



US Army Corps of Engineers®

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/1/14 12:00 AM	350.00	7.30	13.90	13.50	0.00	13.60	13.50	14.00	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 12:15 AM	355.00	8.00	12.00	11.10	0.00	13.20	11.10	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 12:30 AM	349.00	6.30	11.80	10.80	0.00	13.70	10.80	11.70	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 12:45 AM	0.00	0.00	0.00	0.00	0.00	13.40	10.40	11.20	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:00 AM	349.00	6.50	11.20	10.20	0.00	13.90	10.20	10.80	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:15 AM	348.00	6.10	11.00	10.10	0.00	14.90	10.10	10.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:30 AM	354.00	7.40	10.90	9.90	0.00	13.10	9.90	10.50	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:45 AM	3.00	11.30	11.10	9.20	0.00	11.10	7.90	9.20	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:00 AM	353.00	8.40	7.50	6.80	0.00	9.70	6.80	7.80	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:15 AM	359.00	9.10	7.50	6.90	0.00	10.30	6.90	8.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:30 AM	354.00	8.10	6.80	6.20	0.00	9.30	6.20	7.50	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:45 AM	351.00	7.20	6.90	6.30	0.00	9.40	6.30	7.50	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:00 AM	356.00	9.60	6.80	6.20	0.00	9.50	6.20	7.30	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:15 AM	353.00	8.10	6.60	6.10	0.00	9.30	6.10	7.30	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:30 AM	353.00	8.70	6.20	5.90	0.00	8.70	5.90	6.80	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:45 AM	349.00	7.00	6.10	5.40	0.00	8.50	5.40	6.50	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:00 AM	351.00	7.80	5.60	5.30	0.00	8.10	5.30	6.30	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:15 AM	353.00	8.80	5.50	4.90	0.00	7.90	4.90	6.30	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:30 AM	359.00	7.60	5.30	5.10	0.00	7.40	5.10	6.40	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:45 AM	348.00	8.10	5.20	4.80	0.00	7.40	4.80	6.20	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 5:00 AM	331.00	5.70	4.60	4.20	0.00	7.00	4.20	5.80	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 5:15 AM	345.00	6.70	4.60	4.40	0.00	6.90	4.40	5.70	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 5:30 AM	348.00	6.70	4.70	4.20	0.00	6.90	4.20	5.60	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 5:45 AM	348.00	7.00	4.60	4.30	0.00	6.70	4.30	5.50	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 6:00 AM	356.00	8.80	4.10	4.70	0.60	5.90	4.70	5.30	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 6:15 AM	336.00	7.10	3.60	3.90	0.30	5.40	3.90	5.20	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 6:30 AM	353.00	7.40	3.70	3.80	0.10	5.50	3.80	5.30	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 6:45 AM	342.00	6.20	3.50	3.60	0.10	5.40	3.60	4.90	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 7:00 AM	1.00	7.60	5.80	4.90	0.00	5.80	3.80	4.90	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 7:15 AM	326.00	5.50	4.20	3.90	0.00	0.00	3.90	5.20	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 7:30 AM	347.00	6.60	4.00	4.00	0.00	6.30	4.00	5.30	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 7:45 AM	347.00	5.50	4.00	3.90	0.00	5.50	3.90	5.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 8:00 AM	346.00	5.00	3.40	3.40	0.00	5.10	3.40	4.90	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 8:15 AM	350.00	6.20	3.00	3.10	0.10	4.60	3.10	4.60	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 8:30 AM	322.00	4.20	3.30	3.00	0.00	4.60	3.00	4.70	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 8:45 AM	336.00	4.40	3.80	3.60	0.00	6.20	3.60	4.70	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 9:00 AM	353.00	6.00	2.90	2.80	0.00	4.80	2.80	4.10	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 9:15 AM	349.00	6.30	3.10	3.10	0.00	5.00	3.10	4.40	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 9:30 AM	350.00	8.40	3.30	2.70	0.00	4.80	2.70	4.20	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 9:45 AM	350.00	8.20	2.90	2.60	0.00	4.60	2.60	4.10	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 10:00 AM	357.00	7.80	2.80	2.90	0.10	4.30	2.90	4.10	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 10:15 AM	346.00	6.70	2.70	2.80	0.10	4.40	2.80	4.50	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 10:30 AM	358.00	8.80	3.40	2.80	0.00	4.60	2.80	4.80	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 10:45 AM	358.00	7.60	2.80	3.10	0.30	4.50	3.10	4.70	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 11:00 AM	347.00	6.30	3.00	3.30	0.30	4.80	3.30	4.70	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 11:15 AM	346.00	6.80	3.10	3.60	0.50	0.00	3.60	4.80	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 11:30 AM	348.00	9.60	2.80	3.40	0.60	4.50	3.40	4.60	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 11:45 AM	357.00	10.10	2.90	3.30	0.40	5.50	3.30	5.00	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 12:00 PM	0.00	8.90	5.10	4.70	0.00	5.10	3.40	4.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 12:15 PM	353.00	8.70	3.00	3.90	0.90	4.70	3.90	4.90	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 12:30 PM	1.00	9.20	6.20	4.80	0.00	6.20	5.30	4.80	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 12:45 PM	358.00	7.40	3.50	4.40	0.90	4.80	4.40	6.30	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:00 PM	358.00	9.50	3.90	4.10	0.20	0.00	4.10	5.70	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:15 PM	5.00	9.40	4.60	5.60	1.00	4.60	4.50	5.60	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:30 PM	1.00	9.60	4.90	5.60	0.70	4.90	5.20	5.60	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 1:45 PM	354.00	8.30	4.30	6.20	1.90	4.40	6.20	6.30	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:00 PM	353.00	8.60	5.20	5.20	0.00	3.80	5.20	6.70	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:15 PM	6.00	7.90	3.90	6.90	3.00	3.90	6.20	6.90	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:30 PM	0.00	8.50	4.00	7.20	3.20	4.00	8.40	7.20	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 2:45 PM	3.00	7.40	5.20	7.40	2.20	5.20	8.90	7.40	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:00 PM	5.00	9.70	4.00	7.50	3.50	4.00	9.50	7.50	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:15 PM	13.00	8.00	3.20	8.00	4.80	3.20	8.60	8.00	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:30 PM	12.00	10.20	2.50	9.80	7.30	2.50	7.30	9.80	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 3:45 PM	10.00	9.10	2.40	8.90	6.50	2.40	7.50	8.90	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:00 PM	8.00	7.10	2.80	9.10	6.30	2.80	7.70	9.10	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:15 PM	6.00	10.50	3.70	9.50	5.80	3.70	6.90	9.50	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:30 PM	12.00	10.20	4.50	10.50	6.00	4.50	7.90	10.50	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 4:45 PM	22.00	9.30	5.30	9.90	4.60	5.30	8.70	9.90	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 5:00 PM	16.00	7.20	7.50	13.00	5.50	7.50	7.30	13.00	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 5:15 PM	24.00	9.90	5.80	11.50	5.70	5.80	9.60	11.50	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/14 5:30 PM	15.00	7.90	6.60	9.70	3.10	6.60	8.30	9.70	5.40	0.00	0.00	0.00	0.00	0		



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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
12/2/14 1:15 AM	142.00	3.30	22.70	16.70	0.00	25.90	22.70	19.70	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 1:30 AM	143.00	3.50	26.00	18.40	0.00	27.30	26.00	19.60	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 1:45 AM	131.00	2.70	27.40	18.90	0.00	31.60	27.40	22.80	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:00 AM	145.00	2.90	25.80	18.90	0.00	31.50	25.80	21.60	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:15 AM	132.00	2.80	28.50	19.20	0.00	34.00	28.50	23.00	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:30 AM	140.00	2.60	29.70	22.50	0.00	31.00	29.70	23.10	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:45 AM	131.00	3.10	23.40	20.00	0.00	26.10	23.40	18.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:00 AM	130.00	3.10	16.90	13.30	0.00	18.10	16.90	15.10	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:15 AM	138.00	3.20	15.90	13.30	0.00	17.60	15.90	15.10	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:30 AM	133.00	3.20	15.50	12.90	0.00	15.60	15.50	15.40	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:45 AM	129.00	3.00	17.00	18.00	1.00	0.00	17.00	15.80	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:00 AM	129.00	2.90	20.10	18.60	0.00	27.20	20.10	17.40	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:15 AM	121.00	2.40	19.00	17.00	0.00	24.80	19.00	16.40	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:30 AM	119.00	2.90	17.60	13.70	0.00	22.30	17.60	16.30	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:45 AM	123.00	2.80	17.00	15.80	0.00	29.80	17.00	16.30	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:00 AM	117.00	3.00	17.20	13.60	0.00	20.90	17.20	16.20	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:15 AM	118.00	3.10	17.70	15.70	0.00	24.20	17.70	15.90	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:30 AM	117.00	4.10	17.60	13.80	0.00	21.60	17.60	16.30	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:45 AM	125.00	3.30	18.00	15.20	0.00	21.30	18.00	16.70	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 6:00 AM	115.00	2.60	18.60	14.90	0.00	20.30	18.60	17.30	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 6:15 AM	112.00	3.50	18.20	14.40	0.00	19.10	18.20	17.20	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 6:30 AM	117.00	3.10	17.90	14.90	0.00	19.10	17.90	17.50	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 6:45 AM	126.00	3.90	18.40	15.00	0.00	22.80	18.40	17.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 7:00 AM	124.00	3.50	17.70	14.20	0.00	20.50	17.70	16.50	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 7:15 AM	114.00	3.30	18.50	14.80	0.00	25.80	18.50	17.70	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 7:30 AM	120.00	2.90	18.50	14.60	0.00	21.50	18.50	17.10	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 7:45 AM	126.00	3.10	20.70	15.30	0.00	21.30	20.70	17.40	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 8:00 AM	120.00	2.10	21.20	15.50	0.00	21.30	21.20	18.40	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 8:15 AM	135.00	1.80	20.80	15.90	0.00	20.50	20.80	17.70	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 8:30 AM	156.00	3.20	32.80	15.30	0.00	22.70	32.80	19.20	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 8:45 AM	156.00	2.40	38.90	20.20	0.00	18.40	38.90	23.70	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 9:00 AM	147.00	2.60	23.30	19.30	0.00	25.40	23.30	20.20	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 9:15 AM	148.00	3.90	22.10	18.80	0.00	30.20	22.10	19.10	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 9:30 AM	162.00	4.00	18.50	16.60	0.00	34.00	18.50	15.80	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 9:45 AM	154.00	3.70	18.80	14.20	0.00	31.10	18.80	15.90	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 10:00 AM	161.00	3.30	18.20	11.50	0.00	27.20	18.20	15.30	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 10:15 AM	146.00	5.10	19.40	11.60	0.00	22.70	19.40	14.40	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 10:30 AM	161.00	6.10	17.10	10.50	0.00	20.60	17.10	13.50	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 10:45 AM	164.00	5.90	14.90	10.20	0.00	19.20	14.90	13.60	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 11:00 AM	166.00	5.60	15.50	11.30	0.00	17.20	15.50	13.50	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 11:15 AM	171.00	5.40	17.20	11.30	0.00	17.20	17.20	13.40	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 11:30 AM	155.00	5.50	15.30	11.80	0.00	18.60	15.30	14.00	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 11:45 AM	171.00	4.70	15.40	12.20	0.00	17.10	15.40	14.10	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 12:00 PM	174.00	5.00	16.60	12.60	0.00	18.60	16.60	15.00	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 12:15 PM	190.00	5.90	15.60	16.20	0.60	16.20	16.90	15.60	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 12:30 PM	205.00	4.40	14.90	15.80	0.90	15.80	18.10	14.90	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 12:45 PM	213.00	3.80	15.10	15.20	0.10	15.20	15.90	15.10	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 1:00 PM	190.00	3.90	15.70	15.00	0.00	15.00	16.40	15.70	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 1:15 PM	180.00	3.80	15.70	14.50	0.00	14.50	17.20	15.70	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 1:30 PM	185.00	4.30	16.10	14.60	0.00	14.60	17.50	16.10	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 1:45 PM	220.00	4.50	16.60	15.80	0.00	15.80	18.30	16.60	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:00 PM	199.00	5.00	17.90	16.80	0.00	16.80	20.00	17.90	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:15 PM	196.00	3.90	18.30	17.30	0.00	17.30	20.80	18.30	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:30 PM	199.00	4.00	17.90	17.10	0.00	17.10	21.60	17.90	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 2:45 PM	184.00	4.10	18.30	0.00	0.00	0.00	22.00	18.30	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:00 PM	184.00	3.80	19.30	17.10	0.00	17.10	22.40	19.30	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:15 PM	213.00	5.10	19.40	17.20	0.00	17.20	23.40	19.40	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:30 PM	210.00	3.10	20.40	17.50	0.00	17.50	23.00	20.40	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 3:45 PM	192.00	3.90	20.20	17.10	0.00	17.10	24.20	20.20	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:00 PM	192.00	5.10	19.70	16.20	0.00	16.20	25.30	19.70	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:15 PM	208.00	4.50	20.80	16.40	0.00	16.40	23.60	20.80	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:30 PM	208.00	4.70	20.80	16.20	0.00	16.20	24.00	20.80	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 4:45 PM	203.00	3.90	21.70	17.40	0.00	17.40	24.60	21.70	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:00 PM	204.00	4.20	22.70	19.40	0.00	19.40	26.20	22.70	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:15 PM	195.00	2.80	23.20	20.00	0.00	20.00	27.90	23.20	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:30 PM	189.00	4.90	25.00	22.30	0.00	22.30	31.50	25.00	26.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 5:45 PM	188.00	4.50	29.40	24.50	0.00	24.50	38.00	29.40	30.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 6:00 PM	182.00	5.30	30.30	23.90	0.00	23.90	37.50	30.30	31.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/2/14 6:15 PM	220.00	2.70	29.00	22.70	0.00	22.70	38.10	29.00</								



**US Army Corps  
of Engineers**

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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		
12/3/14 2:30 AM	232.00	5.40	19.90	16.20	0.00	16.20	20.10	19.90	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 2:45 AM	221.00	5.60	20.40	15.80	0.00	15.80	20.90	20.40	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:00 AM	221.00	5.40	20.60	15.20	0.00	15.20	21.30	20.60	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:15 AM	216.00	4.30	20.50	14.30	0.00	14.30	21.00	20.50	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:30 AM	226.00	3.70	20.50	13.50	0.00	13.50	21.10	20.50	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:45 AM	222.00	4.60	20.50	13.30	0.00	13.30	21.40	20.50	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:00 AM	217.00	2.80	20.30	13.60	0.00	13.60	20.80	20.30	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:15 AM	220.00	4.50	20.30	14.30	0.00	14.30	20.60	20.30	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:30 AM	217.00	4.60	19.90	14.60	0.00	14.60	20.40	19.90	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:45 AM	224.00	5.10	19.60	15.20	0.00	15.20	20.00	19.60	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:00 AM	225.00	4.70	19.30	15.30	0.00	15.30	19.70	19.30	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:15 AM	220.00	4.50	19.00	15.20	0.00	15.20	19.20	19.00	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:30 AM	218.00	3.80	19.00	14.90	0.00	14.90	18.60	19.00	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:45 AM	221.00	4.60	19.00	14.20	0.00	14.20	19.10	19.00	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:00 AM	219.00	4.80	18.90	13.60	0.00	13.60	19.10	18.90	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:15 AM	221.00	4.20	18.60	13.10	0.00	13.10	18.90	18.60	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:30 AM	211.00	4.30	19.00	13.00	0.00	13.00	18.80	19.00	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:45 AM	222.00	4.40	19.10	12.90	0.00	12.90	18.70	19.10	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:00 AM	225.00	5.00	19.50	12.80	0.00	12.80	19.10	19.50	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:15 AM	226.00	3.90	19.60	13.80	0.00	13.80	19.50	19.60	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:30 AM	236.00	4.90	19.50	14.60	0.00	14.60	19.30	19.50	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:45 AM	239.00	4.50	19.70	15.00	0.00	15.00	19.40	19.70	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 8:00 AM	247.00	4.70	19.80	15.40	0.00	15.40	20.10	19.80	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 8:15 AM	237.00	3.30	21.00	16.20	0.00	16.20	20.20	21.00	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 8:30 AM	241.00	3.80	20.10	14.80	0.00	14.80	19.70	20.10	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 8:45 AM	242.00	5.10	19.20	13.30	0.00	13.30	19.10	19.20	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 9:00 AM	237.00	4.00	18.60	13.50	0.00	13.50	18.10	18.60	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 9:15 AM	244.00	5.30	18.40	13.20	0.00	13.20	18.10	18.40	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 9:30 AM	250.00	4.10	17.70	13.40	0.00	13.40	16.80	17.70	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 9:45 AM	257.00	5.50	16.40	13.90	0.00	13.90	15.90	16.40	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 10:00 AM	270.00	4.80	12.10	14.80	2.70	15.10	14.80	15.90	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 10:15 AM	278.00	3.70	11.50	14.80	3.30	14.70	14.80	16.30	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 10:30 AM	266.00	3.70	15.60	14.70	0.00	14.70	14.10	15.60	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 10:45 AM	253.00	4.10	15.20	14.40	0.00	14.40	14.50	15.20	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 11:00 AM	272.00	4.60	10.10	13.20	3.10	14.30	13.20	13.60	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 11:15 AM	289.00	6.50	9.10	11.50	2.40	14.40	11.50	12.30	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 11:30 AM	282.00	3.60	8.90	10.50	1.60	13.60	10.50	12.80	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 11:45 AM	273.00	4.90	9.00	10.30	1.30	13.40	10.30	12.20	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 12:00 PM	276.00	4.90	9.50	9.60	0.10	13.00	9.60	11.50	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 12:15 PM	258.00	5.90	11.30	11.70	0.40	11.70	8.50	11.30	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 12:30 PM	279.00	4.50	7.90	7.20	0.00	10.70	7.20	9.40	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 12:45 PM	280.00	4.80	8.20	8.10	0.00	11.20	8.10	10.10	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 1:00 PM	263.00	5.30	9.70	11.40	1.70	11.40	8.00	9.70	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 1:15 PM	270.00	3.40	7.10	7.70	0.60	10.20	7.70	9.70	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 1:30 PM	264.00	5.30	9.20	10.00	0.80	10.00	7.60	9.20	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 1:45 PM	280.00	4.50	6.80	8.10	1.30	8.80	8.10	9.00	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 2:00 PM	270.00	4.00	8.80	7.40	0.00	10.10	7.40	8.80	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 2:15 PM	270.00	4.60	7.10	6.50	0.00	8.50	6.50	8.80	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 2:30 PM	272.00	4.10	6.10	7.10	1.00	7.80	7.10	8.50	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 2:45 PM	246.00	4.50	9.40	9.10	0.00	9.10	8.30	9.40	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:00 PM	246.00	3.60	9.40	0.00	0.00	0.00	8.40	9.40	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:15 PM	263.00	2.90	10.60	9.50	0.00	9.50	10.30	10.60	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:30 PM	260.00	4.00	9.60	10.80	1.20	10.80	9.10	9.60	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 3:45 PM	261.00	3.10	9.40	8.90	0.00	8.90	8.20	9.40	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:00 PM	250.00	4.20	10.30	13.70	3.40	13.70	9.10	10.30	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:15 PM	251.00	4.90	10.10	9.80	0.00	9.80	8.70	10.10	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:30 PM	256.00	3.70	9.80	9.20	0.00	9.20	7.60	9.80	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 4:45 PM	251.00	4.30	10.40	8.10	0.00	8.10	9.30	10.40	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:00 PM	259.00	3.70	10.20	8.80	0.00	8.80	9.90	10.20	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:15 PM	247.00	3.40	11.40	8.80	0.00	8.80	11.20	11.40	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:30 PM	252.00	3.10	11.90	8.90	0.00	8.90	10.70	11.90	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 5:45 PM	251.00	3.20	12.00	9.30	0.00	9.30	11.40	12.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:00 PM	247.00	3.60	11.80	9.20	0.00	9.20	12.00	11.80	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:15 PM	251.00	4.30	12.10	8.70	0.00	8.70	10.50	12.10	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:30 PM	261.00	4.70	11.70	8.60	0.00	8.60	9.90	11.70	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 6:45 PM	266.00	3.40	11.00	9.00	0.00	9.00	10.20	11.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:00 PM	266.00	3.70	12.20	11.20	0.00	11.20	11.00	12.20	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:15 PM	270.00	3.60	8.50	12.10	3.60	10.80	12.10	13.00	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:30 PM	265.00	3.60	12.20	12.00	0.00	12.00	11.10	12.20	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/3/14 7:45 PM	263.00																	



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Real-Time Air Monitoring Data  
December 2014

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		
12/4/14 3:45 AM	309.00	3.20	11.90	16.70	4.80	18.30	16.70	17.70	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:00 AM	296.00	1.70	12.00	17.40	5.40	19.90	17.40	18.60	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:15 AM	299.00	2.20	12.00	17.50	5.50	20.20	17.50	18.20	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:30 AM	306.00	2.20	13.00	19.10	6.10	20.50	19.10	19.20	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:45 AM	324.00	1.60	12.70	18.30	5.60	22.30	18.30	19.20	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:00 AM	339.00	2.40	12.50	18.50	6.00	21.70	18.50	20.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:15 AM	10.00	1.40	21.40	19.00	0.00	21.40	17.80	19.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:30 AM	342.00	1.10	12.50	17.60	5.10	22.30	17.60	18.70	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:45 AM	2.00	4.00	19.10	18.40	0.00	19.10	17.40	18.40	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:00 AM	6.00	3.90	19.20	19.30	0.10	19.20	17.90	19.30	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:15 AM	353.00	4.60	13.90	19.10	5.20	17.50	19.10	18.90	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:30 AM	355.00	3.60	14.50	19.90	5.40	17.10	19.90	20.00	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:45 AM	7.00	2.60	15.40	20.30	4.90	15.40	20.00	20.30	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:00 AM	6.00	2.20	14.70	22.80	8.10	14.70	20.60	22.80	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:15 AM	36.00	4.30	14.00	22.10	8.10	14.00	18.50	22.10	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:30 AM	28.00	4.80	13.50	19.00	5.50	13.50	18.20	19.00	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:45 AM	57.00	3.20	12.80	17.90	5.10	12.80	18.00	17.90	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:00 AM	72.00	4.20	0.00	24.20	0.00	0.00	29.00	24.20	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:15 AM	75.00	3.80	16.80	21.40	4.60	16.80	34.30	21.40	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:30 AM	82.00	2.80	17.40	16.90	0.00	17.40	28.90	16.90	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:45 AM	57.00	3.10	15.70	20.00	4.30	15.70	31.70	20.00	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 9:00 AM	81.00	2.60	16.50	18.00	1.50	16.50	24.00	18.00	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 9:15 AM	56.00	3.30	18.10	17.90	0.00	18.10	27.10	17.90	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 9:30 AM	72.00	3.60	18.70	18.10	0.00	18.70	23.90	18.10	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 9:45 AM	110.00	3.70	25.70	16.90	0.00	19.30	25.70	19.70	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 10:00 AM	121.00	3.50	27.80	14.10	0.00	17.60	27.80	19.00	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 10:15 AM	128.00	2.70	21.00	15.00	0.00	18.60	21.00	24.40	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 10:30 AM	110.00	3.50	31.70	16.30	0.00	17.10	31.70	19.90	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 10:45 AM	137.00	3.40	26.70	13.10	0.00	16.90	26.70	24.70	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 11:00 AM	111.00	3.30	26.70	13.20	0.00	14.70	26.70	23.70	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 11:15 AM	96.00	2.60	28.90	16.10	0.00	18.50	28.90	25.20	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 11:30 AM	89.00	3.20	17.20	22.70	5.50	17.20	42.40	22.70	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 11:45 AM	64.00	3.70	18.90	23.20	4.30	18.90	40.70	23.20	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 12:00 PM	68.00	3.50	20.50	24.40	3.90	20.50	31.20	24.40	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 12:15 PM	59.00	3.70	19.80	24.00	4.20	19.80	32.60	24.00	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 12:30 PM	61.00	4.50	20.50	21.30	0.80	20.50	24.80	21.30	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 12:45 PM	52.00	4.40	21.60	22.40	0.80	21.60	30.80	22.40	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 1:00 PM	103.00	2.70	34.00	15.80	0.00	21.80	34.00	24.60	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 1:15 PM	79.00	3.30	21.10	23.90	2.80	21.10	35.50	23.90	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 1:30 PM	100.00	3.20	31.50	16.50	0.00	20.10	31.50	24.90	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 1:45 PM	61.00	3.40	18.80	25.00	6.20	18.80	27.80	25.00	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 2:00 PM	50.00	4.70	19.70	26.10	6.40	19.70	29.60	26.10	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 2:15 PM	75.00	2.90	17.10	25.90	8.80	17.10	37.40	25.90	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 2:30 PM	76.00	2.00	17.40	25.60	8.20	17.40	28.70	25.60	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 2:45 PM	70.00	3.30	18.30	26.00	7.70	18.30	30.20	26.00	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 3:00 PM	143.00	3.10	22.30	15.30	0.00	17.50	22.30	21.90	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 3:15 PM	158.00	2.80	21.70	15.70	0.00	17.50	21.70	19.30	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 3:30 PM	138.00	2.10	24.70	15.50	0.00	20.00	24.70	19.90	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 3:45 PM	124.00	2.80	22.70	15.40	0.00	22.20	22.70	21.30	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:00 PM	146.00	3.70	21.70	15.40	0.00	19.00	21.70	20.50	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:15 PM	121.00	2.90	22.80	15.60	0.00	20.40	22.80	19.80	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:30 PM	131.00	2.60	28.80	15.90	0.00	20.30	28.80	21.20	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 4:45 PM	129.00	3.10	23.00	15.40	0.00	19.00	23.00	20.60	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:00 PM	119.00	3.00	25.00	15.70	0.00	17.70	25.00	22.20	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:15 PM	124.00	3.80	24.80	16.60	0.00	17.70	24.80	21.20	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:30 PM	125.00	4.40	24.10	15.80	0.00	17.00	24.10	22.10	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 5:45 PM	130.00	4.30	25.60	16.20	0.00	18.30	25.60	22.50	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:00 PM	142.00	3.70	25.90	16.20	0.00	18.20	25.90	23.30	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:15 PM	115.00	3.10	24.80	16.60	0.00	20.00	24.80	23.00	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:30 PM	125.00	3.60	24.50	18.10	0.00	20.00	24.50	23.40	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 6:45 PM	118.00	3.70	25.00	19.70	0.00	22.60	25.00	23.60	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:00 PM	114.00	3.00	25.60	19.10	0.00	20.00	25.60	24.30	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:15 PM	119.00	3.20	26.00	19.00	0.00	19.70	26.00	25.40	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:30 PM	110.00	3.60	25.90	19.40	0.00	19.50	25.90	25.70	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 7:45 PM	134.00	3.20	25.60	20.60	0.00	21.10	25.60	26.20	20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:00 PM	148.00	3.70	26.70	19.20	0.00	19.30	26.70	25.60	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:15 PM	143.00	3.10	26.60	20.40	0.00	20.10	26.60	25.10	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:30 PM	153.00	3.70	26.30	20.00	0.00	21.00	26.30	25.10	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/4/14 8:45 PM	151.00	3.10	26.40	20.00	0.00	21.60	26.40	25.40	20.									



**US Army Corps of Engineers®**

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
			Value	Value	Value	Value						Value	Value	Value	Value					
12/5/14 5:00 AM	167.00	2.30	43.70	29.80	0.00	25.80	43.70	40.80	29.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 5:15 AM	164.00	3.70	46.70	31.50	0.00	26.10	46.70	43.90	31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 5:30 AM	161.00	3.00	48.30	31.80	0.00	26.10	48.30	46.70	31.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 5:45 AM	160.00	4.10	49.70	31.70	0.00	27.30	49.70	46.70	31.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:00 AM	152.00	3.60	53.60	33.40	0.00	27.70	53.60	48.30	33.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:15 AM	168.00	3.70	55.80	33.80	0.00	30.10	55.80	52.40	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:30 AM	149.00	3.20	57.80	35.70	0.00	31.70	57.80	55.20	35.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:45 AM	164.00	2.90	60.60	37.20	0.00	31.50	60.60	56.90	37.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 7:00 AM	162.00	4.00	63.50	38.40	0.00	33.40	63.50	58.70	38.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 7:15 AM	171.00	3.50	64.50	39.10	0.00	33.70	64.50	60.10	39.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 7:30 AM	172.00	2.70	64.60	39.90	0.00	33.80	64.60	60.70	39.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 7:45 AM	167.00	1.90	64.00	39.60	0.00	33.40	64.00	60.70	39.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 8:00 AM	152.00	2.40	64.10	39.70	0.00	32.70	64.10	61.00	39.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 8:15 AM	170.00	2.70	63.80	39.90	0.00	33.60	63.80	60.60	39.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 8:30 AM	160.00	3.30	62.90	39.50	0.00	33.50	62.90	61.10	39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 8:45 AM	151.00	1.70	63.10	39.20	0.00	34.40	63.10	61.40	39.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 9:00 AM	157.00	2.20	63.20	40.10	0.00	33.40	63.20	60.30	40.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 9:15 AM	153.00	2.50	64.10	41.40	0.00	34.40	64.10	61.40	41.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 9:30 AM	161.00	3.20	66.20	41.80	0.00	34.30	66.20	63.40	41.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 9:45 AM	184.00	3.20	62.40	33.80	0.00	33.80	62.40	62.40	40.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 10:00 AM	179.00	3.10	60.70	40.10	0.00	33.60	60.70	60.10	40.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 10:15 AM	157.00	2.60	56.70	38.90	0.00	31.40	56.70	58.30	38.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 10:30 AM	144.00	2.00	54.90	38.30	0.00	30.00	54.90	55.70	38.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 10:45 AM	145.00	2.10	53.90	38.70	0.00	29.00	53.90	53.50	38.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 11:00 AM	157.00	3.30	51.60	36.40	0.00	28.20	51.60	50.80	36.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 11:15 AM	182.00	2.90	48.90	26.60	0.00	26.60	48.90	49.00	26.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 11:30 AM	176.00	2.10	48.40	35.80	0.00	26.60	48.40	48.00	35.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 11:45 AM	201.00	2.10	47.00	25.80	0.00	25.80	47.00	47.00	35.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 12:00 PM	162.00	2.20	47.70	36.10	0.00	26.10	47.70	48.10	36.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 12:15 PM	214.00	1.60	44.80	26.30	0.00	26.30	44.80	44.80	32.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 12:30 PM	217.00	1.40	44.70	23.70	0.00	23.70	43.30	44.70	32.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 12:45 PM	206.00	1.70	42.90	23.50	0.00	23.50	43.10	42.90	30.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 1:00 PM	237.00	1.60	41.20	23.10	0.00	23.10	40.50	41.20	31.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 1:15 PM	227.00	1.70	40.90	22.20	0.00	22.20	38.50	40.90	31.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 1:30 PM	218.00	1.60	38.10	21.50	0.00	21.50	37.20	38.10	30.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 1:45 PM	195.00	0.80	37.70	20.50	0.00	20.50	37.90	37.70	29.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 2:00 PM	190.00	0.90	38.90	21.20	0.00	21.20	35.90	38.90	28.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 2:15 PM	1.00	1.00	21.30	36.70	15.40	21.30	36.80	36.70	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 2:30 PM	323.00	0.90	26.00	35.80	9.80	20.90	35.80	36.50	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 2:45 PM	353.00	0.80	28.30	36.80	8.50	25.20	36.80	38.60	28.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 3:00 PM	32.00	2.20	30.50	39.70	9.20	30.50	52.20	39.70	31.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 3:15 PM	22.00	1.80	33.30	57.70	24.40	33.30	58.10	57.70	31.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 3:30 PM	24.00	0.70	34.90	51.60	16.70	34.90	62.20	51.60	32.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 3:45 PM	4.00	0.60	24.60	50.40	25.80	24.60	52.20	50.40	35.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 4:00 PM	344.00	1.40	34.80	48.10	13.30	25.10	48.10	51.50	34.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 4:15 PM	348.00	1.30	34.50	51.50	17.00	28.30	51.50	51.60	34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 4:30 PM	318.00	1.10	33.50	53.90	20.40	29.60	53.90	54.50	33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 4:45 PM	343.00	1.50	33.90	54.70	20.80	30.50	54.70	54.20	33.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 5:00 PM	350.00	2.00	34.60	53.90	19.30	31.70	53.90	53.40	34.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 5:15 PM	341.00	1.50	31.50	53.50	22.00	29.60	53.50	52.80	31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 5:30 PM	336.00	1.80	30.90	49.90	19.00	27.40	49.90	49.70	30.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 5:45 PM	342.00	2.20	32.00	50.70	18.70	28.90	50.70	48.80	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:00 PM	354.00	1.20	30.70	51.40	20.70	0.00	51.40	46.60	30.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:15 PM	183.00	1.10	49.10	28.70	0.00	28.70	45.00	49.10	30.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:30 PM	240.00	0.50	49.30	29.00	0.00	29.00	45.80	49.30	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 6:45 PM	317.00	1.40	30.10	47.20	17.10	29.20	47.20	50.90	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 7:00 PM	321.00	0.80	31.80	51.70	19.90	31.40	51.70	51.40	31.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 7:15 PM	358.00	2.00	32.40	51.90	19.50	30.80	51.90	54.20	32.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/5/14 7:30 PM	28.00	4.40	25.10	49.90	24.80	25.10	53.50	49.90	29.40	0.00	0									



US Army Corps of Engineers

Indiana Harbor and Canal Confined Disposal Facility Real-Time Air Monitoring Data December 2014

Table with columns: Reading Time (EST), Wind Direction, Wind Speed, Particulates (ug/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4], and Naphthalene (ug/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4]. Rows represent hourly data from 12/6/14 6:15 AM to 12/7/14 7:15 AM.



**US Army Corps  
of Engineers**

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/7/14 7:30 AM	113.00	3.40	9.20	7.50	0.00	11.70	9.20	9.70	7.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 7:45 AM	126.00	3.20	9.20	7.60	0.00	11.60	9.20	9.40	7.60	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:00 AM	126.00	2.70	9.10	7.30	0.00	11.50	9.10	9.30	7.30	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:15 AM	125.00	2.90	9.30	7.70	0.00	13.00	9.30	9.80	7.70	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:30 AM	129.00	3.00	9.40	7.70	0.00	13.10	9.40	10.50	7.70	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:45 AM	129.00	3.50	9.50	7.90	0.00	12.60	9.50	10.00	7.90	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:00 AM	131.00	3.20	9.60	7.50	0.00	11.80	9.60	9.90	7.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:15 AM	120.00	3.50	8.70	7.50	0.00	10.60	8.70	10.10	7.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:30 AM	118.00	3.80	8.60	7.00	0.00	9.40	8.60	9.80	7.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:45 AM	120.00	2.90	8.50	6.80	0.00	8.00	8.50	10.00	6.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:00 AM	124.00	3.00	8.00	6.70	0.00	7.80	8.00	9.40	6.70	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:15 AM	130.00	3.10	7.60	6.40	0.00	8.10	7.60	9.10	6.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:30 AM	117.00	4.00	7.30	6.40	0.00	8.30	7.30	8.60	6.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:45 AM	121.00	3.30	6.60	5.80	0.00	8.20	6.60	7.90	5.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:00 AM	136.00	3.60	6.30	5.40	0.00	7.30	6.30	7.20	5.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:15 AM	126.00	4.00	6.20	5.40	0.00	6.50	6.20	7.20	5.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:30 AM	139.00	4.00	5.90	5.00	0.00	6.00	5.90	7.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:45 AM	147.00	5.10	5.60	5.10	0.00	5.30	5.60	7.20	5.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 12:00 PM	119.00	4.10	5.50	4.90	0.00	5.20	5.50	6.70	4.90	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 12:15 PM	122.00	3.40	5.50	4.90	0.00	4.80	5.50	6.80	4.90	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 12:30 PM	123.00	3.90	5.10	4.50	0.00	5.00	5.10	6.50	4.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 12:45 PM	137.00	5.10	5.20	4.40	0.00	5.30	5.20	5.80	4.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 1:00 PM	157.00	5.10	5.20	4.50	0.00	6.20	5.20	5.90	4.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 1:15 PM	137.00	4.20	5.30	4.60	0.00	7.00	5.30	6.00	4.60	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 1:30 PM	136.00	3.00	5.70	5.10	0.00	7.30	5.70	6.20	5.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 1:45 PM	133.00	3.00	6.10	5.00	0.00	7.40	6.10	6.20	5.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 2:00 PM	167.00	3.50	6.10	5.00	0.00	7.90	6.10	6.50	5.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 2:15 PM	146.00	3.40	6.10	5.00	0.00	8.40	6.10	6.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 2:30 PM	127.00	4.70	6.50	5.10	0.00	8.70	6.50	6.40	5.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 2:45 PM	140.00	4.80	7.50	5.50	0.00	8.90	7.50	6.30	5.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 3:00 PM	116.00	4.10	7.50	5.60	0.00	8.60	7.50	6.50	5.60	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 3:15 PM	114.00	2.60	7.90	5.80	0.00	7.10	7.90	6.70	5.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 3:30 PM	149.00	4.10	7.70	5.90	0.00	6.00	7.70	6.60	5.90	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 3:45 PM	130.00	4.10	7.50	5.70	0.00	5.60	7.50	6.70	5.70	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 4:00 PM	125.00	3.60	7.80	5.70	0.00	5.70	7.80	6.90	5.70	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 4:15 PM	132.00	3.20	7.90	5.40	0.00	6.20	7.90	7.20	5.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 4:30 PM	150.00	4.50	8.10	6.00	0.00	6.30	8.10	7.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 4:45 PM	149.00	2.60	7.90	6.10	0.00	6.60	7.90	7.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 5:00 PM	171.00	3.20	8.20	6.40	0.00	6.90	8.20	7.20	6.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 5:15 PM	142.00	2.90	8.60	6.40	0.00	7.20	8.60	7.60	6.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 5:30 PM	135.00	3.40	9.40	6.50	0.00	5.90	9.40	8.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 5:45 PM	141.00	3.30	8.90	6.30	0.00	5.80	8.90	7.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 6:00 PM	139.00	3.40	8.90	6.70	0.00	5.20	8.90	8.20	6.70	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 6:15 PM	152.00	3.50	11.00	6.80	0.00	5.10	11.00	8.00	6.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 6:30 PM	133.00	5.60	10.90	5.70	0.00	5.50	10.90	8.00	5.70	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 6:45 PM	149.00	4.20	10.20	4.20	0.00	5.70	10.20	8.40	4.20	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 7:00 PM	141.00	3.60	10.70	4.00	0.00	6.00	10.70	8.20	4.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 7:15 PM	136.00	5.50	11.40	3.80	0.00	6.10	11.40	8.20	3.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 7:30 PM	147.00	3.30	10.90	3.60	0.00	6.10	10.90	8.30	3.60	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 7:45 PM	142.00	4.20	10.20	3.90	0.00	6.10	10.20	8.10	3.90	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:00 PM	155.00	4.30	11.00	4.20	0.00	5.70	11.00	8.10	4.20	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:15 PM	151.00	6.20	10.80	4.40	0.00	5.60	10.80	8.30	4.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:30 PM	156.00	6.60	11.10	4.30	0.00	5.30	11.10	9.60	4.30	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 8:45 PM	145.00	6.50	12.50	4.80	0.00	5.50	12.50	9.80	4.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:00 PM	154.00	7.00	12.60	5.40	0.00	5.20	12.60	9.80	5.40	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:15 PM	147.00	7.10	12.90	5.80	0.00	5.40	12.90	10.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:30 PM	151.00	6.10	13.70	6.30	0.00	5.50	13.70	11.00	6.30	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 9:45 PM	164.00	4.80	13.90	6.00	0.00	5.70	13.90	10.80	6.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:00 PM	140.00	5.00	14.20	5.80	0.00	5.00	14.20	10.50	5.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:15 PM	159.00	4.80	13.30	5.80	0.00	5.50	13.30	10.60	5.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:30 PM	176.00	4.00	13.20	5.80	0.00	7.20	13.20	10.60	5.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 10:45 PM	160.00	5.40	12.80	5.60	0.00	8.30	12.80	10.90	5.60	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:00 PM	173.00	3.90	12.70	6.20	0.00	8.90	12.70	10.60	6.20	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:15 PM	168.00	4.00	12.40	6.10	0.00	9.30	12.40	10.70	6.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:30 PM	160.00	4.80	12.00	6.00	0.00	9.10	12.00	10.10	6.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/7/14 11:45 PM	170.00	4.20	11.70	6.10	0.00	8.00	11.70	10.30	6.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 12:00 AM	172.00	4.80	11.70	6.10	0.00	8.00	11.70	10.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 12:15 AM	172.00	4.50	11.50	6.50	0.00	8.00	11.50	10.10	6.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 12:30 AM	180.00	4.10	10.30	8.60	0.00	8.60	11.60	10.30	7.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 12:45 AM	168.00	4.40	11.50	7.50	0.00	9.00	11.50	10.50	7.50	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 1:00 AM	175.00	4.50	11.60	7.80	0.00	9.60	11.60	10.70	7.80	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 1:15 AM	172.00	4.80	11.90	7.90	0.00	10.10	11.90	10.50	7.90	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 1:30 AM	178.00	4.30	11.50	8.30	0.00	10.20	11.50	10.10	8.30	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 1:45 AM	177.00	6.50	12.00	8.10	0.00	0.00	12.00	10.70	8.10	0.00	0.00	0.00	0.00	0.00	0.00	
12/8/14 2:00 AM	180.00	4.70</														



US Army Corps of Engineers

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

Table with columns: Reading Time (EST), Wind Direction (Degrees Clockwise from North), Wind Speed (mph), Particulates (µg/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4], and Naphthalene (µg/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4]. Rows represent hourly data from 12/8/14 8:45 AM to 12/9/14 9:45 AM.





US Army Corps  
of Engineers®

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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		
12/9/14 10:00 AM	345.00	6.40	5.80	10.30	4.50	6.00	10.30	12.50	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 10:15 AM	349.00	7.50	5.60	10.10	4.50	5.60	10.10	11.80	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 10:30 AM	350.00	8.90	5.80	10.20	4.40	6.10	10.20	12.00	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 10:45 AM	350.00	7.50	5.60	10.20	4.60	6.00	10.20	11.50	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:00 AM	347.00	7.90	5.70	10.00	4.30	5.90	10.00	11.10	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:15 AM	346.00	9.20	6.40	9.70	3.30	5.70	9.70	10.90	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:30 AM	346.00	7.90	5.80	8.50	2.70	5.10	8.50	9.80	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:45 AM	348.00	7.40	5.40	8.40	3.00	5.20	8.40	9.90	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 12:00 PM	348.00	8.30	5.70	8.60	2.90	5.50	8.60	9.80	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 12:15 PM	347.00	9.70	5.40	8.40	3.00	5.20	8.40	9.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 12:30 PM	349.00	8.20	5.60	8.10	2.50	5.20	8.10	9.00	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 12:45 PM	345.00	9.90	5.70	7.90	2.20	5.10	7.90	9.40	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 1:00 PM	351.00	10.30	5.50	7.30	1.80	4.70	7.30	8.70	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 1:15 PM	350.00	10.60	5.10	6.70	1.60	4.10	6.70	7.60	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 1:30 PM	351.00	10.20	5.10	6.20	1.10	4.20	6.20	7.60	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 1:45 PM	344.00	8.10	4.50	5.80	1.30	3.80	5.80	7.10	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 2:00 PM	345.00	9.40	3.90	5.50	1.60	3.60	5.50	6.80	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 2:15 PM	346.00	8.00	3.70	5.00	1.30	3.30	5.00	6.70	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 2:30 PM	355.00	10.20	3.40	5.20	1.80	3.30	5.20	7.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 2:45 PM	352.00	9.50	3.80	5.40	1.60	3.50	5.40	7.10	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 3:00 PM	353.00	9.20	4.10	5.40	1.30	3.40	5.40	7.20	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 3:15 PM	347.00	7.20	4.10	5.70	1.60	3.30	5.70	7.10	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 3:30 PM	346.00	8.10	3.70	5.30	1.60	3.10	5.30	6.90	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 3:45 PM	346.00	6.70	3.20	4.90	1.70	3.00	4.90	6.30	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 4:00 PM	351.00	8.00	2.70	3.90	1.20	2.30	3.90	5.60	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 4:15 PM	9.00	11.00	2.70	5.20	2.50	2.70	3.60	5.20	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 4:30 PM	353.00	8.50	1.90	3.00	1.10	2.20	3.00	4.30	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 4:45 PM	6.00	12.70	1.90	4.10	2.20	1.90	1.90	4.10	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 5:00 PM	9.00	12.60	1.90	3.80	1.90	1.90	3.10	3.80	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 5:15 PM	4.00	10.70	2.40	3.60	1.20	2.40	3.60	3.60	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 5:30 PM	349.00	9.80	2.00	1.80	0.00	1.70	1.80	3.60	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 5:45 PM	2.00	11.10	2.00	3.50	1.50	2.00	2.60	3.50	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 6:00 PM	352.00	9.20	1.90	2.00	0.10	1.80	2.00	3.30	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 6:15 PM	1.00	10.50	0.00	3.30	0.00	0.00	1.80	3.30	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 6:30 PM	7.00	8.40	2.60	3.10	0.50	2.60	2.60	3.10	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 6:45 PM	4.00	10.10	2.00	3.30	1.30	2.00	2.30	3.30	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 7:00 PM	352.00	9.40	2.20	2.10	0.00	1.90	2.10	3.20	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 7:15 PM	357.00	8.40	2.20	1.90	0.00	1.90	1.90	3.20	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 7:30 PM	356.00	8.30	2.20	1.70	0.00	1.70	1.70	3.10	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 7:45 PM	4.00	10.10	0.00	3.10	0.00	0.00	2.00	3.10	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 8:00 PM	16.00	8.50	2.50	3.10	0.60	2.50	2.10	3.10	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 8:15 PM	351.00	8.90	2.00	2.10	0.10	2.00	2.10	3.20	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 8:30 PM	18.00	11.20	2.30	3.40	1.10	2.30	2.60	3.40	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 8:45 PM	354.00	9.10	1.70	1.70	0.00	2.40	1.70	3.20	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 9:00 PM	358.00	10.10	1.90	3.80	1.90	1.80	3.80	3.60	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 9:15 PM	4.00	8.10	3.90	3.50	0.00	3.90	2.20	3.50	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 9:30 PM	354.00	9.20	2.10	2.20	0.10	2.00	2.20	3.60	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 9:45 PM	343.00	6.90	1.90	2.10	0.20	1.60	2.10	3.60	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 10:00 PM	5.00	11.50	1.90	3.60	1.70	1.90	2.60	3.60	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 10:15 PM	3.00	10.00	3.00	3.60	0.60	3.00	2.50	3.60	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 10:30 PM	6.00	8.70	4.40	3.70	0.00	4.40	3.10	3.70	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 10:45 PM	347.00	5.60	3.40	2.90	0.00	2.00	2.90	4.90	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:00 PM	4.00	8.10	2.70	5.00	2.30	2.70	4.10	5.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:15 PM	338.00	4.30	2.30	4.30	2.00	3.10	4.30	3.60	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:30 PM	8.00	6.70	2.90	4.70	1.80	2.90	2.60	4.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/9/14 11:45 PM	357.00	6.80	2.50	3.20	0.70	2.20	3.20	3.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:00 AM	14.00	8.60	3.10	4.70	1.60	3.10	4.10	4.70	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:15 AM	333.00	4.80	4.50	4.00	0.00	3.70	4.00	4.90	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:30 AM	346.00	7.50	4.80	4.90	0.10	4.60	4.90	5.40	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:45 AM	349.00	6.50	5.40	4.90	0.00	5.40	4.90	5.60	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:00 AM	349.00	7.30	5.80	5.10	0.00	6.00	5.10	5.50	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:15 AM	340.00	4.60	6.40	5.40	0.00	5.60	5.40	5.60	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:30 AM	342.00	6.20	5.90	5.10	0.00	5.30	5.10	5.30	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:45 AM	343.00	5.50	6.30	5.30	0.00	5.20	5.30	5.40	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:00 AM	338.00	5.50	6.10	5.30	0.00	0.00	5.30	5.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:15 AM	344.00	5.60	6.00	5.10	0.00	4.70	5.10	4.90	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:30 AM	353.00	5.70	6.20	5.10	0.00	4.90	5.10	5.10	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:45 AM	335.00	4.50	6.70	5.40	0.00	5.50	5.40	5.30	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 3:00 AM	348.00	5.30	7.00	5.50	0.00	5.50	5.50	5.30	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 3:15 AM	344.00	5.50	6.80	5.10	0.00	5.30	5.10	5.30	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 3:30 AM	338.00	5.40	7.40	5.60	0.00	5.70	5.60	5.40	7.40	0.00	0.00	0.00						



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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		
12/10/14 11:15 AM	341.00	5.10	3.70	4.20	0.50	4.10	4.20	5.00	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 11:30 AM	345.00	5.10	3.10	3.90	0.80	3.60	3.90	4.80	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 11:45 AM	339.00	5.20	3.30	3.50	0.20	2.80	3.50	4.60	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:00 PM	342.00	6.00	3.90	4.60	0.70	3.80	4.60	5.00	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:15 PM	347.00	5.90	4.40	5.00	0.60	4.30	5.00	5.00	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:30 PM	338.00	4.70	4.80	5.40	0.60	4.20	5.40	5.10	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 12:45 PM	344.00	7.10	5.10	5.40	0.30	4.60	5.40	5.30	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:00 PM	347.00	6.30	5.10	5.90	0.80	4.80	5.90	5.80	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:15 PM	340.00	5.60	5.80	5.70	0.00	5.30	5.70	5.70	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:30 PM	348.00	6.50	5.70	5.70	0.00	5.80	5.70	5.30	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 1:45 PM	348.00	6.20	5.80	6.00	0.20	6.10	6.00	5.40	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:00 PM	352.00	7.60	5.70	6.10	0.40	6.30	6.10	5.50	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:15 PM	347.00	7.10	5.90	6.60	0.70	6.20	6.60	5.90	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:30 PM	352.00	8.70	5.80	7.00	1.20	6.70	7.00	6.00	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 2:45 PM	348.00	7.50	6.10	7.10	1.00	6.50	7.10	6.20	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 3:00 PM	346.00	7.20	5.80	7.30	1.50	6.30	7.30	6.20	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 3:15 PM	351.00	7.40	5.90	7.80	1.90	5.80	7.80	6.30	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 3:30 PM	345.00	6.30	6.10	7.90	1.80	5.90	7.90	6.00	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 3:45 PM	346.00	7.90	6.00	7.70	1.70	5.90	7.70	6.40	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 4:00 PM	338.00	6.00	6.00	7.60	1.60	6.30	7.60	6.50	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 4:15 PM	343.00	5.50	6.50	7.40	0.90	6.60	7.40	6.60	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 4:30 PM	345.00	5.20	7.30	7.60	0.30	7.40	7.60	6.60	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 4:45 PM	343.00	4.90	6.50	7.20	0.70	7.20	7.20	6.60	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 5:00 PM	338.00	5.80	7.00	7.40	0.40	7.10	7.40	6.80	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 5:15 PM	341.00	5.80	6.70	7.30	0.60	7.20	7.30	7.20	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 5:30 PM	348.00	5.80	6.60	7.20	0.60	6.40	7.20	6.50	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 5:45 PM	345.00	6.80	7.10	7.40	0.30	6.00	7.40	6.40	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 6:00 PM	334.00	4.70	6.90	7.40	0.50	6.80	7.40	6.60	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 6:15 PM	346.00	5.70	7.50	7.90	0.40	7.30	7.90	7.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 6:30 PM	342.00	5.40	6.50	6.90	0.40	7.00	6.90	6.20	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 6:45 PM	337.00	4.80	6.10	6.30	0.20	5.90	6.30	6.30	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 7:00 PM	341.00	4.70	6.10	6.00	0.00	5.40	6.00	6.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 7:15 PM	342.00	4.60	6.60	6.00	0.00	0.00	6.00	6.30	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 7:30 PM	345.00	5.70	6.90	6.50	0.00	5.30	6.50	6.50	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 7:45 PM	344.00	4.90	7.80	7.60	0.00	5.00	7.60	7.00	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 8:00 PM	340.00	4.40	7.40	7.60	0.20	5.30	7.60	7.30	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 8:15 PM	340.00	4.30	7.70	7.80	0.10	5.00	7.80	7.10	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 8:30 PM	344.00	4.70	8.00	8.20	0.20	5.70	8.20	8.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 8:45 PM	339.00	4.20	8.30	8.40	0.10	5.90	8.40	8.60	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 9:00 PM	332.00	6.10	7.20	7.80	0.60	5.70	7.80	7.20	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 9:15 PM	344.00	5.10	6.90	6.90	0.00	5.70	6.90	6.80	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 9:30 PM	345.00	5.10	6.70	6.90	0.20	0.00	6.90	7.00	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 9:45 PM	346.00	6.80	6.50	6.50	0.00	6.40	6.50	7.40	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 10:00 PM	332.00	5.00	7.10	7.30	0.20	7.10	7.30	6.90	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 10:15 PM	350.00	5.80	7.60	7.50	0.00	7.30	7.50	7.20	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 10:30 PM	348.00	5.70	9.70	8.10	0.00	8.90	8.10	7.90	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 10:45 PM	331.00	4.80	10.50	9.70	0.00	9.90	9.70	8.90	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 11:00 PM	339.00	3.70	11.30	11.10	0.00	10.40	11.10	9.60	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 11:15 PM	346.00	5.10	10.90	10.90	0.00	8.40	10.90	9.10	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 11:30 PM	339.00	4.20	10.40	10.30	0.00	8.80	10.30	9.50	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/10/14 11:45 PM	344.00	4.10	10.50	10.30	0.00	8.30	10.30	10.40	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 12:00 AM	335.00	4.70	9.70	9.80	0.10	8.40	9.80	9.10	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 12:15 AM	334.00	5.00	10.30	10.50	0.20	9.00	10.50	10.50	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 12:30 AM	323.00	3.70	10.00	10.80	0.80	0.00	10.80	10.30	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 12:45 AM	323.00	3.10	11.20	12.30	1.10	9.40	12.30	10.70	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 1:00 AM	316.00	3.70	11.90	13.10	1.20	9.70	13.10	10.60	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 1:15 AM	318.00	4.00	11.70	12.40	0.70	10.80	12.40	11.60	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 1:30 AM	331.00	3.00	11.60	12.90	1.30	12.00	12.90	11.70	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 1:45 AM	328.00	3.90	10.70	11.50	0.80	11.20	11.50	11.70	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 2:00 AM	342.00	3.90	12.00	13.10	1.10	11.80	13.10	12.10	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 2:15 AM	315.00	4.00	12.70	14.00	1.30	11.20	14.00	12.40	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 2:30 AM	309.00	5.00	13.70	14.30	0.60	12.00	14.30	12.90	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 2:45 AM	315.00	4.50	13.50	14.90	1.40	12.20	14.90	13.40	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 3:00 AM	314.00	4.50	14.20	15.40	1.20	14.10	15.40	13.50	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 3:15 AM	309.00	4.30	14.30	16.00	1.70	14.70	16.00	14.20	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 3:30 AM	325.00	3.80	14.30	15.90	1.60	15.20	15.90	14.30	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 3:45 AM	312.00	5.30	13.80	15.40	1.60	15.70	15.40	13.90	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 4:00 AM	316.00	4.00	13.40	15.60	2.20	15.10	15.60	13.90	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 4:15 AM	313.00	4.40	13.00	15.50	2.50	14.40	15.50	13.80	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/11/14 4:30 AM	312.00	3.40	13.00	15.30	2.30	13.20	15.30	13.80	13.00	0.00	0.00	0						











US Army Corps of Engineers

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/15/14 5:30 PM	148.00	4.90	21.50	16.20	0.00	19.70	21.50	17.40	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 5:45 PM	140.00	5.70	22.30	17.50	0.00	20.40	22.30	17.70	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 6:00 PM	147.00	4.90	21.90	17.50	0.00	21.00	21.90	17.70	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 6:15 PM	135.00	6.90	22.80	17.40	0.00	20.10	22.80	18.50	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 6:30 PM	154.00	6.40	23.00	17.30	0.00	21.10	23.00	18.00	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 6:45 PM	150.00	5.90	22.10	15.00	0.00	19.70	22.10	18.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 7:00 PM	157.00	7.00	22.40	15.60	0.00	18.90	22.40	19.30	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 7:15 PM	151.00	5.10	23.50	15.60	0.00	19.30	23.50	19.20	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 7:30 PM	161.00	5.90	23.80	15.90	0.00	19.20	23.80	19.90	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 7:45 PM	158.00	4.80	22.30	14.40	0.00	17.30	22.30	19.90	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 8:00 PM	163.00	5.10	21.10	13.20	0.00	15.30	21.10	18.10	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 8:15 PM	166.00	5.30	19.30	11.80	0.00	15.10	19.30	17.30	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 8:30 PM	166.00	5.60	18.40	11.70	0.00	14.20	18.40	17.80	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 8:45 PM	151.00	5.00	19.50	12.50	0.00	15.40	19.50	18.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 9:00 PM	170.00	5.70	20.30	12.80	0.00	16.20	20.30	18.50	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 9:15 PM	172.00	4.60	21.90	14.30	0.00	17.30	21.90	19.90	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 9:30 PM	163.00	4.40	25.80	15.50	0.00	21.10	25.80	23.00	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 9:45 PM	154.00	4.00	26.60	16.10	0.00	21.00	26.60	24.40	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 10:00 PM	152.00	4.00	27.10	15.90	0.00	21.20	27.10	25.50	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 10:15 PM	154.00	4.50	27.20	16.60	0.00	21.10	27.20	25.40	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 10:30 PM	160.00	4.00	28.10	16.70	0.00	20.90	28.10	25.60	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 10:45 PM	173.00	4.10	29.20	17.10	0.00	22.30	29.20	26.30	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 11:00 PM	168.00	4.20	29.80	17.70	0.00	22.80	29.80	27.40	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 11:15 PM	171.00	4.80	30.80	19.20	0.00	24.00	30.80	27.70	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 11:30 PM	168.00	4.50	30.40	19.50	0.00	24.70	30.40	28.20	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/15/14 11:45 AM	173.00	4.20	31.80	20.00	0.00	24.80	31.80	29.10	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 12:00 AM	159.00	3.50	32.10	20.20	0.00	25.30	32.10	29.50	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 12:15 AM	157.00	4.60	34.10	21.00	0.00	27.10	34.10	30.70	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 12:30 AM	169.00	4.70	34.40	21.30	0.00	26.70	34.40	31.80	21.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 12:45 AM	167.00	3.70	34.80	20.90	0.00	27.80	34.80	31.50	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 1:00 AM	168.00	3.80	35.20	21.20	0.00	27.80	35.20	32.20	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 1:15 AM	165.00	3.20	36.30	22.60	0.00	28.40	36.30	34.00	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 1:30 AM	165.00	4.00	37.00	22.90	0.00	28.90	37.00	35.70	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 1:45 AM	155.00	3.10	37.30	22.70	0.00	27.20	37.30	35.60	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 2:00 AM	172.00	2.30	35.40	20.60	0.00	24.90	35.40	34.30	20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 2:15 AM	169.00	3.00	33.30	19.70	0.00	24.00	33.30	33.30	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 2:30 AM	163.00	2.70	32.60	19.00	0.00	23.10	32.60	32.00	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 2:45 AM	161.00	4.10	31.80	18.20	0.00	22.50	31.80	32.00	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 3:00 AM	165.00	3.40	29.90	17.50	0.00	21.70	29.90	30.70	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 3:15 AM	177.00	2.30	27.30	15.70	0.00	18.40	27.30	27.60	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 3:30 AM	172.00	2.70	27.30	15.10	0.00	18.40	27.30	27.60	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 3:45 AM	166.00	2.30	26.70	14.20	0.00	18.20	26.70	27.60	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 4:00 AM	188.00	2.60	28.10	17.90	0.00	17.90	28.10	28.10	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 4:15 AM	192.00	2.10	28.40	18.60	0.00	18.60	28.40	28.40	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 4:30 AM	191.00	3.10	30.60	18.70	0.00	18.70	30.60	30.60	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 4:45 AM	193.00	2.20	30.60	18.70	0.00	18.70	30.60	30.60	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 5:00 AM	205.00	2.50	30.60	18.70	0.00	18.70	30.60	30.60	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 5:15 AM	200.00	2.30	30.80	20.10	0.00	20.10	30.80	30.80	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 5:30 AM	201.00	2.40	32.90	20.80	0.00	20.80	32.90	32.90	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 5:45 AM	207.00	2.00	34.20	20.10	0.00	20.10	34.20	34.20	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 6:00 AM	223.00	3.00	33.10	18.70	0.00	18.70	33.10	33.10	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 6:15 AM	237.00	3.50	40.90	17.50	0.00	17.50	40.90	40.90	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 6:30 AM	252.00	3.00	38.60	17.70	0.00	17.70	38.60	38.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 6:45 AM	253.00	2.60	34.20	17.30	0.00	17.30	34.20	34.20	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:00 AM	243.00	3.70	30.40	14.30	0.00	14.30	30.40	30.40	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:15 AM	250.00	3.60	27.70	14.10	0.00	14.10	27.70	27.70	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:30 AM	241.00	6.20	13.10	4.40	0.00	4.40	6.20	13.10	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:45 AM	249.00	4.10	7.90	3.30	0.00	3.30	7.90	7.90	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:00 AM	246.00	4.20	7.90	3.30	0.00	3.30	7.90	7.90	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:15 AM	245.00	3.80	7.30	2.80	0.00	2.80	7.30	7.30	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:30 AM	245.00	4.00	6.40	2.50	0.00	2.50	6.40	6.40	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:45 AM	258.00	4.10	6.50	2.50	0.00	2.50	6.50	6.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:00 AM	249.00	4.10	6.30	2.90	0.00	2.90	6.30	6.30	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:15 AM	242.00	3.40	7.00	3.30	0.00	3.30	7.00	7.00	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:30 AM	252.00	3.90	7.20	3.20	0.00	3.20	7.20	7.20	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:45 AM	256.00	2.80	7.60	3.60	0.00	3.60	7.60	7.60	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 10:00 AM	257.00	4.70	7.70	3.80	0.00	3.80	7.70	7.70	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 10:15 AM	262.00	3.80	7.70	4.10	0.00	4.10	7.70	7.70	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 10:30 AM	262.00	3.80	7.70	4.30	0.00	4.30	7.7									



**US Army Corps  
of Engineers®**

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/16/14 6:45 PM	293.00	8.60	2.40	0.90	0.00	1.80	0.90	1.50	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:00 PM	300.00	9.20	2.60	1.00	0.00	2.00	1.00	1.70	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:15 PM	311.00	8.00	2.80	1.20	0.00	2.30	1.20	1.70	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:30 PM	304.00	5.30	3.00	1.30	0.00	2.30	1.30	1.90	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 7:45 PM	292.00	6.90	3.10	1.50	0.00	2.60	1.50	1.90	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:00 PM	305.00	8.00	3.30	1.50	0.00	2.40	1.50	1.90	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:15 PM	302.00	7.10	3.00	1.40	0.00	2.10	1.40	1.90	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:30 PM	273.00	4.90	3.40	1.50	0.00	2.30	1.50	2.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 8:45 PM	276.00	5.20	3.60	1.80	0.00	2.60	1.80	2.10	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:00 PM	284.00	5.50	3.60	2.00	0.00	2.50	2.00	2.50	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:15 PM	287.00	4.20	3.90	2.10	0.00	2.40	2.10	2.50	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:30 PM	292.00	6.90	3.50	1.70	0.00	2.60	1.70	2.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 9:45 PM	297.00	6.10	3.50	1.50	0.00	2.50	1.50	2.30	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 10:00 PM	299.00	7.50	3.20	1.60	0.00	2.70	1.60	2.30	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 10:15 PM	277.00	5.20	3.40	1.70	0.00	3.00	1.70	2.20	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 10:30 PM	283.00	5.90	3.30	1.90	0.00	3.40	1.90	2.60	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 10:45 PM	290.00	4.90	4.00	1.70	0.00	4.40	1.70	2.50	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 11:00 PM	296.00	5.70	4.00	1.60	0.00	4.40	1.60	2.60	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 11:15 PM	306.00	6.10	3.90	1.60	0.00	4.30	1.60	2.80	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 11:30 PM	292.00	4.60	4.10	1.80	0.00	4.20	1.80	2.80	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/16/14 11:45 PM	310.00	7.10	4.20	1.90	0.00	4.40	1.90	2.60	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 12:00 AM	308.00	8.20	4.40	2.00	0.00	4.30	2.00	2.60	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 12:15 AM	308.00	5.90	4.30	2.00	0.00	3.80	2.00	2.70	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 12:30 AM	314.00	6.00	4.70	1.90	0.00	4.20	1.90	2.70	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 12:45 AM	293.00	6.60	4.80	2.10	0.00	4.50	2.10	2.80	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 1:00 AM	284.00	6.00	5.00	2.10	0.00	4.60	2.10	2.90	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 1:15 AM	299.00	6.70	4.20	1.90	0.00	3.80	1.90	2.70	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 1:30 AM	318.00	5.70	4.30	1.70	0.00	3.80	1.70	2.70	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 1:45 AM	288.00	6.00	4.40	1.90	0.00	3.90	1.90	2.80	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 2:00 AM	315.00	5.40	5.10	2.40	0.00	4.40	2.40	3.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 2:15 AM	275.00	4.90	5.50	2.80	0.00	4.40	2.80	3.10	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 2:30 AM	291.00	7.00	5.70	2.80	0.00	4.20	2.80	3.20	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 2:45 AM	270.00	4.10	5.70	2.80	0.00	3.30	2.80	3.30	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 3:00 AM	272.00	3.90	6.10	2.80	0.00	3.00	2.80	3.50	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 3:15 AM	265.00	3.80	3.50	2.80	0.00	2.80	3.10	3.50	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 3:30 AM	285.00	5.90	6.60	2.90	0.00	3.00	2.90	3.40	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 3:45 AM	279.00	4.40	6.30	3.10	0.00	3.70	3.10	3.80	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 4:00 AM	282.00	3.90	6.30	3.50	0.00	4.00	3.50	3.70	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 4:15 AM	283.00	6.80	6.20	3.50	0.00	4.70	3.50	4.00	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 4:30 AM	321.00	6.60	5.90	3.20	0.00	5.40	3.20	4.00	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 4:45 AM	316.00	4.20	6.10	3.70	0.00	6.40	3.70	4.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 5:00 AM	319.00	5.80	6.10	3.80	0.00	6.80	3.80	3.90	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 5:15 AM	320.00	4.00	6.80	4.30	0.00	7.10	4.30	4.20	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 5:30 AM	284.00	6.70	4.90	4.30	0.00	5.70	4.30	4.10	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 5:45 AM	281.00	5.60	5.00	3.10	0.00	4.80	3.10	3.90	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 6:00 AM	275.00	6.00	4.80	3.30	0.00	4.40	3.30	4.10	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 6:15 AM	301.00	6.90	4.80	3.30	0.00	4.10	3.30	4.20	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 6:30 AM	281.00	6.00	4.30	3.00	0.00	3.80	3.00	4.00	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 6:45 AM	291.00	7.10	4.30	3.10	0.00	3.90	3.10	3.90	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 7:00 AM	276.00	6.30	4.00	3.20	0.00	4.40	3.20	3.80	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 7:15 AM	299.00	6.30	4.10	3.60	0.00	4.60	3.60	3.90	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 7:30 AM	258.00	5.20	4.30	4.40	0.10	4.40	3.60	4.30	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 7:45 AM	271.00	4.50	3.80	3.40	0.00	4.40	3.40	4.20	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 8:00 AM	282.00	3.60	4.30	3.50	0.00	4.70	3.50	4.40	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 8:15 AM	320.00	5.70	5.80	4.00	0.00	4.70	4.00	4.70	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 8:30 AM	314.00	4.60	5.50	4.30	0.00	4.70	4.30	4.60	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 8:45 AM	319.00	5.60	5.20	3.90	0.00	4.90	3.90	4.70	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 9:00 AM	309.00	5.50	5.40	4.30	0.00	5.10	4.30	4.50	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 9:15 AM	314.00	7.60	4.40	3.60	0.00	5.00	3.60	4.40	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 9:30 AM	313.00	6.90	5.40	3.70	0.00	4.70	3.70	4.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 9:45 AM	314.00	6.20	5.30	3.60	0.00	6.00	3.60	4.30	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 10:00 AM	307.00	6.00	4.50	4.80	0.30	6.60	4.80	4.70	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 10:15 AM	312.00	5.00	4.50	4.60	0.10	6.30	4.60	4.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 10:30 AM	294.00	5.60	4.10	3.80	0.00	7.40	3.80	4.80	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 10:45 AM	264.00	5.20	4.60	6.00	1.40	6.00	4.30	4.60	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 11:00 AM	324.00	3.70	7.20	3.70	0.00	4.50	3.70	4.60	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 11:15 AM	301.00	4.70	5.00	4.40	0.00	4.00	4.40	4.70	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 11:30 AM	278.00	4.90	4.70	4.10	0.00	4.90	4.10	4.90	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 11:45 AM	309.00	4.60	5.40	3.60	0.00	4.70	3.60	4.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 12:00 PM	261.00	4.50	4.70	5.30	0.60	5.30	4.10	4.70	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 12:15 PM	285.00	3.80	3.80	3.20												





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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		
			12/17/14 8:00 PM	288.00	3.80	7.80	8.80	1.00	11.40	8.80	6.80	7.80	0.00	0.00	0.00	0.00	0.00	0.00
12/17/14 8:15 PM	277.00	5.20	7.60	8.80	1.20	10.40	8.80	6.90	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 8:30 PM	290.00	3.20	7.90	8.70	0.80	9.60	8.70	6.90	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 8:45 PM	305.00	2.90	8.90	10.90	2.00	11.20	10.90	8.20	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 9:00 PM	301.00	2.90	9.50	11.90	2.40	11.70	11.90	8.70	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 9:15 PM	312.00	2.80	8.90	11.00	2.10	12.30	11.00	8.70	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 9:30 PM	320.00	2.90	9.10	11.50	2.40	12.90	11.50	8.90	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 9:45 PM	349.00	3.10	8.90	10.90	2.00	13.10	10.90	8.70	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 10:00 PM	312.00	1.70	10.10	11.50	1.40	14.30	11.50	9.00	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 10:15 PM	316.00	2.70	9.00	10.80	1.80	13.40	10.80	8.90	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 10:30 PM	303.00	2.30	9.20	10.60	1.40	13.70	10.60	8.80	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 10:45 PM	276.00	1.80	9.40	10.80	1.40	12.70	10.80	9.10	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 11:00 PM	322.00	2.90	9.60	10.70	1.10	12.70	10.70	9.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 11:15 PM	314.00	2.60	9.20	10.30	1.10	10.60	10.30	9.20	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 11:30 PM	326.00	2.60	9.70	11.00	1.30	10.40	11.00	9.40	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/17/14 11:45 PM	315.00	3.00	9.90	11.30	1.40	10.00	11.30	9.40	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 12:00 AM	326.00	2.70	9.90	12.00	2.10	11.00	12.00	10.20	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 12:15 AM	317.00	3.70	9.20	11.00	1.80	11.20	11.00	9.70	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 12:30 AM	327.00	3.00	9.60	11.70	2.10	12.10	11.70	9.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 12:45 AM	318.00	3.20	11.40	13.00	1.60	0.00	13.00	10.10	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 1:00 AM	323.00	3.50	10.80	13.20	2.40	15.30	13.20	10.70	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 1:15 AM	308.00	2.40	11.30	13.50	2.20	15.80	13.50	10.50	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 1:30 AM	345.00	3.20	10.90	13.80	2.90	15.40	13.80	10.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 1:45 AM	302.00	3.40	11.90	14.30	2.40	17.00	14.30	11.10	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 2:00 AM	345.00	2.70	12.00	14.10	2.10	16.60	14.10	11.20	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 2:15 AM	324.00	2.50	12.00	15.10	3.10	15.30	15.10	12.30	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 2:30 AM	331.00	2.70	11.60	14.20	2.60	14.30	14.20	12.20	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 2:45 AM	320.00	3.50	11.10	13.80	2.70	13.60	13.80	11.80	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 3:00 AM	263.00	2.70	11.50	11.50	0.00	11.50	12.80	11.50	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 3:15 AM	294.00	1.90	10.90	13.20	2.30	11.80	13.20	11.40	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 3:30 AM	294.00	1.80	11.50	13.50	2.00	12.20	13.50	11.60	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 3:45 AM	251.00	2.40	12.20	12.50	0.30	12.50	13.60	12.20	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 4:00 AM	240.00	2.50	12.50	13.00	0.50	13.00	14.10	12.50	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 4:15 AM	255.00	2.60	12.50	13.60	1.10	13.60	13.90	12.50	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 4:30 AM	214.00	2.00	13.20	12.20	0.00	12.20	14.20	13.20	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 4:45 AM	229.00	2.20	13.40	12.40	0.00	12.40	15.00	13.40	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 5:00 AM	262.00	1.80	13.20	12.10	0.00	12.10	15.00	13.20	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 5:15 AM	280.00	2.00	13.90	15.20	1.30	12.50	15.20	12.80	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 5:30 AM	264.00	2.20	12.90	13.20	0.30	13.20	14.90	12.90	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 5:45 AM	273.00	1.90	13.40	14.70	1.30	14.80	14.70	13.30	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 6:00 AM	276.00	2.40	14.00	15.60	1.60	16.30	15.60	13.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 6:15 AM	271.00	2.10	14.00	15.30	1.30	16.20	15.30	13.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 6:30 AM	261.00	2.80	13.90	16.00	2.10	16.00	15.50	13.90	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 6:45 AM	264.00	1.40	14.00	15.60	1.60	15.60	15.40	14.00	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 7:00 AM	251.00	2.60	13.90	14.70	0.80	14.70	15.40	13.90	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 7:15 AM	236.00	2.90	14.70	13.70	0.00	13.70	16.40	14.70	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 7:30 AM	226.00	2.60	14.60	13.20	0.00	13.20	15.90	14.60	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 7:45 AM	219.00	2.70	14.60	12.90	0.00	12.90	15.90	14.60	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 8:00 AM	220.00	2.20	15.20	13.80	0.00	13.80	15.80	15.20	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 8:15 AM	196.00	2.70	15.00	13.90	0.00	13.90	15.90	15.00	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 8:30 AM	214.00	2.60	14.40	14.50	0.10	14.50	15.40	14.40	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 8:45 AM	223.00	3.40	14.70	14.80	0.10	14.80	15.50	14.70	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 9:00 AM	185.00	2.20	14.50	14.50	0.00	14.50	15.50	14.50	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 9:15 AM	258.00	1.90	14.30	14.40	0.10	14.40	16.00	14.30	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 9:30 AM	232.00	2.60	14.00	14.00	0.00	14.00	16.00	14.00	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 9:45 AM	191.00	3.60	14.60	14.10	0.00	14.10	17.20	14.60	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 10:00 AM	223.00	2.90	14.10	13.50	0.00	13.50	15.50	14.10	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 10:15 AM	220.00	3.20	14.00	14.00	0.00	14.00	15.30	14.00	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 10:30 AM	200.00	3.30	14.70	14.80	0.10	14.80	15.90	14.70	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 10:45 AM	234.00	3.00	14.80	14.10	0.00	14.10	15.90	14.80	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 11:00 AM	216.00	3.20	14.50	13.60	0.00	13.60	15.90	14.50	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 11:15 AM	229.00	2.80	14.70	13.80	0.00	13.80	16.80	14.70	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 11:30 AM	223.00	2.70	15.30	13.60	0.00	13.60	16.60	15.30	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 11:45 AM	258.00	3.10	14.90	12.50	0.00	12.50	16.70	14.90	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12/18/14 12:00 PM	258.00	3.30	15.30	12.80	0.00	12.80	16.80	15.30	15.00	0.00	0.00							



**US Army Corps  
of Engineers®**

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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		
12/18/14 9:15 PM	244.00	2.70	21.10	16.50	0.00	16.50	21.20	21.10	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 9:30 PM	232.00	2.70	21.10	16.50	0.00	16.50	21.20	21.10	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 9:45 PM	241.00	2.60	21.30	16.50	0.00	16.50	21.40	21.30	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 10:00 PM	252.00	3.10	21.10	16.90	0.00	16.90	21.20	21.10	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 10:15 PM	271.00	2.90	17.10	21.20	4.10	17.40	21.20	21.10	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 10:30 PM	264.00	3.10	20.70	17.70	0.00	17.70	20.40	20.70	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 10:45 PM	244.00	3.00	20.50	17.40	0.00	17.40	20.40	20.50	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 11:00 PM	250.00	2.40	20.40	17.60	0.00	17.60	21.10	20.40	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 11:15 PM	245.00	2.80	20.40	16.90	0.00	16.90	20.90	20.40	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 11:30 PM	239.00	3.00	19.90	16.50	0.00	16.50	20.60	19.90	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/18/14 11:45 AM	240.00	3.20	19.50	15.90	0.00	15.90	20.10	19.50	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:00 AM	239.00	3.10	18.70	15.30	0.00	15.30	19.00	18.70	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:15 AM	253.00	2.40	18.30	14.70	0.00	14.70	19.00	18.30	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:30 AM	251.00	3.40	17.90	14.00	0.00	14.00	17.70	17.90	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:45 AM	247.00	3.30	17.20	13.40	0.00	13.40	17.20	17.20	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:00 AM	264.00	3.70	16.40	12.10	0.00	12.10	16.10	16.40	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:15 AM	252.00	3.30	16.20	11.50	0.00	11.50	14.90	16.20	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:30 AM	261.00	3.70	15.00	10.80	0.00	10.80	14.10	15.00	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:45 AM	269.00	3.30	14.80	10.60	0.00	10.60	13.40	14.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 2:00 AM	270.00	3.10	11.40	13.20	1.80	10.90	13.20	14.50	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 2:15 AM	262.00	3.20	14.50	11.00	0.00	11.00	13.50	14.50	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 2:30 AM	266.00	3.10	14.90	12.40	0.00	12.40	13.80	14.90	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 2:45 AM	262.00	2.90	15.10	11.10	0.00	11.10	13.80	15.10	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 3:00 AM	279.00	3.00	12.60	13.90	1.30	11.70	13.90	15.70	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 3:15 AM	295.00	3.50	15.10	17.80	2.70	13.40	17.80	18.30	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 3:30 AM	297.00	3.40	15.70	19.10	3.40	13.70	19.10	19.20	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 3:45 AM	307.00	3.80	15.90	19.20	3.30	13.40	19.20	18.60	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 4:00 AM	301.00	3.30	15.90	18.70	2.80	13.10	18.70	18.70	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 4:15 AM	280.00	2.20	15.50	19.40	3.90	13.30	19.40	19.00	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 4:30 AM	283.00	4.20	15.90	19.40	3.50	13.50	19.40	19.10	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 4:45 AM	272.00	2.60	16.40	19.80	3.40	13.40	19.80	19.00	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 5:00 AM	293.00	3.10	17.00	20.20	3.20	13.70	20.20	19.50	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 5:15 AM	285.00	3.70	17.00	20.60	3.60	12.80	20.60	19.40	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 5:30 AM	272.00	3.10	17.10	20.60	3.50	12.80	20.60	19.70	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 5:45 AM	281.00	3.60	17.70	20.70	3.00	14.40	20.70	20.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 6:00 AM	301.00	3.10	18.00	21.10	3.10	14.20	21.10	20.20	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 6:15 AM	315.00	4.10	16.70	21.20	4.50	14.30	21.20	20.50	16.70	1.70	0.00	0.00	1.70	0.00	0.00	0.00		
12/19/14 6:30 AM	303.00	3.40	16.80	21.00	4.20	14.80	21.00	20.20	16.80	0.00	3.70	0.00	3.70	0.00	0.00	0.00		
12/19/14 6:45 AM	302.00	3.00	16.90	20.10	3.20	14.90	20.10	19.90	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 7:00 AM	231.00	1.10	19.90	15.00	0.00	15.00	20.70	19.90	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 7:15 AM	160.00	1.30	20.90	18.30	0.00	14.20	20.90	20.40	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 7:30 AM	202.00	1.40	20.60	13.90	0.00	13.90	21.40	20.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 7:45 AM	184.00	1.50	20.80	13.20	0.00	13.20	21.50	20.80	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 8:00 AM	234.00	2.10	20.90	13.80	0.00	13.80	22.00	20.90	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 8:15 AM	237.00	2.40	21.30	10.50	0.00	10.50	22.80	21.30	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 8:30 AM	319.00	2.90	9.20	9.30	0.10	6.40	9.30	22.60	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 8:45 AM	313.00	3.80	11.40	12.70	1.30	9.20	12.70	23.40	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 9:00 AM	317.00	2.30	7.60	13.30	5.70	8.90	13.30	20.30	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 9:15 AM	298.00	3.10	8.10	11.40	3.30	5.80	11.40	13.30	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 9:30 AM	303.00	2.60	10.10	7.60	0.00	7.60	7.60	11.00	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 9:45 AM	305.00	1.50	11.60	9.70	0.00	12.40	9.70	15.90	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 10:00 AM	310.00	2.30	11.10	14.00	2.90	12.60	14.00	17.10	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 10:15 AM	281.00	2.00	12.90	14.10	1.20	0.00	14.10	15.40	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 10:30 AM	296.00	2.30	12.50	14.90	2.40	11.70	14.90	17.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 10:45 AM	284.00	2.30	10.20	15.70	5.50	8.90	15.70	17.30	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 11:00 AM	322.00	1.30	8.00	6.40	0.00	7.20	6.40	10.40	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 11:15 AM	277.00	2.50	8.70	7.10	0.00	7.20	7.10	13.20	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 11:30 AM	5.00	2.00	7.50	9.90	2.40	7.50	7.70	9.90	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 11:45 AM	299.00	2.40	7.60	8.70	1.10	7.20	8.70	9.50	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:00 PM	304.00	2.50	10.00	9.20	0.00	9.00	9.20	11.90	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:15 PM	328.00	2.30	9.10	6.70	0.00	6.40	6.70	9.50	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:30 PM	316.00	2.10	9.20	9.20	0.00	8.40	9.20	13.10	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 12:45 PM	287.00	2.30	12.30	10.00	0.00	8.80	10.00	12.40	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:00 PM	311.00	2.10	12.60	12.80	0.20	10.30	12.80	13.60	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:15 PM	322.00	3.30	14.90	13.70	0.00	9.20	13.70	14.50	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:30 PM	281.00	2.40	10.90	12.40	1.50	9.20	12.40	13.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 1:45 PM	282.00	1.90	6.90	8.20	1.30	6.30	8.20	10.20	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/19/14 2:00 PM	305.00	1.30	8.00	9.10	1.10	7.20	9.10	10.60	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1																		



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Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/19/14 10:30 PM	213.00	1.50	21.80	13.20	0.00	13.20	16.30	21.80	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/19/14 10:45 PM	211.00	1.30	20.90	14.40	0.00	14.40	16.30	20.90	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/19/14 11:00 PM	211.00	1.30	18.70	15.00	0.00	15.00	16.20	18.70	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/19/14 11:15 PM	216.00	1.50	18.90	14.30	0.00	14.30	16.50	18.90	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/19/14 11:30 PM	202.00	1.80	19.20	14.60	0.00	14.60	19.20	19.20	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/19/14 11:45 PM	197.00	1.20	18.20	13.60	0.00	13.60	17.50	18.20	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:00 AM	203.00	1.80	18.00	12.50	0.00	12.50	16.80	18.00	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:15 AM	216.00	1.30	17.40	12.10	0.00	12.10	16.20	17.40	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:30 AM	206.00	1.30	16.60	12.90	0.00	12.90	16.10	16.60	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:45 AM	203.00	2.40	14.80	11.50	0.00	11.50	15.40	14.80	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:00 AM	208.00	1.80	14.50	10.60	0.00	10.60	13.70	14.50	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:15 AM	208.00	2.20	15.70	11.70	0.00	11.70	14.00	15.70	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:30 AM	209.00	2.90	14.50	10.40	0.00	10.40	12.90	14.50	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:45 AM	195.00	2.80	14.20	10.20	0.00	10.20	12.80	14.20	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:00 AM	190.00	1.90	14.80	11.10	0.00	11.10	14.40	14.80	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:15 AM	184.00	2.70	15.00	11.30	0.00	11.30	13.00	15.00	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:30 AM	211.00	1.80	15.30	11.30	0.00	11.30	14.80	15.30	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:45 AM	219.00	1.50	18.30	12.70	0.00	12.70	17.10	18.30	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 3:00 AM	226.00	2.00	20.20	12.60	0.00	12.60	17.90	20.20	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 3:15 AM	224.00	2.40	22.70	14.10	0.00	14.10	22.70	22.70	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 3:30 AM	215.00	1.80	0.00	13.80	0.00	13.80	25.10	0.00	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 3:45 AM	221.00	1.60	21.60	11.90	0.00	11.90	22.00	21.60	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 4:00 AM	207.00	1.70	21.60	12.00	0.00	12.00	23.70	21.60	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 4:15 AM	204.00	2.30	21.70	12.60	0.00	12.60	22.40	21.70	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 4:30 AM	218.00	1.60	21.80	14.50	0.00	14.50	22.50	21.80	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 4:45 AM	228.00	1.50	23.10	16.00	0.00	16.00	23.40	23.10	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 5:00 AM	233.00	1.70	22.50	16.60	0.00	16.60	22.90	22.50	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 5:15 AM	229.00	1.50	22.90	17.00	0.00	17.00	24.40	22.90	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 5:30 AM	224.00	1.10	22.70	16.30	0.00	16.30	22.60	22.70	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 5:45 AM	208.00	1.20	23.20	14.70	0.00	14.70	22.60	23.20	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 6:00 AM	226.00	0.70	23.20	14.00	0.00	14.00	23.00	23.20	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 6:15 AM	199.00	1.30	22.80	14.00	0.00	14.00	22.00	22.80	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 6:30 AM	205.00	1.40	22.80	13.70	0.00	13.70	22.40	22.80	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 6:45 AM	212.00	1.10	23.50	15.40	0.00	15.40	23.30	23.50	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 7:00 AM	212.00	1.40	23.40	15.00	0.00	15.00	22.70	23.40	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 7:15 AM	208.00	1.30	21.70	14.50	0.00	14.50	23.10	21.70	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 7:30 AM	201.00	1.10	21.70	13.80	0.00	13.80	21.40	21.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 7:45 AM	182.00	1.10	19.90	13.60	0.00	13.60	20.70	19.90	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 8:00 AM	214.00	1.30	19.20	12.30	0.00	12.30	19.00	19.20	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 8:15 AM	206.00	1.50	21.60	12.30	0.00	12.30	21.60	21.60	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 8:30 AM	209.00	2.00	21.90	14.20	0.00	14.20	19.80	21.90	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 8:45 AM	207.00	1.70	22.70	14.10	0.00	14.10	21.90	22.70	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 9:00 AM	211.00	1.60	24.80	14.30	0.00	14.30	25.70	24.80	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 9:15 AM	204.00	2.00	21.60	13.00	0.00	13.00	25.90	21.60	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 9:30 AM	198.00	1.90	22.50	13.10	0.00	13.10	28.20	22.50	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 9:45 AM	210.00	1.80	25.30	14.10	0.00	14.10	24.00	25.30	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 10:00 AM	218.00	2.20	24.00	13.50	0.00	13.50	25.80	24.00	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 10:15 AM	221.00	2.60	23.50	14.00	0.00	14.00	24.00	23.50	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 10:30 AM	214.00	1.90	24.00	14.90	0.00	14.90	23.80	24.00	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 10:45 AM	212.00	2.10	23.70	15.30	0.00	15.30	24.80	23.70	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 11:00 AM	215.00	2.10	24.70	15.30	0.00	15.30	22.70	24.70	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 11:15 AM	198.00	2.50	23.10	15.30	0.00	15.30	21.90	23.10	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 11:30 AM	201.00	2.80	22.50	14.50	0.00	14.50	22.90	22.50	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 11:45 AM	201.00	3.00	23.60	14.60	0.00	14.60	22.20	23.60	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:00 PM	200.00	2.90	19.90	12.30	0.00	12.30	19.40	19.90	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:15 PM	214.00	3.00	17.00	11.60	0.00	11.60	17.90	17.00	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:30 PM	207.00	2.40	17.60	10.40	0.00	10.40	18.40	17.60	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 12:45 PM	200.00	3.60	17.10	12.30	0.00	12.30	18.30	17.10	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:00 PM	199.00	3.70	17.10	10.40	0.00	10.40	13.30	17.10	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:15 PM	190.00	3.50	13.90	9.00	0.00	9.00	11.90	13.90	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:30 PM	193.00	3.50	12.80	7.40	0.00	7.40	10.70	12.80	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 1:45 PM	199.00	4.20	12.20	7.20	0.00	7.20	9.60	12.20	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:00 PM	208.00	2.90	11.30	6.90	0.00	6.90	8.10	11.30	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:15 PM	220.00	4.40	10.10	6.00	0.00	6.00	8.70	10.10	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:30 PM	217.00	4.00	10.50	6.30	0.00	6.30	8.30	10.50	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 2:45 PM	215.00	4.60	10.30	6.20	0.00	6.20	8.20	10.30	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 3:00 PM	214.00	3.80	9.90	5.70	0.00	5.70	8.50	9.90	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 3:15 PM	231.00	3.70	10.90	0.00	0.00	0.00	9.00	10.90	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/20/14 3:30 PM	239.00															



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Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/20/14 11:45 PM	187.00	2.90	18.40	10.80	0.00	10.80	19.90	18.40	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:00 AM	175.00	3.00	20.40	17.10	0.00	10.80	20.40	18.80	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:15 AM	193.00	3.30	19.50	11.20	0.00	11.20	21.20	19.50	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:30 AM	193.00	2.30	19.80	11.30	0.00	11.30	21.80	19.80	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:45 AM	173.00	3.30	21.80	16.90	0.00	11.40	21.80	19.60	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:00 AM	170.00	2.60	22.30	16.80	0.00	11.80	22.30	19.60	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:15 AM	197.00	2.00	19.30	12.50	0.00	12.50	21.60	19.30	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:30 AM	196.00	2.80	18.90	12.90	0.00	12.90	21.20	18.90	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:45 AM	198.00	3.10	18.70	12.10	0.00	12.10	20.70	18.70	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:00 AM	183.00	3.40	17.90	11.20	0.00	11.20	19.20	17.90	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:15 AM	180.00	4.50	17.60	10.70	0.00	10.70	17.90	17.60	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:30 AM	192.00	3.20	16.80	10.40	0.00	10.40	18.10	16.80	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:45 AM	181.00	4.30	16.70	0.00	0.00	0.00	17.80	16.70	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:00 AM	196.00	4.00	16.80	9.70	0.00	9.70	17.60	16.60	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:15 AM	192.00	4.30	16.30	11.30	0.00	11.30	18.20	16.30	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:30 AM	173.00	4.00	17.00	13.70	0.00	10.80	17.00	16.10	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:45 AM	175.00	3.70	16.00	14.00	0.00	10.60	16.00	15.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:00 AM	179.00	3.30	16.50	13.50	0.00	11.40	16.50	15.30	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:15 AM	183.00	3.70	14.50	11.30	0.00	11.30	15.80	14.50	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:30 AM	187.00	2.80	14.70	10.30	0.00	10.30	15.50	14.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:45 AM	180.00	4.00	15.10	10.20	0.00	10.20	16.10	15.10	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 5:00 AM	191.00	4.20	15.40	9.60	0.00	9.60	16.20	15.40	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 5:15 AM	178.00	3.80	16.20	14.10	0.00	9.20	16.20	15.40	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 5:30 AM	187.00	4.40	16.30	8.80	0.00	8.80	15.40	16.30	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 5:45 AM	170.00	5.10	15.50	14.30	0.00	8.90	15.50	16.10	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 6:00 AM	178.00	3.20	16.40	13.80	0.00	9.60	16.40	15.70	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 6:15 AM	181.00	3.40	16.10	10.30	0.00	10.30	17.00	16.10	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 6:30 AM	174.00	2.60	17.30	14.90	0.00	10.60	17.30	16.50	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 6:45 AM	175.00	3.60	17.50	15.20	0.00	10.70	17.50	17.00	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 7:00 AM	173.00	3.10	18.00	15.50	0.00	10.30	18.00	17.10	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 7:15 AM	179.00	4.30	18.20	15.30	0.00	10.20	18.20	17.30	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 7:30 AM	171.00	3.80	19.10	15.70	0.00	10.80	19.10	17.90	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 7:45 AM	169.00	4.00	18.90	16.70	0.00	0.00	18.90	18.60	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 8:00 AM	169.00	4.10	19.30	16.00	0.00	0.00	19.30	18.70	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 8:15 AM	179.00	2.80	19.20	15.90	0.00	10.00	19.20	18.60	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 8:30 AM	172.00	3.20	19.90	16.90	0.00	11.00	19.90	19.40	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 8:45 AM	175.00	3.90	20.30	17.40	0.00	12.00	20.30	20.40	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 9:00 AM	171.00	3.90	20.50	17.50	0.00	12.60	20.50	20.00	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 9:15 AM	168.00	4.10	21.00	18.00	0.00	12.70	21.00	21.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 9:30 AM	184.00	4.50	22.20	12.50	0.00	12.50	21.50	22.20	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 9:45 AM	180.00	4.90	21.30	12.20	0.00	12.20	22.00	21.30	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 10:00 AM	186.00	4.80	21.50	12.50	0.00	12.50	22.40	21.50	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 10:15 AM	167.00	4.50	21.90	20.90	0.00	12.10	21.90	21.40	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 10:30 AM	161.00	5.70	22.10	20.30	0.00	12.10	22.10	21.50	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 10:45 AM	167.00	5.00	22.00	20.60	0.00	13.20	22.00	20.90	20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 11:00 AM	162.00	5.00	21.30	19.20	0.00	13.20	21.30	20.50	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 11:15 AM	168.00	5.70	21.40	18.30	0.00	12.60	21.40	19.90	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 11:30 AM	163.00	5.30	21.40	17.40	0.00	12.10	21.40	20.00	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 11:45 AM	164.00	5.70	21.80	17.80	0.00	12.50	21.80	20.20	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:00 PM	169.00	5.90	20.20	17.90	0.00	11.40	20.20	20.10	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:15 PM	170.00	4.30	20.60	17.80	0.00	10.60	20.60	19.90	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:30 PM	186.00	4.30	20.10	10.20	0.00	10.20	20.40	20.10	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 12:45 PM	173.00	4.60	17.70	16.70	0.00	9.80	17.70	18.90	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:00 PM	186.00	6.10	17.40	9.60	0.00	9.60	16.90	17.40	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:15 PM	189.00	5.60	17.30	9.30	0.00	9.30	17.90	17.30	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:30 PM	195.00	6.10	17.00	9.30	0.00	9.30	16.90	17.00	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 1:45 PM	171.00	5.70	17.40	14.20	0.00	10.40	17.40	16.50	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:00 PM	174.00	5.30	17.30	14.60	0.00	10.30	17.30	16.80	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:15 PM	181.00	3.60	17.10	10.20	0.00	10.20	17.40	17.10	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:30 PM	179.00	5.80	17.00	14.60	0.00	9.60	17.00	17.10	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 2:45 PM	166.00	5.20	17.70	15.20	0.00	9.50	17.70	16.30	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:00 PM	171.00	5.70	17.00	15.10	0.00	9.00	17.00	16.60	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:15 PM	160.00	6.20	17.10	14.60	0.00	8.90	17.10	17.30	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:30 PM	159.00	6.60	16.80	13.70	0.00	8.00	16.80	17.10	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 3:45 PM	169.00	4.00	18.40	13.90	0.00	9.00	18.40	17.60	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:00 PM	177.00	5.60	18.70	14.60	0.00	9.20	18.70	17.10	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:15 PM	157.00	5.70	18.60	14.90	0.00	9.80	18.60	18.50	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:30 PM	167.00	4.10	18.20	14.30	0.00	9.50	18.20	18.00	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/21/14 4:45 PM	165.00	3.80														





US Army Corps  
of Engineers®

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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		
12/23/14 2:15 AM	134.00	4.40	21.30	9.50	0.00	12.50	21.30	23.20	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 2:30 AM	146.00	4.70	20.30	10.00	0.00	13.30	20.30	23.50	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 2:45 AM	149.00	4.30	21.00	9.80	0.00	13.00	21.00	23.50	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:00 AM	149.00	4.90	20.90	9.00	0.00	13.10	20.90	25.10	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:15 AM	157.00	5.30	21.50	9.00	0.00	13.00	21.50	24.10	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:30 AM	161.00	4.90	21.70	8.50	0.00	12.50	21.70	23.80	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:45 AM	161.00	4.70	20.20	8.00	0.00	12.40	20.20	23.20	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:00 AM	164.00	4.80	19.40	7.80	0.00	12.60	19.40	23.00	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:15 AM	166.00	4.70	19.40	7.80	0.00	12.60	19.40	23.00	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:30 AM	165.00	5.10	17.80	7.30	0.00	11.60	17.80	22.50	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:45 AM	185.00	4.90	22.00	8.90	0.00	8.90	16.50	22.00	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:00 AM	185.00	5.40	20.90	8.30	0.00	8.30	15.60	20.90	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:15 AM	180.00	5.40	22.20	8.10	0.00	8.10	15.20	22.20	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:30 AM	185.00	3.60	20.10	0.00	0.00	0.00	14.10	20.10	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:45 AM	193.00	5.80	17.80	7.60	0.00	7.60	13.30	17.80	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:00 AM	183.00	5.40	16.80	6.70	0.00	6.70	11.90	16.80	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:15 AM	192.00	4.80	15.70	6.30	0.00	6.30	10.60	15.70	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:30 AM	184.00	5.90	15.00	6.10	0.00	6.10	9.50	15.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:45 AM	194.00	5.10	14.40	5.40	0.00	5.40	9.10	14.40	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 7:00 AM	209.00	7.30	13.90	5.30	0.00	5.30	9.40	13.90	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 7:15 AM	203.00	4.80	12.00	4.10	0.00	4.10	6.70	12.00	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 7:30 AM	211.00	5.00	10.00	3.80	0.00	3.80	5.80	10.00	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 7:45 AM	206.00	4.40	9.60	3.60	0.00	3.60	4.50	9.60	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 8:00 AM	198.00	5.50	9.00	3.60	0.00	3.60	4.60	9.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 8:15 AM	194.00	4.30	8.80	3.70	0.00	3.70	4.90	8.80	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 8:30 AM	190.00	5.90	9.10	3.80	0.00	3.80	5.20	9.10	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 8:45 AM	191.00	6.50	9.30	4.40	0.00	4.40	5.80	9.30	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 9:00 AM	202.00	7.40	8.80	4.30	0.00	4.30	5.50	8.80	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 9:15 AM	207.00	5.90	8.20	4.10	0.00	4.10	5.10	8.20	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 9:30 AM	222.00	5.70	8.10	4.40	0.00	4.40	5.10	8.10	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 9:45 AM	205.00	5.40	7.70	4.20	0.00	4.20	5.10	7.70	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 10:00 AM	226.00	6.20	6.60	4.00	0.00	4.00	4.10	6.60	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 10:15 AM	217.00	6.90	5.50	3.90	0.00	3.90	4.10	5.50	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 10:30 AM	202.00	6.70	5.60	4.60	0.00	4.60	4.20	5.60	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 10:45 AM	200.00	6.30	5.10	4.70	0.00	4.70	4.40	5.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 11:00 AM	219.00	6.00	4.60	4.40	0.00	4.40	4.00	4.60	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 11:15 AM	199.00	7.30	4.20	4.00	0.00	4.00	3.50	4.20	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 11:30 AM	210.00	8.80	4.10	4.00	0.00	4.00	3.50	4.10	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 11:45 AM	195.00	7.10	3.90	3.70	0.00	3.70	2.90	3.90	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 12:00 PM	207.00	8.10	3.60	3.50	0.00	3.50	2.70	3.60	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 12:15 PM	197.00	8.50	3.00	3.20	0.20	3.20	2.30	3.00	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 12:30 PM	214.00	6.00	3.00	3.30	0.30	3.30	2.40	3.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 12:45 PM	215.00	7.30	2.70	3.40	0.70	3.40	2.20	2.70	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 1:00 PM	221.00	5.30	2.60	3.00	0.40	3.00	1.90	2.60	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 1:15 PM	224.00	7.40	2.00	2.60	0.60	2.60	1.80	2.00	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 1:30 PM	205.00	7.50	1.80	2.50	0.70	2.50	1.30	1.80	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 1:45 PM	209.00	6.10	1.70	2.40	0.70	2.40	1.30	1.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 2:00 PM	225.00	5.00	1.70	2.40	0.70	2.40	1.10	1.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 2:15 PM	211.00	5.10	1.70	2.40	0.70	2.40	1.10	1.70	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 2:30 PM	225.00	5.50	1.50	2.30	0.80	2.30	1.00	1.50	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 2:45 PM	203.00	4.70	1.50	2.40	0.90	2.40	1.20	1.50	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:00 PM	222.00	4.70	1.60	2.50	0.90	2.50	1.20	1.60	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:15 PM	202.00	3.50	1.70	2.50	0.80	2.50	1.30	1.70	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:30 PM	195.00	5.60	1.70	2.40	0.70	2.40	1.20	1.70	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 3:45 PM	193.00	5.60	2.00	0.00	0.00	0.00	1.30	2.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:00 PM	193.00	5.00	2.20	2.50	0.30	2.50	1.40	2.20	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:15 PM	191.00	3.80	2.20	2.60	0.40	2.60	1.50	2.20	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:30 PM	202.00	4.90	2.20	2.60	0.40	2.60	1.50	2.20	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 4:45 PM	199.00	2.90	2.30	2.60	0.30	2.60	1.50	2.30	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:00 PM	191.00	3.60	2.50	2.60	0.10	2.60	1.80	2.50	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:15 PM	191.00	3.70	2.60	2.70	0.10	2.70	1.90	2.60	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:30 PM	177.00	3.60	1.90	2.50	0.60	2.80	1.90	2.70	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 5:45 PM	167.00	3.00	2.30	2.20	0.00	3.20	2.30	3.10	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:00 PM	185.00	3.70	3.40	0.00	0.00	0.00	2.60	3.40	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:15 PM	178.00	3.90	2.40	2.90	0.50	0.00	2.40	3.70	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:30 PM	183.00	3.50	3.90	4.00	0.10	4.00	2.50	3.90	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 6:45 PM	169.00	3.00	3.00	1.80	0.00	3.90	3.00	3.70	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 7:00 PM	167.00	2.00	2.70	1.90	0.00	4.00	2.70	4.20	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 7:15 PM	174.00	2.90	2.80	2.10	0.00	3.90	2.80	4.10	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/23/14 7:30 PM	194.00	2.30	4.50	3.90	0.00	3.90	3.10	4.50	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		





**US Army Corps  
of Engineers®**

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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		
12/25/14 4:45 AM	248.00	5.40	8.00	5.40	0.00	5.40	8.50	8.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:00 AM	259.00	5.10	7.30	4.60	0.00	4.60	7.10	7.30	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:15 AM	251.00	5.80	6.70	4.40	0.00	4.40	6.20	6.70	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:30 AM	251.00	6.80	6.10	3.80	0.00	3.80	5.10	6.10	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:45 AM	242.00	7.00	5.10	0.00	0.00	0.00	4.20	5.10	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:00 AM	258.00	7.70	5.10	0.00	0.00	0.00	4.30	5.10	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:15 AM	254.00	5.30	4.70	4.20	0.00	4.20	4.10	4.70	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:30 AM	247.00	6.10	4.40	4.30	0.00	4.30	3.40	4.40	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:45 AM	252.00	4.40	4.20	4.60	0.40	4.60	3.20	4.20	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:00 AM	239.00	4.70	4.50	4.30	0.00	4.30	3.30	4.50	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:15 AM	242.00	5.40	4.60	4.40	0.00	4.40	3.60	4.60	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:30 AM	245.00	4.90	5.20	4.10	0.00	4.10	4.20	5.20	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:45 AM	243.00	7.20	5.00	3.60	0.00	3.60	4.10	5.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:00 AM	239.00	4.70	5.30	3.90	0.00	3.90	4.90	5.30	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:15 AM	242.00	5.00	5.60	4.10	0.00	4.10	5.10	5.60	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:30 AM	232.00	5.20	5.50	3.80	0.00	3.80	5.50	5.50	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:45 AM	231.00	3.80	5.50	3.50	0.00	3.50	5.00	5.50	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:00 AM	233.00	6.60	4.90	2.90	0.00	2.90	4.40	4.90	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:15 AM	241.00	6.10	4.50	2.10	0.00	2.10	3.80	4.50	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:30 AM	232.00	5.10	3.90	1.80	0.00	1.80	3.10	3.90	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:45 AM	225.00	5.10	3.70	1.80	0.00	1.80	2.60	3.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 10:00 AM	233.00	4.10	3.90	2.80	0.00	2.80	2.90	3.90	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 10:15 AM	229.00	7.60	4.10	3.20	0.00	3.20	3.00	4.10	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 10:30 AM	227.00	7.30	4.50	4.80	0.30	4.80	3.80	4.50	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 10:45 AM	229.00	6.90	4.60	5.60	1.00	5.60	4.00	4.60	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 11:00 AM	235.00	6.60	4.70	5.90	1.20	5.90	4.10	4.70	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 11:15 AM	238.00	8.40	4.10	5.40	1.30	5.40	3.90	4.10	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 11:30 AM	237.00	7.70	4.30	4.90	0.60	4.90	3.90	4.30	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 11:45 AM	225.00	5.70	4.20	4.20	0.00	4.20	3.50	4.20	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 12:00 PM	232.00	5.40	4.40	4.20	0.00	4.20	3.90	4.40	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 12:15 PM	228.00	5.80	4.70	3.90	0.00	3.90	4.50	4.70	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 12:30 PM	214.00	4.80	5.20	4.00	0.00	4.00	5.30	5.20	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 12:45 PM	210.00	6.50	5.00	4.00	0.00	4.00	5.10	5.00	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 1:00 PM	230.00	6.90	4.80	3.60	0.00	3.60	4.70	4.80	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 1:15 PM	218.00	8.90	4.60	3.40	0.00	3.40	4.10	4.60	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 1:30 PM	216.00	7.60	4.20	3.20	0.00	3.20	3.70	4.20	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 1:45 PM	208.00	6.80	4.20	3.20	0.00	3.20	3.80	4.20	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 2:00 PM	213.00	6.60	4.00	3.00	0.00	3.00	3.20	4.00	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 2:15 PM	211.00	5.90	3.90	2.90	0.00	2.90	3.70	3.90	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 2:30 PM	223.00	5.90	4.10	2.70	0.00	2.70	3.80	4.10	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 2:45 PM	212.00	5.00	4.20	2.40	0.00	2.40	4.00	4.20	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 3:00 PM	204.00	6.40	3.90	2.40	0.00	2.40	4.00	3.90	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 3:15 PM	210.00	4.70	4.00	2.50	0.00	2.50	4.20	4.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 3:30 PM	202.00	5.90	3.90	2.20	0.00	2.20	4.00	3.90	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 3:45 PM	206.00	4.30	4.00	2.00	0.00	2.00	3.70	4.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 4:00 PM	192.00	5.50	4.00	1.80	0.00	1.80	3.90	4.00	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 4:15 PM	189.00	5.70	3.90	1.90	0.00	1.90	3.60	3.90	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 4:30 PM	187.00	4.90	4.00	2.00	0.00	2.00	3.60	4.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 4:45 PM	192.00	6.70	4.90	2.50	0.00	2.50	4.50	4.90	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:00 PM	192.00	6.60	5.00	2.80	0.00	2.80	5.10	5.00	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:15 PM	176.00	4.60	4.70	2.10	0.00	2.10	4.70	5.00	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:30 PM	181.00	4.00	5.30	3.30	0.00	3.30	5.20	5.30	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 5:45 PM	186.00	5.40	5.40	3.50	0.00	3.50	5.40	5.40	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:00 PM	185.00	5.00	5.70	3.60	0.00	3.60	5.70	5.70	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:15 PM	181.00	5.20	6.40	4.10	0.00	4.10	6.60	6.40	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:30 PM	185.00	4.20	7.40	3.70	0.00	3.70	6.70	7.40	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 6:45 PM	180.00	5.70	7.90	0.00	0.00	0.00	6.90	7.90	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:00 PM	174.00	5.40	6.70	3.50	0.00	2.70	6.70	8.60	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:15 PM	188.00	6.10	8.10	2.50	0.00	2.50	6.70	8.10	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:30 PM	177.00	5.20	6.80	3.40	0.00	2.60	6.80	8.10	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 7:45 PM	184.00	6.30	8.00	2.50	0.00	2.50	6.50	8.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:00 PM	184.00	5.50	7.70	2.60	0.00	2.60	6.30	7.70	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:15 PM	176.00	5.40	6.30	3.70	0.00	2.80	6.30	7.70	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:30 PM	180.00	5.70	7.50	2.80	0.00	2.80	6.40	7.50	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 8:45 PM	176.00	6.20	6.10	3.80	0.00	2.90	6.10	7.30	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:00 PM	193.00	6.90	7.30	2.60	0.00	2.60	6.00	7.30	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:15 PM	189.00	6.20	7.20	2.80	0.00	2.80	5.90	7.20	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:30 PM	181.00	6.00	7.10	2.80	0.00	2.80	5.90	7.10	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 9:45 PM	168.00	5.50	5.60	3.90	0.00	2.50	5.60	6.50	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 10:00 PM	180.00	6.90	6.60	2.50	0.00	2.50	5.80	6.60	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/25/14 10:15 PM	177.00	5.90	5.80	3.70	0.00													







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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		
12/27/14 7:15 AM	203.00	5.30	13.70	8.70	0.00	8.70	14.40	13.70	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 7:30 AM	201.00	7.40	14.00	8.90	0.00	8.90	15.00	14.00	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 7:45 AM	194.00	4.10	14.20	9.10	0.00	9.10	15.70	14.20	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:00 AM	200.00	5.70	14.70	9.20	0.00	9.20	16.00	14.70	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:15 AM	210.00	4.90	15.10	9.70	0.00	9.70	16.10	15.10	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:30 AM	200.00	7.10	15.10	10.00	0.00	10.00	16.20	15.10	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:45 AM	201.00	6.90	15.50	9.90	0.00	9.90	15.80	15.50	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:00 AM	210.00	6.90	16.00	10.40	0.00	10.40	16.40	16.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:15 AM	197.00	6.20	16.00	0.00	0.00	0.00	16.90	16.00	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:30 AM	197.00	6.40	16.60	10.50	0.00	10.50	17.00	16.60	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:45 AM	195.00	5.60	17.60	10.20	0.00	10.20	18.00	17.60	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:00 AM	202.00	7.60	17.00	9.90	0.00	9.90	17.30	17.00	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:15 AM	199.00	7.70	15.90	9.00	0.00	9.00	15.60	15.90	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:30 AM	203.00	6.90	15.60	8.80	0.00	8.80	14.20	15.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:45 AM	215.00	6.30	15.40	8.70	0.00	8.70	14.50	15.40	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:00 AM	205.00	7.10	16.20	9.50	0.00	9.50	15.20	16.20	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:15 AM	208.00	7.80	14.40	8.20	0.00	8.20	14.60	14.40	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:30 AM	195.00	7.40	15.30	8.40	0.00	8.40	14.70	15.30	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:45 AM	208.00	8.50	14.80	8.40	0.00	8.40	14.10	14.80	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 12:00 PM	210.00	5.90	14.60	7.90	0.00	7.90	14.00	14.60	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 12:15 PM	224.00	7.00	14.30	7.00	0.00	7.00	13.50	14.30	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 12:30 PM	213.00	6.10	13.50	6.80	0.00	6.80	11.50	13.50	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 12:45 PM	218.00	7.70	13.20	7.10	0.00	7.10	11.70	13.20	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 1:00 PM	250.00	9.10	10.50	5.50	0.00	5.50	10.60	10.50	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 1:15 PM	262.00	8.60	8.90	6.60	0.00	6.60	7.90	8.90	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 1:30 PM	263.00	8.70	10.60	10.40	0.00	10.40	12.80	10.60	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 1:45 PM	262.00	9.90	10.60	11.10	0.50	11.10	13.20	10.60	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 2:00 PM	246.00	8.70	9.50	9.70	0.20	9.70	11.00	9.50	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 2:15 PM	243.00	8.50	6.90	8.20	1.30	8.20	7.60	6.90	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 2:30 PM	239.00	8.50	6.00	7.70	1.70	7.70	7.10	6.00	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 2:45 PM	248.00	9.50	5.80	7.50	1.70	7.50	6.60	5.80	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 3:00 PM	245.00	7.70	5.50	7.30	1.80	7.30	6.50	5.50	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 3:15 PM	255.00	8.40	5.40	7.50	2.10	7.50	6.60	5.40	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 3:30 PM	230.00	8.00	5.50	7.30	1.80	7.30	6.20	5.50	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 3:45 PM	245.00	7.40	5.80	7.60	1.80	7.60	6.30	5.80	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 4:00 PM	245.00	10.40	5.50	7.40	1.90	7.40	6.10	5.50	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 4:15 PM	244.00	8.90	5.30	7.50	2.20	7.50	5.80	5.30	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 4:30 PM	248.00	8.80	4.80	6.10	1.30	6.10	4.40	4.80	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 4:45 PM	245.00	7.60	4.40	0.00	0.00	0.00	4.40	4.40	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 5:00 PM	256.00	6.30	4.40	6.30	1.90	6.30	4.50	4.40	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 5:15 PM	262.00	4.80	4.60	7.10	2.50	7.10	4.40	4.60	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 5:30 PM	265.00	6.60	4.60	7.10	2.50	7.10	4.40	4.60	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 5:45 PM	261.00	7.20	4.40	6.60	2.20	6.60	4.40	4.40	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 6:00 PM	255.00	5.70	4.00	6.10	2.10	6.10	4.20	4.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 6:15 PM	271.00	6.70	9.30	5.90	0.00	6.40	5.90	4.40	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 6:30 PM	264.00	7.30	4.70	6.60	1.90	6.60	6.20	4.70	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 6:45 PM	276.00	5.20	9.10	6.60	0.00	6.00	6.60	5.00	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 7:00 PM	275.00	6.40	9.20	6.10	0.00	5.60	6.10	4.70	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 7:15 PM	293.00	7.10	7.20	4.80	0.00	0.00	4.80	4.10	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 7:30 PM	272.00	5.30	7.30	4.80	0.00	4.20	4.80	4.30	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 7:45 PM	281.00	4.90	7.00	4.60	0.00	4.70	4.60	4.30	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:00 PM	277.00	5.40	6.90	4.90	0.00	4.90	4.90	4.30	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:15 PM	279.00	5.40	6.90	4.80	0.00	4.90	4.80	4.30	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:30 PM	285.00	5.60	7.10	4.90	0.00	4.90	4.90	4.30	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 8:45 PM	298.00	5.80	7.20	5.00	0.00	5.10	5.00	4.30	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:00 PM	301.00	6.50	7.30	4.90	0.00	5.60	4.90	4.60	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:15 PM	282.00	4.50	7.30	5.10	0.00	0.00	5.10	4.60	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:30 PM	312.00	6.90	7.20	5.10	0.00	5.90	5.10	4.70	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 9:45 PM	294.00	4.50	6.90	4.80	0.00	5.50	4.80	4.40	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:00 PM	299.00	3.50	6.90	4.60	0.00	5.00	4.60	4.40	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:15 PM	307.00	3.70	7.00	4.30	0.00	5.00	4.30	4.40	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:30 PM	302.00	5.60	6.90	4.50	0.00	4.60	4.50	4.50	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 10:45 PM	307.00	5.60	6.70	4.10	0.00	4.70	4.10	4.20	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:00 PM	297.00	3.80	6.80	4.40	0.00	5.00	4.40	4.60	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:15 PM	300.00	3.30	5.80	4.30	0.00	4.50	4.30	4.60	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:30 PM	278.00	4.60	6.30	4.00	0.00	4.80	4.00	4.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/27/14 11:45 AM	304.00	5.50	6.10	4.20	0.00	4.60	4.20	4.50	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/28/14 12:00 AM	308.00	5.40	6.70	4.30	0.00	4.60	4.30	4.50	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/28/14 12:15 AM	298.00	4.50	6.60	4.60	0.00	4.20	4.60	4.70	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/28/14 12:30 AM	305.00	4.80	6.50	4.60	0.00	4.20	4.60	4.80	6.50	0.00	0.00	0						



US Army Corps  
of Engineers®

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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	
12/28/14 8:30 AM	264.00	3.30	5.80	5.60	0.00	5.60	5.50	5.80	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 8:45 AM	259.00	2.40	5.90	5.30	0.00	5.30	5.80	5.90	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:00 AM	242.00	2.90	5.80	5.30	0.00	5.30	5.60	5.80	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:15 AM	247.00	2.80	6.10	5.60	0.00	5.60	5.80	6.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:30 AM	255.00	2.80	6.20	5.50	0.00	5.50	5.70	6.20	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:45 AM	257.00	3.70	6.50	6.40	0.00	6.40	6.00	6.50	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:00 AM	232.00	2.70	6.50	5.90	0.00	5.90	6.30	6.50	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:15 AM	251.00	2.60	6.20	5.60	0.00	5.60	6.10	6.20	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:30 AM	234.00	3.30	6.80	6.00	0.00	6.00	6.10	6.80	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:45 AM	249.00	3.30	6.80	5.70	0.00	5.70	5.90	6.80	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:00 AM	243.00	3.70	6.40	5.90	0.00	5.90	5.70	6.40	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:15 AM	252.00	4.00	6.30	6.20	0.00	6.20	5.60	6.30	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:30 AM	245.00	3.70	6.00	0.00	0.00	0.00	5.40	6.00	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:45 AM	228.00	4.40	5.70	6.90	1.20	6.90	5.20	5.70	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 12:00 PM	218.00	3.70	5.40	6.80	1.40	6.80	4.30	5.40	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 12:15 PM	244.00	3.70	5.30	6.70	1.40	6.70	4.70	5.30	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 12:30 PM	241.00	3.80	5.20	6.90	1.70	6.90	4.60	5.20	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 12:45 PM	254.00	3.10	5.30	7.20	1.90	7.20	4.10	5.30	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 1:00 PM	259.00	2.70	4.90	7.10	2.20	7.10	3.80	4.90	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 1:15 PM	255.00	2.40	4.70	7.50	2.80	7.50	3.70	4.70	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 1:30 PM	215.00	3.00	5.00	7.60	2.60	7.60	4.00	5.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 1:45 PM	230.00	2.90	4.80	7.70	2.90	7.70	3.60	4.80	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 2:00 PM	227.00	3.20	4.30	7.30	3.00	7.30	3.50	4.30	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 2:15 PM	216.00	3.10	4.10	6.80	2.70	6.80	3.40	4.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 2:30 PM	222.00	2.70	4.50	6.50	2.00	6.50	3.90	4.50	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 2:45 PM	218.00	3.30	4.00	0.00	0.00	0.00	3.10	4.00	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 3:00 PM	232.00	2.50	3.80	6.60	2.80	6.60	2.70	3.80	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 3:15 PM	255.00	3.20	3.40	5.80	2.40	5.80	2.60	3.40	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 3:30 PM	217.00	3.90	3.30	5.20	1.90	5.20	2.50	3.30	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 3:45 PM	229.00	3.60	3.40	5.20	1.80	5.20	2.50	3.40	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 4:00 PM	258.00	4.00	3.00	5.50	2.50	5.50	2.60	3.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 4:15 PM	229.00	3.40	3.30	5.60	2.30	5.60	2.70	3.30	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 4:30 PM	233.00	3.20	3.50	5.50	2.00	5.50	3.00	3.50	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 4:45 PM	236.00	2.70	3.40	5.00	1.60	5.00	3.00	3.40	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 5:00 PM	245.00	2.50	3.50	5.20	1.70	5.20	3.30	3.50	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 5:15 PM	219.00	1.80	4.10	5.30	1.20	5.30	3.90	4.10	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 5:30 PM	220.00	1.90	4.30	5.60	1.30	5.60	4.40	4.30	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 5:45 PM	212.00	2.40	4.40	5.60	1.20	5.60	4.60	4.40	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 6:00 PM	229.00	2.30	5.00	5.00	0.00	5.00	5.10	5.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 6:15 PM	226.00	2.50	5.10	4.60	0.00	4.60	4.90	5.10	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 6:30 PM	227.00	2.30	5.00	4.50	0.00	4.50	5.70	5.00	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 6:45 PM	220.00	2.00	5.60	5.00	0.00	5.00	5.80	5.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 7:00 PM	224.00	2.50	6.10	5.80	0.00	5.80	6.60	6.10	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 7:15 PM	222.00	2.50	6.20	6.30	0.10	6.30	6.70	6.20	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 7:30 PM	218.00	2.20	6.80	7.00	0.20	7.00	7.40	6.80	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 7:45 PM	225.00	2.10	6.60	7.00	0.40	7.00	7.80	6.60	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 8:00 PM	227.00	1.70	6.80	7.00	0.20	7.00	8.40	6.80	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 8:15 PM	233.00	1.80	7.30	8.30	1.00	8.30	8.80	7.30	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 8:30 PM	229.00	1.80	7.50	10.30	2.80	10.30	9.20	7.50	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 8:45 PM	243.00	1.90	7.90	10.20	2.30	10.20	9.30	7.90	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:00 PM	227.00	1.50	8.40	11.30	2.90	11.30	10.00	8.40	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:15 PM	220.00	1.70	8.50	11.30	2.80	11.30	9.40	8.50	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:30 PM	246.00	1.70	8.90	11.50	2.60	11.50	9.40	8.90	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 9:45 PM	246.00	1.50	8.60	11.30	2.70	11.30	9.50	8.60	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:00 PM	251.00	1.50	8.40	11.40	3.00	11.40	9.10	8.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:15 PM	260.00	1.50	8.70	12.70	4.00	12.70	9.30	8.70	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:30 PM	268.00	1.60	9.30	12.90	3.60	12.90	9.80	9.30	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 10:45 PM	263.00	2.00	9.40	10.80	1.40	10.80	9.80	9.40	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:00 PM	288.00	2.00	10.30	9.70	0.00	11.30	9.70	9.40	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:15 PM	270.00	1.80	11.00	10.50	0.00	12.20	10.50	9.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:30 PM	278.00	1.50	11.20	10.60	0.00	12.30	10.60	10.20	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/14 11:45 PM	284.00	1.60	10.70	11.10	0.40	11.90	11.10	10.50	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/29/14 12:00 AM	253.00	1.40	11.30	12.40	1.10	12.40	11.30	11.30	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/29/14 12:15 AM	266.00	1.80	11.10	12.50	1.40	12.50	11.20	11.10	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/29/14 12:30 AM	263.00	2.10	11.10	12.80	1.70	12.80	11.10	11.10	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/29/14 12:45 AM	252.00	1.80	11.50	12.10	0.60	12.10	11.70	11.50	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/29/14 1:00 AM	275.00	1.90	12.20	12.20	0.00	12.10	12.20										



US Army Corps of Engineers®

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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		
			12/29/14 9:45 AM	38.00	9.20	7.30	11.60	4.30	7.30	13.40	11.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00
12/29/14 10:00 AM	34.00	9.30	8.20	12.30	4.10	8.20	17.30	12.30	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 10:15 AM	29.00	6.70	0.00	12.70	0.00	0.00	16.20	12.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 10:30 AM	40.00	7.80	6.50	14.50	8.00	6.50	14.40	14.50	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 10:45 AM	42.00	6.20	6.80	14.50	7.70	6.80	12.30	14.50	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:00 AM	32.00	7.30	7.20	11.50	4.30	7.20	12.40	11.50	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:15 AM	13.00	9.90	7.50	12.00	4.50	7.50	13.60	12.00	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:30 AM	9.00	8.10	8.50	12.60	4.10	8.50	10.30	12.60	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:45 AM	16.00	8.00	7.90	10.30	2.40	7.90	9.40	10.30	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 12:00 PM	17.00	6.70	7.70	11.00	3.30	7.70	9.80	11.00	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 12:15 PM	20.00	8.10	7.50	10.60	3.10	7.50	6.50	10.60	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 12:30 PM	21.00	7.80	6.90	9.40	2.50	6.90	7.80	9.40	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 12:45 PM	19.00	8.60	8.10	8.00	0.00	8.10	6.50	8.00	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 1:00 PM	14.00	8.10	9.90	10.00	0.10	9.90	7.00	10.00	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 1:15 PM	18.00	7.40	7.20	7.40	0.20	7.20	5.40	7.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 1:30 PM	11.00	7.90	7.30	7.00	0.00	7.30	5.00	7.00	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 1:45 PM	35.00	7.60	10.30	6.90	0.00	10.30	4.90	6.90	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 2:00 PM	26.00	6.80	7.80	6.50	0.00	7.80	5.20	6.50	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 2:15 PM	3.00	7.30	6.50	6.40	0.00	6.50	6.00	6.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 2:30 PM	29.00	7.90	6.00	6.60	0.60	6.00	4.30	6.60	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 2:45 PM	33.00	8.00	5.60	5.90	0.30	5.60	4.10	5.90	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 3:00 PM	23.00	7.00	4.00	7.30	3.30	4.00	4.40	7.30	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 3:15 PM	22.00	6.60	4.00	6.20	2.20	4.00	4.60	6.20	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 3:30 PM	36.00	8.00	4.20	8.10	3.90	4.20	4.10	8.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 3:45 PM	12.00	6.70	4.10	7.00	2.90	4.10	3.90	7.00	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 4:00 PM	11.00	6.70	3.80	6.00	2.20	3.80	4.00	6.00	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 4:15 PM	41.00	7.10	3.70	6.60	2.90	3.70	3.90	6.60	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 4:30 PM	34.00	6.20	3.80	6.50	2.70	3.80	4.30	6.50	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 4:45 PM	37.00	5.90	4.10	5.40	1.30	4.10	5.80	5.40	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 5:00 PM	38.00	5.50	0.00	6.70	0.00	0.00	4.00	6.70	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 5:15 PM	31.00	5.40	4.80	5.90	1.10	4.80	5.20	5.90	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 5:30 PM	34.00	6.10	4.70	7.90	3.20	4.70	3.80	7.90	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 5:45 PM	36.00	6.00	3.90	5.80	1.90	3.90	3.80	5.80	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 6:00 PM	34.00	6.50	3.40	6.00	2.60	3.40	4.30	6.00	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 6:15 PM	39.00	7.10	3.60	8.20	4.60	3.60	8.60	8.20	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 6:30 PM	30.00	6.60	2.80	5.60	2.80	2.80	3.80	5.60	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 6:45 PM	38.00	5.70	3.00	5.30	2.30	3.00	4.50	5.30	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 7:00 PM	26.00	6.00	3.00	6.00	3.00	3.00	4.00	6.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 7:15 PM	22.00	5.60	4.40	7.40	3.00	4.40	4.90	7.40	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 7:30 PM	35.00	5.80	5.40	5.50	0.10	5.40	4.60	5.50	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 7:45 PM	39.00	6.20	4.50	6.50	2.00	4.50	4.80	6.50	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 8:00 PM	22.00	6.50	4.70	5.60	0.90	4.70	4.50	5.60	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 8:15 PM	20.00	5.70	0.00	5.10	0.00	0.00	4.80	5.10	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 8:30 PM	30.00	6.90	4.90	7.10	2.20	4.90	6.30	7.10	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 8:45 PM	23.00	4.60	4.30	6.30	2.00	4.30	4.40	6.30	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 9:00 PM	13.00	4.90	4.70	5.00	0.30	4.70	7.20	5.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 9:15 PM	24.00	5.80	8.20	5.10	0.00	8.20	4.40	5.10	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 9:30 PM	15.00	5.60	4.20	6.60	2.40	4.20	4.00	6.60	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 9:45 PM	30.00	6.60	4.10	5.20	1.10	4.10	4.20	5.20	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 10:00 PM	30.00	5.90	3.50	5.10	1.60	3.50	3.90	5.10	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 10:15 PM	24.00	5.60	3.70	5.80	2.10	3.70	4.70	5.80	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 10:30 PM	41.00	5.60	3.90	5.80	1.90	3.90	3.60	5.80	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 10:45 PM	27.00	5.20	3.70	4.30	0.60	3.70	3.70	4.30	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:00 PM	22.00	6.30	3.80	4.70	0.90	3.80	3.50	4.70	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:15 PM	11.00	6.40	9.30	4.30	0.00	9.30	3.90	4.30	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:30 PM	19.00	5.40	5.10	4.30	0.00	5.10	3.60	4.30	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/29/14 11:45 PM	19.00	6.60	5.30	4.30	0.00	5.30	3.90	4.30	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 12:00 AM	9.00	5.20	5.30	4.60	0.00	5.30	3.90	4.60	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 12:15 AM	16.00	4.40	5.10	4.50	0.00	5.10	4.70	4.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 12:30 AM	346.00	5.00	2.80	4.30	1.50	5.00	4.30	4.80	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 12:45 AM	350.00	6.40	2.70	4.30	1.60	5.00	4.30	4.70	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 1:00 AM	345.00	6.10	3.30	5.60	2.30	6.30	5.60	5.30	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 1:15 AM	338.00	4.90	3.60	5.80	2.20	5.80	5.80	5.40	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 1:30 AM	330.00	6.40	3.50	6.80	3.30	5.20	6.80	6.10	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 1:45 AM	338.00	4.70	3.90	7.20	3.30	4.60	7.20	6.10	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 2:00 AM	331.00	6.60	4.10	7.20	3.10	3.60	7.20	6.30	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 2:15 AM	331.00	4.80	4.00	7.00	3.00	2.80	7.00	6.60	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 2:30 AM	317.00	3.60	4.30	7.10	2.80	0.00	7.10	7.00	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 2:45 AM	314.00	4.20	4.60	7.60	3.00	3.40	7.60	6.80	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 3:00 AM	310.00	3.90	4.70	7.70	3.00	4.40	7.70	7.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12/30/14 3:15 AM	315.00																	



**US Army Corps  
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Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/30/14 11:00 AM	325.00	2.50	5.40	10.80	5.40	8.60	10.80	13.50	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 11:15 AM	290.00	3.90	8.50	11.40	2.90	9.20	11.40	11.40	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 11:30 AM	315.00	3.30	4.90	11.20	6.30	8.90	11.20	11.70	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 11:45 AM	291.00	4.10	5.40	10.70	5.30	9.10	10.70	10.10	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 12:00 PM	339.00	3.20	5.40	9.80	4.40	9.10	9.80	9.80	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 12:15 PM	337.00	3.30	4.90	9.00	4.10	9.00	9.00	9.40	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 12:30 PM	350.00	3.40	5.30	9.00	3.70	9.10	9.00	9.00	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 12:45 PM	323.00	2.00	5.50	8.70	3.20	9.70	8.70	8.80	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 1:00 PM	320.00	3.00	5.30	8.30	3.00	10.50	8.30	8.60	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 1:15 PM	0.00	2.40	10.30	8.30	0.00	10.30	8.20	8.30	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 1:30 PM	328.00	1.70	5.60	7.60	2.00	0.00	7.60	8.20	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 1:45 PM	14.00	3.40	9.80	8.40	0.00	9.80	7.50	8.40	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 2:00 PM	297.00	2.40	5.80	7.80	2.00	10.00	7.80	8.40	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 2:15 PM	336.00	3.00	6.00	6.90	0.90	9.10	6.90	8.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 2:30 PM	314.00	4.70	6.30	7.70	1.40	10.80	7.70	9.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 2:45 PM	299.00	3.30	7.80	7.20	0.00	12.40	7.20	8.20	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 3:00 PM	290.00	4.40	6.50	7.40	0.90	10.30	7.40	8.40	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 3:15 PM	304.00	4.40	6.90	6.70	0.00	11.50	6.70	8.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 3:30 PM	330.00	2.80	7.00	7.00	0.00	12.00	7.00	8.70	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 3:45 PM	309.00	3.90	9.00	7.10	0.00	11.20	7.10	9.10	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 4:00 PM	304.00	4.20	9.00	7.10	0.00	11.40	7.10	8.40	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 4:15 PM	286.00	3.60	9.60	7.30	0.00	11.60	7.30	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 4:30 PM	318.00	5.20	8.00	6.80	0.00	11.00	6.80	8.40	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 4:45 PM	283.00	4.40	8.10	7.50	0.00	10.50	7.50	8.50	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 5:00 PM	322.00	3.20	7.70	7.40	0.00	10.90	7.40	8.50	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 5:15 PM	317.00	4.90	9.40	8.10	0.00	0.00	8.10	8.70	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 5:30 PM	275.00	4.00	9.60	8.50	0.00	12.40	8.50	10.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 5:45 PM	315.00	3.20	8.70	8.30	0.00	11.30	8.30	9.10	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 6:00 PM	298.00	4.20	7.70	8.60	0.90	10.80	8.60	9.70	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 6:15 PM	307.00	4.10	8.90	8.30	0.00	14.00	8.30	9.90	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 6:30 PM	312.00	5.30	9.10	8.40	0.00	13.20	8.40	10.20	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 6:45 PM	293.00	4.40	9.20	8.70	0.00	12.80	8.70	10.20	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 7:00 PM	279.00	4.30	9.20	10.10	0.90	12.30	10.10	10.90	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 7:15 PM	272.00	2.70	8.60	9.00	0.40	11.90	9.00	10.50	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 7:30 PM	268.00	2.50	10.00	12.20	2.20	12.20	9.40	10.00	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 7:45 PM	273.00	3.30	8.40	9.40	1.00	0.00	9.40	9.50	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 8:00 PM	271.00	3.70	7.70	9.20	1.50	10.10	9.20	9.50	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 8:15 PM	267.00	4.40	10.10	10.00	0.00	10.00	9.70	10.10	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 8:30 PM	276.00	4.80	8.50	9.30	0.80	10.60	9.30	10.10	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 8:45 PM	288.00	4.30	8.20	9.70	1.50	10.50	9.70	10.40	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 9:00 PM	290.00	5.00	8.60	10.10	1.50	9.40	10.10	10.10	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 9:15 PM	299.00	7.00	6.90	8.70	1.80	8.40	8.70	9.90	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 9:30 PM	295.00	5.10	7.80	9.20	1.40	8.30	9.20	10.20	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 9:45 PM	303.00	5.30	7.20	9.10	1.90	8.70	9.10	10.20	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 10:00 PM	300.00	5.30	6.80	9.50	2.70	0.00	9.50	10.40	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 10:15 PM	296.00	4.20	7.00	9.40	2.40	9.30	9.40	10.50	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 10:30 PM	281.00	4.90	7.10	10.00	2.90	9.10	10.00	10.70	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 10:45 PM	282.00	2.80	7.40	9.80	2.40	9.30	9.80	10.60	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 11:00 PM	300.00	4.00	6.90	10.40	3.50	10.10	10.40	10.70	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 11:15 PM	278.00	3.70	7.40	10.50	3.10	10.40	10.50	11.20	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 11:30 PM	283.00	4.40	7.90	10.90	3.00	11.30	10.90	11.00	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/30/14 11:45 PM	285.00	3.60	7.40	11.40	4.00	0.00	11.40	11.70	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 12:00 AM	286.00	6.40	8.40	11.30	2.90	10.10	11.30	11.90	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 12:15 AM	286.00	4.10	7.60	10.50	2.90	9.20	10.50	11.40	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 12:30 AM	291.00	3.70	7.30	10.30	3.00	8.90	10.30	11.70	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 12:45 AM	277.00	3.60	7.10	10.00	2.90	9.10	10.00	11.20	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:00 AM	278.00	5.30	6.90	10.60	3.70	9.30	10.60	11.70	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:15 AM	290.00	4.20	7.00	9.90	2.90	9.40	9.90	11.70	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:30 AM	268.00	4.70	12.30	0.00	0.00	0.00	10.50	12.30	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:45 AM	277.00	2.50	7.60	10.40	2.80	10.00	10.40	11.80	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:00 AM	279.00	4.20	7.40	10.80	3.40	9.90	10.80	12.20	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:15 AM	273.00	4.50	7.90	10.70	2.80	10.60	10.70	12.80	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:30 AM	280.00	4.20	7.30	10.70	3.40	10.50	10.70	12.00	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:45 AM	290.00	5.20	7.50	10.60	3.10	9.90	10.60	12.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:00 AM	276.00	4.90	7.20	10.70	3.50	9.10	10.70	12.30	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:15 AM	270.00	3.70	7.10	11.20	4.10	9.30	11.20	12.30	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:30 AM	266.00	3.60	12.00	9.60	0.00	9.60	10.80	12.00	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:45 AM	271.00	4.50	6.80	11.10	4.30	9.00	11.10	12.10	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 4:00 AM	267.00	5.20	11.90	10.20	0.00	10.20	11.50	11.90	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 4:15 AM	279.00	5.10	6.70	11.80	5.10	12.10	11.80	11.6								



**US Army Corps  
of Engineers®**

Indiana Harbor and Canal  
Confined Disposal Facility  
Real-Time Air Monitoring Data  
December 2014

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
12/31/14 12:15 PM	238.00	6.90	9.20	9.70	0.50	9.70	7.50	9.20	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 12:30 PM	248.00	6.60	10.40	10.30	0.00	10.30	7.90	10.40	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 12:45 PM	231.00	6.00	9.80	11.40	1.60	11.40	8.30	9.80	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:00 PM	247.00	6.40	9.60	10.70	1.10	10.70	7.90	9.60	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:15 PM	227.00	6.60	9.70	12.20	2.50	12.20	8.60	9.70	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:30 PM	226.00	7.60	10.00	11.90	1.90	11.90	8.30	10.00	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 1:45 PM	227.00	7.90	9.70	11.90	2.20	11.90	7.60	9.70	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:00 PM	232.00	6.60	10.00	12.70	2.70	12.70	8.10	10.00	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:15 PM	238.00	8.00	9.40	13.20	3.80	13.20	7.10	9.40	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:30 PM	236.00	7.00	10.40	12.30	1.90	12.30	6.80	10.40	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 2:45 PM	243.00	8.50	9.10	11.00	1.90	11.00	6.20	9.10	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:00 PM	225.00	7.90	9.60	11.50	1.90	11.50	6.70	9.60	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:15 PM	227.00	5.50	9.30	11.00	1.70	11.00	7.00	9.30	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:30 PM	233.00	7.30	9.30	10.30	1.00	10.30	7.00	9.30	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 3:45 PM	226.00	5.50	9.40	11.10	1.70	11.10	7.70	9.40	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 4:00 PM	224.00	8.10	9.90	10.20	0.30	10.20	7.50	9.90	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 4:15 PM	218.00	7.00	10.00	10.30	0.30	10.30	7.50	10.00	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 4:30 PM	222.00	7.70	9.70	10.40	0.70	10.40	7.80	9.70	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 4:45 PM	237.00	7.70	10.60	10.20	0.00	10.20	8.20	10.60	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 5:00 PM	218.00	6.00	10.10	10.60	0.50	10.60	7.50	10.10	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 5:15 PM	227.00	7.50	9.90	10.70	0.80	10.70	8.50	9.90	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 5:30 PM	214.00	7.00	9.80	10.00	0.20	10.00	8.20	9.80	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 5:45 PM	215.00	7.10	10.30	10.60	0.30	10.60	8.80	10.30	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 6:00 PM	206.00	5.40	9.90	0.00	0.00	0.00	8.50	9.90	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 6:15 PM	209.00	8.50	10.30	9.40	0.00	9.40	8.60	10.30	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 6:30 PM	217.00	6.90	10.90	9.80	0.00	9.80	9.00	10.90	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 6:45 PM	206.00	7.90	13.40	0.00	0.00	0.00	8.90	13.40	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 7:00 PM	217.00	7.00	10.50	8.70	0.00	8.70	8.50	10.50	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 7:15 PM	221.00	7.30	10.50	8.70	0.00	8.70	8.50	10.50	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 7:30 PM	213.00	6.10	9.40	9.00	0.00	9.00	8.00	9.40	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 7:45 PM	226.00	8.00	9.70	0.00	0.00	0.00	8.40	9.70	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 8:00 PM	218.00	6.40	9.80	9.40	0.00	9.40	8.30	9.80	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 8:15 PM	214.00	4.40	9.40	9.50	0.10	9.50	8.20	9.40	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 8:30 PM	214.00	4.90	9.50	8.70	0.00	8.70	8.10	9.50	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 8:45 PM	216.00	5.90	9.40	8.50	0.00	8.50	8.10	9.40	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 9:00 PM	222.00	6.20	9.40	8.20	0.00	8.20	8.40	9.40	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 9:15 PM	204.00	6.60	9.10	7.90	0.00	7.90	8.10	9.10	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 9:30 PM	225.00	8.00	9.30	7.80	0.00	7.80	8.10	9.30	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 9:45 PM	227.00	7.50	9.20	7.70	0.00	7.70	8.00	9.20	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 10:00 PM	228.00	5.10	8.90	8.60	0.00	8.60	7.80	8.90	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 10:15 PM	228.00	7.10	8.80	8.80	0.00	8.80	7.70	8.80	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 10:30 PM	223.00	5.30	8.60	8.70	0.10	8.70	7.40	8.60	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 10:45 PM	228.00	6.00	8.50	8.60	0.10	8.60	7.50	8.50	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 11:00 PM	224.00	5.40	8.30	0.00	0.00	0.00	7.80	8.30	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 11:15 PM	232.00	6.00	8.50	9.90	1.40	9.90	7.60	8.50	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 11:30 PM	224.00	7.00	8.40	10.00	1.60	10.00	7.80	8.40	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/14 11:45 PM	224.00	7.80	8.50	10.10	1.60	10.10	8.10	8.50	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00