6.69	0.00	0.00	786	151	10
SB-4, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 10 ft	0.00	15.74	384.45	152.56	54.51	21.89	11.44	3.11	0.00	0.00	644	126	5
SB-5, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-5, 9 ft	0.00	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2	0	0
SB-5, 9 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

*\*denotes outlier*

**Table 13B Desorption Kinetics Experiment Sampling Event #31  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-1, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-1, 6 ft	0.00	14.64	410.15	213.90	132.26	30.70	13.18	4.46	0.00	0.00	819	160	6
SB-1, 6 ft dup	0.00	15.38	412.12	216.14	156.22	29.94	11.98	2.76	0.00	0.00	845	166	5
SB-1, 7 ft	0.00	<b>52.18</b>	669.73	<b>322.70</b>	223.01	41.66	18.78	8.41	0.00	0.00	1336	262	9
SB-1, 7 ft dup	0.00	18.94	298.83	138.12	89.18	17.14	4.03	0.00	0.00	0.00	566	112	1
SB-2, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 7 ft	0.00	0.00	53.43	6.09	0.00	5.17	30.40	13.57	0.00	0.00	109	13	15
SB-2, 7 ft dup	0.00	0.00	18.14	8.79	0.00	0.00	0.00	0.00	0.00	0.00	27	5	0
SB-3, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 7 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 7 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 8 ft	0.00	0.00	92.17	7.12	0.00	0.00	3.83	0.00	0.00	0.00	103	20	1
SB-3, 8 ft dup	0.00	0.00	108.81	50.44	19.22	3.97	0.00	0.00	0.00	0.00	182	36	0
SB-4, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 10 ft	0.00	5.23	206.28	87.72	51.38	10.40	4.77	0.00	0.00	0.00	366	72	2
SB-5, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-5, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-5, 9 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

*\*denotes outlier*

**Table 14B Desorption Kinetics Experiment Sampling Event #32  
Groundwater PAH Concentrations (mg/L or ppb)**

Sample ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Chrysene	Benzo(b)fluoranthene	Total PAHs	Avg 3-Ring PAHs	Avg 4-Ring PAHs
SB-1, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-1, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-1, 6 ft	0.00	1.44	153.49	78.02	45.29	8.76	2.31	0.00	0.00	0.00	289	57	1
SB-1, 6 ft dup	0.00	0.00	58.94	24.80	10.38	3.13	0.00	0.00	0.00	0.00	97	19	0
SB-1, 7 ft	0.00	1.26	87.24	32.40	13.02	3.44	0.00	0.00	0.00	0.00	137	27	0
SB-1, 7 ft dup	0.00	1.64	99.39	40.02	17.27	5.15	0.00	0.00	0.00	0.00	163	33	0
SB-2, 5 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 5 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 6 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-2, 7 ft	0.00	0.00	2.90	0.00	0.00	0.00	0.72	0.00	0.00	0.00	4	1	0
SB-2, 7 ft dup	0.00	0.00	12.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	3	0
SB-3, 6 ft													
SB-3, 7 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 7 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-3, 8 ft	0.00	0.00	81.41	27.39	0.00	0.88	0.00	0.00	0.00	0.00	110	22	0
SB-3, 8 ft dup	0.00	0.00	94.42	36.46	2.65	1.08	0.00	0.00	0.00	0.00	135	27	0
SB-4, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-4, 10 ft	0.00	0.00	72.91	25.85	8.67	1.46	0.00	0.00	0.00	0.00	109	22	0
SB-5, 8 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-5, 9 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
SB-5, 9 ft dup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Blank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

*\*denotes outlier*

**Table 15B Mass of Solids Measurements for Desorption Kinetics Experiment**

<b>Sample ID</b>	<b>Total Mass (mg)</b>	<b>*True Mass of Solids (mg)</b>
SB-1, 6 ft	38	30
SB-1, 7 ft	34	27
SB-2, 6 ft	43	34
SB-2, 7 ft	47	38
SB-3, 7 ft	43	34
SB-3, 8 ft	56	44
SB-4, 10 ft	42	34

*\*Solids mass estimates based on the following assumptions:*

$$e = 0.66 \text{ (Muck 2000)} \rightarrow n = \left( \frac{e}{1+e} \right) = 0.4 \rightarrow \rho_b = \rho_s \times (1-n) = 1.6 \frac{\text{g}}{\text{cm}^3}$$

$$M_{total} = M_{solids} + M_{water}$$

$$M_{solids} = \frac{(M_{total} \times \rho_b)}{(\rho_b + \rho_{water} \times n)}$$



**Table 16B Summary of Desorption Kinetics Experiment at SB-10  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Naphthalene			Acenaphthylene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	1.18	0.00	0.00	11.24
3	1	38.18	7.64	0.93	115.81	23.16	10.46
6	2	50.56	10.11	0.59	110.32	22.06	9.73
9	3	25.93	5.19	0.42	100.87	20.17	9.06
18	6	11.27	6.76	0.19	91.41	54.85	7.23
27	9	9.57	5.74	0.00	83.58	50.15	5.56
36	12	0.00	0.00	0.00	78.31	46.98	3.99
45	15	0.00	0.00	0.00	58.87	35.32	2.81
54	18	0.00	0.00	0.00	59.24	35.54	1.63
63	21	0.00	0.00	0.00	24.39	14.64	1.14
72	24	0.00	0.00	0.00	28.29	16.97	0.58
81	27	0.00	0.00	0.00	14.96	8.98	0.28
90	30	0.00	0.00	0.00	13.80	8.28	0.00
		<b>ΣAqueous Mass</b>	<b>35.44</b>		<b>ΣAqueous Mass</b>	<b>337.11</b>	

**Table 17B Summary of Desorption Kinetics Experiment at SB-10  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Acenaphthene			Fluorene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	103.86	0.00	0.00	54.19
3	1	640.54	128.11	99.59	298.16	59.63	52.21
6	2	626.39	125.28	95.41	268.88	53.78	50.41
9	3	598.33	119.67	91.43	317.71	63.54	48.30
18	6	601.82	361.09	79.39	302.87	181.72	42.24
27	9	609.22	365.53	67.20	326.34	195.81	35.71
36	12	481.12	288.67	57.58	331.90	199.14	29.07
45	15	556.48	333.89	46.45	291.84	175.10	23.24
54	18	559.41	335.65	35.26	302.84	181.70	17.18
63	21	522.12	313.27	24.82	219.44	131.67	12.79
72	24	442.51	265.50	15.97	231.42	138.85	8.16
81	27	434.72	260.83	7.28	211.63	126.98	3.93
90	30	363.86	218.32	0.00	196.49	117.89	0.00
		<b>ΣAqueous Mass</b>	<b>3115.81</b>		<b>ΣAqueous Mass</b>	<b>1625.81</b>	

**Table 18B Summary of Desorption Kinetics Experiment at SB-10  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Phenanthrene			Anthracene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	43.08	0.00	0.00	13.61
3	1	271.15	54.23	41.27	107.81	21.56	12.89
6	2	202.71	40.54	39.92	93.85	18.77	12.27
9	3	255.64	51.13	38.21	92.04	18.41	11.66
18	6	237.86	142.71	33.46	90.23	54.14	9.85
27	9	257.24	154.35	28.31	85.03	51.02	8.15
36	12	263.52	158.11	23.04	81.07	48.64	6.53
45	15	219.32	131.59	18.66	76.53	45.92	5.00
54	18	243.47	146.08	13.79	74.88	44.93	3.50
63	21	222.17	133.30	9.34	60.26	36.15	2.30
72	24	166.94	100.16	6.00	43.46	26.07	1.43
81	27	157.73	94.64	2.85	39.09	23.45	0.64
90	30	142.47	85.48	0.00	32.24	19.34	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>1292.33</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>408.41</b>	

**Table 19B Summary of Desorption Kinetics Experiment at SB-10  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Fluoranthene			Pyrene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	7.10	0.00	0.00	4.63
3	1	62.56	12.51	6.68	57.54	11.51	4.24
6	2	55.65	11.13	6.31	52.47	10.49	3.89
9	3	53.11	10.62	5.96	47.26	9.45	3.58
18	6	50.57	30.34	4.94	42.04	25.23	2.74
27	9	27.80	16.68	4.39	20.60	12.36	2.33
36	12	30.92	18.55	3.77	21.90	13.14	1.89
45	15	45.17	27.10	2.87	21.43	12.86	1.46
54	18	47.20	28.32	1.92	20.97	12.58	1.04
63	21	31.72	19.03	1.29	20.51	12.30	0.63
72	24	24.60	14.76	0.80	14.65	8.79	0.34
81	27	24.79	14.88	0.30	9.15	5.49	0.15
90	30	15.00	9.00	0.00	7.70	4.62	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>212.93</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>138.83</b>	

**Table 20B Summary of Desorption Kinetics Experiment at SB-10  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Chrysene			Benzo(b)fluoranthene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	10.07	0.00	0.00	9.75
3	1	145.06	29.01	9.10	169.92	33.98	8.61
6	2	143.56	28.71	8.14	164.36	32.87	7.52
9	3	109.89	21.98	7.41	124.76	24.95	6.69
18	6	76.21	45.73	5.88	85.15	51.09	4.98
27	9	68.76	41.26	4.51	72.06	43.23	3.54
36	12	61.31	36.78	3.28	58.96	35.37	2.36
45	15	53.86	32.31	2.21	45.86	27.52	1.45
54	18	55.36	33.22	1.10	44.96	26.98	0.55
63	21	33.56	20.14	0.43	18.29	10.98	0.18
72	24	21.36	12.82	0.00	9.02	5.41	0.00
81	27	0.00	0.00	0.00	0.00	0.00	0.00
90	30	0.00	0.00	0.00	0.00	0.00	0.00
		<b>ΣAqueous Mass</b>	<b>301.95</b>		<b>ΣAqueous Mass</b>	<b>292.39</b>	

**Table 21B Summary of Desorption Kinetics Experiment at SB-10  
6 Feet Below Land Surface**

Total PAH's				
Time (Days)	Exchanges (#)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	250.46
3	1	1873.69	374.74	237.97
6	2	1579.00	315.80	227.44
9	3	1329.70	265.94	218.57
18	6	1604.10	962.46	186.49
27	9	1451.75	871.05	157.46
36	12	1458.97	875.38	128.28
45	15	1379.71	827.83	100.68
54	18	1420.79	852.48	72.27
63	21	1042.80	625.68	51.41
72	24	980.29	588.17	31.81
81	27	818.72	491.23	15.43
90	30	771.56	462.94	0.00
		<b>ΣAqueous Mass</b>	<b>7513.70</b>	

**Table 22B Summary of Desorption Kinetics Experiment at SB-10  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Naphthalene			Acenaphthylene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	319.65	0.00	0.00	18.40
3	1	4993.94	998.79	282.65	140.34	28.07	17.36
6	2	4451.50	890.30	249.68	131.71	26.34	16.38
9	3	5040.06	1008.01	212.35	121.68	24.34	15.48
18	6	3046.79	1828.08	144.64	111.65	66.99	13.00
27	9	2580.95	1548.57	87.29	121.80	73.08	10.30
36	12	1922.95	1153.77	44.55	112.78	67.67	7.79
45	15	1138.55	683.13	19.25	102.21	61.32	5.52
54	18	584.75	350.85	6.26	82.24	49.34	3.69
63	21	243.70	146.22	0.84	84.38	50.63	1.82
72	24	37.91	22.75	0.00	46.13	27.68	0.79
81	27	0.00	0.00	0.00	19.40	11.64	0.36
90	30	0.00	0.00	0.00	16.16	9.70	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>8630.4629</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>496.80</b>	

**Table 23B Summary of Desorption Kinetics Experiment at SB-10  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Acenaphthene			Fluorene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	132.46	0.00	0.00	64.49
3	1	696.54	139.31	127.30	327.93	65.59	62.06
6	2	674.76	134.95	122.30	290.96	58.19	59.90
9	3	649.83	129.97	117.49	337.98	67.60	57.40
18	6	633.72	380.23	103.40	318.65	191.19	50.32
27	9	704.18	422.51	87.76	352.01	211.21	42.50
36	12	718.99	431.39	71.78	359.54	215.72	34.51
45	15	697.35	418.41	56.28	328.58	197.15	27.21
54	18	558.59	335.15	43.87	275.36	165.22	21.09
63	21	754.62	452.77	27.10	356.60	213.96	13.16
72	24	568.48	341.09	14.47	281.99	169.19	6.90
81	27	394.39	236.63	5.70	194.75	116.85	2.57
90	30	256.58	153.95	0.00	115.57	69.34	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>3576.37</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>1741.21</b>	

**Table 24B Summary of Desorption Kinetics Experiment at SB-10  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Phenanthrene			Anthracene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	46.15	0.00	0.00	18.30
3	1	287.72	57.54	44.02	133.36	26.67	17.31
6	2	256.60	51.32	42.12	117.05	23.41	16.45
9	3	279.18	55.84	40.05	116.79	23.36	15.58
18	6	246.12	147.67	34.58	116.53	69.92	12.99
27	9	260.81	156.49	28.79	113.42	68.05	10.47
36	12	273.84	164.31	22.70	110.53	66.32	8.01
45	15	233.90	140.34	17.50	95.65	57.39	5.89
54	18	202.82	121.69	12.99	78.30	46.98	4.15
63	21	246.75	148.05	7.51	74.68	44.81	2.49
72	24	182.66	109.59	3.45	58.38	35.03	1.19
81	27	90.43	54.26	1.44	36.99	22.20	0.37
90	30	64.93	38.96	0.00	16.61	9.97	0.00
		<b>ΣAqueous Mass</b>	<b>1246.06</b>		<b>ΣAqueous Mass</b>	<b>494.10</b>	

**Table 25B Summary of Desorption Kinetics Experiment at SB-10  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Fluoranthene			Pyrene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	6.89	0.00	0.00	4.71
3	1	62.28	12.46	6.43	56.31	11.26	4.29
6	2	57.68	11.54	6.01	53.45	10.69	3.90
9	3	51.75	10.35	5.62	46.14	9.23	3.55
18	6	45.81	27.49	4.60	38.84	23.30	2.69
27	9	25.52	15.31	4.04	20.01	12.01	2.25
36	12	27.98	16.79	3.42	20.44	12.26	1.79
45	15	43.67	26.20	2.45	19.59	11.75	1.36
54	18	41.39	24.83	1.53	18.74	11.25	0.94
63	21	27.37	16.42	0.92	17.90	10.74	0.54
72	24	24.15	14.49	0.38	14.51	8.70	0.22
81	27	13.22	7.93	0.09	9.89	5.94	0.00
90	30	3.93	2.36	0.00	0.00	0.00	0.00
		<b>ΣAqueous Mass</b>	<b>186.16</b>		<b>ΣAqueous Mass</b>	<b>127.14</b>	

**Table 26B Summary of Desorption Kinetics Experiment at SB-10  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Chrysene			Benzo(b)fluoranthene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	10.98	0.00	0.00	10.58
3	1	144.94	28.99	9.90	166.44	33.29	9.35
6	2	144.52	28.90	8.83	166.16	33.23	8.11
9	3	110.30	22.06	8.02	124.35	24.87	7.19
18	6	76.08	45.65	6.32	82.53	49.52	5.36
27	9	68.70	41.22	4.80	70.33	42.20	3.80
36	12	61.32	36.79	3.44	58.12	34.87	2.51
45	15	53.94	32.36	2.24	45.91	27.55	1.48
54	18	54.42	32.65	1.03	45.24	27.14	0.48
63	21	23.78	14.27	0.50	10.42	6.25	0.25
72	24	22.45	13.47	0.00	11.15	6.69	0.00
81	27	0.00	0.00	0.00	0.00	0.00	0.00
90	30	0.00	0.00	0.00	0.00	0.00	0.00
		<b>ΣAqueous Mass</b>	<b>296.36</b>		<b>ΣAqueous Mass</b>	<b>285.61</b>	

**Table 27B Summary of Desorption Kinetics Experiment at SB-10  
7 Feet Below Land Surface**

Total PAH's				
Time (Days)	Exchanges (#)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0			621.12
3	1	7009.81	1401.96	569.19
6	2	6344.40	1268.88	522.20
9	3	6480.04	1296.01	474.20
18	6	4507.23	2704.34	374.04
27	9	4215.17	2529.10	280.37
36	12	3579.02	2147.41	200.83
45	15	2769.47	1661.68	139.29
54	18	1952.04	1171.22	95.91
63	21	1840.22	1104.13	55.02
72	24	1247.81	748.68	27.29
81	27	754.14	452.48	10.53
90	30	473.78	284.27	0.00
		<b>ΣAqueous Mass</b>	<b>16770.17</b>	

**Table 28B Summary of Desorption Kinetics Experiment at SB-25  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Naphthalene			Acenaphthylene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.000	0.00	0.00	0.580
3	1	0.00	0.00	0.000	0.00	0.00	0.580
6	2	0.00	0.00	0.000	0.00	0.00	0.580
9	3	0.00	0.00	0.000	0.00	0.00	0.580
18	6	0.00	0.00	0.000	6.68	4.01	0.462
27	9	0.00	0.00	0.000	6.91	4.14	0.340
36	12	0.00	0.00	0.000	7.22	4.33	0.213
45	15	0.00	0.00	0.000	6.50	3.90	0.098
54	18	0.00	0.00	0.000	5.33	3.20	0.004
63	21	0.00	0.00	0.000	0.22	0.13	0.000
72	24	0.00	0.00	0.000	0.00	0.00	0.000
81	27	0.00	0.00	0.000	0.00	0.00	0.000
90	30	0.00	0.00	0.000	0.00	0.00	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>0.00</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>19.72</b>	

**Table 29B Summary of Desorption Kinetics Experiment at SB-25  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Acenaphthene			Fluorene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.214	0.00	0.00	0.586
3	1	8.01	1.60	0.167	31.10	6.22	0.403
6	2	3.72	0.74	0.145	20.44	4.09	0.282
9	3	3.76	0.75	0.123	4.68	0.94	0.255
18	6	3.79	2.28	0.056	6.78	4.07	0.135
27	9	3.15	1.89	0.000	3.93	2.36	0.066
36	12	0.00	0.00	0.000	3.72	2.23	0.000
45	15	0.00	0.00	0.000	0.00	0.00	0.000
54	18	0.00	0.00	0.000	0.00	0.00	0.000
63	21	0.00	0.00	0.000	0.00	0.00	0.000
72	24	0.00	0.00	0.000	0.00	0.00	0.000
81	27	0.00	0.00	0.000	0.00	0.00	0.000
90	30	0.00	0.00	0.000	0.00	0.00	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>7.26</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>19.91</b>	

**Table 30B Summary of Desorption Kinetics Experiment at SB-25  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Phenanthrene			Anthracene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	0.497	0.00	0.00	0.092
3	1	30.08	6.02	0.320	7.96	1.59	0.045
6	2	21.21	4.24	0.196	7.72	1.54	0.000
9	3	4.22	0.84	0.171	0.00	0.00	0.000
18	6	3.53	2.12	0.108	0.00	0.00	0.000
27	9	2.08	1.25	0.072	0.00	0.00	0.000
36	12	1.58	0.95	0.044	0.00	0.00	0.000
45	15	2.49	1.49	0.000	0.00	0.00	0.000
54	18	0.00	0.00	0.000	0.00	0.00	0.000
63	21	0.00	0.00	0.000	0.00	0.00	0.000
72	24	0.00	0.00	0.000	0.00	0.00	0.000
81	27	0.00	0.00	0.000	0.00	0.00	0.000
90	30	0.00	0.00	0.000	0.00	0.00	0.000
		<b>ΣAqueous Mass</b>	<b>16.91</b>		<b>ΣAqueous Mass</b>	<b>3.14</b>	

**Table 31B Summary of Desorption Kinetics Experiment at SB-25  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Fluoranthene			Pyrene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	0.431	0.00	0.00	0.403
3	1	10.58	2.12	0.369	11.10	2.22	0.338
6	2	10.38	2.08	0.308	11.04	2.21	0.273
9	3	9.72	1.94	0.251	9.50	1.90	0.217
18	6	9.05	5.43	0.091	7.95	4.77	0.077
27	9	2.22	1.33	0.052	1.09	0.65	0.058
36	12	1.95	1.17	0.017	1.64	0.98	0.029
45	15	0.98	0.59	0.000	1.09	0.66	0.010
54	18	0.00	0.00	0.000	0.55	0.33	0.000
63	21	0.00	0.00	0.000	0.00	0.00	0.000
72	24	0.00	0.00	0.000	0.00	0.00	0.000
81	27	0.00	0.00	0.000	0.00	0.00	0.000
90	30	0.00	0.00	0.000	0.00	0.00	0.000
		<b>ΣAqueous Mass</b>	<b>14.65</b>		<b>ΣAqueous Mass</b>	<b>13.72</b>	



**Table 32B Summary of Desorption Kinetics Experiment at SB-25  
6 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Chrysene			Benzo(b)fluoranthene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	2.162	0.00	0.00	2.221
3	1	37.96	7.59	1.939	44.07	8.81	1.962
6	2	38.20	7.64	1.714	44.73	8.95	1.699
9	3	28.73	5.75	1.545	33.55	6.71	1.502
18	6	19.26	11.56	1.205	22.38	13.43	1.107
27	9	17.19	10.32	0.902	18.88	11.33	0.773
36	12	15.12	9.07	0.635	15.38	9.23	0.502
45	15	13.06	7.83	0.405	11.89	7.13	0.292
54	18	12.97	7.78	0.176	11.76	7.05	0.085
63	21	4.98	2.99	0.088	2.08	1.25	0.048
72	24	4.99	2.99	0.000	2.72	1.63	0.000
81	27	0.00	0.00	0.000	0.00	0.00	0.000
90	30	0.00	0.00	0.000	0.00	0.00	0.000
		<b>ΣAqueous Mass</b>	<b>73.51</b>		<b>ΣAqueous Mass</b>	<b>75.52</b>	

**Table 33B Summary of Desorption Kinetics Experiment at SB-25  
6 Feet Below Land Surface**

Total PAH's				
Time (Days)	Exchanges (#)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	6.765
3	1	183.71	36.74	5.684
6	2	169.40	33.88	4.688
9	3	124.61	24.92	3.955
18	6	79.82	47.89	2.546
27	9	26.99	16.19	2.070
36	12	22.94	13.76	1.665
45	15	41.40	24.84	0.934
54	18	37.97	22.78	0.264
63	21	7.28	4.37	0.136
72	24	7.70	4.62	0.000
81	27	0.00	0.00	0.000
90	30	0.00	0.00	0.000
		<b>ΣAqueous Mass</b>	<b>230.00</b>	

**Table 34B Summary of Desorption Kinetics Experiment at SB-25  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Naphthalene			Acenaphthylene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.00	0.00	0.00	2.887
3	1	0.00	0.00	0.00	36.94	7.39	2.693
6	2	0.00	0.00	0.00	32.86	6.57	2.520
9	3	0.00	0.00	0.00	28.77	5.75	2.368
18	6	0.00	0.00	0.00	32.32	19.39	1.858
27	9	0.00	0.00	0.00	35.43	21.26	1.298
36	12	0.00	0.00	0.00	28.78	17.27	0.844
45	15	0.00	0.00	0.00	29.56	17.73	0.377
54	18	0.00	0.00	0.00	21.93	13.16	0.031
63	21	0.00	0.00	0.00	0.00	0.00	0.031
72	24	0.00	0.00	0.00	0.00	0.00	0.031
81	27	0.00	0.00	0.00	0.00	0.00	0.031
90	30	0.00	0.00	0.00	1.97	1.18	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>0.00</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>109.71</b>	

**Table 35B Summary of Desorption Kinetics Experiment at SB-25  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Acenaphthene			Fluorene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	37.65	0.00	0.00	20.59
3	1	517.97	103.59	34.93	283.26	56.65	19.10
6	2	463.15	92.63	32.49	252.38	50.48	17.77
9	3	408.33	81.67	30.34	221.50	44.30	16.60
18	6	353.51	212.11	24.76	190.62	114.37	13.59
27	9	373.00	223.80	18.87	222.23	133.34	10.09
36	12	271.42	162.85	14.58	152.33	91.40	7.68
45	15	261.90	157.14	10.45	159.14	95.49	5.17
54	18	253.35	152.01	6.45	146.68	88.01	2.85
63	21	99.63	59.78	4.87	48.08	28.85	2.09
72	24	130.17	78.10	2.82	63.53	38.12	1.09
81	27	119.26	71.56	0.94	50.93	30.56	0.28
90	30	59.28	35.57	0.00	18.04	10.83	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>1430.80</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>782.38</b>	

**Table 36B Summary of Desorption Kinetics Experiment at SB-25  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Phenanthrene			Anthracene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	6.870	0.00	0.00	5.88
3	1	164.76	32.95	6.003	51.11	10.22	5.62
6	2	133.45	26.69	5.301	49.40	9.88	5.36
9	3	102.15	20.43	4.763	47.69	9.54	5.10
18	6	70.84	42.51	3.645	45.98	27.59	4.38
27	9	46.89	28.13	2.904	50.64	30.39	3.58
36	12	56.62	33.97	2.010	43.40	26.04	2.89
45	15	40.84	24.50	1.365	49.19	29.51	2.12
54	18	35.61	21.36	0.803	50.44	30.26	1.32
63	21	17.26	10.35	0.531	28.92	17.35	0.86
72	24	19.83	11.90	0.218	28.09	16.85	0.42
81	27	12.31	7.39	0.023	20.34	12.20	0.10
90	30	1.48	0.89	0.000	6.31	3.78	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>261.08</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>223.63</b>	

**Table 37B Summary of Desorption Kinetics Experiment at SB-25  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Fluoranthene			Pyrene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	8.37	0.00	0.00	4.61
3	1	70.69	14.14	8.00	60.15	12.03	4.30
6	2	49.95	9.99	7.73	47.94	9.59	4.04
9	3	56.84	11.37	7.43	48.36	9.67	3.79
18	6	63.73	38.24	6.43	48.77	29.26	3.02
27	9	50.38	30.23	5.63	31.75	19.05	2.52
36	12	40.64	24.39	4.99	26.52	15.91	2.10
45	15	65.97	39.58	3.95	24.44	14.67	1.71
54	18	71.62	42.97	2.82	22.37	13.42	1.36
63	21	51.66	30.99	2.00	20.29	12.17	1.04
72	24	56.05	33.63	1.12	33.75	20.25	0.51
81	27	43.63	26.18	0.43	21.21	12.72	0.17
90	30	27.11	16.26	0.00	10.93	6.56	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>317.97</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>175.31</b>	

**Table 38B Summary of Desorption Kinetics Experiment at SB-25  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Chrysene			Benzo(b)fluoranthene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	7.48	0.00	0.00	7.663
3	1	144.27	28.85	6.72	167.84	33.57	6.779
6	2	141.96	28.39	5.98	162.01	32.40	5.927
9	3	72.86	14.57	5.59	122.87	24.57	5.280
18	6	76.40	45.84	4.39	83.73	50.24	3.958
27	9	68.41	41.04	3.31	71.14	42.68	2.835
36	12	60.41	36.25	2.35	58.54	35.12	1.910
45	15	52.41	31.45	1.53	45.94	27.56	1.185
54	18	53.07	31.84	0.69	47.68	28.61	0.432
63	21	20.20	12.12	0.37	9.17	5.50	0.287
72	24	23.33	14.00	0.00	14.76	8.85	0.054
81	27	0.00	0.00	0.00	0.00	0.00	0.054
90	30	0.00	0.00	0.00	3.44	2.06	0.000
		<b>ΣAqueous Mass</b>	<b>284.36</b>		<b>ΣAqueous Mass</b>	<b>291.18</b>	

**Table 39B Summary of Desorption Kinetics Experiment at SB-25  
7 Feet Below Land Surface**

Total PAH's				
Time (Days)	Exchanges (#)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	102.02
3	1	1508.88	301.78	94.08
6	2	1328.43	265.69	87.09
9	3	1147.99	229.60	81.05
18	6	967.54	580.53	65.77
27	9	920.34	552.20	51.24
36	12	649.15	389.49	40.99
45	15	791.21	474.73	28.49
54	18	769.81	461.89	16.34
63	21	269.14	161.48	12.09
72	24	369.51	221.71	6.26
81	27	267.68	160.61	2.03
90	30	128.55	77.13	0.00
		<b>ΣAqueous Mass</b>	<b>3876.81</b>	

**Table 40B Summary of Desorption Kinetics Experiment at SB-11  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Naphthalene			Acenaphthylene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.00	0.00	0.00	0.654
3	1	0.00	0.00	0.00	0.00	0.00	0.654
6	2	0.00	0.00	0.00	0.00	0.00	0.654
9	3	0.00	0.00	0.00	0.00	0.00	0.654
18	6	0.00	0.00	0.00	7.80	4.68	0.516
27	9	0.00	0.00	0.00	7.29	4.37	0.387
36	12	0.00	0.00	0.00	7.89	4.74	0.248
45	15	0.00	0.00	0.00	6.64	3.99	0.131
54	18	0.00	0.00	0.00	6.73	4.04	0.012
63	21	0.00	0.00	0.00	0.68	0.41	0.000
72	24	0.00	0.00	0.00	0.00	0.00	0.000
81	27	0.00	0.00	0.00	0.00	0.00	0.000
90	30	0.00	0.00	0.00	0.00	0.00	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>0.00</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>22.23</b>	

**Table 41B Summary of Desorption Kinetics Experiment at SB-11  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Acenaphthene			Fluorene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.125	0.00	0.00	0.1806
3	1	13.73	2.75	0.045	21.21	4.24	0.0558
6	2	5.66	1.13	0.011	8.26	1.65	0.0072
9	3	1.92	0.38	0.000	1.22	0.24	0.0000
18	6	0.00	0.00	0.000	0.00	0.00	0.0000
27	9	0.00	0.00	0.000	0.00	0.00	0.0000
36	12	0.00	0.00	0.000	0.00	0.00	0.0000
45	15	0.00	0.00	0.000	0.00	0.00	0.0000
54	18	0.00	0.00	0.000	0.00	0.00	0.0000
63	21	0.00	0.00	0.000	0.00	0.00	0.0000
72	24	0.00	0.00	0.000	0.00	0.00	0.0000
81	27	0.00	0.00	0.000	0.00	0.00	0.0000
90	30	0.00	0.00	0.000	0.00	0.00	0.0000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>4.26</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>6.14</b>	

**Table 42B Summary of Desorption Kinetics Experiment at SB-11  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Phenanthrene			Anthracene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.525	0.00	0.00	0.135
3	1	48.57	9.71	0.239	12.36	2.47	0.062
6	2	27.95	5.59	0.075	10.56	2.11	0.000
9	3	12.74	2.55	0.000	0.00	0.00	0.000
18	6	0.00	0.00	0.000	0.00	0.00	0.000
27	9	0.00	0.00	0.000	0.00	0.00	0.000
36	12	0.00	0.00	0.000	0.00	0.00	0.000
45	15	0.00	0.00	0.000	0.00	0.00	0.000
54	18	0.00	0.00	0.000	0.00	0.00	0.000
63	21	0.00	0.00	0.000	0.00	0.00	0.000
72	24	0.00	0.00	0.000	0.00	0.00	0.000
81	27	0.00	0.00	0.000	0.00	0.00	0.000
90	30	0.00	0.00	0.000	0.00	0.00	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>17.85</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>4.58</b>	

**Table 43B Summary of Desorption Kinetics Experiment at SB-11  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Fluoranthene			Pyrene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.549	0.00	0.00	0.4653
3	1	14.77	2.95	0.462	13.48	2.70	0.3860
6	2	13.92	2.78	0.380	13.26	2.65	0.3080
9	3	9.36	1.87	0.325	8.34	1.67	0.2590
18	6	4.81	2.88	0.240	3.41	2.05	0.1987
27	9	5.00	3.00	0.152	3.69	2.22	0.1335
36	12	4.10	2.46	0.079	3.12	1.87	0.0785
45	15	2.05	1.23	0.043	2.23	1.34	0.0392
54	18	0.00	0.00	0.043	1.33	0.80	0.0157
63	21	1.01	0.61	0.025	0.44	0.27	0.0079
72	24	1.43	0.86	0.000	0.45	0.27	0.0000
81	27	0.00	0.00	0.000	0.00	0.00	0.0000
90	30	0.00	0.00	0.000	0.00	0.00	0.0000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>18.65</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>15.82</b>	

**Table 44B Summary of Desorption Kinetics Experiment at SB-11  
7 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Chrysene			Benzo(b)fluoranthene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.936	0.00	0.00	2.777
3	1	37.86	7.57	0.713	44.45	8.89	2.516
6	2	37.70	7.54	0.491	45.49	9.10	2.248
9	3	20.73	4.15	0.369	39.38	7.88	2.017
18	6	3.76	2.26	0.303	33.28	19.97	1.429
27	9	3.57	2.14	0.240	27.17	16.30	0.950
36	12	3.41	2.04	0.180	21.06	12.64	0.578
45	15	0.00	0.00	0.180	14.96	8.97	0.314
54	18	0.00	0.00	0.180	12.21	7.33	0.099
63	21	5.11	3.07	0.090	2.48	1.49	0.055
72	24	5.08	3.05	0.000	3.13	1.88	0.000
81	27	0.00	0.00	0.000	0.00	0.00	0.000
90	30	0.00	0.00	0.000	0.00	0.00	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>31.82</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>94.43</b>	

**Table 45B Summary of Desorption Kinetics Experiment at SB-11  
7 Feet Below Land Surface**

Total PAH's				
Time (Days)	Exchanges (#)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	5.660
3	1	210.11	42.02	4.424
6	2	165.61	33.12	3.449
9	3	94.81	18.96	2.892
18	6	24.01	14.40	2.468
27	9	23.41	14.04	2.055
36	12	21.91	13.15	1.668
45	15	48.30	28.98	0.816
54	18	25.72	15.43	0.362
63	21	9.73	5.84	0.191
72	24	10.08	6.05	0.013
81	27	0.72	0.43	0.000
90	30	0.00	0.00	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>192.43</b>	

**Table 46B Summary of Desorption Kinetics Experiment at SB-11  
8 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Naphthalene			Acenaphthylene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	307.70	0.00	0.00	10.86
3	1	9975.52	1995.10	262.36	143.20	28.64	10.21
6	2	8324.05	1664.81	224.52	144.48	28.90	9.55
9	3	7111.79	1422.36	192.20	140.22	28.04	8.92
18	6	5899.53	3539.72	111.75	129.75	77.85	7.15
27	9	4105.23	2463.14	55.77	125.44	75.26	5.44
36	12	1957.59	1174.55	29.07	115.44	69.27	3.86
45	15	1209.50	725.70	12.58	98.68	59.21	2.52
54	18	850.72	510.43	0.98	88.64	53.19	1.31
63	21	71.78	43.07	0.00	43.48	26.09	0.71
72	24	0.00	0.00	0.00	30.37	18.22	0.30
81	27	0.00	0.00	0.00	11.36	6.82	0.15
90	30	0.00	0.00	0.00	10.70	6.42	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>13538.88</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>477.90</b>	

**Table 47B Summary of Desorption Kinetics Experiment at SB-11  
8 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Acenaphthene			Fluorene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	80.35	0.00	0.00	29.38
3	1	595.14	119.03	77.65	161.37	32.27	28.64
6	2	664.22	132.84	74.63	149.46	29.89	27.96
9	3	790.71	158.14	71.03	249.19	49.84	26.83
18	6	668.38	401.03	61.92	226.65	135.99	23.74
27	9	662.91	397.74	52.88	237.82	142.69	20.50
36	12	645.26	387.16	44.08	165.17	99.10	18.24
45	15	633.72	380.23	35.44	301.68	181.01	14.13
54	18	598.27	358.96	27.28	288.72	173.23	10.19
63	21	574.27	344.56	19.45	201.06	120.64	7.45
72	24	542.16	325.30	12.05	260.08	156.05	3.90
81	27	532.92	319.75	4.79	149.59	89.75	1.86
90	30	351.10	210.66	0.00	136.74	82.05	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>3535.41</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>1292.52</b>	



**Table 48B Summary of Desorption Kinetics Experiment at SB-11  
8 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Phenanthrene			Anthracene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	24.45	0.00	0.00	5.86
3	1	196.04	39.21	23.56	60.60	12.12	5.59
6	2	186.13	37.23	22.71	55.11	11.02	5.34
9	3	298.49	59.70	21.35	55.73	11.15	5.08
18	6	263.10	157.86	17.77	56.35	33.81	4.31
27	9	260.91	156.55	14.21	53.39	32.04	3.59
36	12	229.04	137.42	11.09	53.62	32.17	2.85
45	15	270.24	162.14	7.40	55.74	33.44	2.09
54	18	243.19	145.91	4.08	52.26	31.35	1.38
63	21	159.52	95.71	1.91	27.91	16.75	1.00
72	24	86.86	52.11	0.73	39.75	23.85	0.46
81	27	34.04	20.43	0.26	17.38	10.43	0.22
90	30	19.12	11.47	0.00	16.28	9.77	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>1075.74</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>257.90</b>	

**Table 49B Summary of Desorption Kinetics Experiment at SB-11  
8 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Fluoranthene			Pyrene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	3.85	0.00	0.00	2.898
3	1	54.35	10.87	3.60	51.21	10.24	2.665
6	2	55.46	11.09	3.35	47.34	9.47	2.450
9	3	44.70	8.94	3.14	36.14	7.23	2.285
18	6	33.94	20.36	2.68	24.93	14.96	1.946
27	9	33.86	20.32	2.22	24.97	14.98	1.605
36	12	28.66	17.19	1.83	21.70	13.02	1.309
45	15	26.57	15.94	1.47	20.78	12.47	1.026
54	18	24.49	14.70	1.13	19.85	11.91	0.755
63	21	22.41	13.45	0.83	18.93	11.36	0.497
72	24	32.08	19.25	0.39	19.67	11.80	0.229
81	27	12.86	7.72	0.21	10.09	6.05	0.091
90	30	15.75	9.45	0.00	6.69	4.01	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>169.28</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>127.50</b>	

**Table 50B Summary of Desorption Kinetics Experiment at SB-11  
8 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Chrysene			Benzo(b)fluoranthene		
		Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	4.77	0.00	0.00	7.51
3	1	143.78	28.76	4.12	168.59	33.72	6.74
6	2	144.15	28.83	3.46	164.84	32.97	5.99
9	3	82.13	16.43	3.09	141.13	28.23	5.35
18	6	20.11	12.06	2.81	117.41	70.44	3.75
27	9	20.20	12.12	2.54	93.69	56.21	2.47
36	12	20.18	12.11	2.26	69.97	41.98	1.52
45	15	56.67	34.00	1.49	46.25	27.75	0.89
54	18	57.03	34.22	0.71	45.19	27.11	0.27
63	21	24.68	14.81	0.38	7.72	4.63	0.16
72	24	27.64	16.58	0.00	12.05	7.23	0.00
81	27	0.00	0.00	0.00	0.00	0.00	0.00
90	30	0.00	0.00	0.00	0.00	0.00	0.00
		<b>ΣAqueous Mass</b>	<b>209.91</b>		<b>ΣAqueous Mass</b>	<b>330.28</b>	

**Table 51B Summary of Desorption Kinetics Experiment at SB-11  
8 Feet Below Land Surface**

Total PAH's				
Time (Days)	Exchanges (#)	Aqueous Concentration C <sub>aq</sub> (ug/L)	Aqueous Mass Δ M <sub>aq</sub> (ug)	Reversible Sorbed Concentration C* <sub>R</sub> (ug/g)
0	0	0.00	0.00	468.06
3	1	11549.80	2309.96	415.57
6	2	9786.19	1957.24	371.08
9	3	8562.58	1712.52	332.16
18	6	7338.97	4403.38	232.08
27	9	5539.17	3323.50	156.55
36	12	3252.08	1951.25	112.20
45	15	2756.83	1654.10	74.61
54	18	2308.07	1384.84	43.14
63	21	1006.97	604.18	29.41
72	24	1050.66	630.39	15.08
81	27	552.73	331.64	7.54
90	30	553.04	331.83	0.00
		<b>ΣAqueous Mass</b>	<b>20594.83</b>	

**Table 52B Summary of Desorption Kinetics Experiment at SB-12  
10 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Naphthalene			Acenaphthylene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	169.74	0.00	0.00	12.73
3	1	0.00	0.00	169.74	121.36	24.27	12.02
6	2	0.00	0.00	169.74	120.33	24.07	11.31
9	3	5802.69	1160.54	135.61	120.00	24.00	10.61
18	6	3607.48	2164.49	71.94	119.67	71.80	8.49
27	9	2451.09	1470.65	28.69	120.54	72.33	6.37
36	12	1104.73	662.84	9.19	100.16	60.10	4.60
45	15	455.16	273.10	1.16	107.21	64.33	2.71
54	18	65.88	39.53	0.00	87.22	52.33	1.17
63	21	0.00	0.00	0.00	16.55	9.93	0.88
72	24	0.00	0.00	0.00	32.91	19.75	0.29
81	27	0.00	0.00	0.00	0.97	0.58	0.28
90	30	0.00	0.00	0.00	15.74	9.44	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>5771.14</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>432.92</b>	

**Table 53B Summary of Desorption Kinetics Experiment at SB-12  
10 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Acenaphthene			Fluorene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	0.125	0.00	0.00	43.43
3	1	13.73	2.75	0.045	0.00	0.00	43.43
6	2	5.66	1.13	0.011	0.00	0.00	43.43
9	3	1.92	0.38	0.000	420.90	84.18	40.96
18	6	0.00	0.00	0.000	392.43	235.46	34.03
27	9	0.00	0.00	0.000	374.56	224.74	27.42
36	12	0.00	0.00	0.000	335.21	201.13	21.51
45	15	0.00	0.00	0.000	337.08	202.25	15.56
54	18	0.00	0.00	0.000	341.48	204.89	9.53
63	21	0.00	0.00	0.000	118.15	70.89	7.45
72	24	0.00	0.00	0.000	229.41	137.64	3.40
81	27	0.00	0.00	0.000	40.13	24.08	2.69
90	30	0.00	0.00	0.000	152.56	91.53	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>4.26</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>1476.79</b>	

**Table 54B Summary of Desorption Kinetics Experiment at SB-12  
10 Feet Below Land Surface**

Time (Days)	Exchanges (#)	Phenanthrene			Anthracene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	31.67	0.00	0.00	11.70
3	1	0.00	0.00	31.67	117.14	23.43	11.02
6	2	0.00	0.00	31.67	87.53	17.51	10.50
9	3	278.45	55.69	30.03	99.03	19.81	9.92
18	6	317.44	190.46	24.43	110.53	66.32	7.97
27	9	309.74	185.85	18.97	97.66	58.60	6.24
36	12	273.50	164.10	14.14	85.43	51.26	4.74
45	15	275.20	165.12	9.28	88.13	52.88	3.18
54	18	270.53	162.32	4.51	77.97	46.78	1.81
63	21	67.43	40.46	3.32	26.94	16.16	1.33
72	24	114.42	68.65	1.30	46.69	28.02	0.51
81	27	19.17	11.50	0.96	6.77	4.06	0.39
90	30	54.51	32.71	0.00	21.89	13.13	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>1076.85</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>397.94</b>	

**Table 55B Summary of Desorption Kinetics Experiment at SB-12  
10 Feet Below Land Surface**

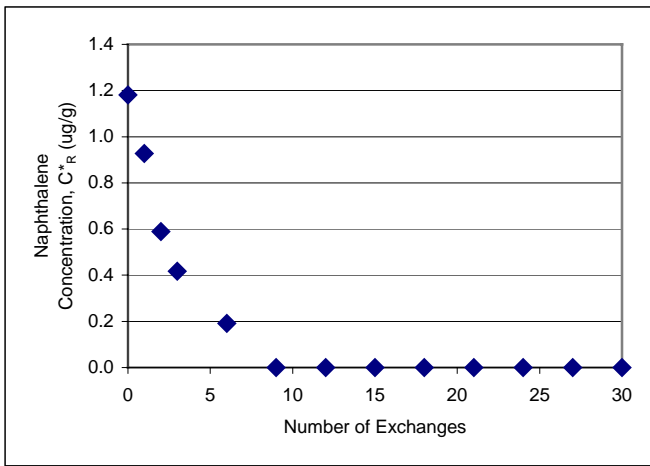
Time (Days)	Exchanges (#)	Fluoranthene			Pyrene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	4.80	0.00	0.00	3.460
3	1	59.52	11.90	4.45	54.72	10.94	3.138
6	2	62.15	12.43	4.08	55.89	11.18	2.809
9	3	52.14	10.43	3.78	43.08	8.62	2.556
18	6	42.13	25.28	3.03	30.26	18.16	2.022
27	9	38.29	22.98	2.36	28.64	17.19	1.516
36	12	33.61	20.16	1.76	25.81	15.49	1.061
45	15	27.31	16.39	1.28	19.97	11.98	0.708
54	18	21.01	12.61	0.91	14.12	8.47	0.459
63	21	14.72	8.83	0.65	8.28	4.97	0.313
72	24	25.52	15.31	0.20	14.64	8.78	0.055
81	27	0.00	0.00	0.20	0.00	0.00	0.055
90	30	11.44	6.86	0.00	3.11	1.87	0.000
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>163.18</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>117.63</b>	

**Table 56B Summary of Desorption Kinetics Experiment at SB-12  
10 Feet Below Land Surface**

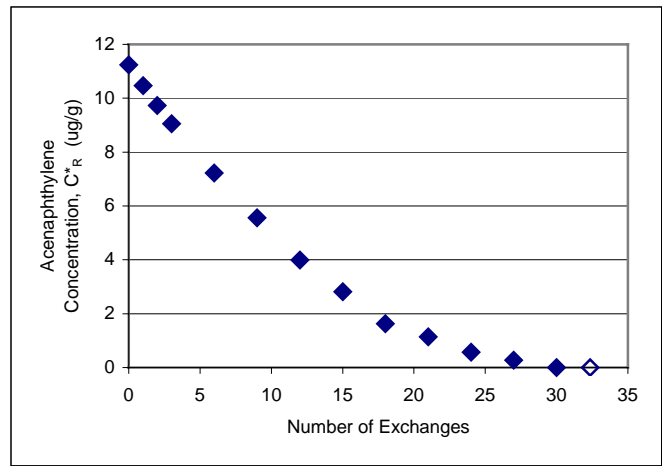
Time (Days)	Exchanges (#)	Chrysene			Benzo(b)fluoranthene		
		Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $\Delta M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	5.53	0.00	0.00	10.86
3	1	144.18	28.84	4.68	168.15	33.63	9.87
6	2	144.07	28.81	3.84	168.02	33.60	8.88
9	3	84.70	16.94	3.34	147.71	29.54	8.01
18	6	25.33	15.20	2.89	127.41	76.44	5.76
27	9	23.59	14.16	2.48	107.10	64.26	3.87
36	12	20.54	12.33	2.11	86.79	52.07	2.34
45	15	39.08	23.45	1.42	66.48	39.89	1.17
54	18	57.62	34.57	0.41	46.17	27.70	0.35
63	21	0.00	0.00	0.41	8.22	4.93	0.21
72	24	23.04	13.82	0.00	11.85	7.11	0.00
81	27	0.00	0.00	0.00	0.00	0.00	0.00
90	30	0.00	0.00	0.00	0.00	0.00	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>188.11</b>		<b><math>\Sigma</math>Aqueous Mass</b>	<b>369.19</b>	

**Table 57B Summary of Desorption Kinetics Experiment at SB-12  
10 Feet Below Land Surface**

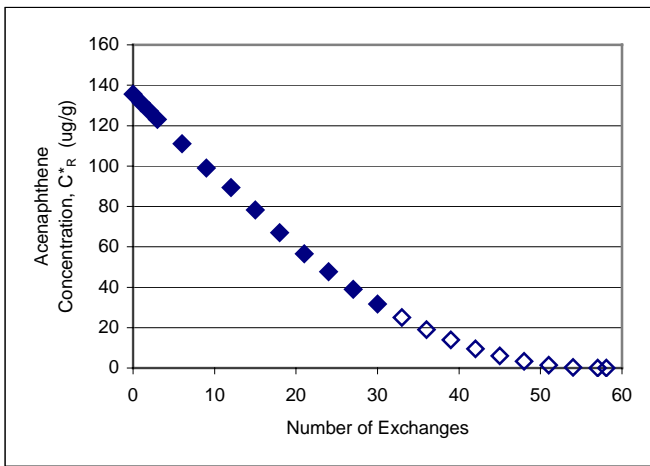
Total PAH's				
Time (Days)	Exchanges (#)	Aqueous Concentration $C_{aq}$ (ug/L)	Aqueous Mass $M_{aq}$ (ug)	Reversible Sorbed Concentration $C^*_R$ (ug/g)
0	0	0.00	0.00	436.60
3	1	5177.70	1035.54	406.14
6	2	5501.08	1100.22	373.79
9	3	5507.64	1101.53	341.39
18	6	5514.20	3308.52	244.08
27	9	4286.56	2571.93	168.43
36	12	2722.67	1633.60	120.39
45	15	2653.24	1591.95	73.56
54	18	1801.67	1081.00	41.77
63	21	523.68	314.21	32.53
72	24	1010.92	606.55	14.69
81	27	188.66	113.20	11.36
90	30	643.69	386.22	0.00
		<b><math>\Sigma</math>Aqueous Mass</b>	<b>14844.45</b>	



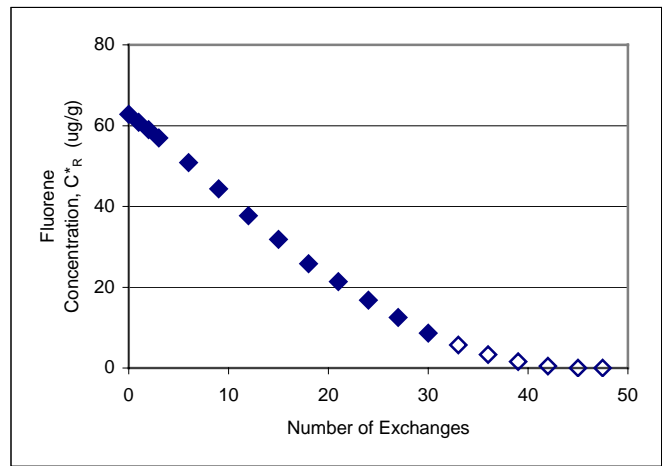
**Naphthalene**



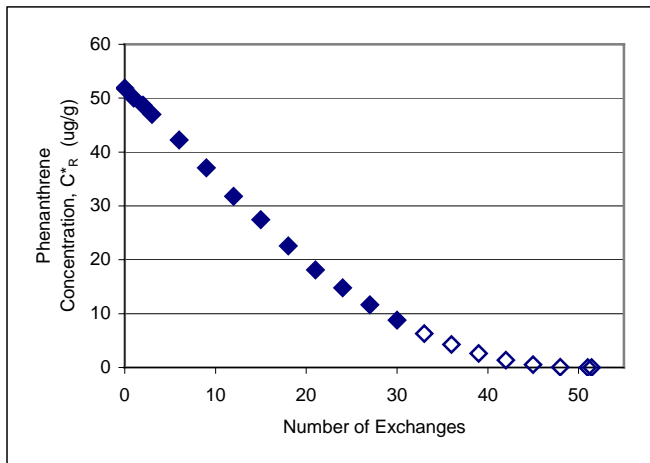
**Acenaphthylene**



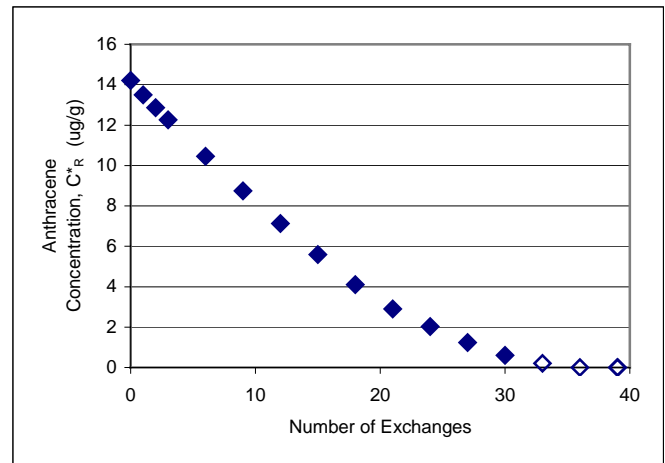
**Acenaphthene**



**Fluorene**

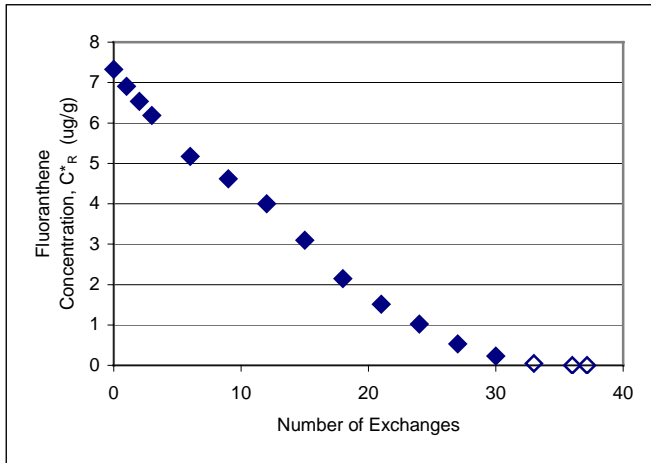


**Phenanthrene**

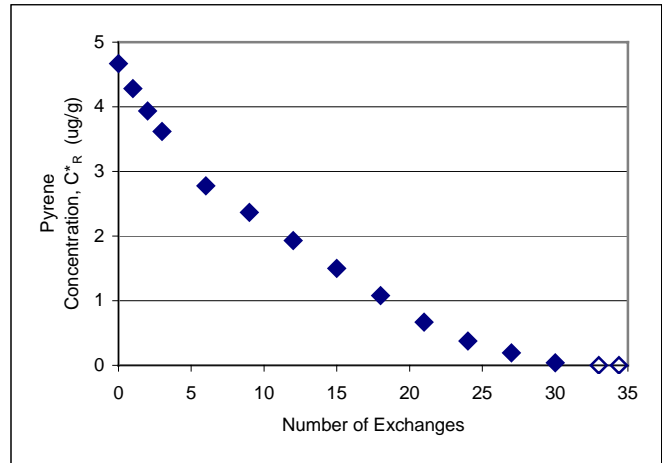


**Anthracene**

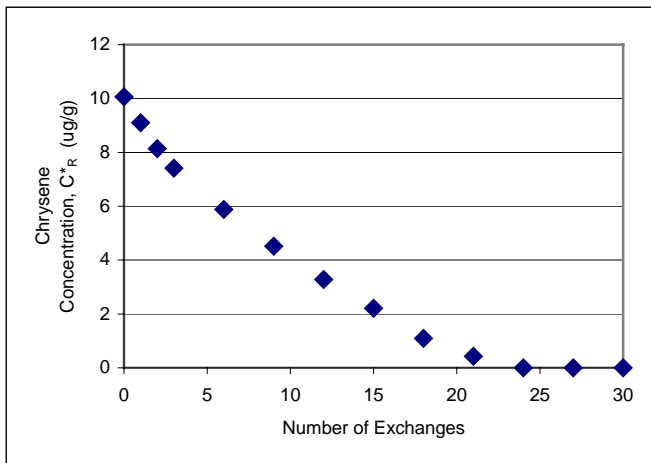
**Figure 1B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-10  
6 ft Below Land Surface**



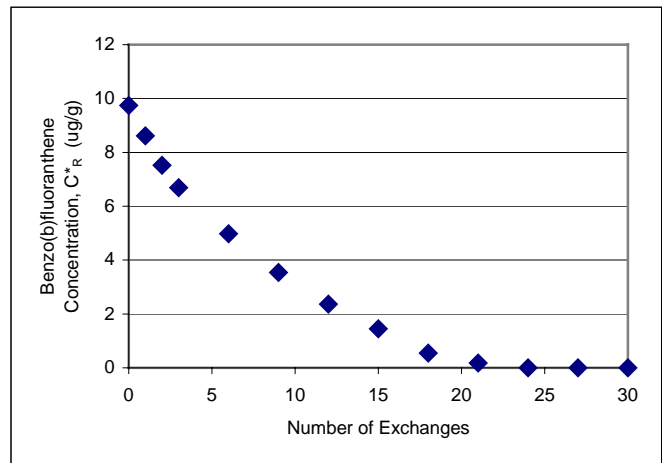
**Fluoranthene**



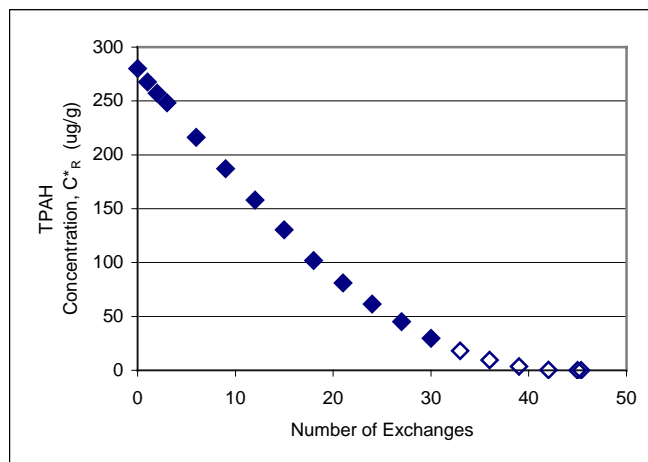
**Pyrene**



**Chrysene**

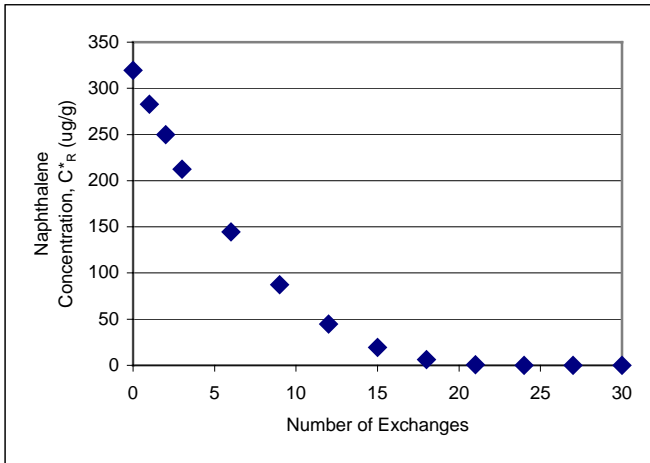


**Benzo(b)fluoranthene**

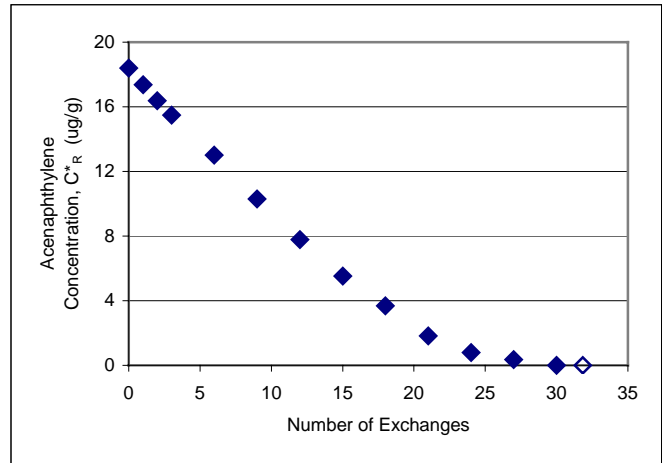


**Total Polycyclic Aromatic Hydrocarbons**

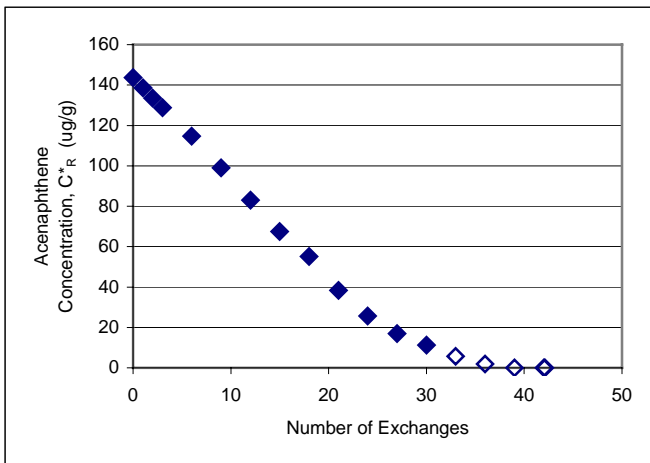
**Figure 2B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-10  
6 ft Below Land Surface**



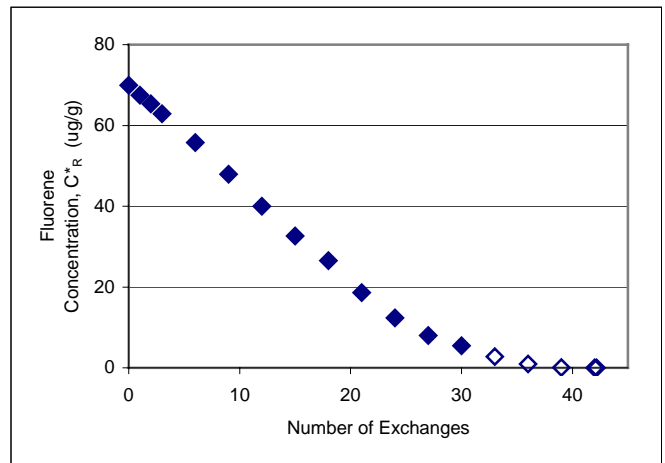
**Naphthalene**



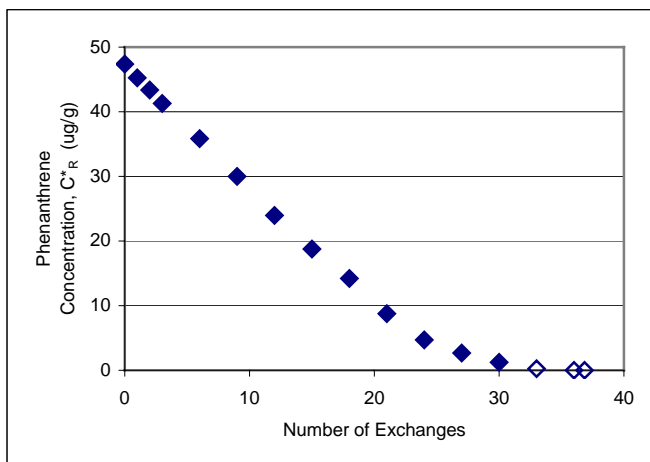
**Acenaphthylene**



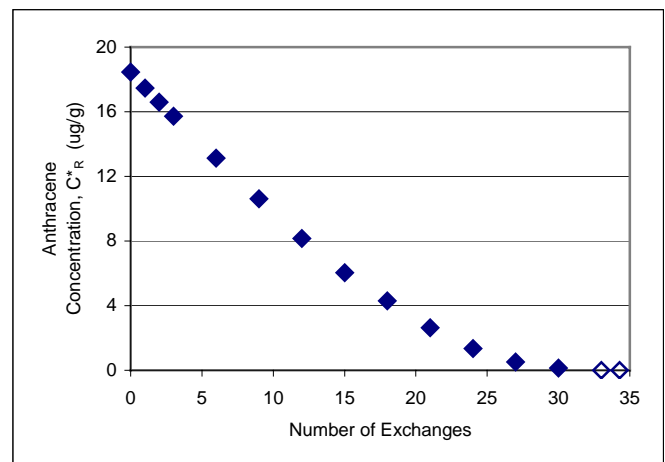
**Acenaphthene**



**Fluorene**



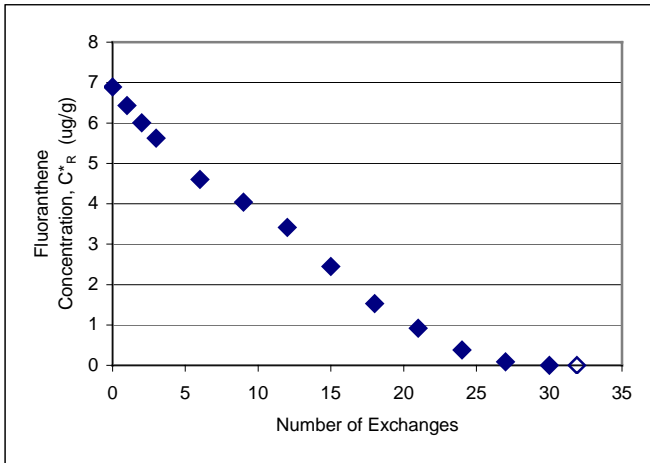
**Phenanthrene**



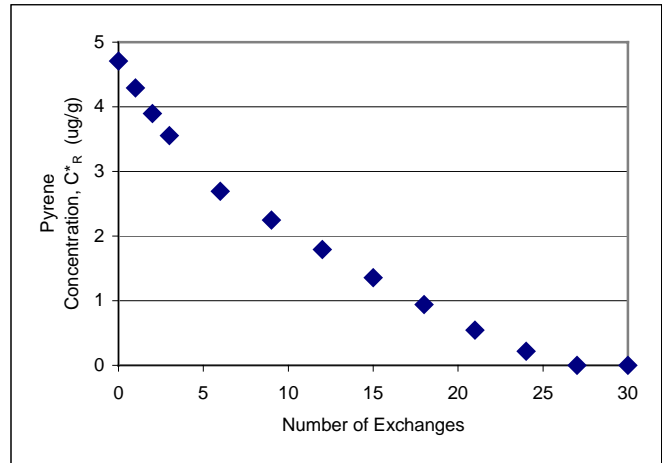
**Anthracene**

**Figure 3B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-10  
7 ft Below Land Surface**

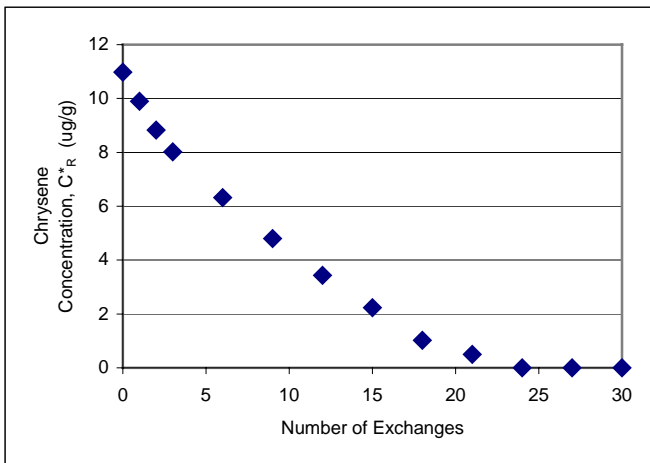




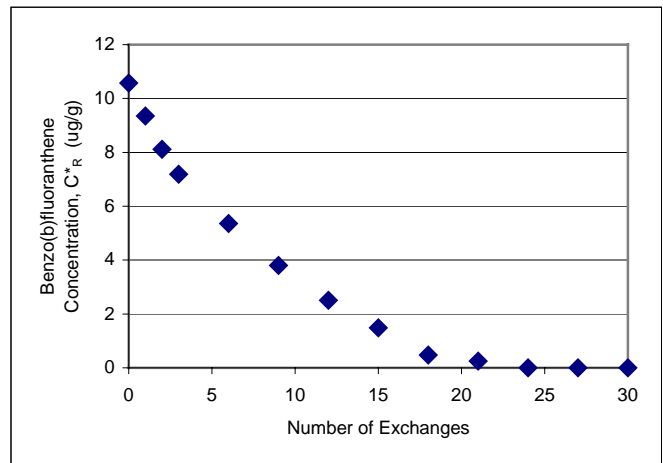
**Fluoranthene**



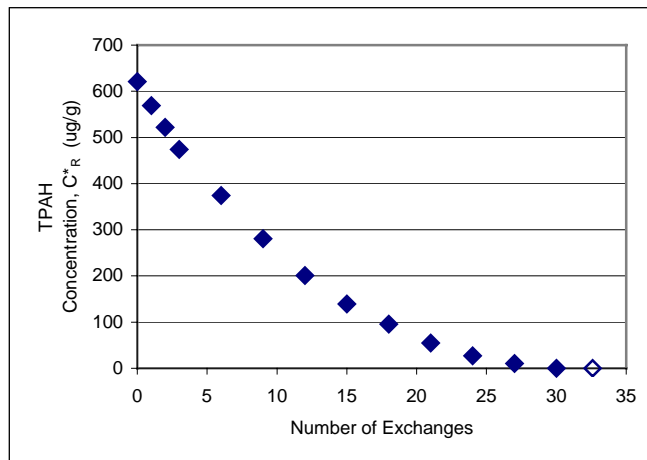
**Pyrene**



**Chrysene**

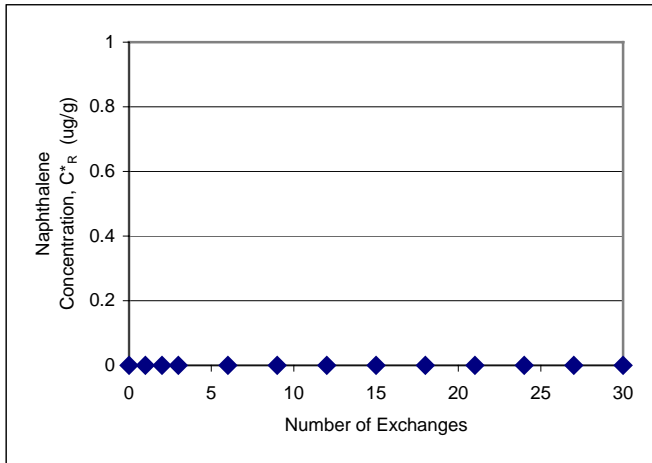


**Benzo(b)fluoranthene**

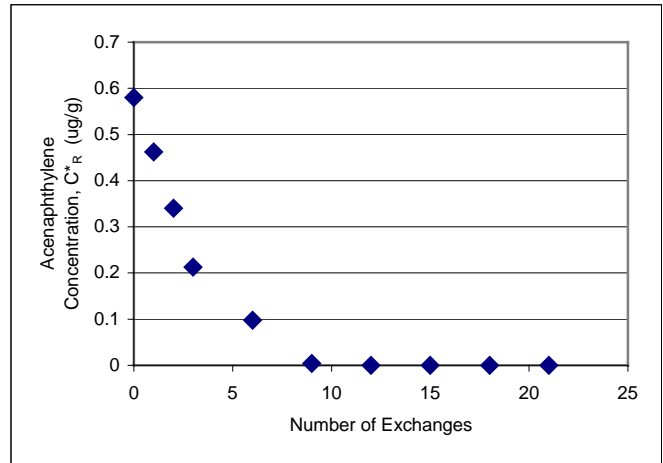


**Total Polycyclic Aromatic Hydrocarbons**

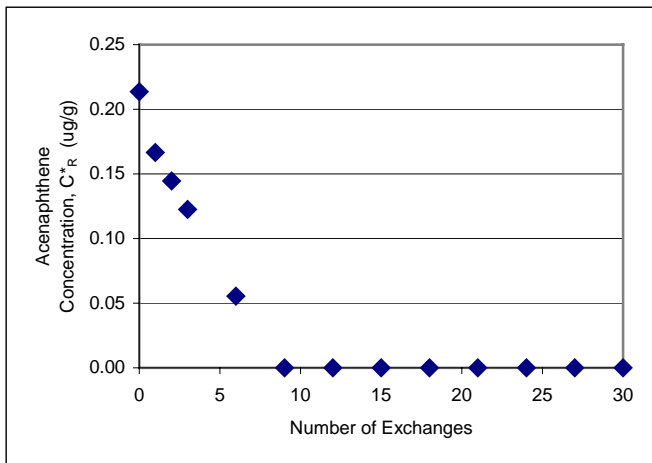
**Figure 4B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-10  
7 ft Below Land Surface**



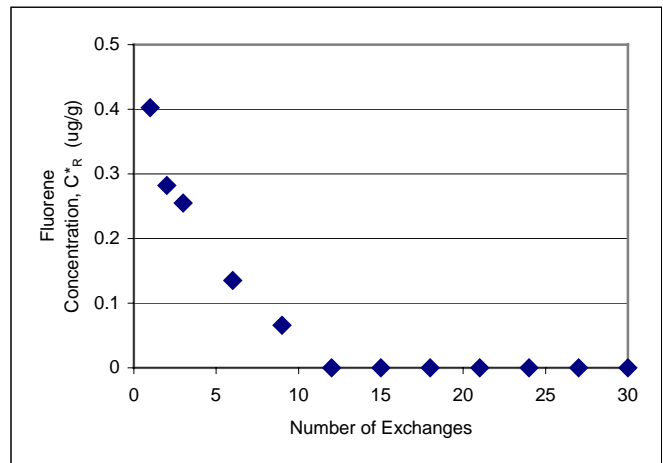
**Naphthalene**



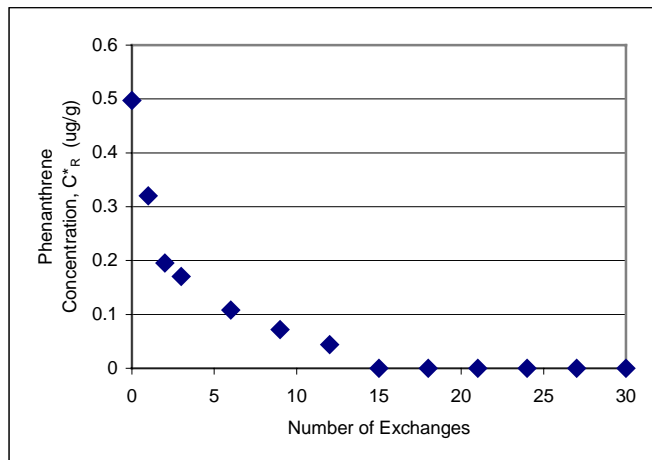
**Acenaphthylene**



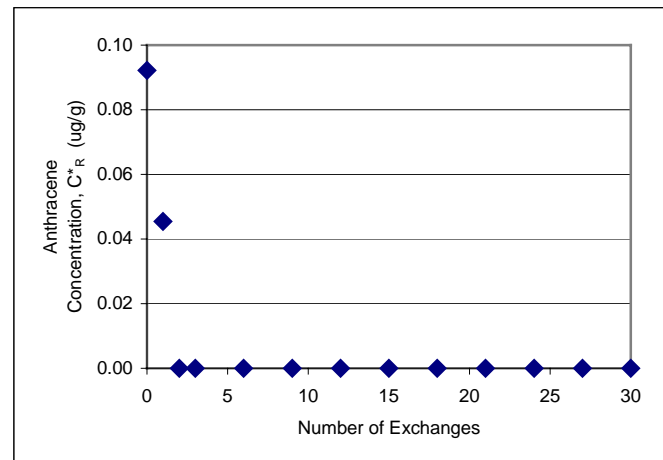
**Acenaphthene**



**Fluorene**

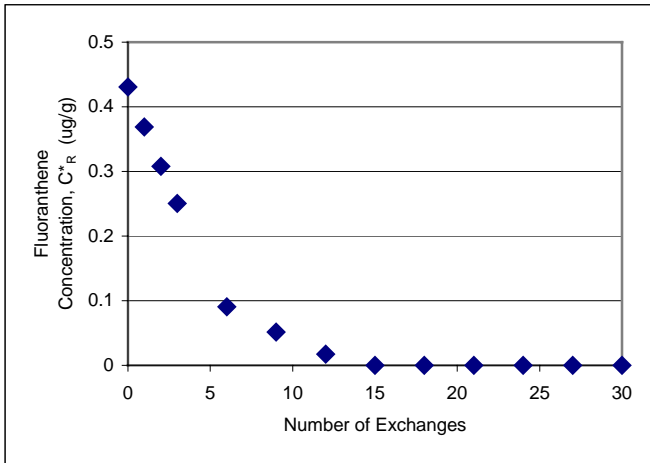


**Phenanthrene**

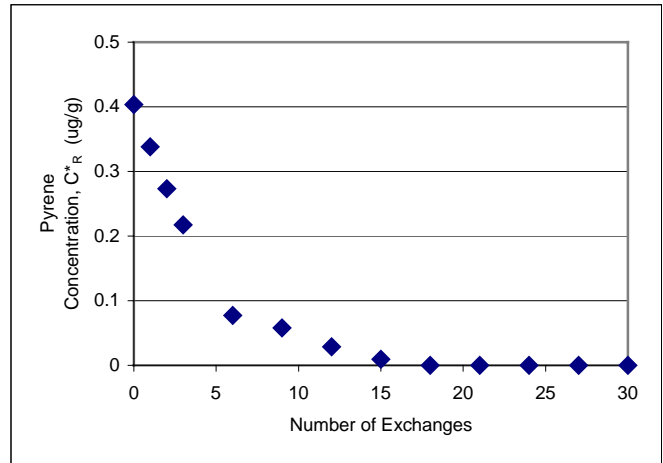


**Anthracene**

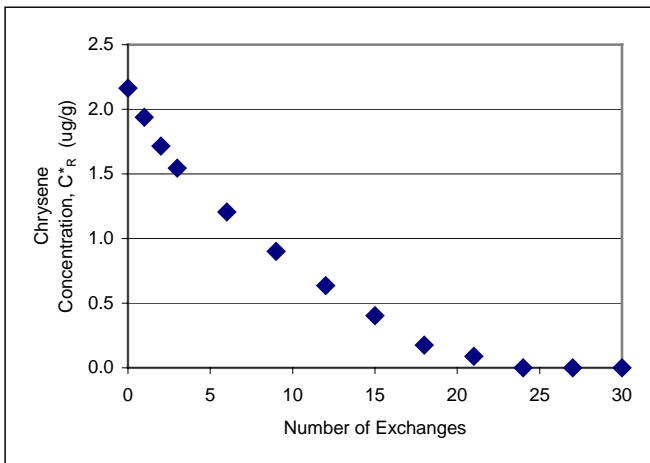
**Figure 5B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-25  
6 ft Below Land Surface**



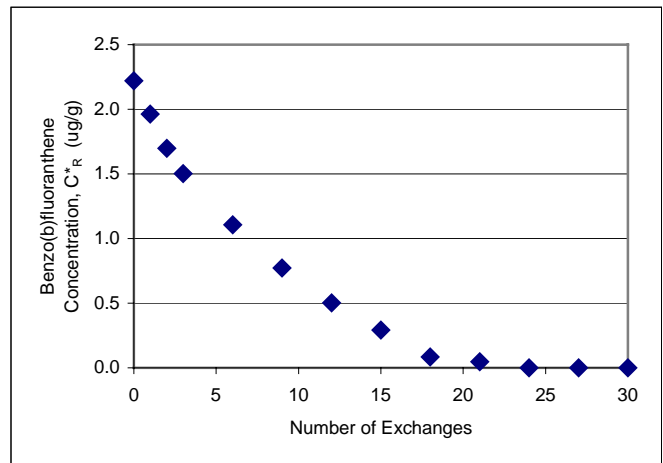
**Fluoranthene**



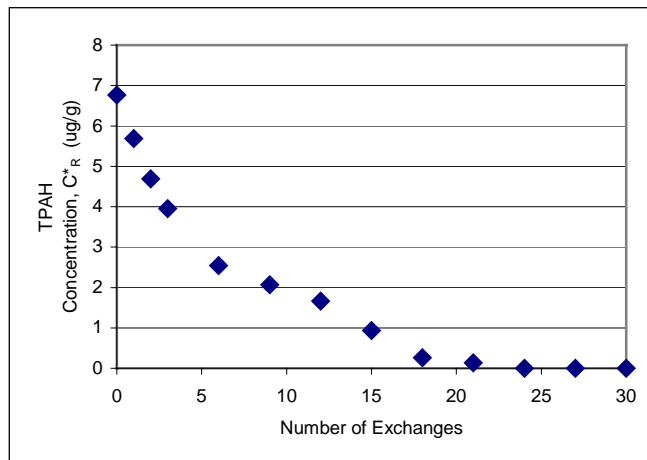
**Pyrene**



**Chrysene**

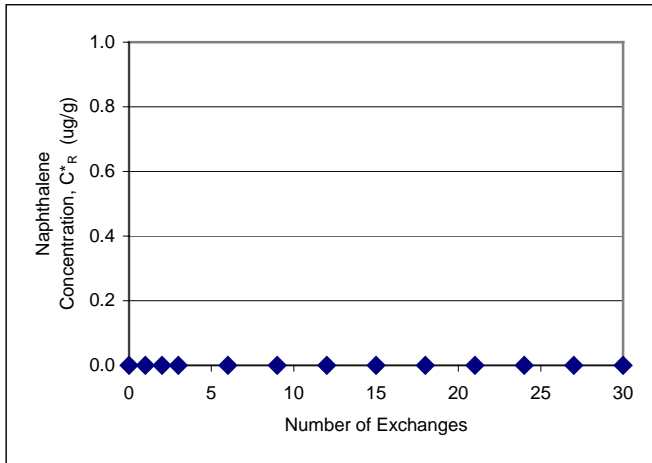


**Benzo(b)fluoranthene**

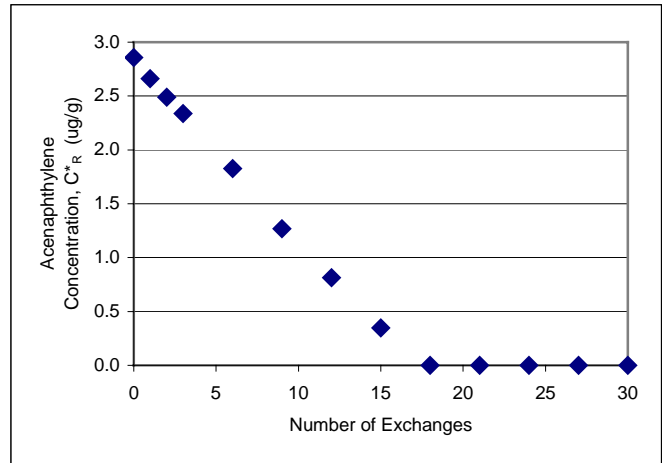


**Total Polycyclic Aromatic Hydrocarbons**

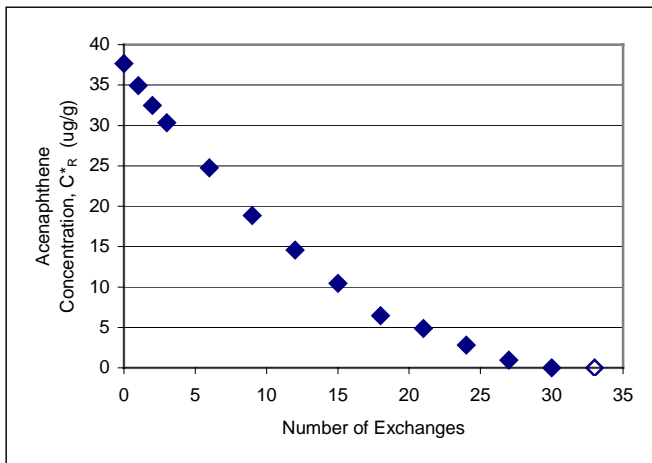
**Figure 6B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-25  
6 ft Below Land Surface**



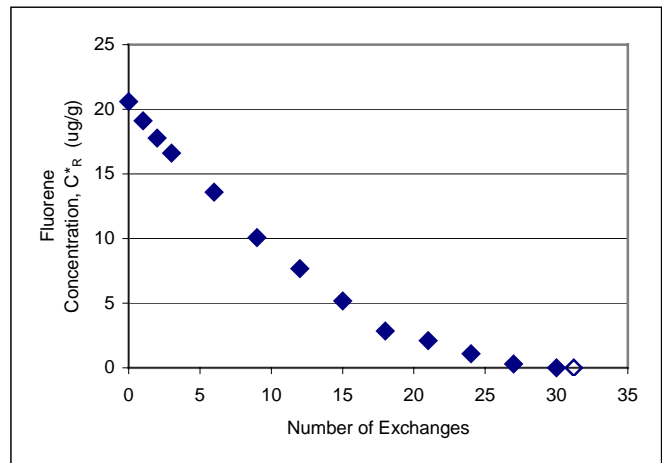
**Naphthalene**



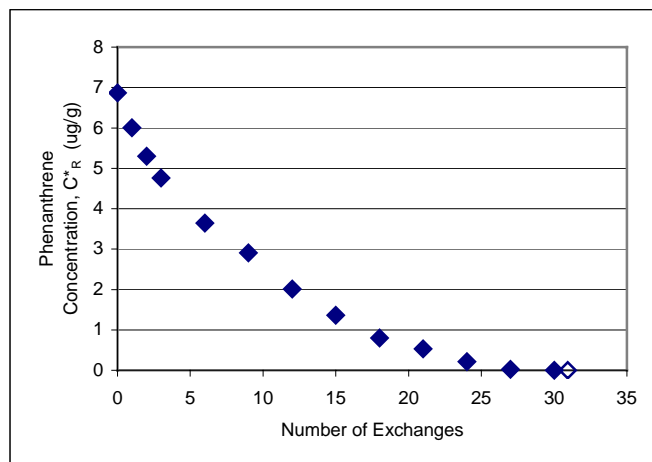
**Acenaphthylene**



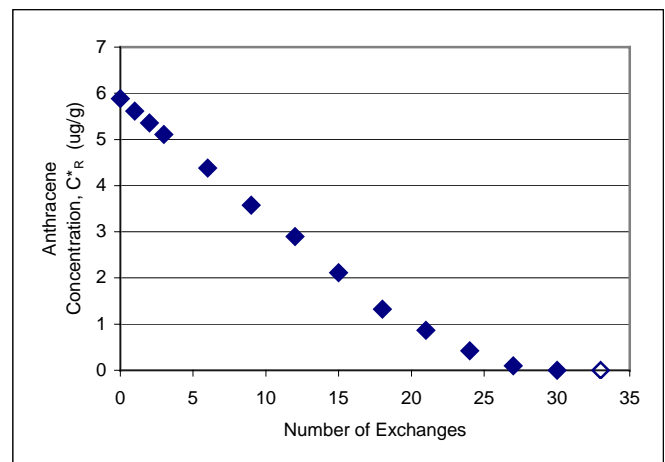
**Acenaphthene**



**Fluorene**

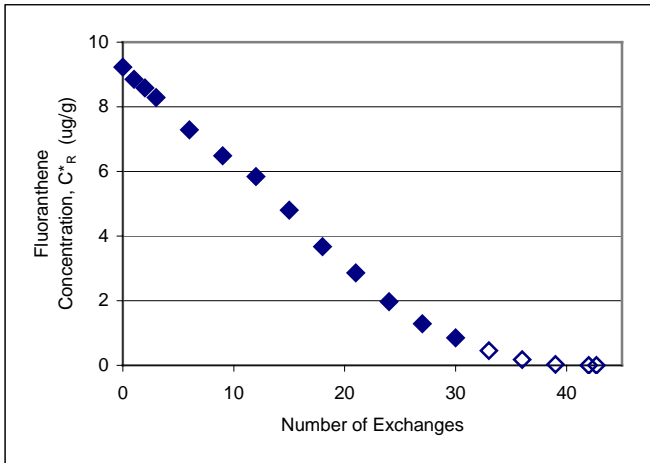


**Phenanthrene**

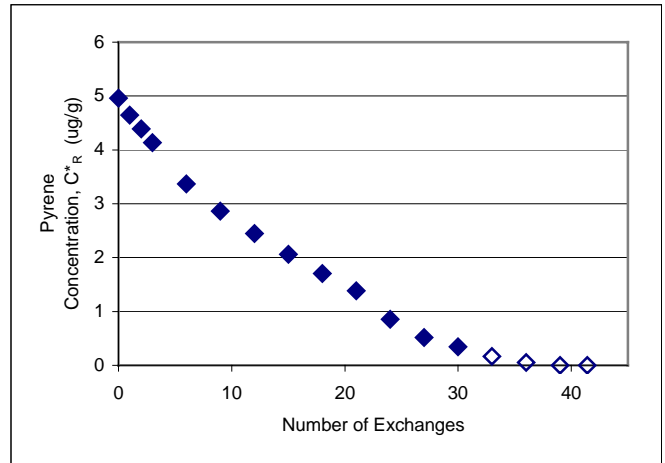


**Anthracene**

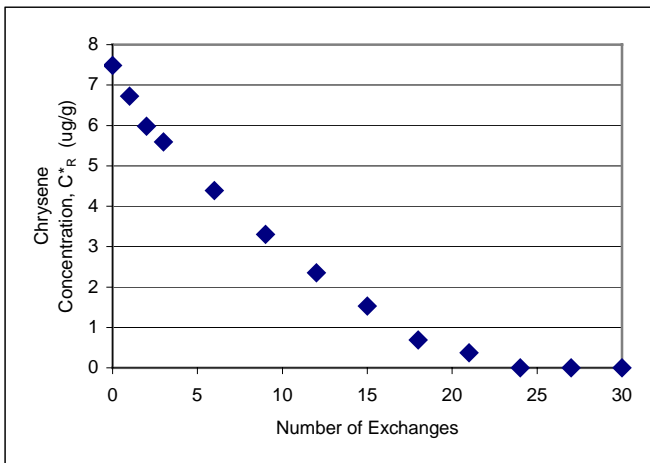
**Figure 7B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-25  
7 ft Below Land Surface**



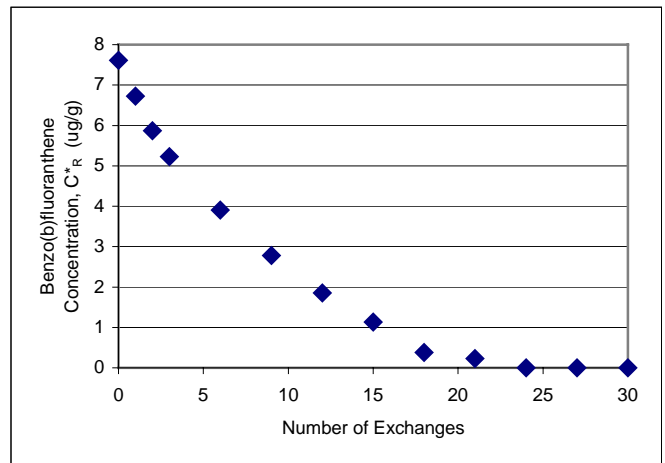
**Fluoranthene**



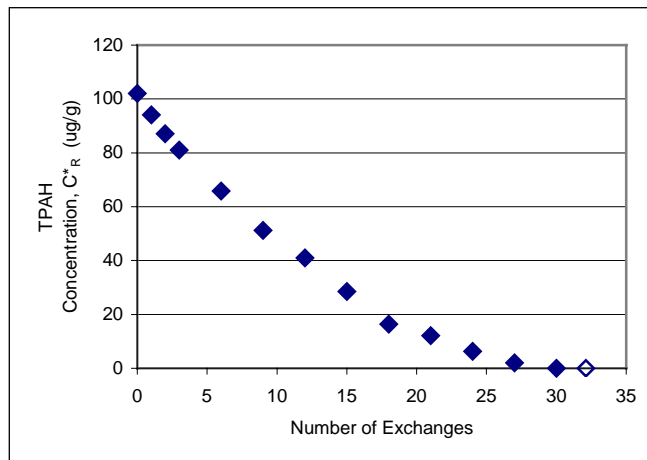
**Pyrene**



**Chrysene**

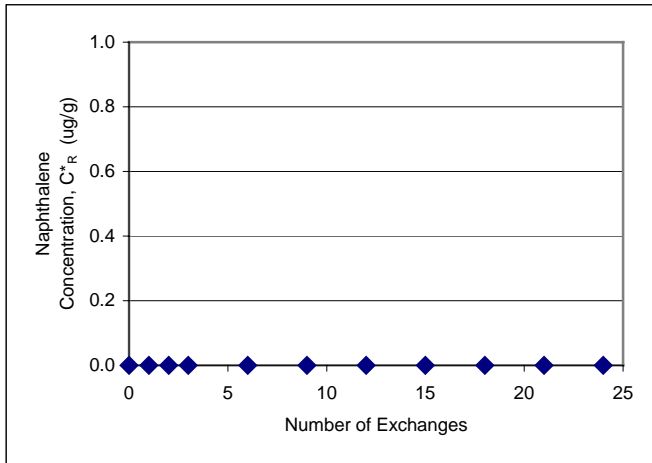


**Benzo(b)fluoranthene**

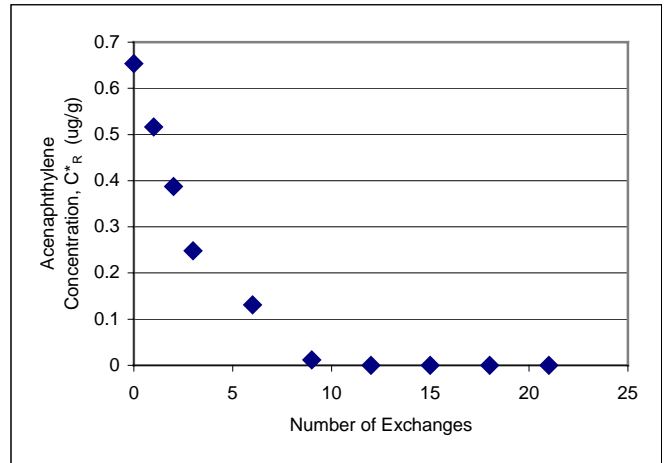


**Total Polycyclic Aromatic Hydrocarbons**

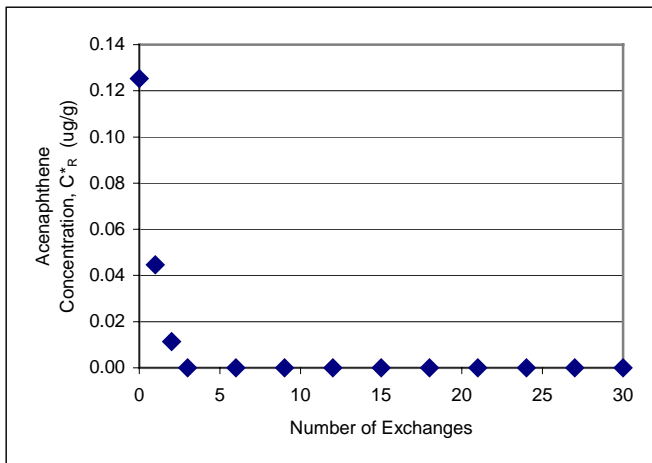
**Figure 8B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-25  
7 ft Below Land Surface**



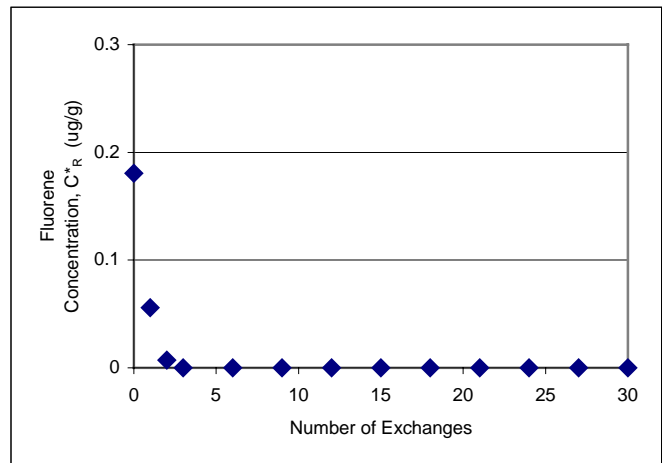
**Naphthalene**



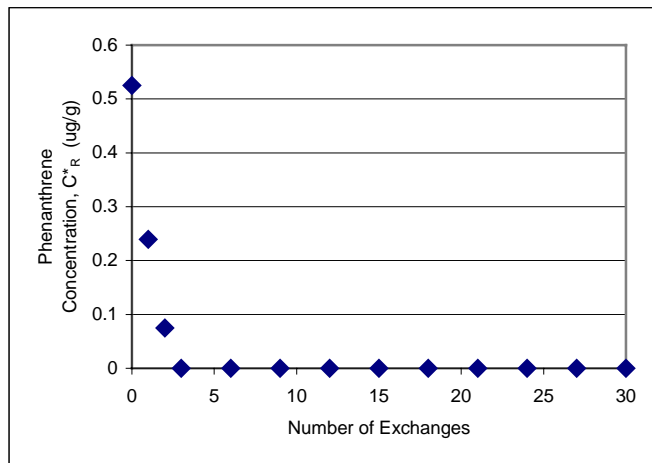
**Acenaphthylene**



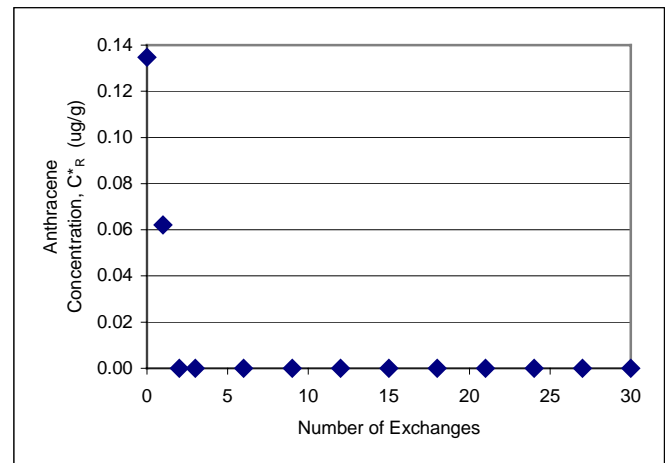
**Acenaphthene**



**Fluorene**

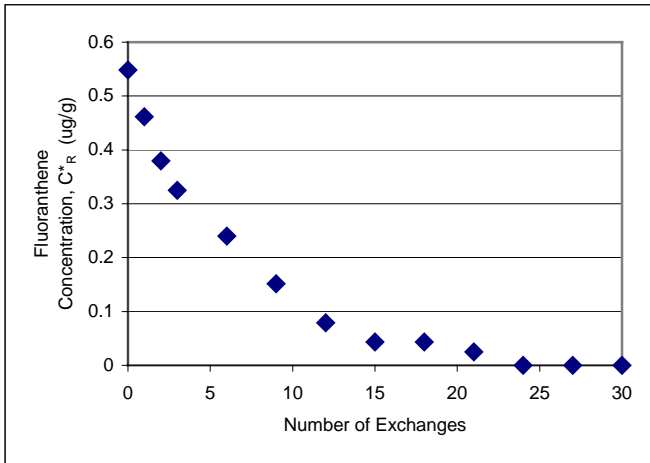


**Phenanthrene**

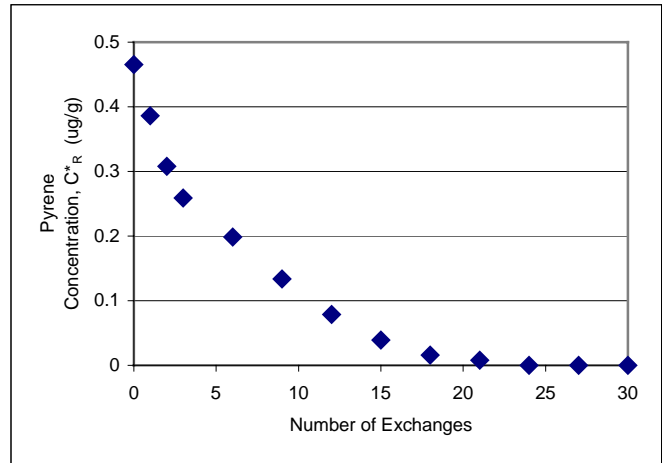


**Anthracene**

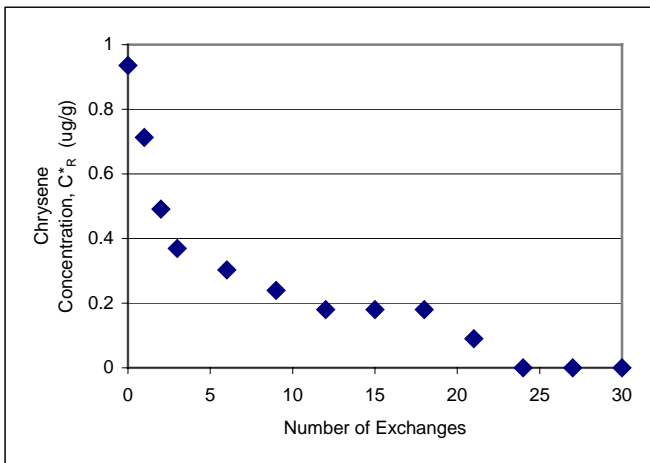
**Figure 9B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-11  
7 ft Below Land Surface**



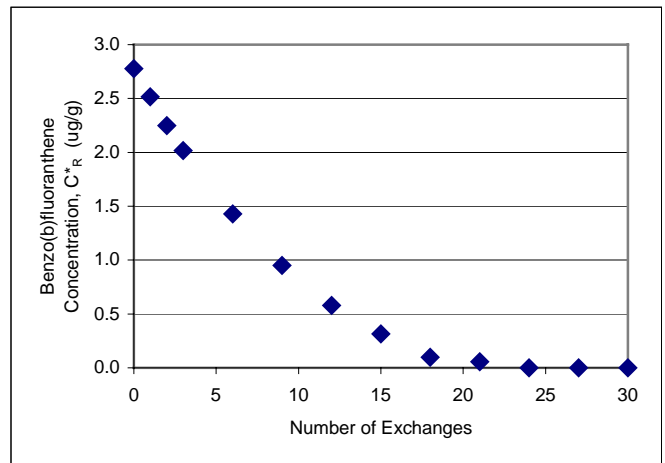
**Fluoranthene**



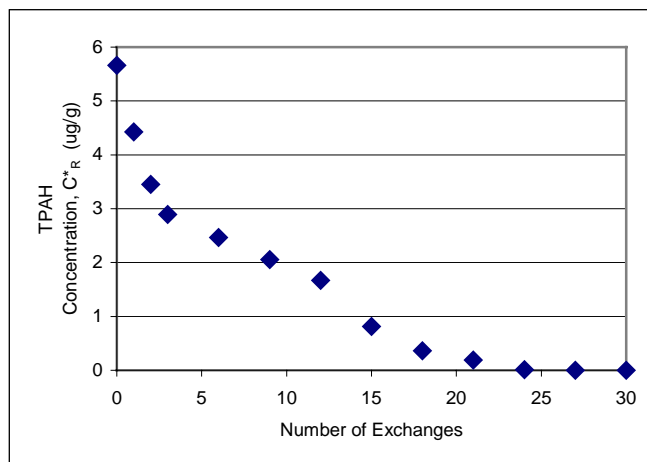
**Pyrene**



**Chrysene**

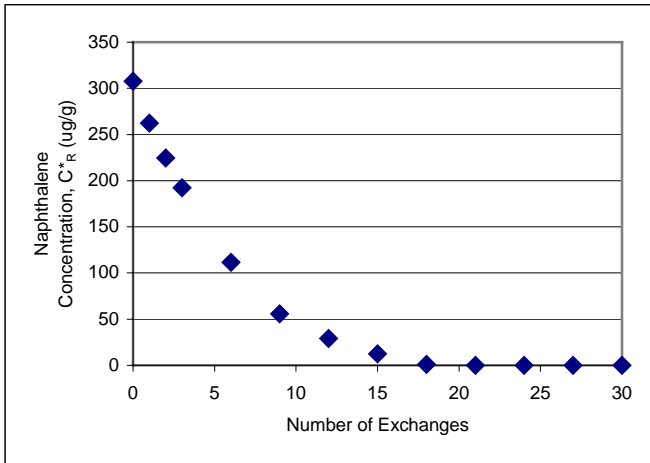


**Benzo(b)fluoranthene**

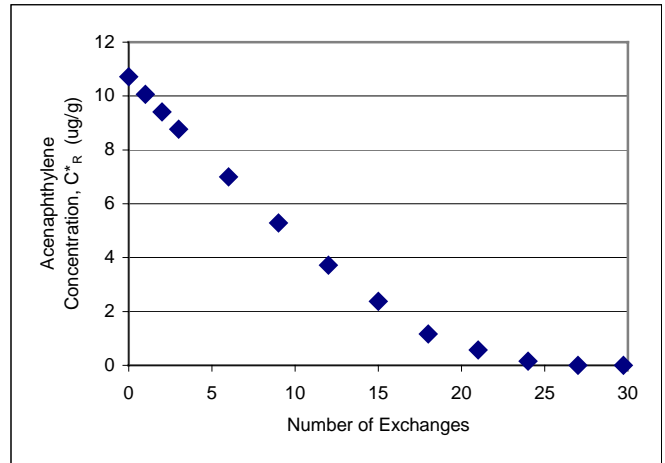


**Total Polycyclic Aromatic Hydrocarbons**

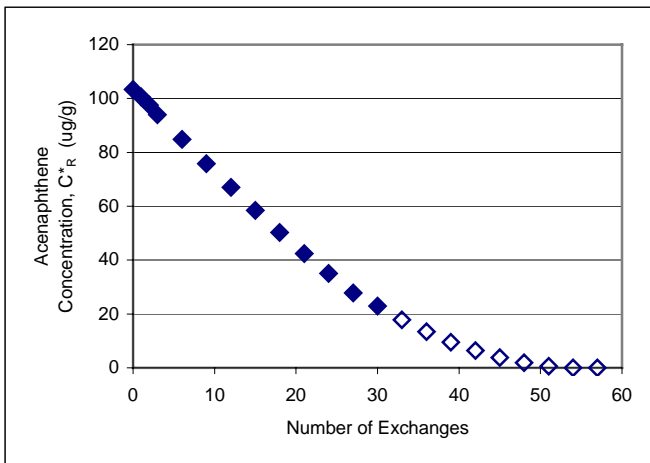
**Figure 10B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-11  
7 ft Below Land Surface**



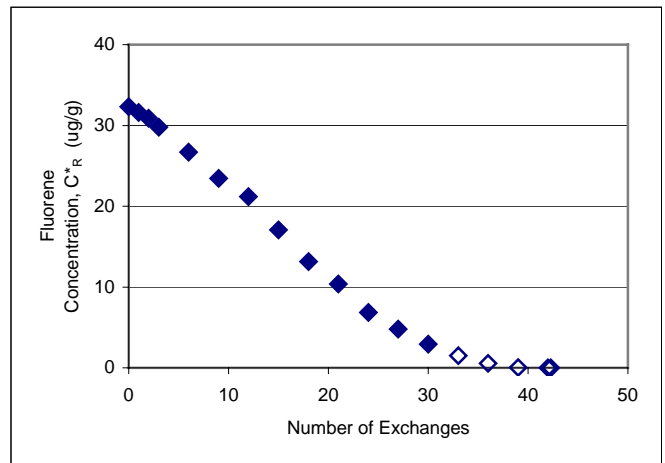
**Naphthalene**



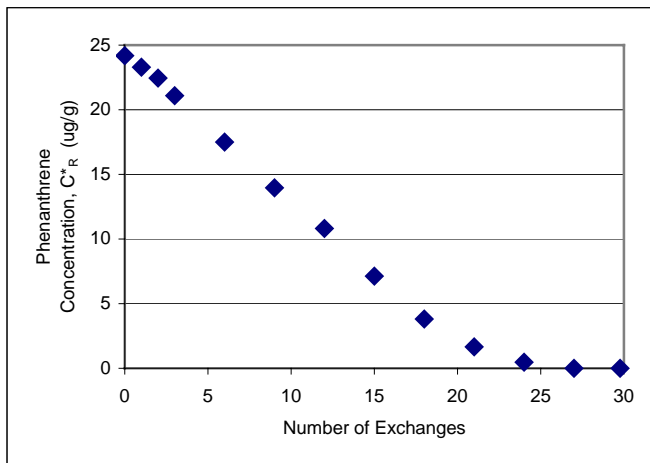
**Acenaphthylene**



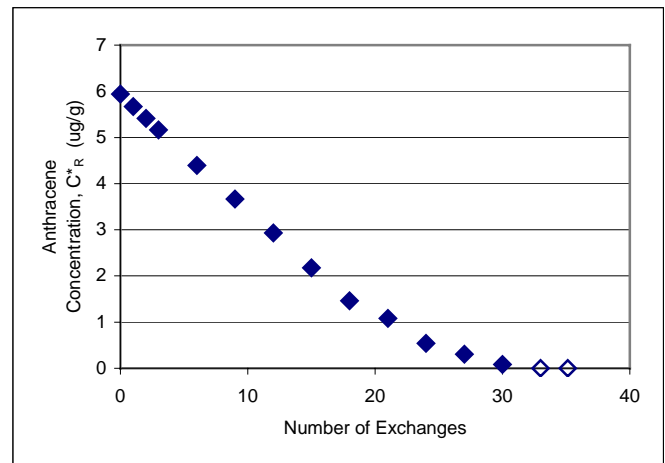
**Acenaphthene**



**Fluorene**



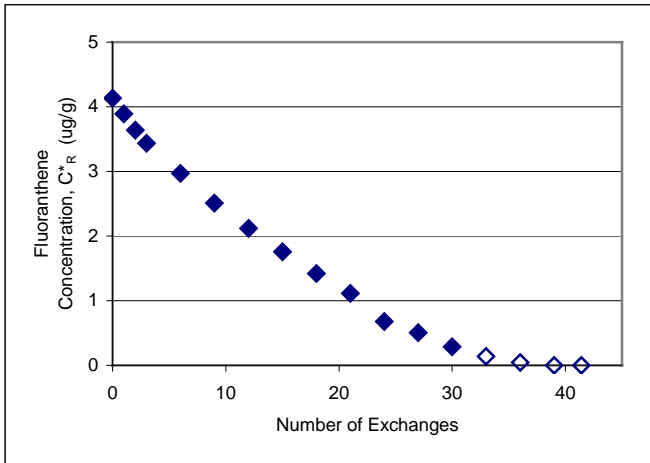
**Phenanthrene**



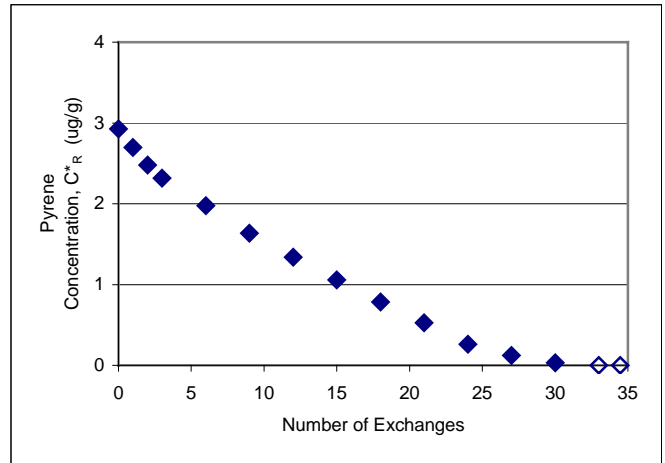
**Anthracene**

**Figure 11B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-11  
8 ft Below Land Surface**

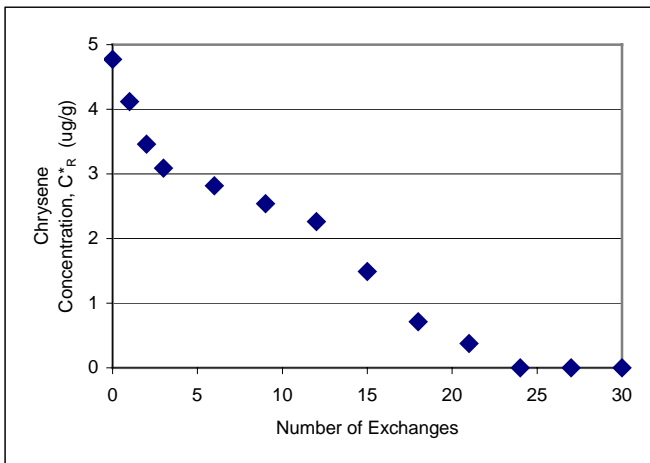




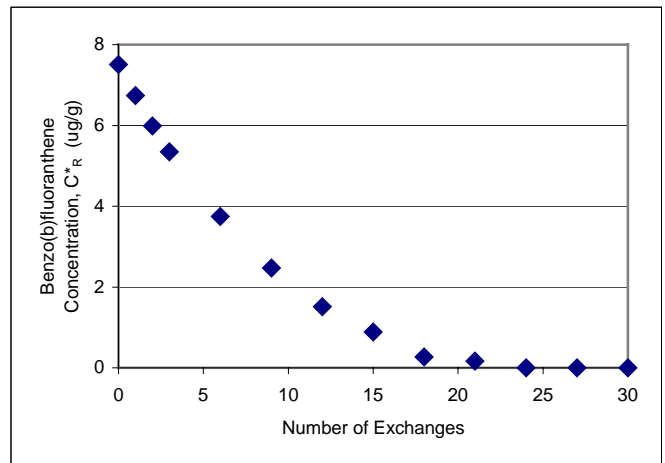
**Fluoranthene**



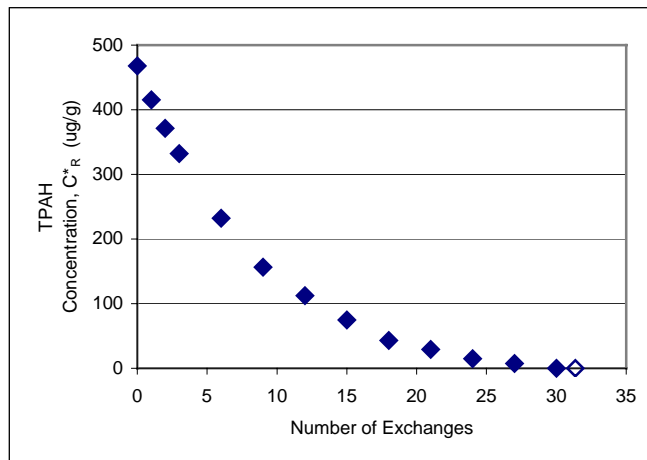
**Pyrene**



**Chrysene**

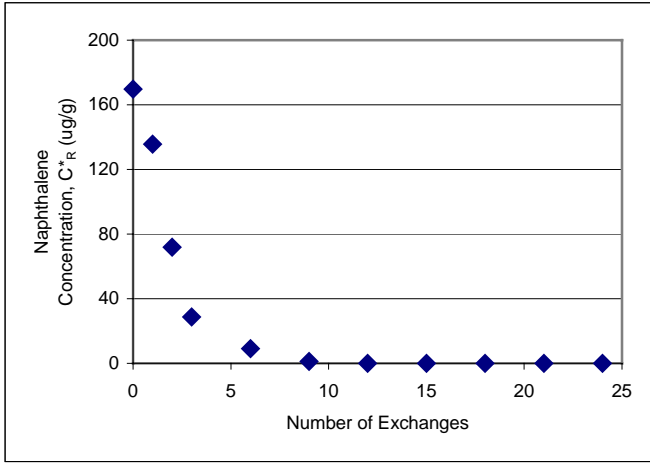


**Benzo(b)fluoranthene**

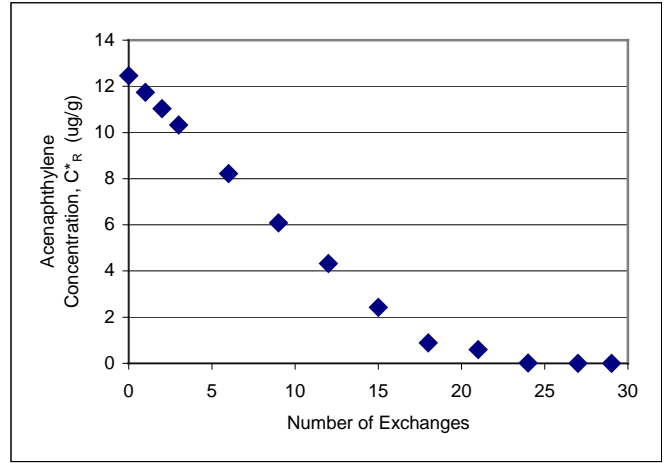


**Total Polycyclic Aromatic Hydrocarbons**

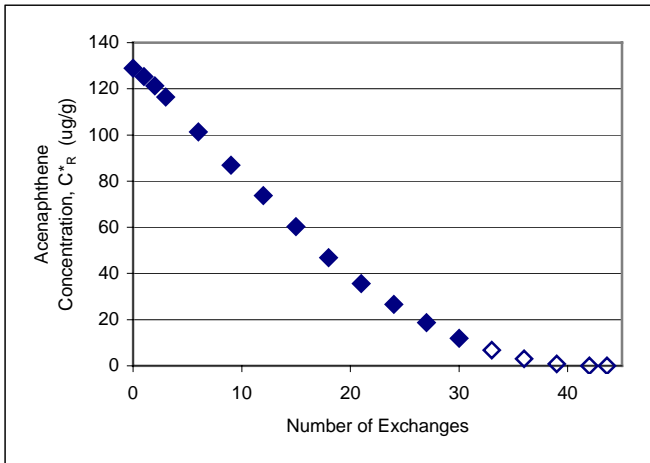
**Figure 12B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-11  
8 ft Below Land Surface**



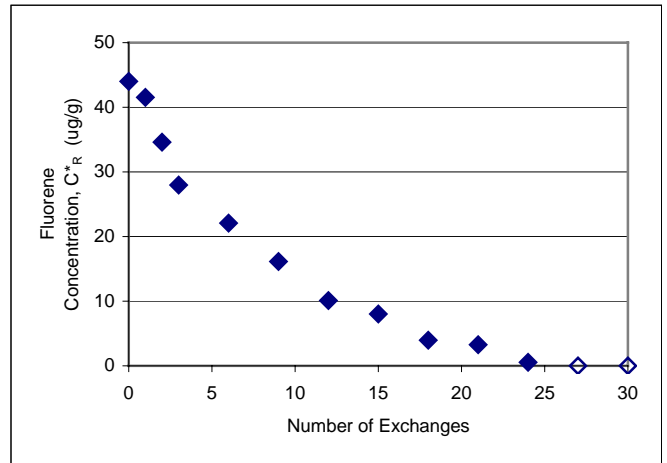
**Naphthalene**



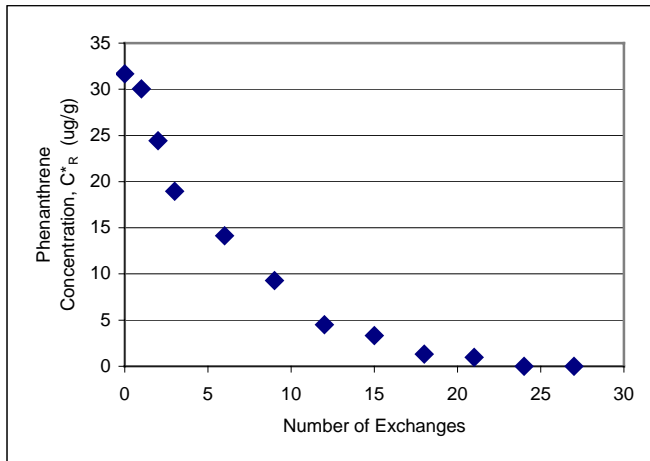
**Acenaphthylene**



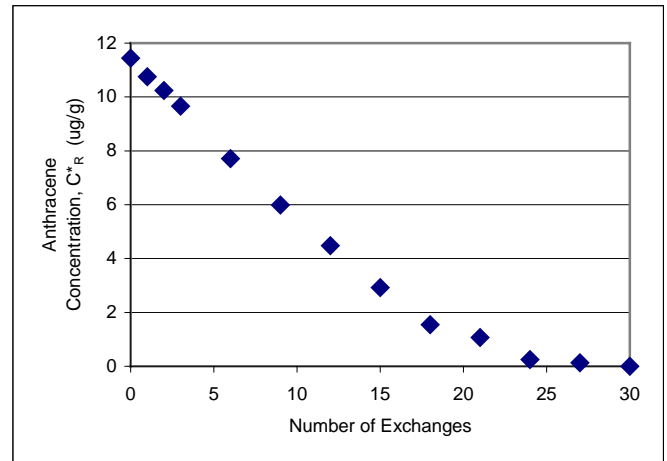
**Acenaphthene**



**Fluorene**

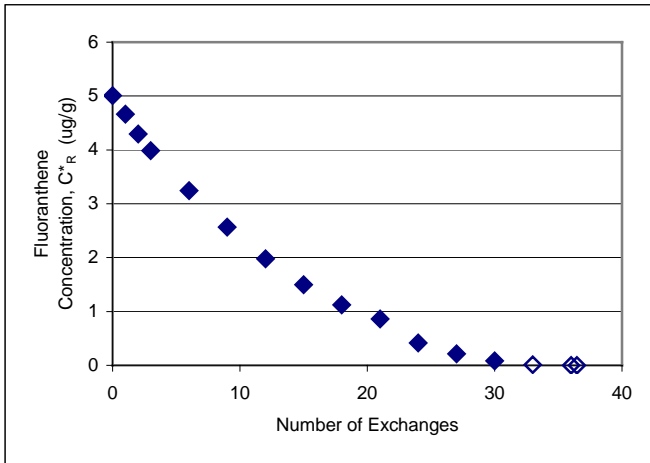


**Phenanthrene**

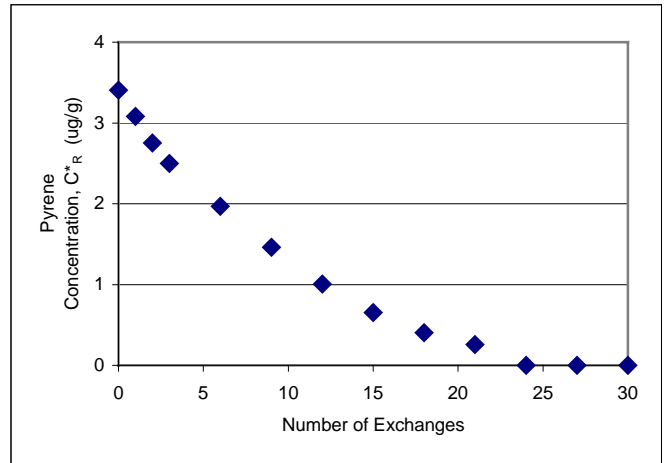


**Anthracene**

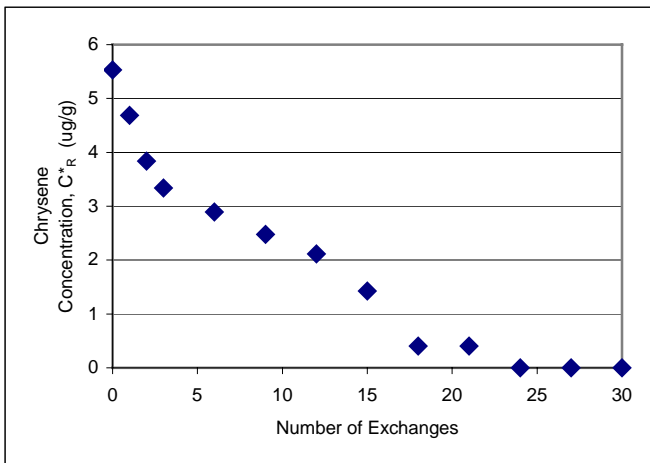
**Figure 13B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-12  
10 ft Below Land Surface**



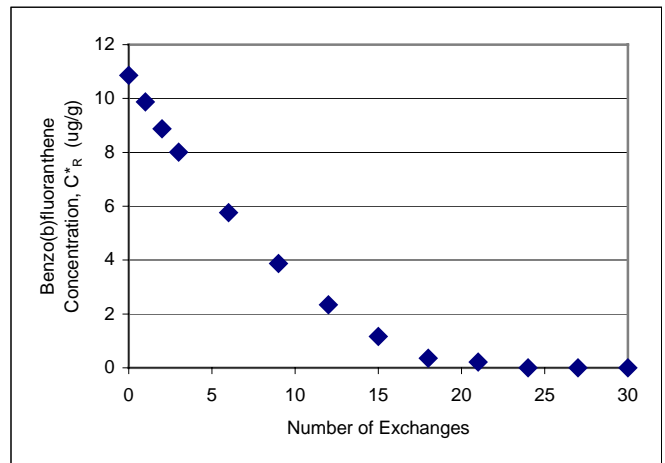
**Fluoranthene**



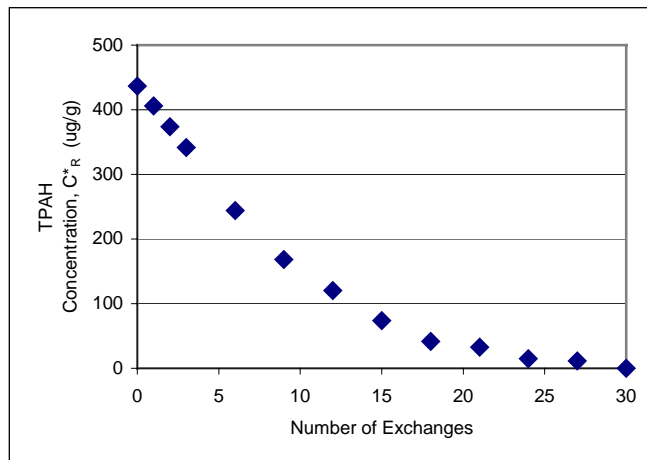
**Pyrene**



**Chrysene**



**Benzo(b)fluoranthene**



**Total Polycyclic Aromatic Hydrocarbons**

**Figure 14B Desorption Kinetics Experiment  
Reversible Sorbed Concentration Versus the Number of Fluid Exchanges at SB-12  
10 ft Below Land Surface**

**Table 58B Summary of Freundlich and Rate Parameters for Desorption Kinetics  
Experiment at SB-10  
6 Feet Below Land Surface**

<b>PAH</b>	<b>Desorption Rate Paramter</b>	<b>Freundlich Constant, K</b>	<b>Freundlich Coefficient, N</b>
Naphthalene	-0.26	2.21E-02	0.92
Acenaphthylene	-0.57	2.53E-03	1.73
Acenaphthene	-3.44	2.35E-05	2.39
Fluorene	-1.92	1.25E-05	2.62
Phenanthrene	-1.49	2.93E-05	2.55
Anthracene	-0.54	3.42E-06	3.34
Fluoranthene	-0.27	3.47E-04	2.45
Pyrene	-0.18	2.05E-03	1.99
Chrysene	-0.51	8.16E-04	1.93
Benzo(b) fluoranthene	-0.59	1.31E-03	1.76
<b>Total PAHs</b>	<b>-9.30</b>	<b>8.53E-07</b>	<b>2.63</b>

**Table 59B Summary of Freundlich and Rate Parameters for Desorption Kinetics  
Experiment at SB-10  
7 Feet Below Land Surface**

<b>PAH</b>	<b>Desorption Rate Paramter</b>	<b>Freundlich Constant, K</b>	<b>Freundlich Coefficient, N</b>
Naphthalene	-25.47	3.51E-05	1.87
Acenaphthylene	-0.83	4.08E-04	2.11
Acenaphthene	-4.96	2.06E-07	3.05
Fluorene	-2.43	2.25E-06	2.89
Phenanthrene	-1.84	2.11E-05	2.52
Anthracene	-0.80	9.74E-05	2.45
Fluoranthene	-0.28	3.10E-04	2.46
Pyrene	-0.20	8.94E-03	1.57
Chrysene	-0.56	2.47E-03	1.70
Benzo(b) fluoranthene	-0.65	6.99E-03	1.41
<b>Total PAHs</b>	<b>-32.00</b>	<b>9.09E-05</b>	<b>1.78</b>

**Table 60B Summary of Freundlich and Rate Parameters for Desorption Kinetics  
Experiment at SB-25  
6 Feet Below Land Surface**

PAH	Desorption Rate Paramter	Freundlich Constant, K	Freundlich Coefficient, N
Naphthalene		<u>Insufficient Data</u>	
Acenaphthylene	-0.12	3.57E-14	15.30
Acenaphthene	-0.025	4.16E-02	0.66
Fluorene	-0.15	4.92E-02	0.60
Phenanthrene	-0.15	4.90E-02	0.54
Anthracene		<u>Insufficient Data</u>	
Fluoranthene	-0.056	1.05E-02	1.35
Pyrene	-0.05	1.96E-02	1.02
Chrysene	-0.11	6.87E-03	1.58
Benzo(b) fluoranthene	-0.14	1.25E-02	1.31
<b>Total PAHs</b>	<b>-0.40</b>	<b>2.74E-02</b>	<b>1.01</b>

**Table 61B Summary of Freundlich and Rate Parameters for Desorption Kinetics  
Experiment at SB-25  
7 Feet Below Land Surface**

PAH	Desorption Rate Paramter	Freundlich Constant, K	Freundlich Coefficient, N
Naphthalene		<u>Insufficient Data</u>	
Acenaphthylene	-0.17	6.81E-06	3.53
Acenaphthene	-1.73	3.72E-04	1.85
Fluorene	-1.02	4.37E-04	1.90
Phenanthrene	-0.35	1.16E-03	1.81
Anthracene	-0.25	2.08E-06	3.69
Fluoranthene	-0.30	8.69E-05	2.70
Pyrene	-0.16	1.96E-03	1.99
Chrysene	-0.38	3.41E-03	1.56
Benzo(b) fluoranthene	-0.46	1.01E-02	1.26
<b>Total PAHs</b>	<b>-4.64</b>	<b>1.50E-04</b>	<b>1.85</b>

**Table 62B Summary of Freundlich and Rate Parameters for Desorption Kinetics  
Experiment at SB-11  
7 Feet Below Land Surface**

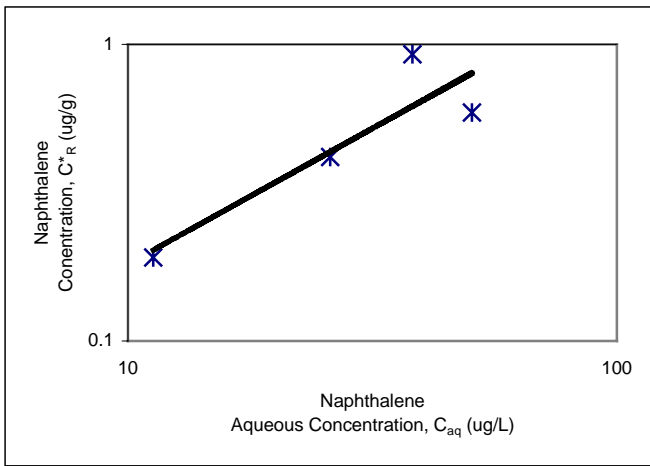
<b>PAH</b>	<b>Desorption Rate Parameter</b>	<b>Freundlich Constant, K</b>	<b>Freundlich Coefficient, N</b>
<b>Naphthalene</b>		<u><b>Insufficient Data</b></u>	
<b>Acenaphthylene</b>	-0.13	6.33E-10	13.10
<b>Acenaphthene</b>		<u><b>Insufficient Data</b></u>	
<b>Fluorene</b>		<u><b>Insufficient Data</b></u>	
<b>Phenanthrene</b>		<u><b>Insufficient Data</b></u>	
<b>Anthracene</b>		<u><b>Insufficient Data</b></u>	
<b>Fluoranthene</b>	-0.041	2.21E-02	1.15
<b>Pyrene</b>	-0.029	1.98E-02	1.19
<b>Chrysene</b>	-0.030	1.44E-01	0.37
<b>Benzo(b) fluoranthene</b>	-0.18	8.50E-03	1.42
<b>Total PAHs</b>	-0.28	1.12E-02	1.21

**Table 63B Summary of Freundlich and Rate Parameters for Desorption Kinetics  
Experiment at SB-11  
8 Feet Below Land Surface**

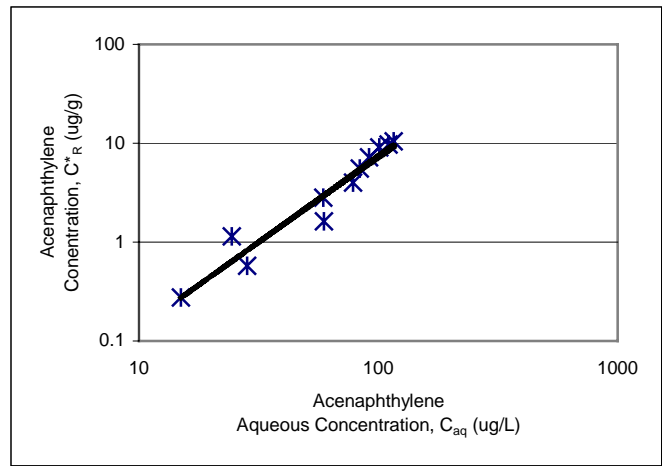
<b>PAH</b>	<b>Desorption Rate Parameter</b>	<b>Freundlich Constant, K</b>	<b>Freundlich Coefficient, N</b>
<b>Naphthalene</b>	-27.47	6.45E-06	1.93
<b>Acenaphthylene</b>	-0.56	2.95E-05	2.51
<b>Acenaphthene</b>	-2.68	1.54E-05	2.37
<b>Fluorene</b>	-1.06	3.75E-06	2.83
<b>Phenanthrene</b>	-1.15	3.08E-06	2.75
<b>Anthracene</b>	-0.24	1.07E-04	2.58
<b>Fluoranthene</b>	-0.14	1.19E-03	2.10
<b>Pyrene</b>	-0.11	7.75E-04	2.22
<b>Chrysene</b>	-0.18	4.94E-01	0.35
<b>Benzo(b) fluoranthene</b>	-0.50	6.62E-03	1.30
<b>Total PAHs</b>	-26.19	2.33E-03	1.30

**Table 64B Summary of Freundlich and Rate Parameters for Desorption Kinetics  
Experiment at SB-12  
10 Feet Below Land Surface**

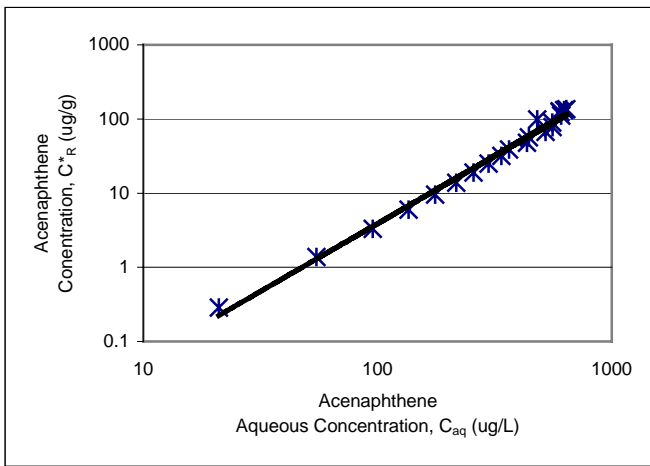
<b>PAH</b>	<b>Desorption Rate Parameter</b>	<b>Freundlich Constant, K</b>	<b>Freundlich Coefficient, N</b>
<b>Naphthalene</b>	-48.68	1.58E-05	1.86
<b>Acenaphthylene</b>	-0.67	1.44E-04	2.21
<b>Acenaphthene</b>	-4.27	3.04E-06	2.58
<b>Fluorene</b>	-1.97	1.77E-02	1.16
<b>Phenanthrene</b>	-2.53	2.76E-02	1.08
<b>Anthracene</b>	-0.56	4.38E-03	1.54
<b>Fluoranthene</b>	-0.22	1.08E-03	2.11
<b>Pyrene</b>	-0.18	1.24E-02	1.38
<b>Chrysene</b>	-0.22	7.23E-01	0.28
<b>Benzo(b) fluoranthene</b>	-0.71	5.96E-03	1.38
<b>Total PAHs</b>	-24.91	2.67E-02	1.06



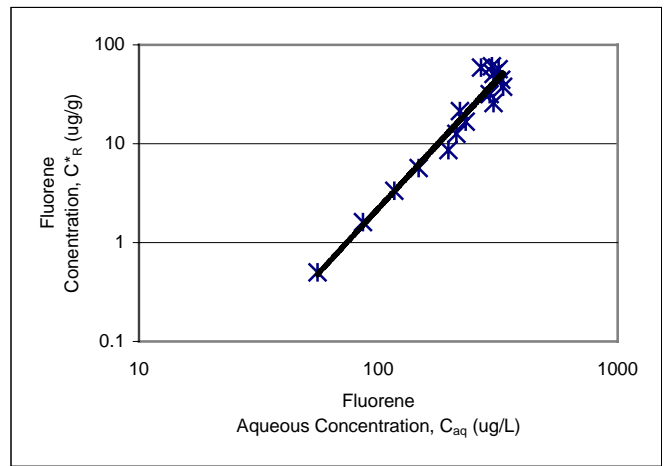
**Naphthalene**



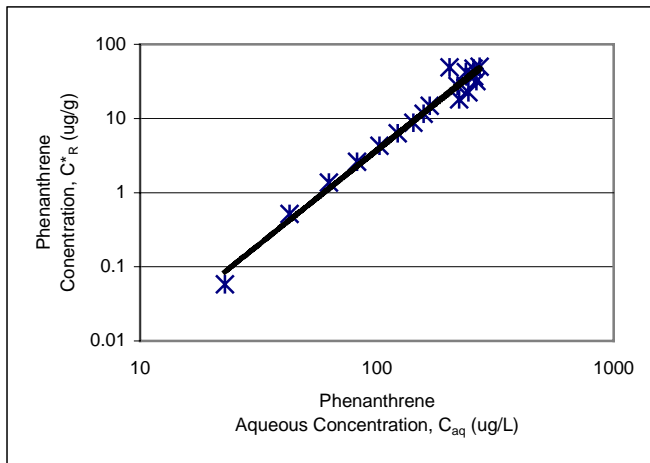
**Acenaphthylene**



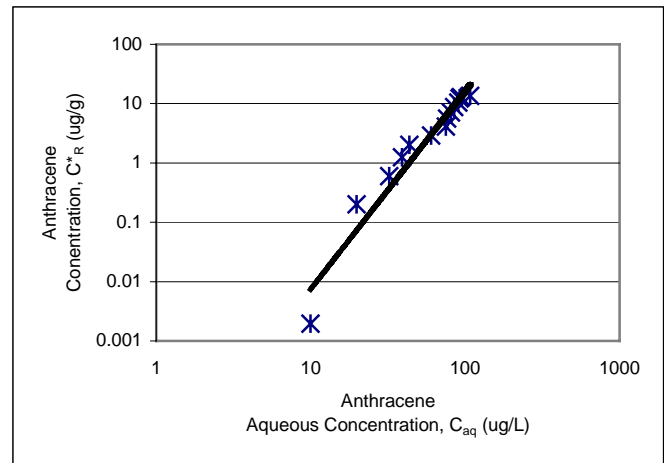
**Acenaphthene**



**Fluorene**



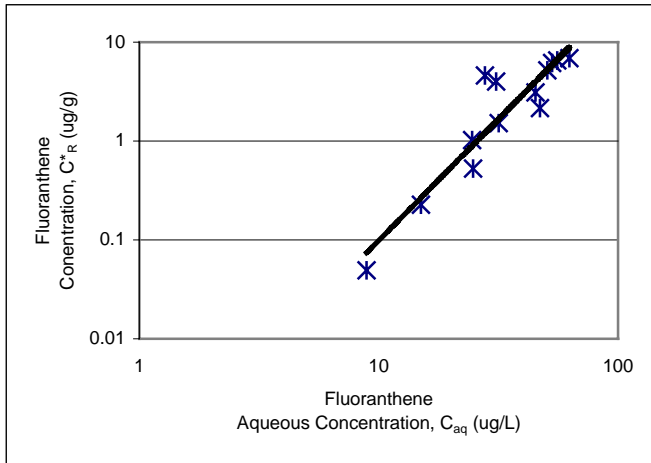
**Phenanthrene**



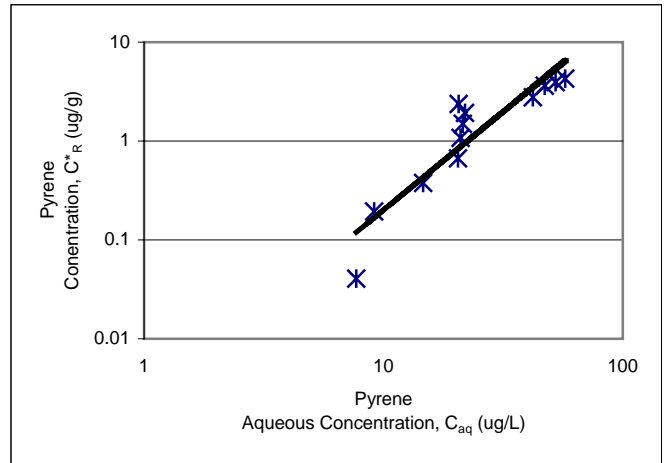
**Anthracene**

**Figure 15B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-10  
6 ft Below Land Surface**

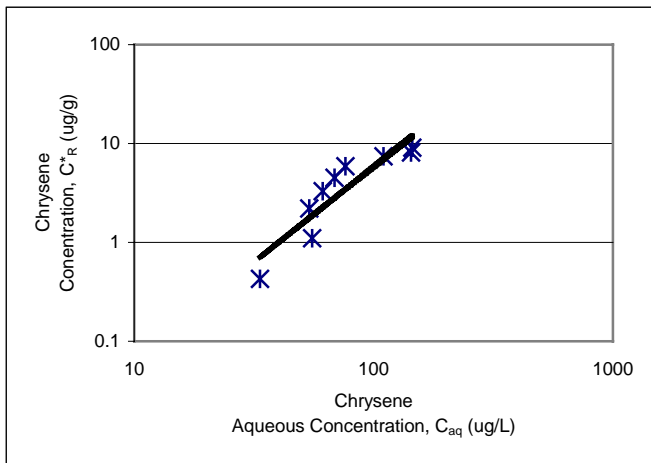




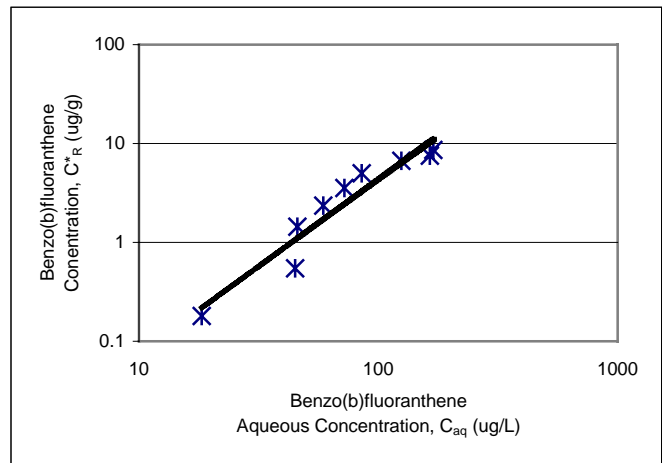
**Fluoranthene**



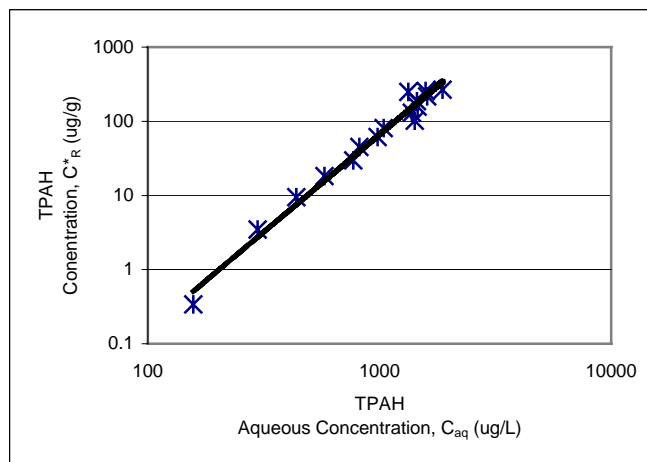
**Pyrene**



**Chrysene**

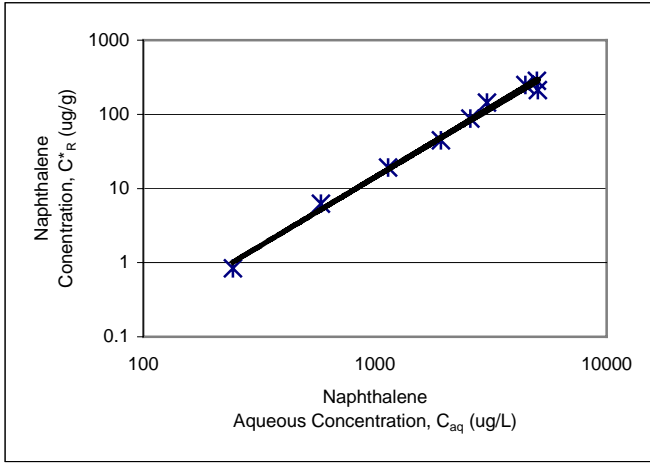


**Benzo(b)fluoranthene**

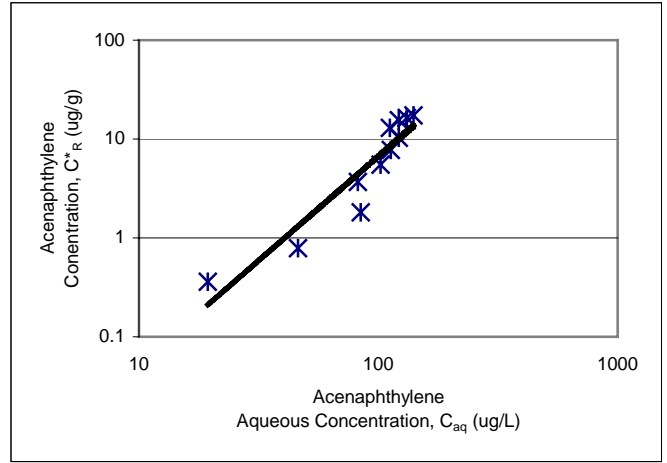


**Total Polycyclic Aromatic Hydrocarbons**

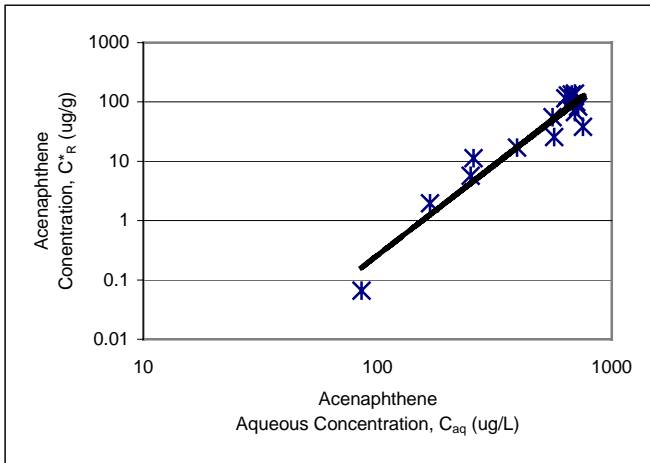
**Figure 16B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-10  
6 ft Below Land Surface**



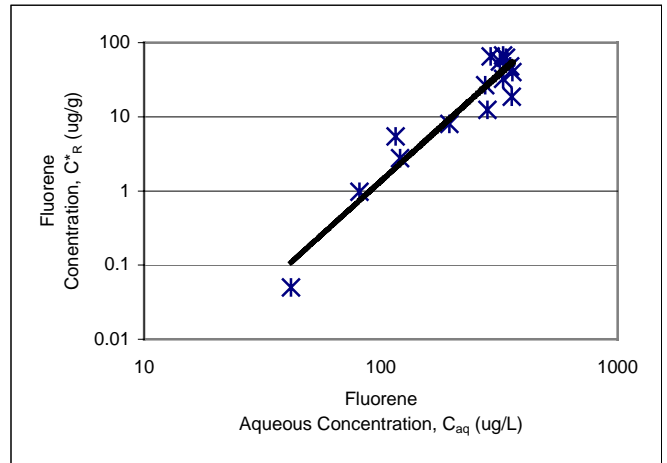
**Naphthalene**



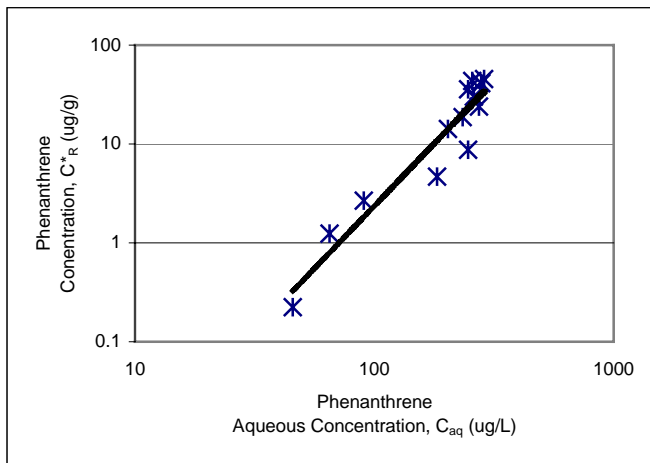
**Acenaphthylene**



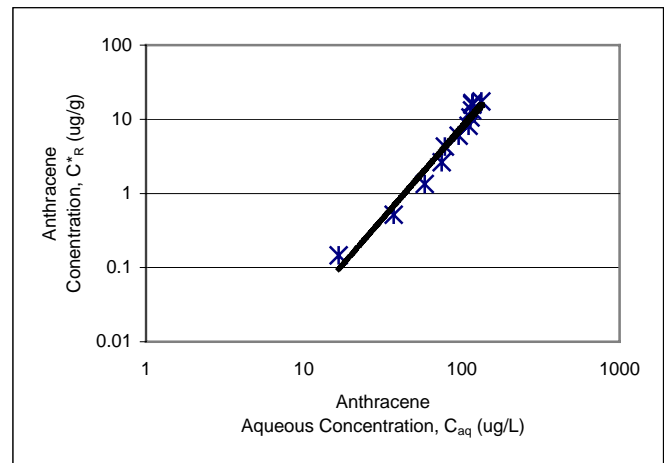
**Acenaphthene**



**Fluorene**

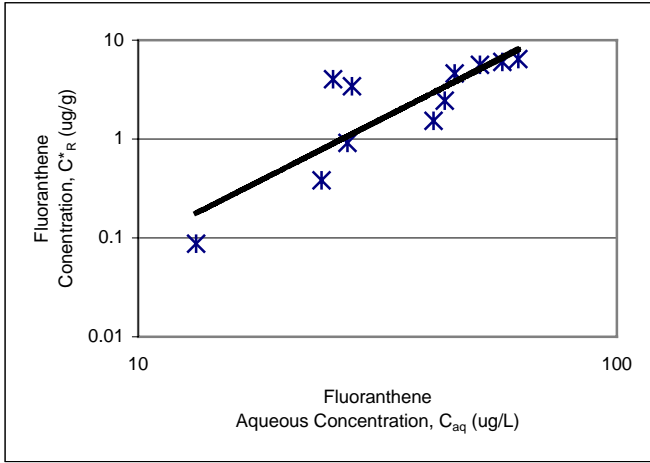


**Phenanthrene**

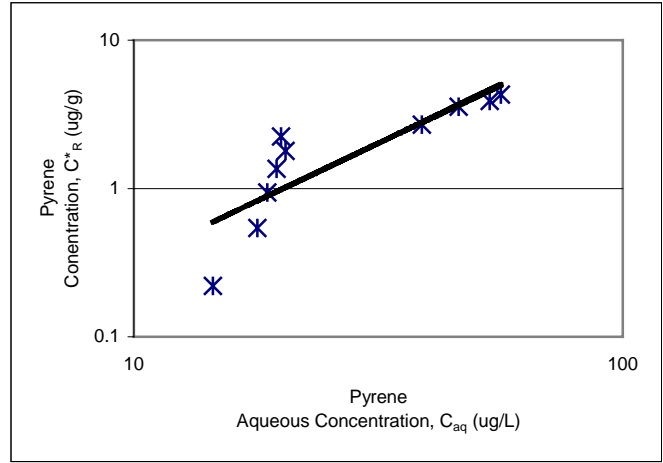


**Anthracene**

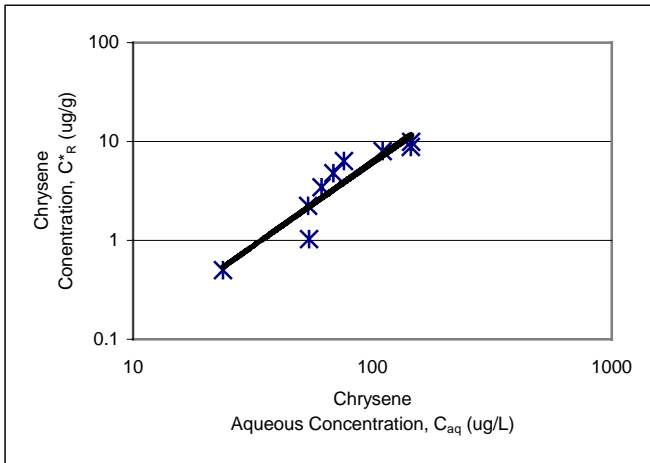
**Figure 17B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-10  
7 ft Below Land Surface**



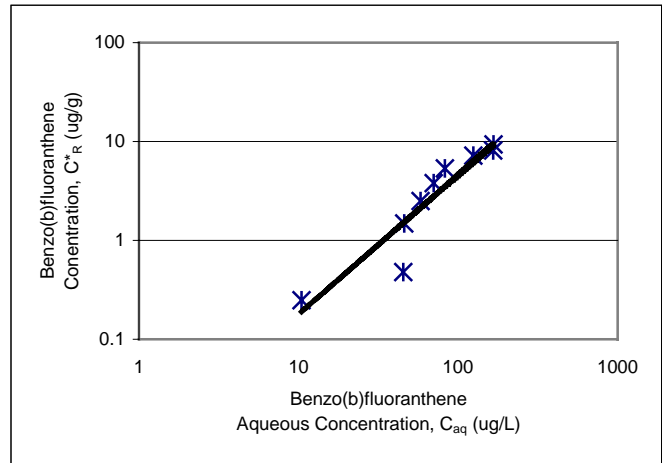
**Fluoranthene**



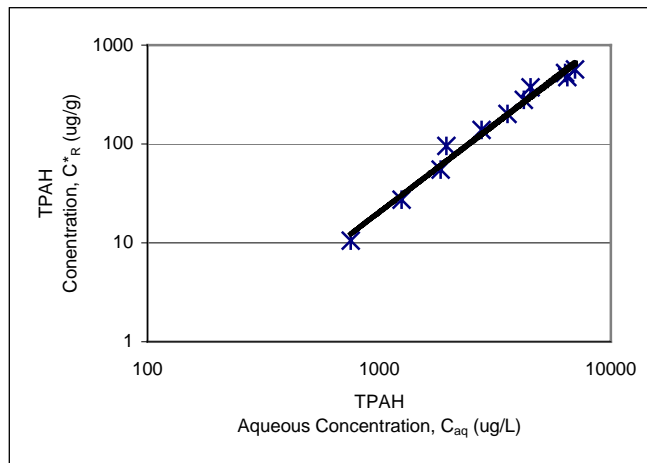
**Pyrene**



**Chrysene**



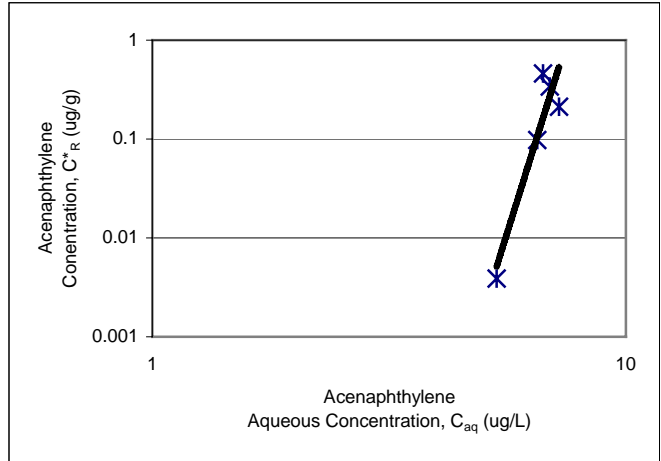
**Benzo(b)fluoranthene**



**Total Polycyclic Aromatic Hydrocarbons**

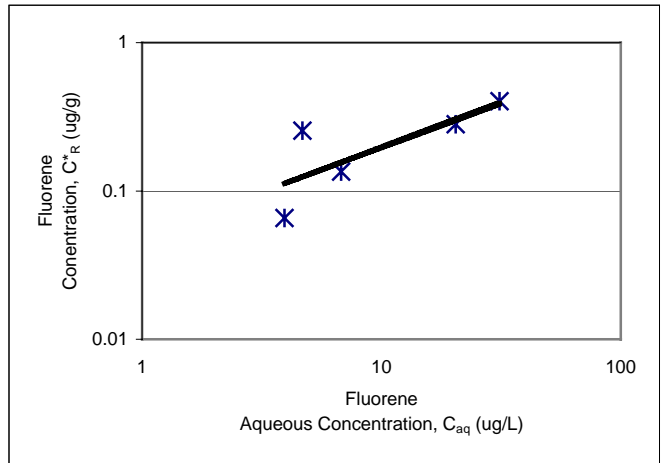
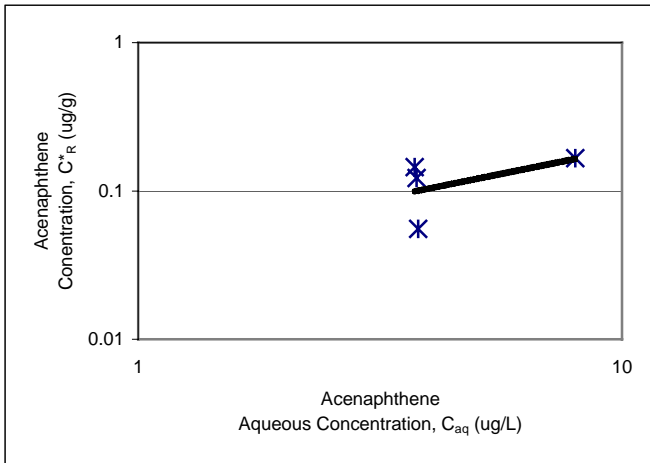
**Figure 18B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-10  
7 ft Below Land Surface**

**Insufficient Data**



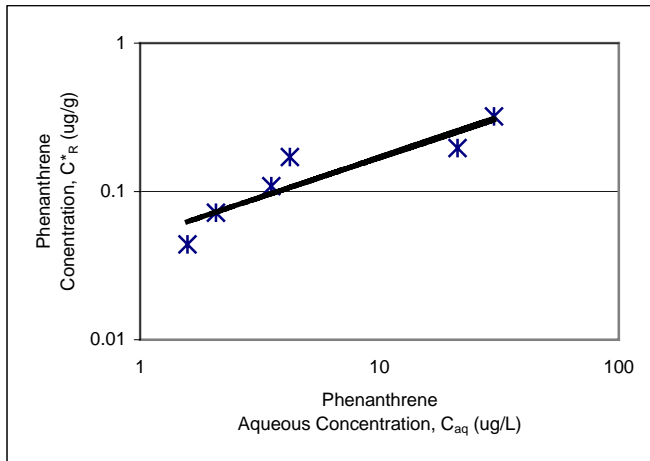
**Naphthalene**

**\*Acenaphthylene**



**Acenaphthene**

**Fluorene**



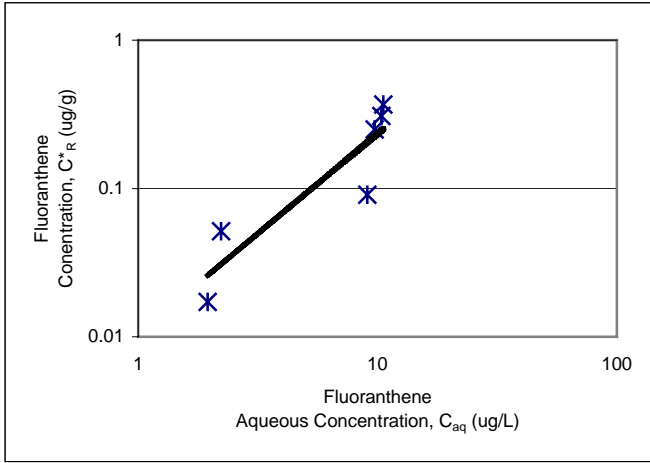
**Insufficient Data**

**Phenanthrene**

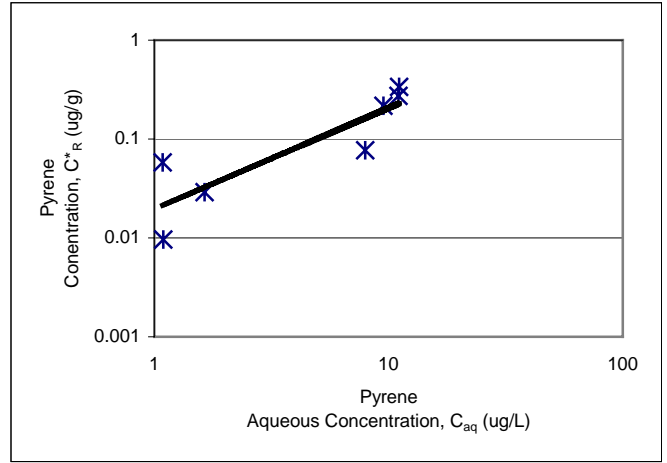
**Anthracene**

**Figure 19B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-25  
6 ft Below Land Surface**

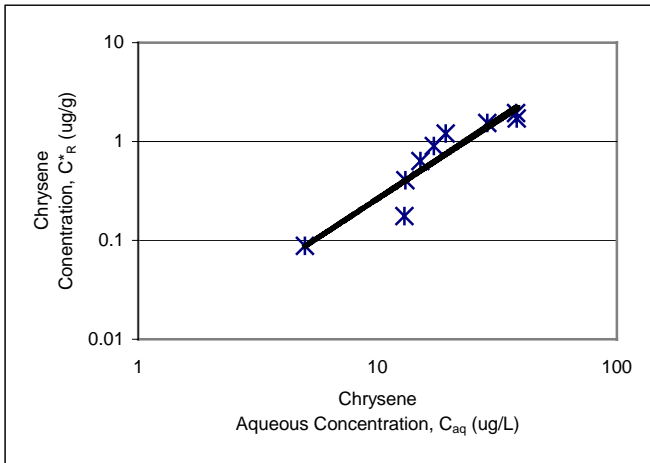
\*Acenaphthylene Freundlich isotherm based on limited data



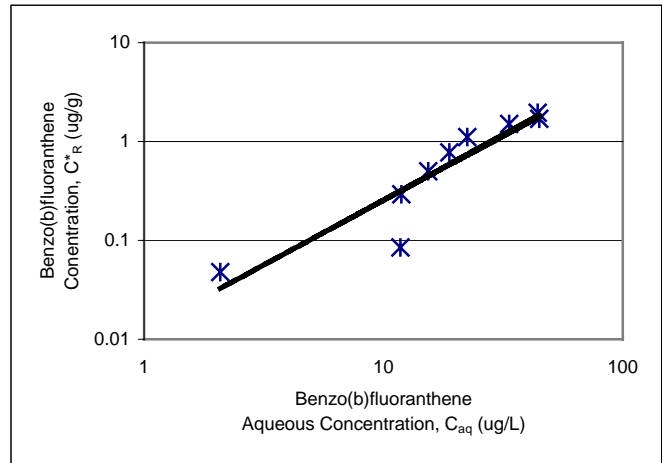
**Fluoranthene**



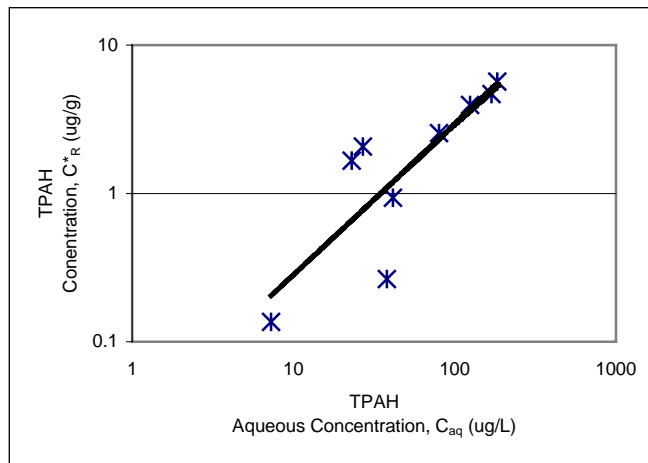
**Pyrene**



**Chrysene**



**Benzo(b)fluoranthene**

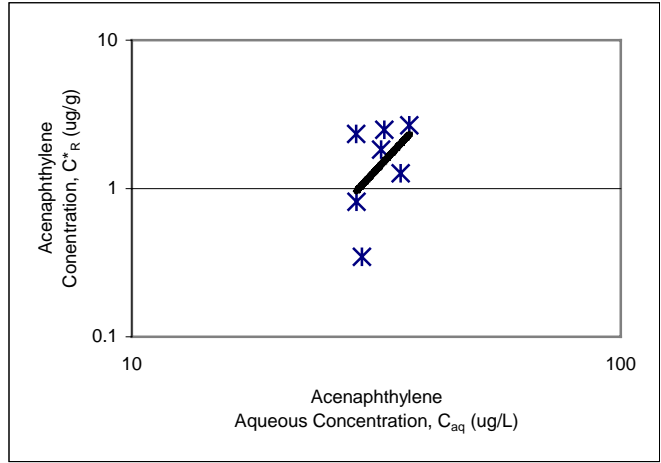


**Total Polycyclic Aromatic Hydrocarbons**

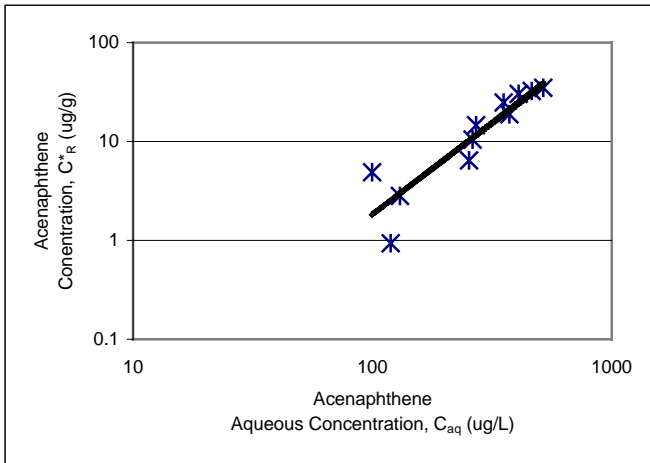
**Figure 20B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-25  
6 ft Below Land Surface**

**Insufficient Data**

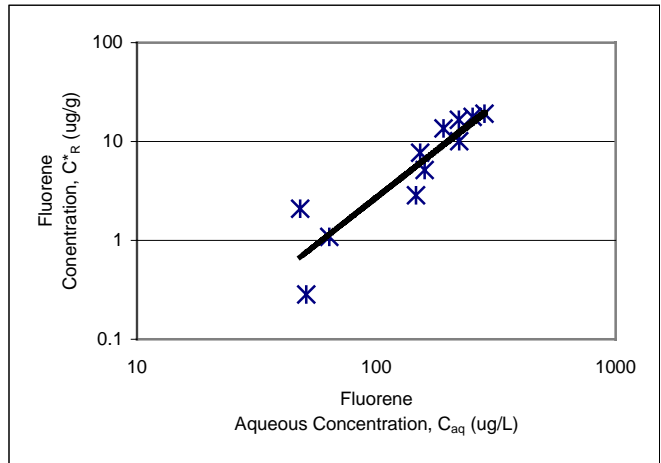
**Naphthalene**



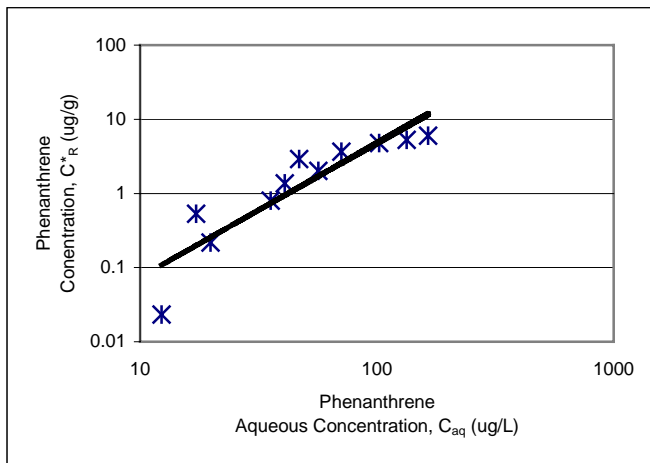
**Acenaphthylene**



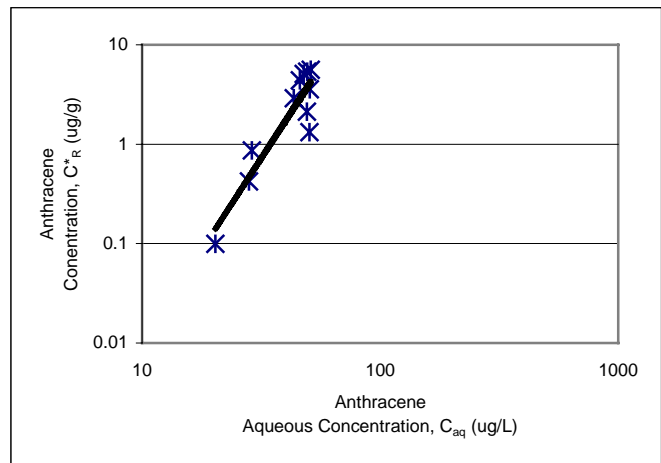
**Acenaphthene**



**Fluorene**

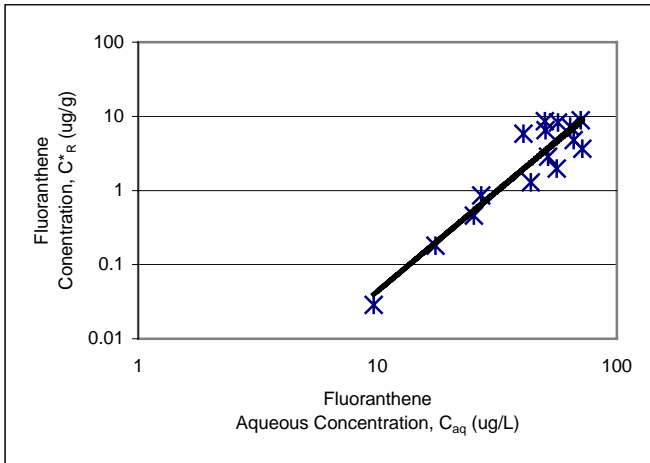


**Phenanthrene**

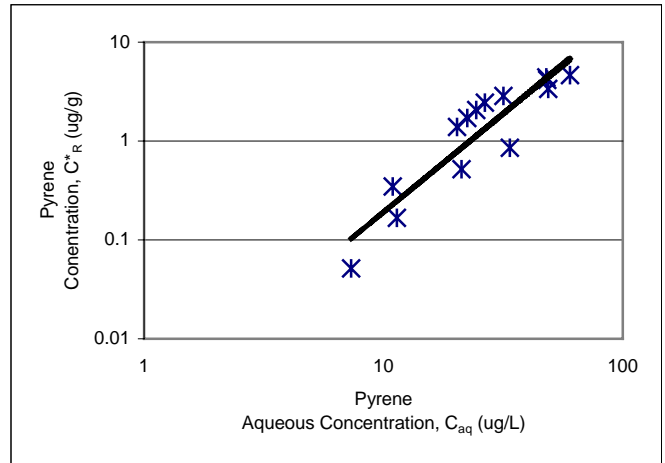


**Anthracene**

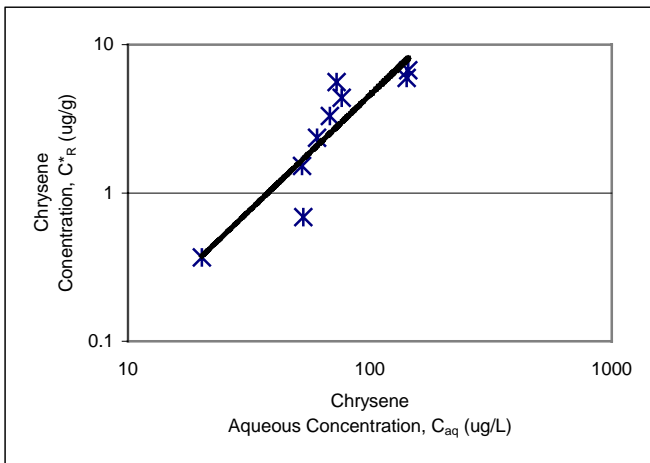
**Figure 21B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-25  
7 ft Below Land Surface**



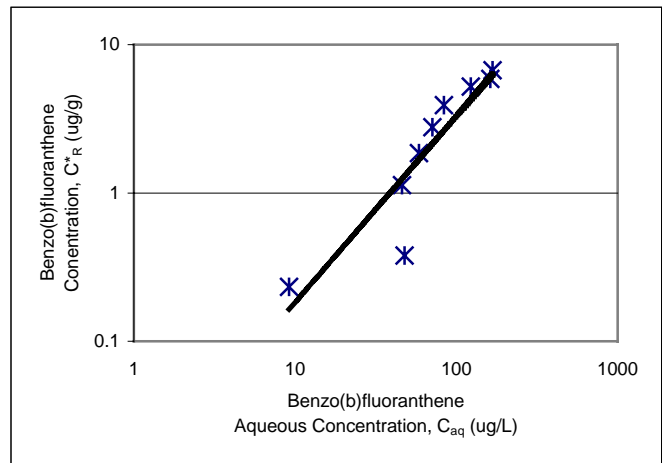
**Fluoranthene**



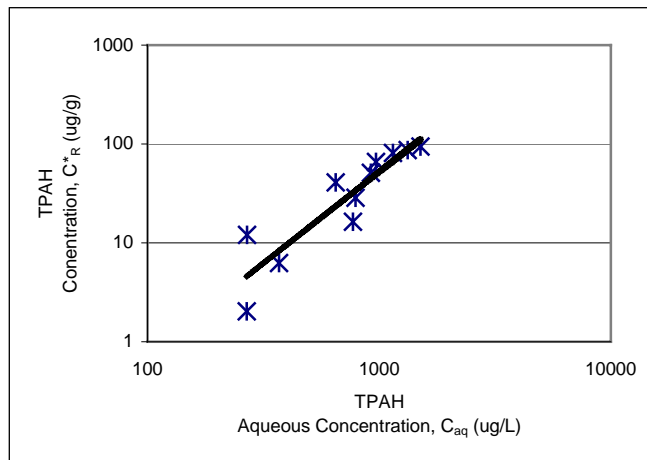
**Pyrene**



**Chrysene**



**Benzo(b)fluoranthene**

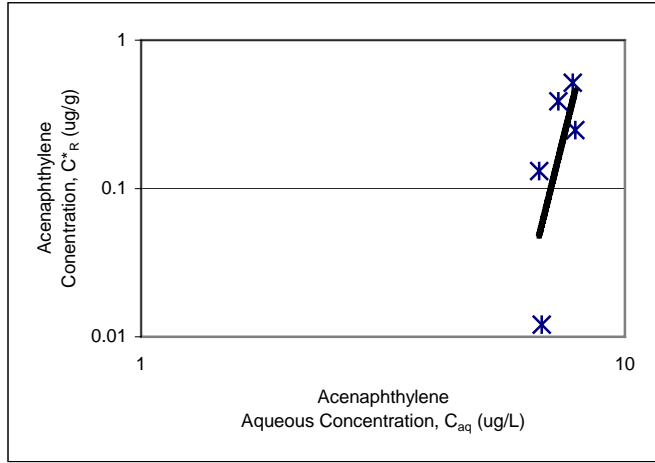


**Total Polycyclic Aromatic Hydrocarbons**

**Figure 22B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-25  
7 ft Below Land Surface**

**Insufficient Data**

**Naphthalene**



**\*Acenaphthylene**

**Insufficient Data**

**Acenaphthene**

**Insufficient Data**

**Fluorene**

**Insufficient Data**

**Phenanthrene**

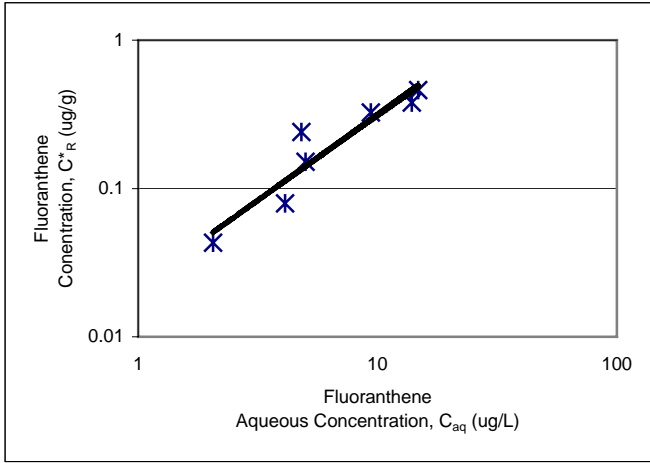
**Insufficient Data**

**Anthracene**

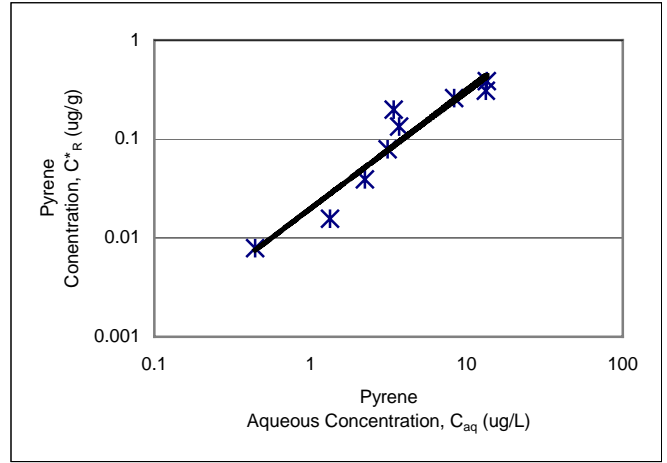
**Figure 23B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-11  
7 ft Below Land Surface**

\*Acenaphthylene Freundlich isotherm based on limited data

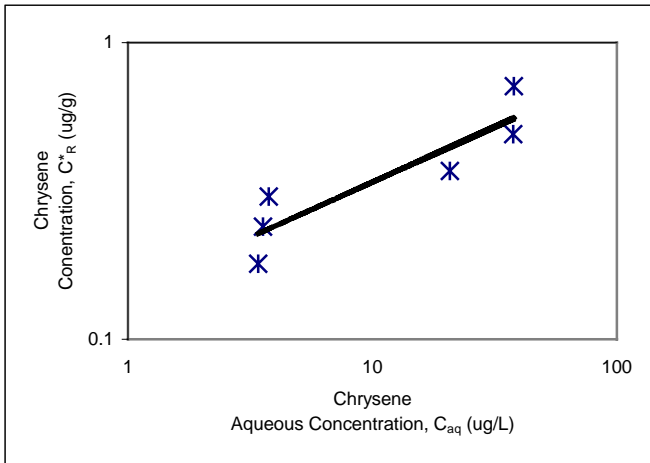




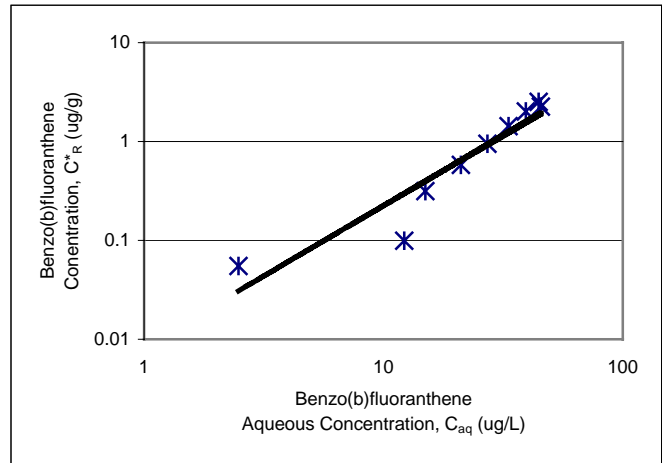
**Fluoranthene**



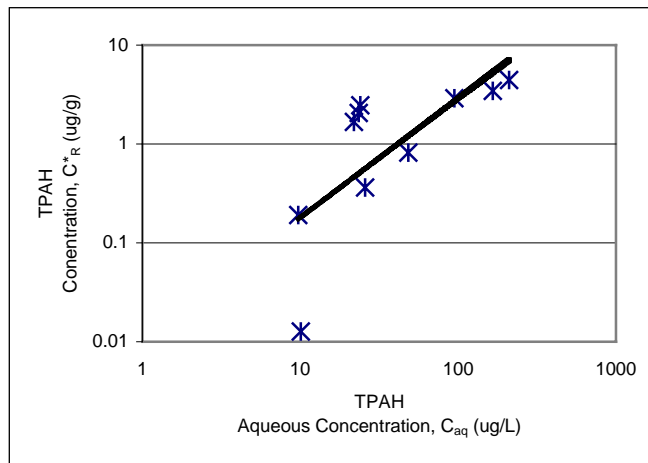
**Pyrene**



**Chrysene**

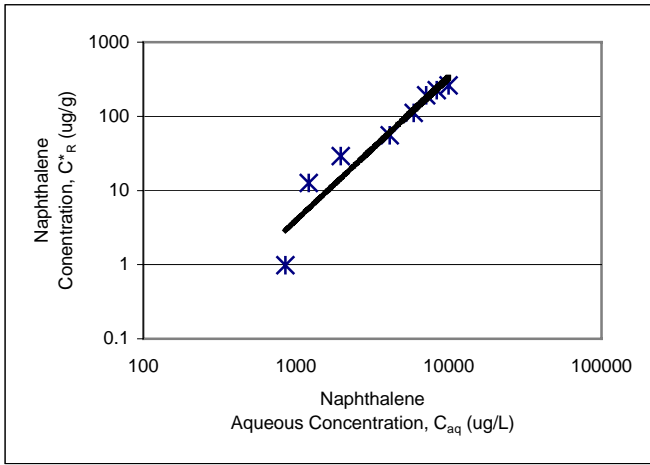


**Benzo(b)fluoranthene**

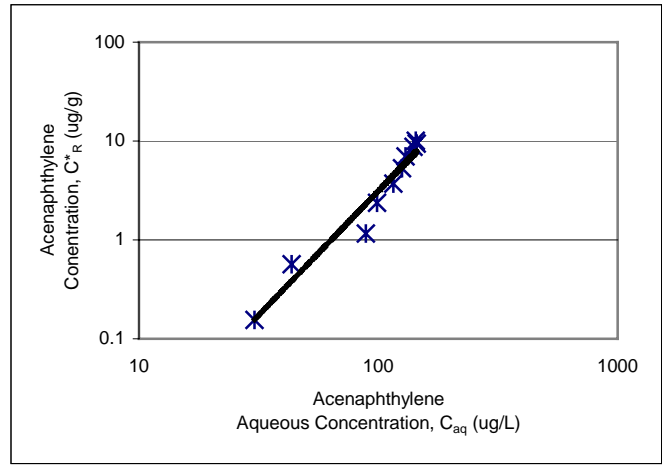


**Total Polycyclic Aromatic Hydrocarbons**

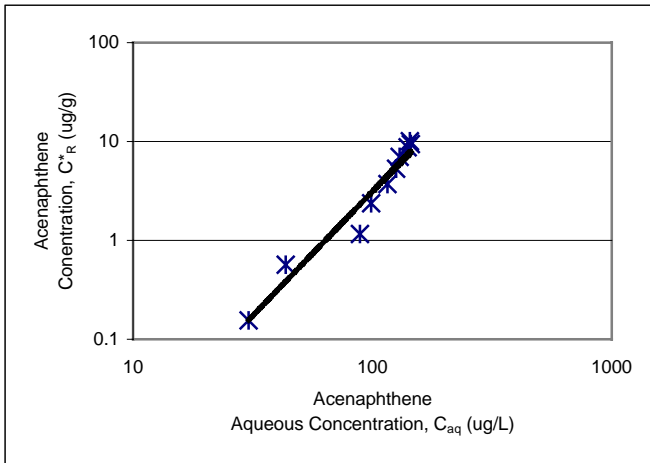
**Figure 24B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-11  
7 ft Below Land Surface**



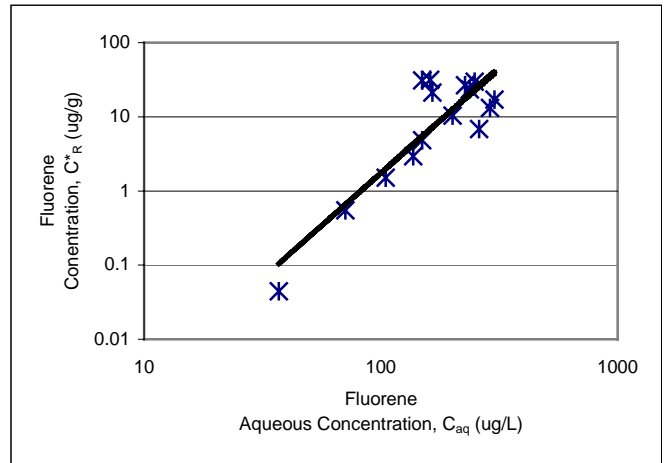
**Naphthalene**



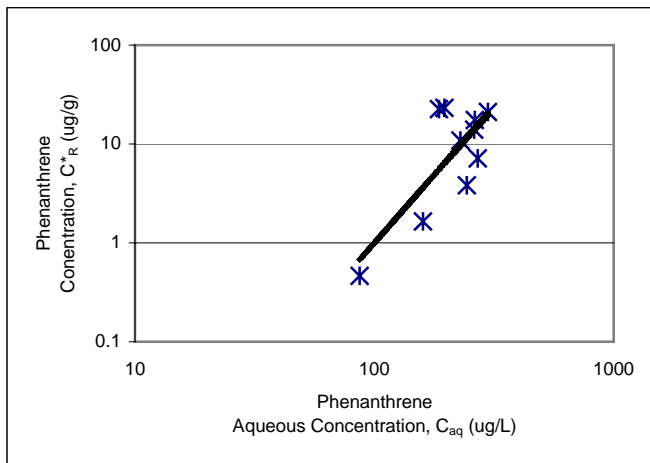
**Acenaphthylene**



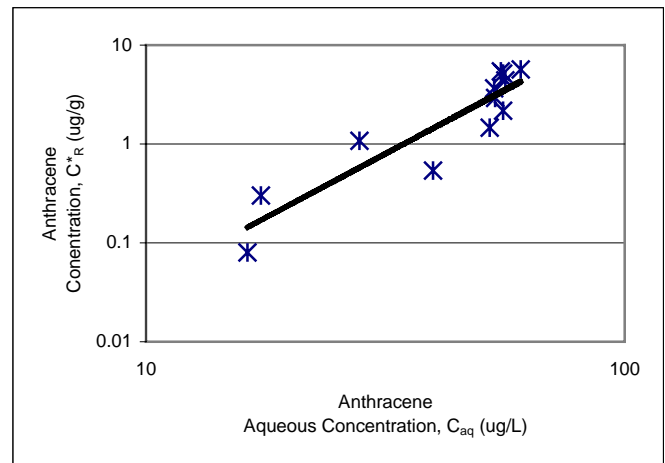
**Acenaphthene**



**Fluorene**

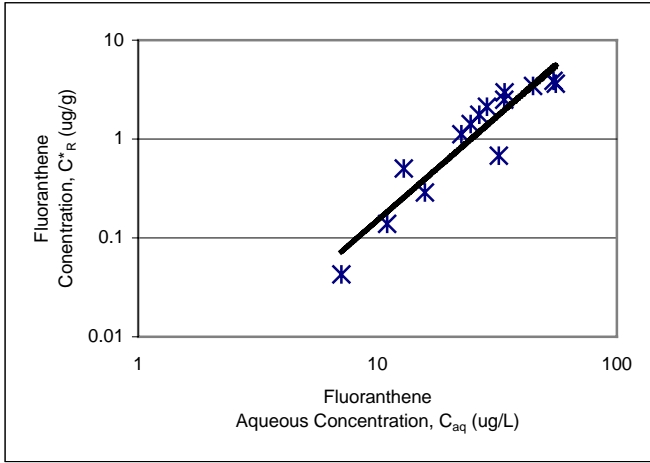


**Phenanthrene**

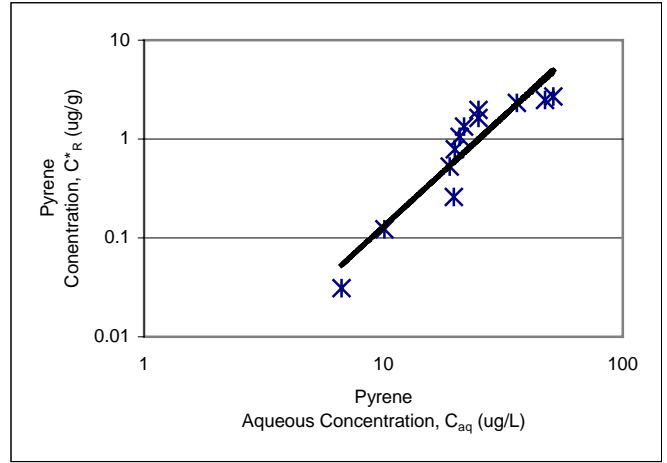


**Anthracene**

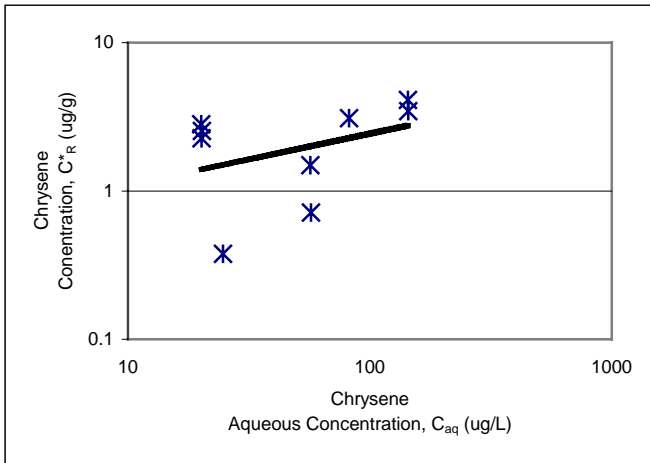
**Figure 25B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-11  
7 ft Below Land Surface**



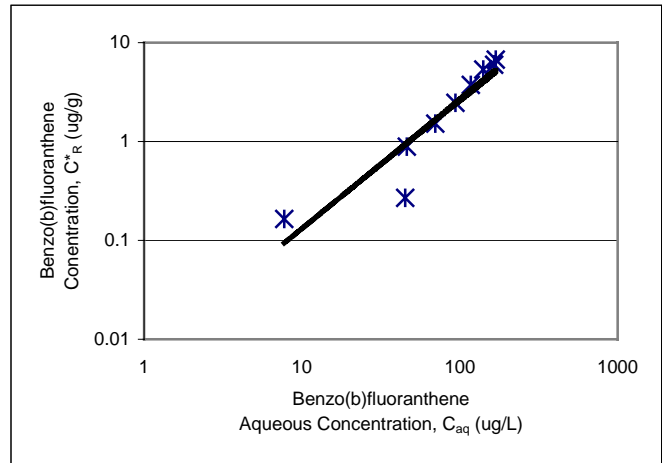
**Fluoranthene**



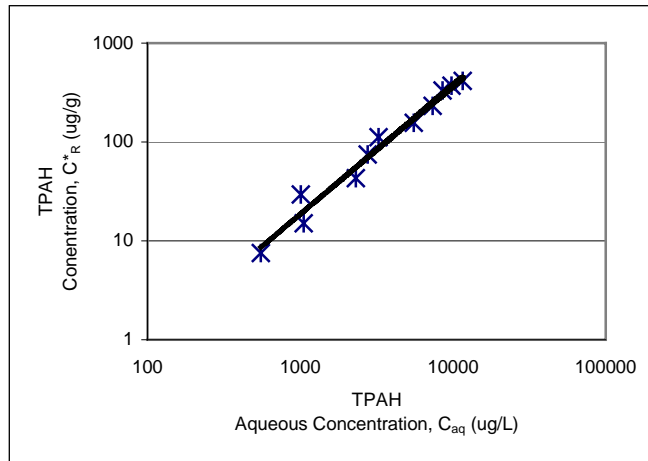
**Pyrene**



**Chrysene**

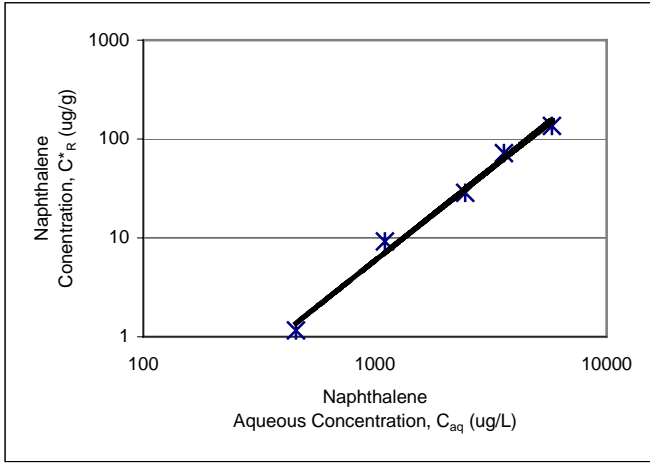


**Benzo(b)fluoranthene**

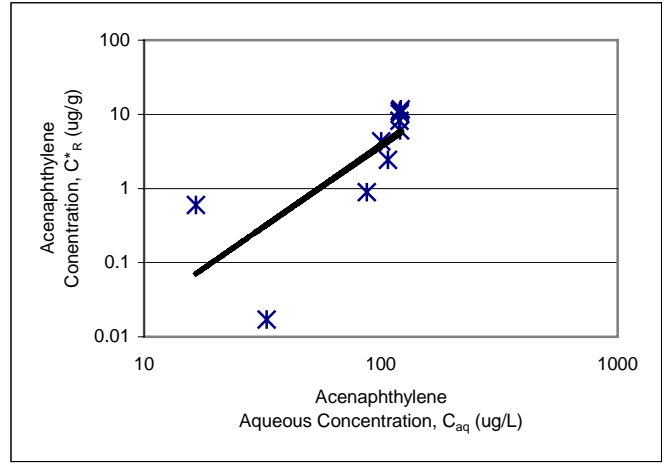


**Total Polycyclic Aromatic Hydrocarbons**

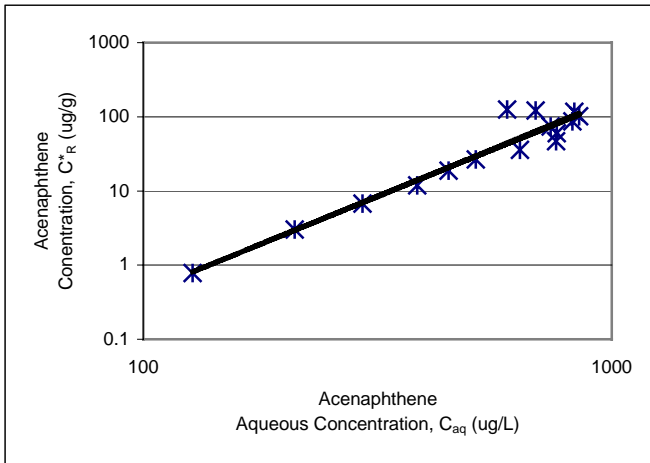
**Figure 26B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-11  
7 ft Below Land Surface**



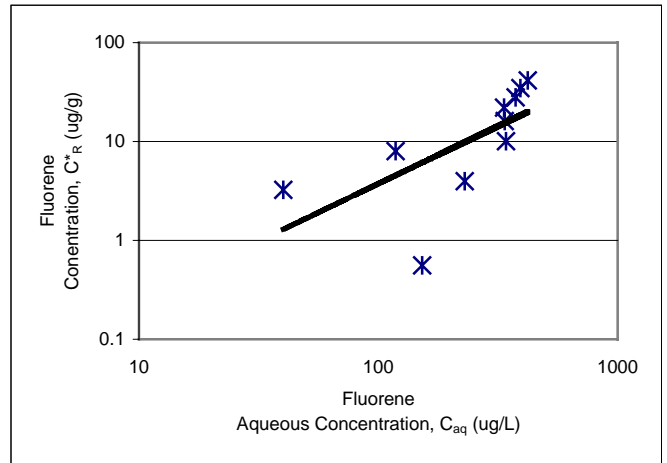
**Naphthalene**



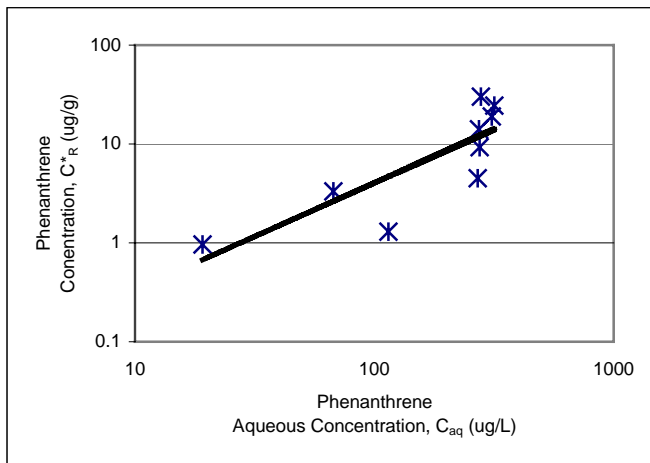
**Acenaphthylene**



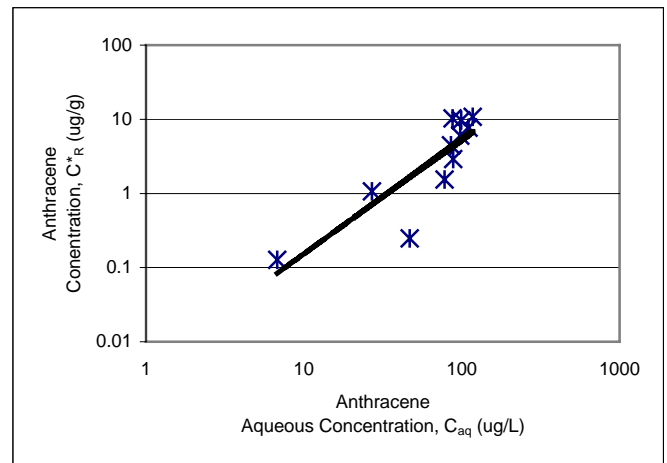
**Acenaphthene**



**Fluorene**

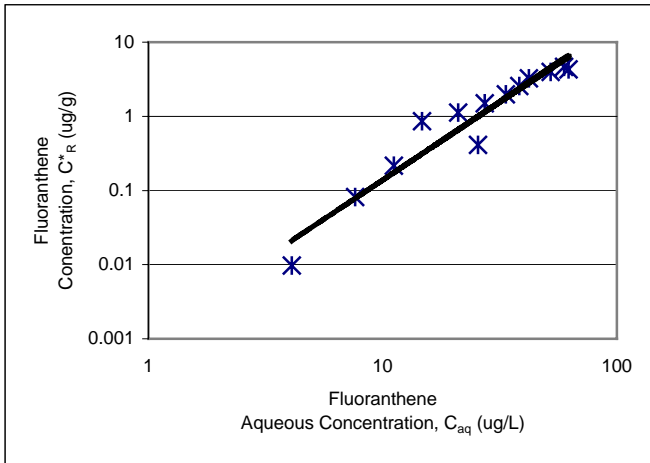


**Phenanthrene**

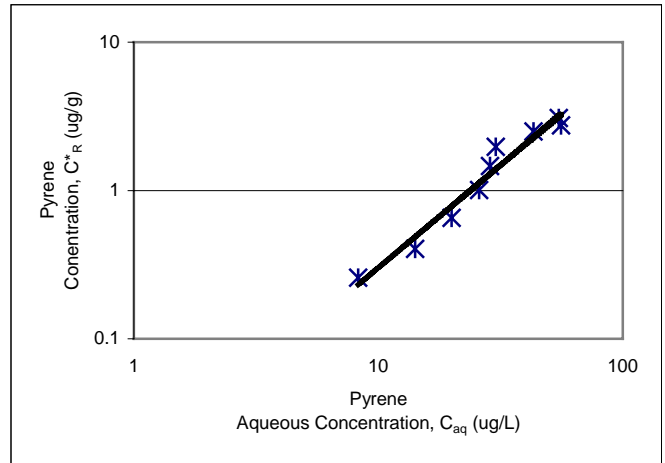


**Anthracene**

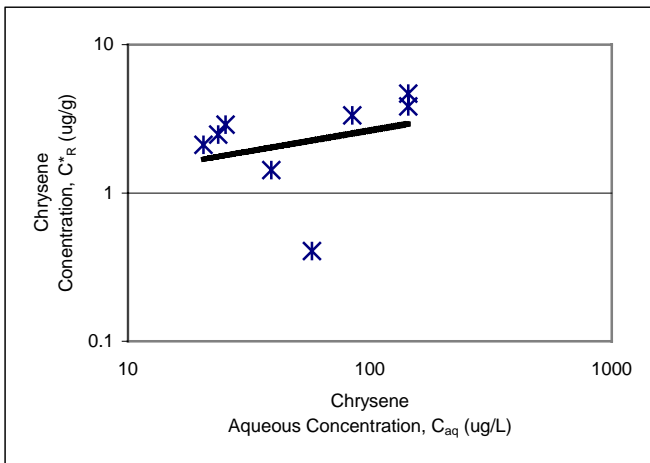
**Figure 27B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-12  
10 ft Below Land Surface**



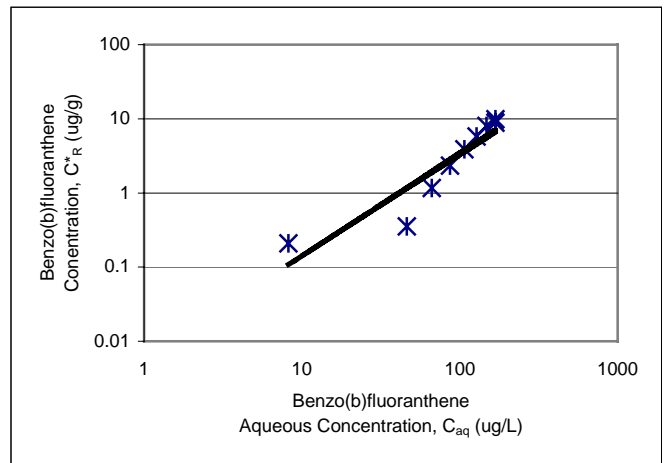
**Fluoranthene**



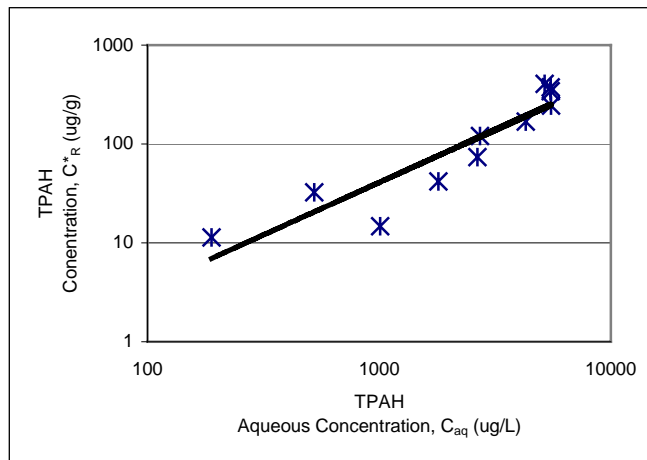
**Pyrene**



**Chrysene**



**Benzo(b)fluoranthene**



**Total Polycyclic Aromatic Hydrocarbons**

**Figure 28B Desorption Kinetics Experiment  
Freundlich Isotherms for SB-12  
10 ft Below Land Surface**

**Table 65B Reversible and Irreversible Sorption as Determined by  
Desorption Kinetics Experiment at SB-10  
6 Feet Below Land Surface**

<b>PAH</b>	<b>Initial Sorbed Concentration, C* (ug/g)</b>	<b>Reversible Sorbed Concentration, C*<sub>R</sub> (ug/g)</b>	<b>% Removal of Reversible Concentration (C*<sub>R</sub>/C*)</b>	<b>Irreversible Sorbed Concentration, C*<sub>IR</sub> (ug/g)</b>
Naphthalene	247.42	1.18	0.48	246.24
Acenaphthylene	84.82	11.24	13.25	73.58
Acenaphthene	633.16	135.59	21.41	497.57
Fluorene	818.30	62.82	7.68	755.48
Phenanthrene	1935.01	51.85	2.68	1883.16
Anthracene	814.40	14.21	1.74	800.19
Fluoranthene	864.76	7.32	0.85	857.44
Pyrene	725.49	4.67	0.64	720.82
Chrysene	318.88	10.07	3.16	308.81
Benzo(b) fluoranthene	299.93	9.75	3.25	290.18
<b>Total PAHs</b>	6742.17	308.70	4.58	6433.47

**Table 66B Reversible and Irreversible Sorption as Determined by  
Desorption Kinetics Experiment at SB-10  
7 Feet Below Land Surface**

<b>PAH</b>	<b>Initial Sorbed Concentration, C* (ug/g)</b>	<b>Reversible Sorbed Concentration, C*<sub>R</sub> (ug/g)</b>	<b>% Removal of Reversible Concentration (C*<sub>R</sub>/C*)</b>	<b>Irreversible Sorbed Concentration, C*<sub>IR</sub> (ug/g)</b>
<b>Naphthalene</b>	1103.78	319.65	28.96	784.13
<b>Acenaphthylene</b>	86.11	18.40	21.37	67.71
<b>Acenaphthene</b>	593.78	143.70	24.20	450.08
<b>Fluorene</b>	642.43	69.95	10.89	572.48
<b>Phenanthrene</b>	1584.16	47.39	2.99	1536.77
<b>Anthracene</b>	239.94	18.45	7.69	221.49
<b>Fluoranthene</b>	726.80	6.89	0.95	719.91
<b>Pyrene</b>	605.92	4.71	0.78	601.21
<b>Chrysene</b>	259.13	10.98	4.24	248.15
<b>Benzo(b) fluoranthene</b>	262.99	10.58	4.02	252.41
<b>Total PAHs</b>	6105.04	650.70	10.66	5454.35

**Table 67B Reversible and Irreversible Sorption as Determined by  
Desorption Kinetics Experiment at SB-25  
6 Feet Below Land Surface**

<b>PAH</b>	<b>Initial Sorbed Concentration, C* (ug/g)</b>	<b>Reversible Sorbed Concentration, C*<sub>R</sub> (ug/g)</b>	<b>% Removal of Reversible Concentration (C*<sub>R</sub>/C*)</b>	<b>Irreversible Sorbed Concentration, C*<sub>IR</sub> (ug/g)</b>
<b>Naphthalene</b>	1.31	0.00	0.00	1.31
<b>Acenaphthylene</b>	0.77	0.58	74.95	0.19
<b>Acenaphthene</b>	2.17	0.21	9.86	1.95
<b>Fluorene</b>	3.20	0.59	18.27	2.62
<b>Phenanthrene</b>	4.57	0.50	10.88	4.07
<b>Anthracene</b>	1.95	0.09	4.74	1.86
<b>Fluoranthene</b>	2.10	0.43	20.54	1.67
<b>Pyrene</b>	1.99	0.40	20.25	1.59
<b>Chrysene</b>	2.84	2.16	76.05	0.68
<b>Benzo(b) fluoranthene</b>	2.75	2.22	80.66	0.53
<b>Total PAHs</b>	23.66	7.19	30.37	16.48



**Table 68B Reversible and Irreversible Sorption as Determined by  
Desorption Kinetics Experiment at SB-25  
7 Feet Below Land Surface**

<b>PAH</b>	<b>Initial Sorbed Concentration, C* (ug/g)</b>	<b>Reversible Sorbed Concentration, C*<sub>R</sub> (ug/g)</b>	<b>% Removal of Reversible Concentration (C*<sub>R</sub>/C*)</b>	<b>Irreversible Sorbed Concentration, C*<sub>IR</sub> (ug/g)</b>
<b>Naphthalene</b>	67.72	0.00	0.00	67.72
<b>Acenaphthylene</b>	7.72	2.86	37.03	4.86
<b>Acenaphthene</b>	91.09	37.65	41.34	53.44
<b>Fluorene</b>	103.63	20.59	19.87	83.04
<b>Phenanthrene</b>	287.42	6.87	2.39	280.55
<b>Anthracene</b>	35.97	5.88	16.36	30.08
<b>Fluoranthene</b>	129.74	9.22	7.11	120.52
<b>Pyrene</b>	107.44	4.96	4.62	102.48
<b>Chrysene</b>	37.86	7.48	19.77	30.38
<b>Benzo(b) fluoranthene</b>	39.16	7.61	19.43	31.55
<b>Total PAHs</b>	907.75	103.13	11.36	804.62

**Table 69B Reversible and Irreversible Sorption as Determined by  
Desorption Kinetics Experiment at SB-11  
7 Feet Below Land Surface**

<b>PAH</b>	<b>Initial Sorbed Concentration, C* (ug/g)</b>	<b>Reversible Sorbed Concentration, C*<sub>R</sub> (ug/g)</b>	<b>% Removal of Reversible Concentration (C*<sub>R</sub>/C*)</b>	<b>Irreversible Sorbed Concentration, C*<sub>IR</sub> (ug/g)</b>
<b>Naphthalene</b>	3.50	0.00	0.00	3.50
<b>Acenaphthylene</b>	0.89	0.65	73.15	0.24
<b>Acenaphthene</b>	2.65	0.13	4.73	2.52
<b>Fluorene</b>	3.44	0.18	5.26	3.26
<b>Phenanthrene</b>	10.22	0.53	5.14	9.69
<b>Anthracene</b>	2.30	0.13	5.87	2.16
<b>Fluoranthene</b>	5.80	0.55	9.46	5.25
<b>Pyrene</b>	4.75	0.47	9.80	4.28
<b>Chrysene</b>	3.19	0.94	29.34	2.25
<b>Benzo(b) fluoranthene</b>	2.88	2.78	96.59	0.10
<b>Total PAHs</b>	39.60	6.35	16.03	33.26

**Table 70B Reversible and Irreversible Sorption as Determined by  
Desorption Kinetics Experiment at SB-11  
8 Feet Below Land Surface**

<b>PAH</b>	<b>Initial Sorbed Concentration, C* (ug/g)</b>	<b>Reversible Sorbed Concentration, C*<sub>R</sub> (ug/g)</b>	<b>% Removal of Reversible Concentration (C*<sub>R</sub>/C*)</b>	<b>Irreversible Sorbed Concentration, C*<sub>IR</sub> (ug/g)</b>
<b>Naphthalene</b>	459.68	307.70	66.94	151.98
<b>Acenaphthylene</b>	94.47	10.72	11.35	83.75
<b>Acenaphthene</b>	674.40	103.31	15.32	571.09
<b>Fluorene</b>	694.37	32.32	4.65	662.05
<b>Phenanthrene</b>	1922.16	24.19	1.26	1897.97
<b>Anthracene</b>	328.39	5.94	1.81	322.45
<b>Fluoranthene</b>	1003.65	4.14	0.41	999.51
<b>Pyrene</b>	852.65	2.93	0.34	849.72
<b>Chrysene</b>	358.82	4.77	1.33	354.05
<b>Benzo(b) fluoranthene</b>	340.84	7.51	2.20	333.33
<b>Total PAHs</b>	6729.42	503.53	7.48	6225.89

**Table 71B Reversible and Irreversible Sorption as Determined by  
Desorption Kinetics Experiment at SB-12  
10 Feet Below Land Surface**

<b>PAH</b>	<b>Initial Sorbed Concentration, C* (ug/g)</b>	<b>Reversible Sorbed Concentration, C*<sub>R</sub> (ug/g)</b>	<b>% Removal of Reversible Concentration (C*<sub>R</sub>/C*)</b>	<b>Irreversible Sorbed Concentration, C*<sub>IR</sub> (ug/g)</b>
<b>Naphthalene</b>	1235.63	169.74	13.74	1065.89
<b>Acenaphthylene</b>	117.58	12.45	10.59	105.13
<b>Acenaphthene</b>	921.93	128.88	13.98	793.05
<b>Fluorene</b>	782.01	43.99	5.63	738.02
<b>Phenanthrene</b>	2327.66	31.67	1.36	2295.99
<b>Anthracene</b>	320.12	11.44	3.57	308.68
<b>Fluoranthene</b>	1388.46	5.01	0.36	1383.45
<b>Pyrene</b>	1202.65	3.40	0.28	1199.25
<b>Chrysene</b>	425.57	5.53	1.30	420.03
<b>Benzo(b) fluoranthene</b>	501.87	10.86	2.16	491.01
<b>Total PAHs</b>	9223.47	422.97	4.59	8800.50