



US Army Corps of Engineers

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
4-8-13 to 4-15-13

Table with columns: Reading Time (EST), Wind Direction, Wind Speed, and two main groups: Particulates (µg/m³) and Naphthalene (µg/m³). Each group contains sub-columns for Upwind, Downwind, CDF Contribution, and M1-M4. The table contains 100 rows of data.



US Army Corps of Engineers

Reading Time (EST)	Wind Direction Degrees Clockwise From North	Wind Speed mph	Particulates ( $\mu\text{g}/\text{m}^3$ )								Naphthalene ( $\mu\text{g}/\text{m}^3$ )							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
4/8/13 11:45 PM	77.00	3.60	17.80	18.30	0.50	17.80	15.00	18.30	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:00 AM	65.00	1.80	15.70	17.50	1.80	15.70	16.10	17.50	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:15 AM	54.00	2.50	15.20	17.50	2.30	15.20	16.50	17.50	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:30 AM	50.00	2.80	20.60	14.50	0.00	20.60	14.80	14.50	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:45 AM	52.00	2.40	15.80	14.30	0.00	15.80	14.60	14.30	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:00 AM	43.00	3.40	24.50	14.20	0.00	24.50	14.80	14.20	22.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:15 AM	43.00	3.00	28.40	23.10	0.00	28.40	37.80	23.10	33.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:30 AM	33.00	3.70	38.40	26.40	0.00	38.40	41.90	26.40	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:45 AM	67.00	2.60	40.10	39.20	0.00	40.10	53.00	39.20	44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:00 AM	37.00	4.20	18.40	37.10	18.70	18.40	59.20	37.10	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:15 AM	32.00	3.40	23.10	22.20	0.00	23.10	28.70	22.20	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:30 AM	35.00	3.10	13.90	14.60	0.70	13.90	22.20	14.60	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:45 AM	46.00	4.50	9.00	11.90	2.90	9.00	11.30	11.90	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:00 AM	41.00	4.10	10.50	13.60	3.10	10.50	11.80	13.60	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:15 AM	29.00	5.40	7.90	11.50	3.60	7.90	11.10	11.50	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:30 AM	38.00	5.70	7.90	13.40	5.50	7.90	10.90	13.40	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:45 AM	44.00	4.30	8.80	12.00	3.20	8.80	10.10	12.00	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:00 AM	40.00	7.50	9.50	10.00	0.50	9.50	9.60	10.00	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:15 AM	40.00	4.10	14.50	15.70	1.20	14.50	17.20	15.70	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:30 AM	42.00	5.20	10.10	14.60	4.50	10.10	12.50	14.60	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:45 AM	50.00	6.40	8.90	11.00	2.10	8.90	10.00	11.00	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 5:00 AM	46.00	4.10	12.30	11.80	0.00	12.30	11.40	11.80	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 5:15 AM	54.00	3.20	9.60	9.50	0.00	9.60	12.10	9.50	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 5:30 AM	50.00	2.90	11.40	11.90	0.50	11.40	11.20	11.90	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 5:45 AM	81.00	4.40	11.20	9.80	0.00	11.20	11.40	9.80	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 6:00 AM	72.00	3.50	17.90	14.00	0.00	17.90	54.90	14.00	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 6:15 AM	83.00	2.40	23.20	20.10	0.00	23.20	45.30	20.10	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 6:30 AM	81.00	3.40	36.40	32.70	0.00	36.40	72.90	32.70	33.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 6:45 AM	88.00	2.90	31.00	36.70	5.70	31.00	70.10	36.70	37.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 7:00 AM	77.00	3.70	30.70	39.80	9.10	30.70	70.10	39.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 7:15 AM	87.00	2.90	19.60	15.20	0.00	19.60	21.40	15.20	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 7:30 AM	95.00	2.80	23.10	20.80	0.00	23.10	23.10	20.80	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 7:45 AM	142.00	3.30	26.30	14.90	0.00	26.30	26.30	14.90	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 8:00 AM	123.00	0.90	23.30	14.00	0.00	23.30	23.30	14.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 8:15 AM	9.00	0.60	15.50	14.00	0.00	15.50	29.40	14.00	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 8:30 AM	42.00	2.40	16.60	21.30	4.70	16.60	18.50	21.30	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 8:45 AM	333.00	1.70	18.10	29.70	11.60	18.10	29.70	17.50	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 9:00 AM	6.00	3.80	12.90	16.70	3.80	12.90	17.70	16.70	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 9:15 AM	29.00	4.10	15.70	15.60	0.00	15.70	16.40	15.60	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 9:30 AM	359.00	3.60	19.70	18.90	0.00	20.90	18.90	20.50	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 9:45 AM	37.00	3.90	26.60	18.70	0.00	26.60	20.30	18.70	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 10:00 AM	9.00	3.00	19.90	12.50	0.00	19.90	16.10	12.50	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 10:15 AM	33.00	3.80	13.10	11.10	0.00	13.10	12.50	11.10	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 10:30 AM	17.00	4.60	17.10	10.40	0.00	17.10	15.00	10.40	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 10:45 AM	43.00	5.30	13.70	11.10	0.00	13.70	13.50	11.10	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 11:00 AM	41.00	2.90	14.70	11.50	0.00	14.70	15.20	11.50	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 11:15 AM	0.00	0.00	0.00	0.00	0.00	14.40	13.70	11.70	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 11:30 AM	67.00	0.80	15.20	11.70	0.00	15.20	15.00	11.70	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 11:45 AM	4.00	1.80	14.20	12.40	0.00	14.20	14.30	12.40	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:00 PM	14.00	2.50	12.80	13.90	1.10	12.80	12.70	13.90	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:15 PM	13.00	2.80	16.00	15.30	0.00	16.00	15.10	15.30	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:30 PM	4.00	4.10	21.00	17.50	0.00	21.00	20.30	17.50	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 12:45 PM	13.00	7.30	15.30	12.70	0.00	15.30	22.90	12.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:00 PM	11.00	7.20	14.50	10.10	0.00	14.50	18.00	10.10	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:15 PM	4.00	6.00	10.00	9.10	0.00	10.00	13.30	9.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:30 PM	8.00	9.30	10.40	8.40	0.00	10.40	13.60	8.40	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 1:45 PM	14.00	5.60	9.20	7.80	0.00	9.20	14.30	7.80	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:00 PM	10.00	5.10	11.60	9.40	0.00	11.60	17.40	9.40	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:15 PM	6.00	3.80	15.00	11.20	0.00	15.00	19.80	11.20	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:30 PM	79.00	2.90	12.20	11.40	0.00	12.20	18.30	11.40	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 2:45 PM	64.00	2.60	10.80	10.50	0.00	10.80	15.50	10.50	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:00 PM	19.00	3.10	11.80	11.00	0.00	11.80	19.50	11.00	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:15 PM	2.00	6.30	12.70	13.30	0.60	12.70	15.70	13.30	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:30 PM	27.00	5.10	16.70	11.80	0.00	16.70	17.20	11.80	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 3:45 PM	1.00	5.70	16.70	17.80	1.10	16.70	18.70	17.80	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:00 PM	14.00	5.90	15.70	18.60	2.90	15.70	17.20	18.60	22.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:15 PM	6.00	4.70	14.00	12.20	0.00	14.00	12.70	12.20	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:30 PM	10.00	3.90	18.80	13.20	0.00	18.80	16.00	13.20	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 4:45 PM	3.00	6.90	20.10	14.40	0.00	20.10	19.50	14.40	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/9/13 5:15 PM	11.00	9.10	23.															



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Confined Disposal Facility  
Real-Time Air Monitoring Data  
4-8-13 to 4-15-13**

Reading Time (EST)	Wind Direction Degrees Clockwise From North	Wind Speed mph	Particulates (µg/m³)								Naphthalene (µg/m³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
4/9/13 11:45 PM	26.00	7.30	17.20	7.10	0.00	17.20	18.50	7.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:00 AM	34.00	8.30	12.00	6.40	0.00	12.00	12.90	6.40	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:15 AM	24.00	8.70	13.90	5.30	0.00	13.90	15.30	5.30	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:30 AM	26.00	6.90	12.40	5.40	0.00	12.40	13.50	5.40	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:45 AM	25.00	7.40	13.10	6.40	0.00	13.10	11.50	6.40	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:00 AM	25.00	6.20	8.70	10.00	1.30	8.70	6.60	10.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:15 AM	22.00	6.30	11.90	9.20	0.00	11.90	11.70	9.20	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:30 AM	30.00	9.10	14.50	6.00	0.00	14.50	13.30	6.00	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:45 AM	34.00	8.40	17.80	4.80	0.00	17.80	14.90	4.80	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:00 AM	35.00	7.80	18.90	6.50	0.00	18.90	11.60	6.50	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:15 AM	31.00	7.60	16.60	5.10	0.00	16.60	9.50	5.10	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:30 AM	29.00	6.80	12.70	5.40	0.00	12.70	11.60	5.40	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:45 AM	32.00	4.90	9.30	8.70	0.00	9.30	6.60	8.70	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:00 AM	33.00	5.20	7.10	9.40	2.30	7.10	5.90	9.40	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:15 AM	35.00	6.50	7.10	7.50	0.40	7.10	6.10	7.50	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:30 AM	28.00	5.90	7.40	8.40	1.00	7.40	6.70	8.40	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:45 AM	28.00	7.80	8.30	12.70	4.40	8.30	6.50	12.70	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:00 AM	20.00	6.80	12.70	6.30	0.00	12.70	6.90	6.30	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:15 AM	17.00	9.30	13.50	5.50	0.00	13.50	7.00	5.50	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:30 AM	13.00	10.10	12.80	5.40	0.00	12.80	7.10	5.40	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:45 AM	34.00	8.60	8.20	5.00	0.00	8.20	11.20	5.00	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 5:00 AM	28.00	7.80	6.60	4.90	0.00	6.60	8.60	4.90	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 5:15 AM	25.00	7.60	9.60	4.50	0.00	9.60	9.80	4.50	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 5:30 AM	28.00	8.30	4.80	4.40	0.00	4.80	13.00	4.40	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 5:45 AM	31.00	8.70	6.20	4.80	0.00	6.20	12.00	4.80	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 6:00 AM	31.00	9.80	7.30	8.20	0.90	7.30	5.70	8.20	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 6:15 AM	39.00	7.20	5.90	10.80	4.90	5.90	4.80	10.80	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 6:30 AM	35.00	7.60	9.20	9.00	0.00	9.20	4.60	9.00	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 6:45 AM	18.00	10.80	6.60	9.90	3.30	6.60	4.30	9.90	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 7:00 AM	6.00	10.20	6.80	8.80	2.00	6.80	4.00	8.80	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 7:15 AM	15.00	8.40	6.30	7.90	1.60	6.30	3.90	7.90	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 7:30 AM	6.00	10.00	5.70	6.30	0.60	5.70	3.70	6.30	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 7:45 AM	17.00	10.90	5.90	4.60	0.00	5.90	4.50	4.60	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 8:00 AM	5.00	11.50	8.30	4.00	0.00	8.30	6.70	4.00	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 8:15 AM	11.00	10.90	12.80	4.70	0.00	12.80	7.80	4.70	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 8:30 AM	22.00	11.90	9.90	4.80	0.00	9.90	9.60	4.80	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 8:45 AM	43.00	6.20	6.60	5.00	0.00	6.60	6.20	5.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 9:00 AM	66.00	6.50	5.70	5.20	0.00	5.70	6.00	5.20	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 9:15 AM	84.00	6.70	4.20	4.60	0.40	4.20	4.20	4.60	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 9:30 AM	91.00	5.80	2.70	3.30	0.60	3.50	2.70	3.00	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 9:45 AM	96.00	4.80	2.30	4.30	2.00	6.10	2.30	5.00	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 10:00 AM	98.00	5.40	3.60	7.00	3.40	5.20	3.60	5.20	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 10:15 AM	123.00	3.40	8.50	5.10	0.00	6.10	8.50	5.10	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 10:30 AM	95.00	2.20	8.50	5.10	0.00	18.40	8.50	19.30	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 10:45 AM	15.00	2.00	7.20	4.80	0.00	7.20	7.90	4.80	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 11:00 AM	2.00	1.90	5.70	3.20	0.00	5.70	7.60	3.20	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 11:15 AM	28.00	6.10	3.80	2.40	0.00	3.80	5.40	2.40	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 11:30 AM	2.00	5.20	3.60	2.90	0.00	3.60	8.50	2.90	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 11:45 AM	2.00	6.90	2.90	2.40	0.00	2.90	4.10	2.40	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:00 PM	6.00	12.00	6.00	5.10	0.00	6.00	11.20	5.10	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:15 PM	6.00	10.70	6.00	7.10	1.10	6.00	15.10	7.10	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:30 PM	8.00	9.40	1.90	2.20	0.30	1.90	3.40	2.20	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 12:45 PM	32.00	12.00	1.70	2.00	0.30	1.70	1.70	2.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:00 PM	29.00	9.90	1.70	2.00	0.30	1.70	1.60	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:15 PM	6.00	10.00	2.10	2.60	0.50	2.10	2.10	2.60	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:30 PM	14.00	8.20	2.20	2.70	0.50	2.20	2.60	2.70	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 1:45 PM	5.00	9.90	5.40	2.90	0.00	5.40	6.40	2.90	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:00 PM	21.00	8.00	5.00	5.20	0.20	5.00	5.40	5.20	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:15 PM	17.00	10.70	4.70	4.20	0.00	4.70	10.40	4.20	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:30 PM	22.00	13.50	5.60	4.50	0.00	5.60	11.70	4.50	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 2:45 PM	38.00	10.10	4.50	5.30	0.80	4.50	7.10	5.30	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:00 PM	31.00	11.10	7.50	5.40	0.00	7.50	9.80	5.40	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:15 PM	39.00	8.80	7.70	5.90	0.00	7.70	7.00	5.90	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:30 PM	36.00	6.20	7.50	5.60	0.00	7.50	8.70	5.60	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 3:45 PM	31.00	8.80	5.00	10.90	5.90	5.00	4.00	10.90	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:00 PM	35.00	7.90	8.10	6.00	0.00	8.10	4.90	6.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:15 PM	19.00	9.20	5.20	6.40	1.20	5.20	3.90	6.40	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:30 PM	12.00	8.40	4.70	5.20	0.50	4.70	3.80	5.20	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 4:45 PM	21.00	9.60	10.60	7.00	0.00	10.60	3.20	7.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 5:00 PM	24.00	9.00	9.10	3.50	0.00	9.10	4.30	3.50	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/13 5:15 PM	14.00	5.90	11.70	3.20	0.00	11.70	7.30	3.20	2.80	0.00	0.00	0.00						



US Army Corps of Engineers

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
4-8-13 to 4-15-13

Reading Time (EST)	Wind Direction Degrees Clockwise From North	Wind Speed mph	Particulates (µg/m³)								Naphthalene (µg/m³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
			Contribution	Contribution														
4/10/13 11:30 PM	48.00	6.80	15.00	10.60	0.00	15.00	30.30	10.60	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/10/13 11:45 PM	43.00	10.70	14.70	11.60	0.00	14.70	17.80	11.60	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:00 AM	39.00	9.10	14.40	12.60	0.00	14.40	16.70	12.60	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:15 AM	42.00	10.50	10.20	8.50	0.00	10.20	16.70	8.50	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:30 AM	32.00	9.10	10.30	11.80	1.50	10.30	10.80	11.80	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:45 AM	22.00	8.80	9.60	9.20	0.00	9.60	10.70	9.20	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:00 AM	20.00	9.40	9.40	8.60	0.00	9.40	9.50	8.60	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:15 AM	31.00	8.60	9.30	9.90	0.60	9.30	9.20	9.90	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:30 AM	37.00	10.00	9.20	9.20	0.00	9.20	8.60	9.20	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:45 AM	42.00	9.00	9.10	9.30	0.20	9.10	8.90	9.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:00 AM	71.00	7.20	12.10	14.60	2.50	12.10	8.50	14.60	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:15 AM	30.00	9.30	8.40	13.80	5.40	8.40	6.30	13.80	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:30 AM	73.00	10.00	8.60	10.60	2.00	8.60	6.60	10.60	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:45 AM	76.00	10.00	8.10	8.50	0.40	8.10	6.90	8.50	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:00 AM	99.00	6.40	8.60	9.60	1.00	11.20	8.60	8.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:15 AM	114.00	5.60	24.90	8.80	0.00	9.70	24.90	16.70	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:30 AM	58.00	6.60	9.20	6.70	0.00	9.20	9.90	6.70	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:45 AM	74.00	5.30	32.10	28.70	0.00	32.10	16.40	28.70	37.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 4:00 AM	69.00	5.50	11.80	9.20	0.00	11.80	8.00	9.20	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 4:15 AM	61.00	3.60	7.20	6.80	0.00	7.20	7.20	6.80	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 4:30 AM	72.00	4.10	6.10	7.50	1.40	6.10	6.90	7.50	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 4:45 AM	79.00	4.50	10.60	4.60	0.00	10.60	5.10	4.60	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 5:00 AM	79.00	3.60	9.60	6.30	0.00	9.60	6.90	6.30	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 5:15 AM	80.00	5.60	13.90	7.50	0.00	13.90	9.60	7.50	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 5:30 AM	88.00	5.00	13.20	6.90	0.00	13.20	7.60	6.90	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 5:45 AM	84.00	5.60	9.50	6.60	0.00	9.50	6.60	6.60	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 6:00 AM	124.00	3.50	4.00	5.50	1.50	5.30	4.00	4.10	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 6:15 AM	94.00	2.10	1.70	3.40	1.70	7.20	1.70	3.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 6:30 AM	94.00	5.30	5.30	3.80	0.00	8.20	5.30	6.10	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 6:45 AM	94.00	4.60	3.00	5.20	2.20	8.40	3.00	3.00	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 7:00 AM	77.00	3.60	7.80	3.60	0.00	7.80	6.20	3.60	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 7:15 AM	80.00	5.10	4.10	4.20	0.10	4.10	5.00	4.20	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 7:30 AM	83.00	5.90	6.20	6.20	0.00	6.20	15.80	6.20	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 7:45 AM	80.00	5.60	7.30	7.90	0.60	7.30	15.80	7.90	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 8:00 AM	86.00	5.10	7.80	8.30	0.50	7.80	15.10	8.30	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 8:15 AM	92.00	3.40	11.00	8.90	0.00	9.10	11.00	6.60	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 8:30 AM	94.00	4.30	14.90	8.60	0.00	10.30	14.90	7.30	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 8:45 AM	87.00	4.30	7.50	8.10	0.60	7.50	15.60	8.10	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 9:00 AM	94.00	2.80	19.80	7.20	0.00	6.80	19.80	10.20	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 9:15 AM	80.00	3.50	7.90	9.80	1.90	7.90	14.30	9.80	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 9:30 AM	125.00	3.90	16.60	6.50	0.00	8.10	16.60	9.60	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 9:45 AM	119.00	4.10	19.60	6.70	0.00	8.10	19.60	11.70	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 10:00 AM	132.00	3.30	20.30	7.20	0.00	9.00	20.30	11.70	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 10:15 AM	126.00	3.10	20.30	10.20	0.00	10.10	20.30	10.40	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 10:30 AM	127.00	3.70	19.60	10.20	0.00	0.00	19.60	11.00	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 10:45 AM	118.00	3.70	18.00	9.20	0.00	10.30	18.00	10.10	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 11:00 AM	125.00	4.40	16.90	8.30	0.00	8.30	16.90	8.40	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 11:15 AM	136.00	4.80	12.70	6.50	0.00	6.50	12.70	6.20	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 11:30 AM	131.00	5.10	11.00	4.90	0.00	4.90	11.00	6.20	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 11:45 AM	129.00	5.70	8.90	4.30	0.00	3.80	8.90	5.30	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:00 PM	131.00	4.60	6.80	4.60	0.00	4.60	6.80	4.90	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:15 PM	135.00	4.70	6.40	4.80	0.00	4.80	6.40	5.30	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:30 PM	136.00	5.90	7.80	4.40	0.00	6.30	7.80	6.30	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 12:45 PM	142.00	4.90	11.10	4.10	0.00	4.50	11.10	5.30	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:00 PM	165.00	3.90	6.30	4.50	0.00	4.80	6.30	5.90	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:15 PM	152.00	3.90	7.00	4.50	0.00	4.90	7.00	5.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:30 PM	148.00	3.50	9.20	4.40	0.00	4.30	9.20	4.30	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 1:45 PM	157.00	4.20	9.80	4.30	0.00	4.00	9.80	4.60	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:00 PM	152.00	3.50	9.70	3.90	0.00	3.50	9.70	4.80	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:15 PM	163.00	4.90	16.50	3.80	0.00	3.40	16.50	4.30	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:30 PM	146.00	2.50	8.70	3.50	0.00	3.70	8.70	4.40	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 2:45 PM	157.00	4.90	10.00	2.70	0.00	3.50	10.00	5.10	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:00 PM	189.00	3.50	5.30	4.30	0.00	4.30	9.00	5.30	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:15 PM	178.00	5.60	9.00	3.50	0.00	4.30	9.00	5.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:30 PM	209.00	4.30	4.30	4.20	0.00	4.20	10.70	4.30	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 3:45 PM	234.00	5.70	5.00	3.80	0.00	3.80	7.00	5.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/11/13 4:00 PM	233.00	5.10	4.10	3.50	0.00	3.50	9.70											



US Army Corps  
of Engineers

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
4-8-13 to 4-15-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m <sup>3</sup> )							Naphthalene (µg/m <sup>3</sup> )						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
4/11/13 11:15 PM	266.00	5.90	4.70	6.30	1.60	6.30	6.50	4.70	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/11/13 11:30 PM	278.00	7.20	3.50	1.20	0.00	2.70	1.20	2.90	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/11/13 11:45 PM	269.00	6.30	3.40	3.20	0.00	3.20	1.30	3.40	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:00 AM	267.00	6.10	4.10	4.30	0.20	4.30	5.00	4.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:15 AM	270.00	6.00	6.40	3.90	0.00	5.30	3.90	5.30	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:30 AM	262.00	5.40	4.70	4.30	0.00	4.30	2.20	4.70	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:45 AM	262.00	5.30	5.50	5.50	0.00	5.50	2.90	5.50	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:00 AM	262.00	5.40	6.10	6.10	0.00	6.10	3.40	6.10	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:15 AM	276.00	7.00	8.70	3.30	0.00	6.30	3.30	6.20	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:30 AM	255.00	7.10	6.40	6.40	0.00	6.40	3.10	6.40	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:45 AM	257.00	6.00	6.80	6.60	0.00	6.60	3.20	6.80	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:00 AM	266.00	5.50	7.60	7.30	0.00	7.30	3.50	7.60	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:15 AM	273.00	5.40	10.00	3.90	0.00	7.90	3.90	8.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:30 AM	260.00	5.80	7.70	7.70	0.00	7.70	3.60	7.70	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:45 AM	266.00	6.30	7.20	7.10	0.00	7.10	2.80	7.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 3:00 AM	265.00	5.80	6.70	6.70	0.00	6.60	2.40	6.70	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 3:15 AM	282.00	5.60	9.20	2.50	0.00	7.20	2.50	7.10	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 3:30 AM	269.00	4.70	7.10	7.40	0.30	7.40	2.50	7.10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 3:45 AM	266.00	4.10	6.90	6.80	0.00	6.80	2.40	6.90	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:00 AM	255.00	6.00	7.40	7.60	0.20	7.60	2.20	7.40	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:15 AM	262.00	6.10	7.40	8.30	0.90	8.30	2.30	7.40	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:30 AM	261.00	5.50	7.50	8.00	0.50	8.00	2.40	7.50	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:45 AM	260.00	4.80	7.10	8.00	0.90	8.00	2.40	7.10	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 5:00 AM	257.00	5.00	7.60	8.10	0.50	8.10	2.70	7.60	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 5:15 AM	261.00	3.80	7.20	8.10	0.90	8.10	2.50	7.20	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 5:30 AM	251.00	4.90	7.10	7.40	0.30	7.40	2.20	7.10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 5:45 AM	252.00	5.20	7.00	7.20	0.20	7.20	2.30	7.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 6:00 AM	252.00	5.80	7.40	8.00	0.60	8.00	2.70	7.40	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 6:15 AM	240.00	4.40	8.00	8.00	0.00	8.00	2.80	8.00	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 6:30 AM	238.00	4.00	7.80	8.20	0.40	8.20	3.00	7.80	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 6:45 AM	235.00	5.50	8.10	9.00	0.00	9.00	3.10	8.10	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 7:00 AM	239.00	4.60	7.50	9.60	2.10	9.60	3.10	7.50	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 7:15 AM	233.00	4.40	8.10	10.40	2.30	10.40	3.20	8.10	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 7:30 AM	231.00	5.10	8.60	10.50	1.90	10.50	3.10	8.60	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 7:45 AM	250.00	5.30	8.40	11.10	2.70	11.10	3.50	8.40	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 8:00 AM	225.00	6.00	8.60	11.00	2.40	11.00	3.80	8.60	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 8:15 AM	241.00	6.80	8.10	10.30	2.20	10.30	3.70	8.10	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 8:30 AM	231.00	6.60	7.90	10.30	2.40	10.30	3.60	7.90	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 8:45 AM	235.00	3.80	8.00	10.50	2.50	10.50	3.90	8.00	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 9:00 AM	231.00	7.00	8.40	10.50	2.10	10.50	4.30	8.40	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 9:15 AM	242.00	6.30	8.20	10.20	2.00	10.20	4.00	8.20	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 9:30 AM	234.00	6.90	8.00	9.70	1.70	9.70	3.50	8.00	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 9:45 AM	237.00	6.80	8.10	9.90	1.80	9.90	3.70	8.10	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 10:00 AM	240.00	7.80	7.80	9.40	1.60	9.40	3.60	7.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 10:15 AM	251.00	7.00	7.70	9.50	1.80	9.50	3.80	7.70	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 10:30 AM	252.00	7.50	7.70	9.30	1.60	9.30	5.40	7.70	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 10:45 AM	245.00	3.50	7.60	9.20	1.60	9.20	4.60	7.60	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 11:00 AM	251.00	6.70	7.60	8.40	0.80	8.40	4.30	7.60	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 11:15 AM	248.00	7.20	7.60	9.00	0.00	9.00	4.30	7.60	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 11:30 AM	247.00	5.30	6.90	8.20	1.30	8.20	4.20	6.90	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 11:45 AM	250.00	5.80	7.20	8.10	0.90	8.10	4.50	7.20	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:00 PM	241.00	6.70	6.80	7.50	0.70	7.50	4.10	6.80	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:15 PM	264.00	7.10	5.40	6.40	1.00	6.40	3.40	5.40	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:30 PM	273.00	4.80	4.30	4.10	0.00	7.50	4.10	7.10	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 12:45 PM	263.00	5.60	5.50	7.20	1.70	7.20	4.00	5.50	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:00 PM	253.00	7.10	3.10	4.90	1.80	4.90	2.30	3.10	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:15 PM	256.00	8.20	2.60	4.40	1.80	4.40	2.30	2.60	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:30 PM	298.00	5.60	1.30	2.20	0.90	4.30	2.20	2.40	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 1:45 PM	254.00	4.20	2.90	5.00	2.10	5.00	2.80	2.90	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:00 PM	240.00	4.60	2.70	5.60	2.90	5.60	3.60	2.70	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:15 PM	237.00	7.10	3.40	5.80	2.40	5.80	3.00	3.40	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:30 PM	248.00	7.90	3.40	7.00	3.60	7.00	2.90	3.40	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 2:45 PM	232.00	5.70	4.40	8.30	3.90	8.30	4.30	4.40	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 3:00 PM	256.00	6.70	5.90	8.80	2.90	8.80	5.20	5.90	4.30	0.00	0.00	0.00	0.90	0.00	0.00	0.00
4/12/13 3:15 PM	249.00	7.50	5.10	7.30	2.20	7.30	5.00	5.10	4.30	0.00	0.00	0.00	1.10	0.00	0.00	0.00
4/12/13 3:30 PM	265.00	8.40	3.00	4.90	1.90	4.90	2.30	3.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 3:45 PM	265.00	7.20	2.80	3.80	1.00	3.80	2.10	2.80	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:00 PM	249.00	8.50	2.60	4.00	1.40	4.00	1.90	2.60	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:15 PM	270.00	6.70	1.90	1.80	0.00	3.20	1.80	2.30	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:30 PM	270.00	7.10	2.10	1.70	0.00	3.40	1.70	2.70	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/12/13 4:45 PM	271.00	7.10	3.00	2.30	0.00	4.40	2									







US Army Corps  
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Reading Time (EST)	Wind Direction Degrees Clockwise From North	Wind Speed mph	Particulates (µg/m <sup>3</sup> )							Naphthalene (µg/m <sup>3</sup> )						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
4/14/13 10:30 PM	184.00	8.60	14.70	10.40	0.00	10.40	12.30	14.70	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/14/13 10:45 PM	179.00	7.70	12.50	9.10	0.00	10.00	12.50	13.70	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/14/13 11:00 PM	176.00	5.90	12.70	9.00	0.00	10.90	12.70	13.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/14/13 11:15 PM	185.00	7.30	13.60	11.10	0.00	11.10	12.30	13.60	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/14/13 11:30 PM	188.00	6.10	13.30	10.10	0.00	10.10	10.30	13.30	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/14/13 11:45 PM	179.00	7.00	9.50	9.90	0.40	10.80	9.50	13.10	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:00 AM	177.00	7.20	10.50	10.10	0.00	10.70	10.50	13.80	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:15 AM	178.00	7.10	13.80	10.30	0.00	11.00	13.80	13.70	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:30 AM	191.00	7.40	14.10	10.50	0.00	10.50	13.90	14.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:45 AM	192.00	7.30	14.90	10.30	0.00	10.30	14.00	14.90	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:00 AM	214.00	8.80	14.90	19.70	4.80	19.70	13.10	14.90	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:15 AM	213.00	7.50	14.50	26.10	11.60	26.10	14.80	14.50	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:30 AM	209.00	8.10	15.90	29.70	13.80	29.70	14.30	15.90	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:45 AM	213.00	8.30	12.60	29.70	17.10	29.70	14.60	12.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:00 AM	209.00	12.80	11.90	29.90	18.00	29.90	12.70	11.90	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:15 AM	209.00	8.90	11.00	27.90	16.90	27.90	12.20	11.00	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:30 AM	205.00	11.30	10.80	26.20	15.40	26.20	11.10	10.80	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:45 AM	211.00	10.60	10.20	24.90	14.70	24.90	10.00	10.20	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:00 AM	208.00	9.30	11.90	24.80	12.90	24.80	12.80	11.90	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:15 AM	205.00	10.40	17.40	22.30	4.90	22.30	10.10	17.40	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:30 AM	198.00	8.10	12.40	22.80	10.40	22.80	9.10	12.40	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:45 AM	197.00	6.00	12.20	20.70	8.50	20.70	9.70	12.20	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 4:00 AM	190.00	8.90	11.80	20.80	9.00	20.80	7.40	11.80	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 4:15 AM	213.00	7.60	11.20	18.50	7.30	18.50	6.80	11.20	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 4:30 AM	206.00	8.30	10.10	17.90	7.80	17.90	6.80	10.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 4:45 AM	207.00	8.30	9.30	16.50	7.20	16.50	7.00	9.30	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 5:00 AM	198.00	7.80	8.30	16.30	8.00	16.30	7.30	8.30	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 5:15 AM	208.00	8.40	8.10	16.40	8.30	16.40	7.70	8.10	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 5:30 AM	206.00	8.50	7.80	16.40	8.60	16.40	8.00	7.80	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 5:45 AM	208.00	7.70	7.00	14.90	7.90	14.90	8.00	7.00	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 6:00 AM	202.00	7.70	7.20	14.90	7.70	14.90	8.20	7.20	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 6:15 AM	214.00	5.90	7.90	14.60	6.70	14.60	7.80	7.90	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 6:30 AM	202.00	6.40	7.90	14.50	6.60	14.50	7.60	7.90	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 6:45 AM	212.00	8.20	8.40	15.00	6.60	15.00	7.80	8.40	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 7:00 AM	210.00	7.90	9.40	16.70	7.30	16.70	8.00	9.40	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 7:15 AM	198.00	6.70	9.70	17.10	7.40	17.10	8.40	9.70	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 7:30 AM	192.00	7.00	9.50	17.00	7.50	17.00	8.90	9.50	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 7:45 AM	201.00	8.30	8.70	16.20	7.50	16.20	9.20	8.70	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 8:00 AM	207.00	8.40	8.20	15.50	7.30	15.50	8.90	8.20	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 8:15 AM	210.00	7.80	7.80	14.70	6.90	14.70	9.30	7.80	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 8:30 AM	211.00	7.60	7.60	17.90	10.30	17.90	10.80	7.60	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 8:45 AM	214.00	7.90	7.10	17.30	10.20	17.30	15.30	7.10	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 9:00 AM	202.00	9.60	7.20	16.00	8.80	16.00	20.80	7.20	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 9:15 AM	219.00	7.80	7.60	15.70	8.10	15.70	15.90	7.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 9:30 AM	211.00	8.40	8.10	14.80	6.70	14.80	17.00	8.10	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 9:45 AM	219.00	8.70	8.70	13.60	4.90	13.60	15.10	8.70	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 10:00 AM	215.00	10.10	8.70	13.40	4.70	13.40	14.60	8.70	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 10:15 AM	220.00	10.30	9.20	14.60	5.40	14.60	13.80	9.20	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 10:30 AM	208.00	8.20	8.70	14.60	5.90	14.60	12.40	8.70	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 10:45 AM	210.00	8.20	9.00	15.70	6.70	15.70	13.30	9.00	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:00 AM	215.00	8.80	9.10	14.70	5.60	14.70	12.20	9.10	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:15 AM	207.00	6.80	10.00	14.80	4.80	14.80	12.90	10.00	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:30 AM	208.00	5.10	10.00	13.80	3.80	13.80	12.40	10.00	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:45 AM	216.00	7.70	10.20	14.00	3.80	14.00	11.70	10.20	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:00 PM	220.00	9.80	10.00	0.00	0.00	0.00	14.10	10.00	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:15 PM	208.00	9.70	10.10	13.20	3.10	13.20	14.90	10.10	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:30 PM	212.00	6.10	10.20	12.50	2.30	12.50	17.00	10.20	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 12:45 PM	220.00	5.50	10.10	13.50	3.40	13.50	18.80	10.10	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:00 PM	207.00	8.30	10.60	15.50	4.90	15.50	19.20	10.60	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:15 PM	218.00	7.70	11.20	15.50	4.30	15.50	17.80	11.20	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:30 PM	214.00	7.70	11.30	15.50	4.20	15.50	20.60	11.30	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 1:45 PM	216.00	8.00	11.30	15.10	3.80	15.10	17.90	11.30	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:00 PM	222.00	8.20	11.20	13.60	2.40	13.60	15.60	11.20	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:15 PM	200.00	5.10	11.10	12.50	1.40	12.50	15.30	11.10	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:30 PM	231.00	4.50	10.80	12.30	1.50	12.30	13.40	10.80	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 2:45 PM	230.00	4.60	10.00	12.90	2.90	12.90	13.10	10.00	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:00 PM	252.00	6.10	9.90	13.90	4.00	13.90	12.50	9.90	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:15 PM	220.00	4.60	10.70	0.00	0.00	0.00	11.70	10.70	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:30 PM	215.00	5.10	11.40	14.10	2.70	14.10	11.50	11.40	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 3:45 PM	215.00	4.30	11.50	14.10	2.60	14.10	13.60	11.50	17.50	0.						





**US Army Corps  
of Engineers**

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m <sup>3</sup> )							Naphthalene (µg/m <sup>3</sup> )						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
4/15/13 10:15 PM	0.00	0.00	0.00	0.00	0.00	0.00	7.50	11.90	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 10:30 PM	30.00	2.10	15.50	10.60	0.00	15.50	7.20	10.60	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 10:45 PM	12.00	0.90	14.50	11.20	0.00	14.50	9.10	11.20	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:00 PM	335.00	0.90	17.80	11.80	0.00	13.40	11.80	11.40	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:15 PM	8.00	2.10	0.00	10.80	0.00	0.00	11.80	10.80	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:30 PM	4.00	2.20	17.30	10.00	0.00	17.30	11.80	10.00	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/15/13 11:45 PM	342.00	2.10	15.00	12.60	0.00	0.00	12.60	9.80	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00