



US Army Corps of Engineers

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

Table with columns: Reading Time (EST), Wind Direction, Wind Speed, 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 readings from 4/7/14 7:30 AM to 4/8/14 8:30 AM.



Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m³)								Naphthalene (µg/m³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
			4/10/14 11:15 AM	238.00	7.10	15.10	11.60	0.00	11.60	14.60	15.10	10.40	0.00	0.00	0.00	0.00	0.00	0.00
4/10/14 11:30 AM	247.00	6.80	14.80	11.10	0.00	11.10	13.60	14.80	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 11:45 AM	257.00	5.60	14.00	10.80	0.00	10.80	13.40	14.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 12:00 PM	258.00	8.30	18.10	12.70	0.00	12.70	21.10	18.10	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 12:15 PM	251.00	4.90	13.60	12.00	0.00	12.00	19.10	13.60	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 12:30 PM	286.00	5.80	16.80	14.40	0.00	13.40	14.40	14.00	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 12:45 PM	263.00	7.40	15.90	12.90	0.00	12.90	17.90	15.90	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 1:00 PM	259.00	2.30	15.90	12.50	0.00	12.50	17.60	15.90	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 1:15 PM	233.00	6.00	16.40	13.00	0.00	13.00	18.00	16.40	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 1:30 PM	237.00	5.80	20.20	14.30	0.00	14.30	19.60	20.20	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 1:45 PM	241.00	6.50	18.90	18.60	0.00	18.60	20.80	18.90	32.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 2:00 PM	234.00	6.30	18.90	13.40	0.00	13.40	20.60	18.90	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 2:15 PM	264.00	5.70	18.80	14.30	0.00	14.30	21.50	18.80	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 2:30 PM	248.00	8.30	18.70	16.50	0.00	16.50	20.80	18.70	36.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 2:45 PM	269.00	6.30	18.40	13.80	0.00	13.80	24.30	18.40	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 3:00 PM	257.00	6.50	19.60	13.50	0.00	13.50	19.90	19.60	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 3:15 PM	281.00	2.80	22.10	20.70	0.00	13.70	20.70	18.70	22.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 3:30 PM	286.00	4.50	25.00	23.50	0.00	15.00	23.50	23.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 3:45 PM	287.00	3.60	18.30	25.10	6.80	14.90	25.10	23.20	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 4:00 PM	269.00	2.60	26.90	15.80	0.00	15.80	29.10	26.90	24.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 4:15 PM	263.00	3.70	29.60	19.30	0.00	19.30	31.50	29.60	28.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 4:30 PM	260.00	2.80	32.10	17.80	0.00	17.80	32.50	32.10	26.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 4:45 PM	255.00	3.10	30.10	17.40	0.00	17.40	31.90	30.10	24.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 5:00 PM	259.00	2.80	28.80	17.40	0.00	17.40	31.20	28.80	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 5:15 PM	243.00	3.00	28.30	17.40	0.00	17.40	32.50	28.30	26.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 5:30 PM	253.00	2.90	33.20	17.40	0.00	17.40	30.70	33.20	24.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 5:45 PM	251.00	2.40	29.10	17.40	0.00	17.40	30.70	29.10	27.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 6:00 PM	263.00	3.30	31.10	17.40	0.00	17.40	30.60	31.10	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 6:15 PM	244.00	3.20	29.00	17.40	0.00	17.40	30.80	29.00	31.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 6:30 PM	243.00	2.00	29.90	17.40	0.00	17.40	31.70	29.90	31.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 6:45 PM	238.00	2.10	29.40	17.40	0.00	17.40	30.50	29.40	30.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 7:00 PM	259.00	2.00	28.90	17.40	0.00	17.40	29.40	28.90	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 7:15 PM	339.00	2.20	36.30	31.10	0.00	17.40	31.10	27.90	36.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 7:30 PM	327.00	1.90	32.20	30.00	0.00	17.40	30.00	29.30	32.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 7:45 PM	264.00	1.40	30.70	17.40	0.00	17.40	30.20	30.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 8:00 PM	269.00	1.50	30.70	17.40	0.00	17.40	31.50	30.70	30.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 8:15 PM	350.00	1.60	30.10	35.50	5.40	17.40	35.50	32.90	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 8:30 PM	359.00	2.90	32.10	35.80	3.70	17.40	35.80	37.30	32.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 8:45 PM	312.00	0.70	30.70	38.20	7.50	17.40	38.20	34.40	30.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 9:00 PM	296.00	0.70	35.20	37.30	2.10	17.40	37.30	33.60	35.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 9:15 PM	358.00	2.20	40.30	37.70	0.00	17.40	37.70	34.30	40.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 9:30 PM	23.00	2.30	17.40	41.00	23.60	17.40	44.20	41.00	38.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 9:45 PM	90.00	0.90	45.10	38.00	0.00	17.40	45.10	40.40	38.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 10:00 PM	348.00	1.20	38.60	41.60	3.00	17.40	41.60	40.60	38.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 10:15 PM	64.00	2.00	17.40	41.40	24.00	17.40	43.00	41.40	38.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 10:30 PM	172.00	0.70	37.70	31.40	0.00	17.40	37.70	38.40	31.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 10:45 PM	277.00	1.30	25.40	35.10	9.70	17.40	35.10	31.60	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 11:00 PM	252.00	2.20	31.00	0.00	0.00	0.00	32.40	31.00	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 11:15 PM	260.00	1.90	31.50	17.40	0.00	17.40	33.10	31.50	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 11:30 PM	265.00	1.20	42.80	17.40	0.00	17.40	54.50	42.80	32.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/10/14 11:45 PM	304.00	1.30	32.60	62.30	29.70	0.00	62.30	53.80	32.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 12:00 AM	308.00	1.80	22.30	38.90	16.60	17.40	38.90	35.30	22.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 12:15 AM	255.00	1.60	35.30	17.40	0.00	17.40	38.90	35.30	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 12:30 AM	226.00	2.20	38.80	17.40	0.00	17.40	37.70	38.80	27.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 12:45 AM	215.00	1.60	37.90	17.40	0.00	17.40	38.70	37.90	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 1:00 AM	246.00	1.30	36.00	17.40	0.00	17.40	36.80	36.00	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 1:15 AM	7.00	1.00	17.40	37.30	19.90	17.40	36.50	37.30	27.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 1:30 AM	240.00	0.90	39.30	17.40	0.00	17.40	36.80	39.30	26.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 1:45 AM	267.00	1.00	45.40	17.40	0.00	17.40	40.30	45.40	27.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 2:00 AM	220.00	2.20	44.70	17.40	0.00	17.40	43.10	44.70	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 2:15 AM	253.00	1.90	44.60	17.40	0.00	17.40	42.40	44.60	30.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/11/14 2:30 AM	247.00	1.70	44.00	17.40	0.00	17.40	42.80	44.00	33.70	0.00	0.00	0.						



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of Engineers®**

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Confined Disposal Facility
Real-Time Air Monitoring Data
April 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		
4/12/14 1:45 PM	201.00	6.50	36.80	17.40	0.00	17.40	45.50	36.80	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 2:00 PM	205.00	6.40	28.70	17.40	0.00	17.40	29.80	28.70	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 2:15 PM	208.00	9.40	27.80	17.40	0.00	17.40	25.90	27.80	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 2:30 PM	232.00	11.30	36.30	17.40	0.00	17.40	28.30	36.30	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 2:45 PM	226.00	9.20	35.30	17.40	0.00	17.40	35.60	35.30	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 3:00 PM	200.00	10.10	29.90	17.40	0.00	17.40	29.80	29.90	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 3:15 PM	196.00	8.80	29.40	17.40	0.00	17.40	30.60	29.40	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 3:30 PM	190.00	13.80	31.90	17.40	0.00	17.40	39.40	31.90	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 3:45 PM	201.00	10.10	36.90	17.40	0.00	17.40	35.10	36.90	27.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 4:00 PM	218.00	13.90	39.30	17.40	0.00	17.40	119.50	39.30	34.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 4:15 PM	203.00	13.00	41.40	17.40	0.00	17.40	35.50	41.40	39.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 4:30 PM	211.00	9.50	39.40	17.40	0.00	17.40	58.60	39.40	27.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 4:45 PM	194.00	12.10	109.40	17.40	0.00	17.40	68.70	109.40	34.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 5:00 PM	216.00	8.20	53.70	17.40	0.00	17.40	75.50	53.70	28.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 5:15 PM	204.00	8.90	66.80	17.40	0.00	17.40	49.60	66.80	35.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 5:30 PM	213.00	9.50	39.60	17.40	0.00	17.40	45.10	39.60	30.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 5:45 PM	226.00	6.70	56.20	17.40	0.00	17.40	40.70	56.20	36.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 6:00 PM	202.00	9.80	47.80	17.40	0.00	17.40	39.90	47.80	30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 6:15 PM	204.00	7.70	39.00	17.40	0.00	17.40	42.20	39.00	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 6:30 PM	204.00	9.00	42.60	17.40	0.00	17.40	40.60	42.60	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 6:45 PM	214.00	7.80	35.10	17.40	0.00	17.40	34.50	35.10	24.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 7:00 PM	210.00	10.00	30.70	17.40	0.00	17.40	30.60	30.70	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 7:15 PM	216.00	10.70	32.10	17.40	0.00	17.40	31.10	32.10	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 7:30 PM	204.00	4.90	31.20	17.40	0.00	17.40	31.10	31.20	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 7:45 PM	203.00	7.90	31.50	17.40	0.00	17.40	30.20	31.50	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 8:00 PM	208.00	4.20	30.10	17.40	0.00	17.40	29.10	30.10	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 8:15 PM	188.00	5.30	28.70	17.40	0.00	17.40	27.60	28.70	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 8:30 PM	202.00	6.00	26.90	17.40	0.00	17.40	25.80	26.90	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 8:45 PM	210.00	6.60	26.60	17.40	0.00	17.40	25.80	26.60	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 9:00 PM	220.00	6.60	26.30	17.40	0.00	17.40	25.70	26.30	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 9:15 PM	203.00	5.80	27.70	17.40	0.00	17.40	26.50	27.70	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 9:30 PM	207.00	6.70	27.80	17.40	0.00	17.40	27.40	27.80	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 9:45 PM	209.00	5.80	27.40	17.40	0.00	17.40	27.30	27.40	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 10:00 PM	203.00	5.50	28.10	17.40	0.00	17.40	28.60	28.10	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 10:15 PM	201.00	6.80	28.70	17.40	0.00	17.40	30.00	28.70	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 10:30 PM	200.00	4.90	29.50	17.40	0.00	17.40	30.10	29.50	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 10:45 PM	199.00	6.20	31.00	0.00	0.00	0.00	33.20	31.00	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 11:00 PM	212.00	6.10	31.70	17.40	0.00	17.40	33.00	31.70	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 11:15 PM	218.00	4.20	31.90	17.40	0.00	17.40	35.20	31.90	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 11:30 PM	215.00	5.30	31.50	17.40	0.00	17.40	33.70	31.50	20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/12/14 11:45 PM	216.00	5.70	32.10	17.40	0.00	17.40	33.10	32.10	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 12:00 AM	213.00	4.40	31.30	17.40	0.00	17.40	34.40	31.30	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 12:15 AM	211.00	6.00	31.80	17.40	0.00	17.40	34.80	31.80	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 12:30 AM	207.00	5.70	31.80	17.40	0.00	17.40	33.60	31.80	20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 12:45 AM	212.00	5.90	30.40	0.00	0.00	0.00	32.10	30.40	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 1:00 AM	208.00	6.40	29.90	17.40	0.00	17.40	32.00	29.90	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 1:15 AM	212.00	4.60	28.50	17.40	0.00	17.40	30.30	28.50	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 1:30 AM	192.00	5.30	27.90	17.40	0.00	17.40	29.10	27.90	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 1:45 AM	192.00	6.60	27.50	17.40	0.00	17.40	28.60	27.50	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 2:00 AM	208.00	7.30	30.20	17.40	0.00	17.40	29.00	30.20	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 2:15 AM	218.00	6.10	27.10	17.40	0.00	17.40	29.80	27.10	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 2:30 AM	219.00	4.60	26.80	17.40	0.00	17.40	29.30	26.80	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 2:45 AM	212.00	7.80	26.70	17.40	0.00	17.40	27.70	26.70	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 3:00 AM	234.00	5.90	26.50	17.40	0.00	17.40	28.00	26.50	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 3:15 AM	210.00	5.90	26.20	17.40	0.00	17.40	27.40	26.20	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 3:30 AM	219.00	7.80	25.90	17.40	0.00	17.40	27.10	25.90	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 3:45 AM	199.00	5.80	25.80	17.40	0.00	17.40	27.50	25.80	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 4:00 AM	214.00	5.50	25.80	17.40	0.00	17.40	27.30	25.80	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 4:15 AM	235.00	5.20	26.30	17.40	0.00	17.40	26.90	26.30	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 4:30 AM	220.00	4.20	26.50	17.40	0.00	17.40	27.50	26.50	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 4:45 AM	227.00	4.80	26.60	17.40	0.00	17.40	26.70	26.60	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 5:00 AM	213.00	4.80	26.10	17.40	0.00	17.40	26.50	26.10	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 5:15 AM	192.00	5.70	25.80	17.40	0.00	17.40	26.90	25.80	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 5:30 AM	211.00	4.90	24.90	17.40	0.00	17.40	24.60	24.90	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 5:45 AM	208.00	4.00	23.80	17.40	0.00	17.40	23.40	23.80	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 6:00 AM	204.00	5.50	23.00	0.00	0.00	0.00	22.00	23.00	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 6:15 AM	243.00	5.30	24.90	17.40	0.00	17.40	24.70	24.90	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 6:30 AM	228.00	6.40	22.30	17.40	0.00	17.40	22.40	22.30	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/13/14 6:45 AM	242.00	6.80	22.10	17.40	0.00	17.40												



US Army Corps of Engineers®

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

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
			4/15/14 5:30 PM	103.00	2.00	6.30	6.10	0.00	6.00	6.30	5.70	6.10	0.00	0.00	0.00	0.00	0.00	0.00
4/15/14 5:45 PM	131.00	3.50	7.10	7.80	0.70	6.70	7.10	6.80	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 6:00 PM	138.00	2.90	9.10	7.90	0.00	0.00	9.10	6.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 6:15 PM	117.00	3.00	9.40	7.30	0.00	7.30	9.40	6.60	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 6:30 PM	169.00	1.00	9.80	6.90	0.00	7.00	9.80	9.70	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 6:45 PM	118.00	3.40	11.10	9.40	0.00	7.50	11.10	9.40	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 7:00 PM	91.00	2.50	10.40	14.00	3.60	9.50	10.40	10.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 7:15 PM	117.00	2.50	11.20	13.10	1.90	10.40	11.20	11.20	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 7:30 PM	140.00	2.10	12.50	14.00	1.50	10.50	12.50	11.40	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 7:45 PM	127.00	3.40	13.00	14.80	1.80	11.00	13.00	12.40	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 8:00 PM	128.00	2.10	15.40	15.60	0.20	11.40	15.40	13.30	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 8:15 PM	146.00	2.10	15.70	15.30	0.00	9.60	15.70	14.80	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 8:30 PM	154.00	2.50	17.20	17.60	0.40	0.00	17.20	18.50	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 8:45 PM	162.00	1.80	18.80	19.90	1.10	13.00	18.80	17.10	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 9:00 PM	170.00	2.30	16.50	22.70	6.20	23.00	16.50	16.70	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 9:15 PM	159.00	1.90	16.90	13.50	0.00	26.10	16.90	15.70	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 9:30 PM	172.00	2.30	17.20	15.90	0.00	0.00	17.20	16.10	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 9:45 PM	170.00	2.00	15.90	18.90	3.00	24.20	15.90	14.80	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 10:00 PM	171.00	1.60	17.70	21.50	3.80	27.30	17.70	15.90	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 10:15 PM	170.00	1.70	18.60	20.40	1.80	27.40	18.60	17.60	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 10:30 PM	160.00	2.00	19.10	18.40	0.00	30.10	19.10	18.20	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 10:45 PM	169.00	1.60	20.00	19.90	0.00	0.00	20.00	18.30	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 11:00 PM	183.00	1.90	20.40	26.60	6.20	26.60	20.40	20.40	26.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 11:15 PM	176.00	2.20	21.30	21.60	0.30	26.90	21.30	20.20	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 11:30 PM	188.00	1.70	21.80	27.80	6.00	27.80	21.80	21.80	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/15/14 11:45 PM	181.00	1.70	23.20	27.60	4.40	27.60	23.20	23.20	27.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 12:00 AM	178.00	2.10	23.40	25.60	2.20	0.00	23.40	23.90	25.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 12:15 AM	180.00	2.10	25.90	28.10	2.20	28.10	25.90	25.90	28.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 12:30 AM	189.00	1.60	23.70	26.60	2.90	26.60	23.70	23.70	26.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 12:45 AM	183.00	1.80	23.00	25.50	2.50	25.50	23.00	23.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 1:00 AM	176.00	2.00	23.90	20.60	0.00	25.70	23.90	22.20	20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 1:15 AM	189.00	2.00	21.40	27.30	5.90	27.30	21.40	21.40	27.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 1:30 AM	177.00	2.10	22.00	20.40	0.00	24.80	22.00	20.90	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 1:45 AM	178.00	2.40	21.70	20.20	0.00	24.80	21.70	20.50	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 2:00 AM	184.00	2.10	24.70	25.10	0.40	25.10	24.70	24.70	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 2:15 AM	187.00	2.30	20.10	23.90	3.80	23.90	20.10	20.10	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 2:30 AM	177.00	2.20	20.30	19.30	0.00	22.40	20.30	19.70	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 2:45 AM	179.00	1.90	18.90	19.70	0.80	21.80	18.90	18.30	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 3:00 AM	181.00	2.30	17.10	21.80	4.70	21.80	17.10	17.10	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 3:15 AM	182.00	2.90	15.70	21.50	5.80	21.50	15.70	15.70	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 3:30 AM	193.00	2.90	18.10	21.30	3.20	21.30	18.10	18.10	21.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 3:45 AM	180.00	4.30	18.10	21.30	3.20	21.30	18.10	18.10	21.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 4:00 AM	186.00	3.70	18.30	21.80	3.50	21.80	18.30	18.30	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 4:15 AM	179.00	3.00	19.80	17.10	0.00	22.80	19.80	18.00	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 4:30 AM	180.00	3.80	17.80	21.40	3.60	21.40	17.80	17.80	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 4:45 AM	187.00	3.30	17.70	21.70	4.00	21.70	17.70	17.70	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 5:00 AM	188.00	3.90	17.90	20.90	3.00	20.90	17.90	17.90	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 5:15 AM	175.00	4.60	18.10	15.40	0.00	20.30	18.10	16.10	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 5:30 AM	173.00	3.70	18.20	14.70	0.00	19.60	18.20	16.70	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 5:45 AM	178.00	3.00	18.70	15.30	0.00	19.00	18.70	16.00	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 6:00 AM	163.00	3.30	17.20	15.70	0.00	18.90	17.20	15.50	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 6:15 AM	176.00	4.00	17.20	15.60	0.00	18.90	17.20	15.20	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 6:30 AM	170.00	3.10	16.80	15.00	0.00	18.90	16.80	14.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 6:45 AM	176.00	2.70	17.30	15.20	0.00	0.00	17.30	14.60	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 7:00 AM	182.00	3.20	15.50	23.90	8.40	23.90	15.50	15.50	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 7:15 AM	160.00	4.40	19.10	15.70	0.00	24.10	19.10	15.80	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 7:30 AM	170.00	4.00	17.60	15.40	0.00	23.00	17.60	16.30	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 7:45 AM	170.00	3.80	18.70	15.90	0.00	25.70	18.70	16.20	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 8:00 AM	180.00	5.40	16.10	24.50	8.40	24.50	16.10	15.80	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 8:15 AM	197.00	4.50	15.60	21.50	5.90	21.50	15.60	15.60	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 8:30 AM	180.00	5.50	15.30	0.00	0.00	0.00	18.00	15.30	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 8:45 AM	181.00	4.90	14.80	19.30	4.50	19.30	14.80	14.80	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 9:00 AM	169.00	7.00	18.10	14.20	0.00	19.00	18.10	14.40	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 9:15 AM	196.00	4.70	13.70	0.00	0.00	0.00	15.70	13.70	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 9:30 AM	185.00	3.90	14.00	16.20	2.20	16.20	14.00	14.00	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 9:45 AM	178.00	7.60	16.30	12.00	0.00	17.80	16.30	13.30	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 10:00 AM	195.00	7.00	13.00	0.00	0.00	0.00	15.00	13.00	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 10:15 AM	187.00	8.20	12.20	15.80	3.60	15.80	12.20	12.20	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/16/14 10:30 AM	189.00	6.80	12.															



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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		
			4/17/14 8:00 PM	259.00	4.40	22.10	25.80	3.70	25.80	20.10	22.10	16.50	0.00	0.00	0.00	0.00	0.00	0.00
4/17/14 8:15 PM	260.00	1.70	22.70	29.30	6.60	29.30	20.80	22.70	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 8:30 PM	269.00	2.40	24.10	28.00	3.90	28.00	21.70	24.10	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 8:45 PM	306.00	2.30	14.70	21.60	6.90	29.50	21.60	24.20	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 9:00 PM	294.00	2.50	13.30	20.80	7.50	23.80	20.80	23.60	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 9:15 PM	308.00	2.30	13.80	21.00	7.20	25.50	21.00	23.70	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 9:30 PM	290.00	2.00	22.00	22.20	0.20	24.70	22.20	25.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 9:45 PM	315.00	1.70	16.10	22.00	5.90	27.50	22.00	23.70	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 10:00 PM	304.00	2.50	17.40	22.30	4.90	27.90	22.30	24.60	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 10:15 PM	309.00	1.90	17.30	21.80	4.50	29.00	21.80	24.50	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 10:30 PM	317.00	1.50	14.50	25.10	10.60	26.60	25.10	27.50	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 10:45 PM	299.00	1.40	13.90	25.10	11.20	26.70	25.10	28.10	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 11:00 PM	266.00	1.60	28.70	29.60	0.90	29.60	26.40	28.70	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 11:15 PM	285.00	1.50	13.90	25.80	11.90	27.30	25.80	28.40	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 11:30 PM	334.00	1.30	13.70	25.70	12.00	28.50	25.70	29.50	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/17/14 11:45 PM	318.00	1.40	15.40	28.10	12.70	0.00	28.10	31.10	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 12:00 AM	67.00	0.20	29.90	33.60	3.70	29.90	28.80	33.60	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 12:15 AM	104.00	2.00	27.60	20.40	0.00	30.80	27.60	30.60	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 12:30 AM	112.00	2.30	26.50	23.50	0.00	30.70	26.50	28.90	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 12:45 AM	134.00	2.30	27.80	33.40	5.60	33.80	27.80	32.00	33.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 1:00 AM	112.00	2.20	30.60	33.70	3.10	39.50	30.60	36.00	33.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 1:15 AM	108.00	1.50	39.80	35.90	0.00	42.80	39.80	35.30	35.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 1:30 AM	163.00	1.70	42.10	33.80	0.00	41.80	42.10	45.70	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 1:45 AM	186.00	0.80	45.60	45.00	0.00	45.00	41.30	45.60	30.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 2:00 AM	210.00	0.40	53.50	44.00	0.00	44.00	46.00	53.50	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 2:15 AM	327.00	1.40	31.90	52.30	20.40	45.10	52.30	57.40	31.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 2:30 AM	312.00	1.30	33.60	40.90	7.30	43.90	40.90	59.80	33.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 2:45 AM	255.00	1.10	51.60	52.40	0.80	52.40	42.90	51.60	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 3:00 AM	261.00	1.40	55.80	55.20	0.00	55.20	43.00	55.80	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 3:15 AM	308.00	1.40	41.10	49.90	8.80	56.70	49.90	76.40	41.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 3:30 AM	322.00	1.70	32.40	59.80	27.40	49.80	59.80	73.80	32.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 3:45 AM	313.00	1.20	31.80	56.20	24.40	42.20	56.20	75.80	31.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 4:00 AM	245.00	1.10	75.50	41.90	0.00	41.90	56.40	75.50	30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 4:15 AM	273.00	1.80	32.90	60.30	27.40	43.20	60.30	77.40	32.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 4:30 AM	313.00	2.00	46.30	68.30	22.00	49.70	68.30	80.70	46.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 4:45 AM	4.00	7.30	53.00	88.00	35.00	53.00	70.40	88.00	41.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 5:00 AM	32.00	7.20	45.20	85.60	40.40	45.20	72.10	85.60	35.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 5:15 AM	12.00	6.40	50.50	86.60	36.10	50.50	65.70	86.60	37.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 5:30 AM	0.00	4.20	49.50	80.80	31.30	49.50	67.20	80.80	42.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 5:45 AM	5.00	3.40	36.30	78.60	42.30	36.30	67.20	78.60	39.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 6:00 AM	17.00	3.30	33.20	41.70	8.50	33.20	41.50	41.70	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 6:15 AM	10.00	3.60	30.40	40.20	9.80	30.40	39.70	40.20	23.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 6:30 AM	16.00	3.70	29.80	42.10	12.30	29.80	38.30	42.10	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 6:45 AM	3.00	4.30	32.60	43.70	11.10	32.60	41.00	43.70	27.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 7:00 AM	1.00	6.20	32.20	44.30	12.10	32.20	38.30	44.30	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 7:15 AM	3.00	3.60	36.70	46.10	9.40	36.70	43.00	46.10	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 7:30 AM	2.00	5.00	37.90	47.40	9.50	37.90	42.10	47.40	29.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 7:45 AM	4.00	4.80	37.40	45.90	8.50	37.40	39.80	45.90	29.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 8:00 AM	1.00	7.10	35.10	43.50	8.40	35.10	38.10	43.50	26.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 8:15 AM	6.00	6.60	0.00	43.60	0.00	0.00	37.40	43.60	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 8:30 AM	2.00	5.60	34.30	42.20	7.90	34.30	36.80	42.20	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 8:45 AM	12.00	6.30	32.30	39.60	7.30	32.30	35.10	39.60	38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 9:00 AM	9.00	5.10	30.70	37.90	7.20	30.70	32.50	37.90	24.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 9:15 AM	20.00	5.60	30.30	34.70	4.40	30.30	31.60	34.70	32.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 9:30 AM	18.00	8.90	30.40	33.40	3.00	30.40	31.20	33.40	38.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 9:45 AM	19.00	8.50	29.20	31.20	2.00	29.20	31.60	31.20	41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 10:00 AM	20.00	7.10	28.10	26.80	0.00	28.10	28.80	26.80	43.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 10:15 AM	10.00	10.10	27.10	25.10	0.00	27.10	25.40	25.10	44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 10:30 AM	13.00	8.60	25.70	25.60	0.00	25.70	26.30	25.60	49.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 10:45 AM	26.00	9.60	32.30	26.90	0.00	32.30	28.30	26.90	51.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 11:00 AM	5.00	9.00	24.60	24.30	0.00	24.60	25.70	24.30	49.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 11:15 AM	11.00	10.20	23.60	23.40	0.00	23.60	24.50	23.40	45.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 11:30 AM	23.00	8.90	23.70	22.60	0.00	23.70	29.40	22.60	43.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 11:45 AM	15.00	8.50	22.10	21.40	0.00	22.10	23.40	21.40	41.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/18/14 12:00 PM	21.00	6.10	21.90	21.10	0.00	21.90	21.20	21.10	35.90	0.00	0.00	0.00						



**US Army Corps
of Engineers®**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
April 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		
4/18/14 9:15 PM	46.00	4.90	13.90	15.90	2.00	13.90	18.00	15.90	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 9:30 PM	44.00	5.60	0.00	15.00	0.00	0.00	15.20	15.00	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 9:45 PM	49.00	7.30	15.10	12.70	0.00	15.10	13.30	12.70	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 10:00 PM	46.00	7.10	11.20	12.90	1.70	11.20	12.50	12.90	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 10:15 PM	42.00	6.60	9.70	9.70	0.00	9.70	11.70	9.70	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 10:30 PM	39.00	6.00	10.60	11.60	1.00	10.60	12.80	11.60	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 10:45 PM	42.00	5.00	8.70	9.10	0.40	8.70	11.30	9.10	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 11:00 PM	58.00	7.00	6.50	7.30	0.80	6.50	8.90	7.30	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 11:15 PM	46.00	6.10	9.50	7.30	0.00	9.50	7.90	7.30	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 11:30 PM	47.00	5.70	6.70	8.50	1.80	6.70	8.20	8.50	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/18/14 11:45 PM	32.00	5.90	6.20	7.70	1.50	6.20	8.20	7.70	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:00 AM	51.00	4.50	6.30	7.10	0.80	6.30	7.70	7.10	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:15 AM	50.00	6.90	5.90	7.90	2.00	5.90	7.60	7.90	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:30 AM	36.00	6.40	6.40	7.50	1.10	6.40	7.00	7.50	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:45 AM	41.00	7.00	5.10	7.40	2.30	5.10	6.80	7.40	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:00 AM	47.00	3.70	5.50	8.50	3.00	5.50	6.70	8.50	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:15 AM	50.00	4.10	5.90	6.80	0.90	5.90	7.10	6.80	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:30 AM	47.00	4.40	0.00	6.40	0.00	0.00	9.00	6.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:45 AM	54.00	4.00	8.20	11.50	3.30	8.20	13.50	11.50	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 2:00 AM	63.00	3.40	9.10	10.20	1.10	9.10	12.90	10.20	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 2:15 AM	64.00	3.90	12.90	11.70	0.00	12.90	13.50	11.70	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 2:30 AM	58.00	4.50	0.00	10.90	0.00	0.00	14.50	10.90	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 2:45 AM	64.00	4.50	8.80	10.30	1.50	8.80	17.00	10.30	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 3:00 AM	53.00	3.30	10.90	12.30	1.40	10.90	25.80	12.30	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 3:15 AM	52.00	4.60	9.90	10.70	0.80	9.90	18.60	10.70	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 3:30 AM	72.00	3.80	10.70	22.10	11.40	10.70	24.80	22.10	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 3:45 AM	71.00	3.20	20.10	34.30	14.20	20.10	22.30	34.30	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 4:00 AM	52.00	3.60	20.80	24.80	4.00	20.80	35.50	24.80	22.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 4:15 AM	62.00	3.80	0.00	35.20	0.00	0.00	30.50	35.20	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 4:30 AM	42.00	3.70	20.10	26.20	6.10	20.10	32.90	26.20	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 4:45 AM	49.00	3.10	15.50	24.00	8.50	15.50	24.30	24.00	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 5:00 AM	58.00	4.00	0.00	24.00	0.00	0.00	25.00	24.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 5:15 AM	57.00	3.50	25.90	24.00	0.00	25.90	26.40	24.00	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 5:30 AM	53.00	3.10	27.50	28.20	0.70	27.50	28.70	28.20	30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 5:45 AM	53.00	3.70	23.60	27.30	3.70	23.60	27.00	27.30	28.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 6:00 AM	62.00	4.50	23.70	26.30	2.60	23.70	25.30	26.30	25.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 6:15 AM	70.00	3.50	26.30	25.40	0.00	26.30	26.90	25.40	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 6:30 AM	75.00	3.30	27.00	26.20	0.00	27.00	31.80	26.20	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 6:45 AM	55.00	4.30	26.60	26.80	0.20	26.60	32.40	26.80	27.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 7:00 AM	63.00	4.60	30.70	30.70	0.00	30.70	32.90	30.70	26.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 7:15 AM	78.00	3.40	34.60	32.40	0.00	34.60	37.10	32.40	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 7:30 AM	61.00	4.00	32.50	29.00	0.00	32.50	30.90	29.00	30.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 7:45 AM	82.00	4.20	31.50	24.70	0.00	31.50	24.80	24.70	33.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 8:00 AM	63.00	4.00	27.30	27.40	0.10	27.30	31.70	27.40	39.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 8:15 AM	94.00	4.60	32.70	35.10	2.40	30.00	32.70	35.10	35.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 8:30 AM	86.00	4.90	25.90	25.60	0.00	25.90	27.80	25.60	41.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 8:45 AM	60.00	4.00	30.30	30.30	0.00	30.30	35.90	30.30	54.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 9:00 AM	64.00	3.90	0.00	30.50	0.00	0.00	31.60	30.50	55.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 9:15 AM	112.00	2.00	29.60	31.20	1.60	33.20	29.60	28.70	31.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 9:30 AM	133.00	1.90	22.70	32.00	9.30	26.70	22.70	21.80	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 9:45 AM	67.00	2.20	24.00	24.10	0.10	24.00	28.40	24.10	24.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 10:00 AM	330.00	1.00	29.70	26.80	0.00	27.60	26.80	27.80	29.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 10:15 AM	44.00	1.40	42.70	34.00	0.00	42.70	34.10	34.00	38.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 10:30 AM	36.00	3.60	38.30	31.90	0.00	38.30	32.70	31.90	36.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 10:45 AM	94.00	1.20	32.80	35.40	2.60	36.10	32.80	33.30	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 11:00 AM	106.00	1.30	36.60	35.40	0.00	38.60	36.60	35.10	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 11:15 AM	31.00	3.10	39.10	38.30	0.00	39.10	40.70	38.30	28.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 11:30 AM	24.00	4.70	53.40	37.80	0.00	53.40	49.20	37.80	31.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 11:45 AM	22.00	4.70	71.90	36.80	0.00	71.90	59.30	36.80	26.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:00 PM	62.00	2.20	74.30	47.80	0.00	74.30	56.90	47.80	38.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:15 PM	30.00	3.50	48.10	48.60	0.50	48.10	55.50	48.60	34.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:30 PM	36.00	3.60	50.30	44.20	0.00	50.30	64.10	44.20	30.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 12:45 PM	32.00	4.70	61.80	57.90	0.00	61.80	86.50	57.90	48.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:00 PM	27.00	4.60	80.20	94.10	13.90	80.20	102.10	94.10	78.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:15 PM	24.00	4.90	71.70	80.10	8.40	71.70	83.60	80.10	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:30 PM	35.00	4.70	56.20	58.00	1.80	56.20	73.10	58.00	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 1:45 PM	20.00	4.00	53.70	63.20	9.50	53.70	72.50	63.20	43.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 2:00 PM	30.00	4.10	49.50	64.00	14.50	49.50	70.60	64.00	42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 2:15 PM	71.00	3.60	60.60	79.90	19.30	60.60	75.30	79.90	44.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4/19/14 2:30 PM	44.00	3.10	50.90	59														



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

Table with columns: Reading Time (EST), Wind Direction, Wind Speed, Particulates (µg/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4], Naphthalene (µg/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4]. Rows represent hourly data from 4/20/14 11:45 PM to 4/22/14 12:45 AM.



Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)							Naphthalene (µg/m ³)						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
4/22/14 1:00 AM	279.00	3.60	22.60	61.50	38.90	22.10	61.50	66.90	22.60	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 1:15 AM	284.00	3.50	22.60	61.50	38.90	22.10	61.50	69.20	22.60	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 1:30 AM	320.00	4.70	23.00	59.50	36.50	22.80	59.50	65.00	23.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 1:45 AM	323.00	4.60	21.90	60.70	38.80	21.90	60.70	68.80	21.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:00 AM	353.00	4.70	23.40	61.80	38.40	23.40	61.80	70.00	23.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:15 AM	358.00	9.10	22.30	61.00	38.70	22.40	61.00	65.80	22.30	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:30 AM	28.00	11.30	23.40	63.90	40.50	23.40	53.10	63.90	22.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:45 AM	21.00	9.70	20.20	48.90	28.70	20.20	47.20	48.90	20.30	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:00 AM	13.00	8.90	17.70	41.70	24.00	17.70	39.00	41.70	18.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:15 AM	15.00	10.60	13.00	26.40	13.40	13.00	32.10	26.40	11.80	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:30 AM	11.00	10.60	13.70	14.70	1.00	13.70	15.30	14.70	9.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:45 AM	20.00	5.70	11.80	11.90	0.10	11.80	14.70	11.90	9.30	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:00 AM	23.00	7.40	8.20	9.40	1.20	8.20	12.50	9.40	8.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:15 AM	30.00	9.20	9.10	8.50	0.00	9.10	15.10	8.50	7.70	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:30 AM	24.00	9.40	11.10	7.60	0.00	11.10	13.30	7.60	7.50	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:45 AM	31.00	9.00	0.00	6.50	0.00	0.00	13.70	6.50	6.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:00 AM	23.00	8.80	6.10	6.00	0.00	6.10	14.60	6.00	5.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:15 AM	17.00	8.20	7.60	5.20	0.00	7.60	12.00	5.20	5.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:30 AM	21.00	9.60	7.30	4.70	0.00	7.30	11.00	4.70	4.80	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:45 AM	20.00	7.80	8.00	4.40	0.00	8.00	11.10	4.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:00 AM	6.00	10.80	8.20	4.10	0.00	8.20	14.70	4.10	4.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:15 AM	17.00	8.50	5.30	3.70	0.00	5.30	11.70	3.70	3.80	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:30 AM	9.00	7.40	6.20	3.70	0.00	6.20	13.40	3.70	4.20	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:45 AM	20.00	9.10	6.70	3.70	0.00	6.70	14.30	3.70	4.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 7:00 AM	4.00	9.70	6.10	3.70	0.00	6.10	10.40	3.70	3.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 7:15 AM	11.00	6.70	6.30	3.80	0.00	6.30	10.20	3.80	3.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 7:30 AM	16.00	8.70	6.10	3.70	0.00	6.10	11.60	3.70	4.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 7:45 AM	16.00	8.40	7.20	3.40	0.00	7.20	11.40	3.40	3.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 8:00 AM	31.00	5.80	5.60	3.40	0.00	5.60	7.90	3.40	3.50	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 8:15 AM	15.00	10.90	6.20	3.60	0.00	6.20	8.10	3.60	3.30	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 8:30 AM	15.00	10.10	7.10	3.80	0.00	7.10	8.70	3.80	3.30	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 8:45 AM	2.00	11.50	8.60	3.90	0.00	8.60	9.00	3.90	3.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 9:00 AM	1.00	11.00	9.00	4.20	0.00	9.00	10.60	4.20	2.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 9:15 AM	14.00	13.20	8.60	4.10	0.00	8.60	9.20	4.10	3.60	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 9:30 AM	10.00	9.40	7.90	4.30	0.00	7.90	8.50	4.30	3.20	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 9:45 AM	13.00	5.90	7.40	3.80	0.00	7.40	8.70	3.80	3.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 10:00 AM	16.00	10.40	6.80	3.80	0.00	6.80	8.30	3.80	3.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 10:15 AM	16.00	10.90	7.00	3.20	0.00	7.00	8.10	3.20	3.80	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 10:30 AM	35.00	9.60	8.00	3.30	0.00	8.00	8.00	3.30	3.80	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 10:45 AM	25.00	9.40	8.80	3.30	0.00	8.80	11.70	3.30	4.70	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 11:00 AM	36.00	9.20	9.30	4.40	0.00	9.30	12.10	4.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 11:15 AM	38.00	7.70	8.20	4.10	0.00	8.20	13.20	4.10	5.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 11:30 AM	31.00	8.00	9.00	4.20	0.00	9.00	9.40	4.20	5.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 11:45 AM	35.00	9.70	9.60	4.30	0.00	9.60	8.70	4.30	6.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 12:00 PM	38.00	8.40	17.80	4.40	0.00	17.80	8.30	4.40	7.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 12:15 PM	50.00	8.20	11.10	6.20	0.00	11.10	10.30	6.20	7.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 12:30 PM	29.00	6.80	12.00	7.10	0.00	12.00	8.60	7.10	7.20	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 12:45 PM	31.00	5.40	11.80	6.50	0.00	11.80	10.20	6.50	9.50	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 1:00 PM	27.00	4.00	9.50	5.70	0.00	9.50	9.80	5.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 1:15 PM	44.00	7.60	10.10	6.90	0.00	10.10	11.10	6.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 1:30 PM	71.00	3.70	10.10	9.80	0.00	10.10	10.80	9.80	10.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 1:45 PM	76.00	4.10	10.10	7.90	0.00	10.10	13.20	7.90	14.50	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:00 PM	86.00	4.20	10.10	7.00	0.00	10.10	14.20	7.00	14.20	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:15 PM	83.00	5.90	10.10	7.50	0.00	10.10	14.50	7.50	21.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:30 PM	89.00	5.60	10.10	8.00	0.00	10.10	14.40	8.00	24.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 2:45 PM	67.00	4.70	10.10	7.30	0.00	10.10	17.40	7.30	16.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:00 PM	70.00	4.30	10.10	15.50	5.40	10.10	42.30	15.50	14.70	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:15 PM	79.00	4.10	10.10	15.50	5.40	10.10	31.10	15.50	18.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:30 PM	61.00	6.20	10.10	15.90	5.80	10.10	21.80	15.90	27.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 3:45 PM	90.00	6.30	17.20	25.40	8.20	10.10	17.20	8.20	25.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:00 PM	90.00	6.30	21.60	18.80	0.00	10.10	21.60	12.50	18.80	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:15 PM	96.00	6.00	16.00	16.30	0.30	10.10	16.00	11.90	16.30	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:30 PM	96.00	4.60	17.30	27.40	10.10	10.10	17.30	11.40	27.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 4:45 PM	85.00	4.50	10.10	9.90	0.00	10.10	15.90	9.90	23.70	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:00 PM	86.00	6.90	10.10	10.40	0.30	10.10	19.80	10.40	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:15 PM	69.00	5.90	10.10	18.70	8.60	10.10	18.10	18.70	36.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:30 PM	81.00	7.60	10.10	13.40	3.30	10.10	14.90	13.40	23.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 5:45 PM	83.00	6.40	10.10	12.10	2.00	10.10	16.10	12.10	25.20	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:00 PM	87.00	5.00	10.10	11.40	1.30	10.10	13.90	11.40	20.40	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:15 PM	76.00	6.20	10.10	11.90	1.80	10.10	12.90	11.90	16.90	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:30 PM	78.00	5.70	10.10	8.90	0.00	10.10	12.30	8.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 6:45 PM	94.00	5.40	12.30	14.10	1.80	10.10	12.30	8.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/22/14 7:00 PM	87.00	3.40	10.10	8.90	0.00	10.10	12.30	8.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	
4/23/14 4:30 PM	27.00	6.30	11.60	19.30	7.70	11.60	12.70	19.30	5.40	0.00	0					



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Real-Time Air Monitoring Data
April 2014

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)							Naphthalene (µg/m ³)						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
4/23/14 11:30 PM	125.00	3.60	17.20	12.30	0.00	16.50	17.20	7.20	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/23/14 11:45 PM	122.00	4.90	44.60	9.50	0.00	16.70	44.60	11.30	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:00 AM	118.00	4.50	14.20	11.90	0.00	14.90	14.20	8.00	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:15 AM	139.00	3.40	19.70	15.10	0.00	10.60	19.70	7.90	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:30 AM	128.00	1.40	27.40	11.40	0.00	11.60	27.40	3.00	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:45 AM	229.00	1.10	4.30	10.60	6.30	10.60	31.30	4.30	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:00 AM	323.00	3.00	9.20	33.70	24.50	10.40	33.70	4.20	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:15 AM	318.00	1.00	10.40	29.20	18.80	15.20	29.20	5.40	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:30 AM	348.00	3.00	21.50	27.60	6.10	25.30	27.60	6.10	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:45 AM	18.00	3.10	37.70	9.80	0.00	37.70	37.40	9.80	31.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:00 AM	48.00	4.00	48.20	11.60	0.00	48.20	30.20	11.60	38.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:15 AM	58.00	3.50	52.60	17.20	0.00	52.60	38.80	17.20	34.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:30 AM	58.00	3.60	47.50	18.60	0.00	47.50	39.30	18.60	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:45 AM	51.00	2.80	13.00	6.60	0.00	13.00	32.00	6.60	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:00 AM	113.00	1.60	15.70	8.20	0.00	13.70	15.70	6.60	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:15 AM	13.00	3.50	14.60	7.10	0.00	14.60	16.70	7.10	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:30 AM	22.00	5.80	15.30	8.20	0.00	15.30	16.60	8.20	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:45 AM	61.00	3.70	11.10	8.00	0.00	11.10	18.10	8.00	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 4:00 AM	74.00	3.20	14.10	8.70	0.00	14.10	20.10	8.70	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 4:15 AM	63.00	2.70	18.00	8.30	0.00	18.00	26.70	8.30	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 4:30 AM	35.00	3.90	11.00	6.40	0.00	11.00	14.80	6.40	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 4:45 AM	42.00	4.00	11.00	6.70	0.00	11.00	14.80	6.70	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 5:00 AM	48.00	4.10	18.50	10.50	0.00	18.50	19.50	10.50	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 5:15 AM	52.00	4.30	19.70	9.80	0.00	19.70	18.80	9.80	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 5:30 AM	74.00	3.40	24.70	18.50	0.00	24.70	31.60	18.50	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 5:45 AM	85.00	2.80	12.30	9.10	0.00	12.30	13.80	9.10	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 6:00 AM	136.00	3.30	15.20	13.90	0.00	11.90	15.20	6.90	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 6:15 AM	119.00	3.30	15.20	12.90	0.00	12.10	15.20	7.90	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 6:30 AM	124.00	4.30	30.40	12.40	0.00	18.30	30.40	9.90	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 6:45 AM	145.00	3.60	40.80	36.60	0.00	39.00	40.80	24.80	36.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 7:00 AM	125.00	3.10	28.80	44.50	15.70	46.90	28.80	22.40	44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 7:15 AM	141.00	4.10	26.30	15.00	0.00	15.30	26.30	11.40	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 7:30 AM	137.00	4.30	20.20	14.50	0.00	15.00	20.20	13.90	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 7:45 AM	156.00	4.10	29.40	15.80	0.00	18.00	29.40	18.80	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 8:00 AM	153.00	3.70	30.70	20.60	0.00	26.40	30.70	20.00	20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 8:15 AM	155.00	4.50	35.80	35.10	0.00	37.90	35.80	25.20	35.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 8:30 AM	164.00	5.60	26.30	21.60	0.00	23.50	26.30	18.60	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 8:45 AM	143.00	4.60	26.40	22.50	0.00	21.60	26.40	19.40	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 9:00 AM	162.00	5.20	26.40	22.40	0.00	21.60	26.40	19.10	22.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 9:15 AM	150.00	6.70	25.50	23.90	0.00	20.80	25.50	16.90	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 9:30 AM	169.00	7.00	24.10	25.60	1.50	22.00	24.10	16.60	25.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 9:45 AM	141.00	10.30	23.00	25.30	2.30	21.30	23.00	15.90	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 10:00 AM	164.00	5.20	23.20	25.70	2.50	22.90	23.20	14.90	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 10:15 AM	149.00	6.90	22.40	27.70	5.30	21.70	22.40	15.40	27.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 10:30 AM	153.00	6.50	22.40	28.40	6.00	23.80	22.40	15.20	28.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 10:45 AM	187.00	8.70	16.40	22.70	6.30	22.70	21.60	16.40	26.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 11:00 AM	160.00	7.20	23.50	28.60	5.10	22.10	23.50	15.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 11:15 AM	160.00	9.20	21.50	26.90	5.40	24.20	21.50	15.10	26.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 11:30 AM	171.00	6.70	21.70	24.70	3.00	22.20	21.70	15.40	24.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 11:45 AM	180.00	10.90	15.10	23.00	7.90	23.00	23.00	15.10	24.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:00 PM	191.00	8.60	14.40	27.00	12.60	27.00	22.40	14.40	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:15 PM	164.00	9.60	25.10	24.00	0.00	22.60	25.10	14.10	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:30 PM	194.00	7.80	14.70	22.20	7.50	22.20	24.20	14.70	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 12:45 PM	170.00	6.40	21.90	26.80	4.90	26.90	21.90	13.80	26.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:00 PM	159.00	8.70	28.00	24.80	0.00	23.50	28.00	14.40	24.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:15 PM	172.00	7.80	23.50	25.40	1.90	24.40	23.50	14.70	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:30 PM	165.00	7.90	27.40	27.00	0.00	41.60	27.40	15.60	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 1:45 PM	170.00	7.40	23.70	25.70	2.00	26.40	23.70	14.70	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:00 PM	153.00	7.80	112.10	25.20	0.00	26.30	112.10	15.40	25.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:15 PM	163.00	7.30	23.00	24.70	1.70	29.80	23.00	14.00	24.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:30 PM	182.00	8.00	15.80	0.00	0.00	0.00	25.50	15.80	28.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 2:45 PM	165.00	6.10	25.30	28.40	3.10	53.80	25.30	15.70	28.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:00 PM	171.00	4.40	28.80	27.70	0.00	56.40	28.80	16.90	27.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:15 PM	152.00	6.40	25.90	28.90	3.00	49.10	25.90	17.20	28.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:30 PM	166.00	7.50	25.90	28.50	2.60	72.00	25.90	17.20	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 3:45 PM	168.00	6.20	25.60	26.20	0.60	105.10	25.60	17.70	26.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 4:00 PM	163.00	9.70	2.30	24.80	22.50	38.50	2.30	19.80	24.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 4:15 PM	167.00	7.80	3.10	26.90	23.80	54.50	3.10	17.60	26.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/24/14 4:30 PM	160.00	10.50	4.90	26.70	21.80	40.70	4.90	16.40	26.70	0.00	0.00					



US Army Corps of Engineers®

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m³)							Naphthalene (µg/m³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	
4/27/14 3:15 AM	70.00	5.20	17.10	17.60	0.50	17.10	16.90	17.60	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 3:30 AM	71.00	4.70	16.20	15.00	0.00	16.20	18.60	15.00	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 3:45 AM	121.00	6.20	17.40	17.90	0.50	13.40	17.40	16.30	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:00 AM	107.00	7.40	16.80	22.00	5.20	13.00	16.80	16.80	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:15 AM	85.00	6.30	16.00	18.90	2.90	16.00	21.10	18.90	24.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:30 AM	99.00	3.80	23.30	22.50	0.00	11.60	23.30	18.60	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:45 AM	97.00	5.30	15.50	15.70	0.20	12.60	15.50	15.00	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:00 AM	83.00	5.30	10.70	17.90	7.20	10.70	19.50	17.90	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:15 AM	122.00	6.30	19.50	11.20	0.00	10.80	19.50	18.70	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:30 AM	137.00	4.00	17.80	12.90	0.00	11.70	17.80	16.80	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:45 AM	130.00	6.80	18.10	12.90	0.00	11.70	18.10	16.50	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:00 AM	139.00	5.70	19.10	17.00	0.00	15.20	19.10	15.90	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:15 AM	122.00	7.00	19.30	17.90	0.00	14.90	19.30	19.60	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:30 AM	120.00	3.60	23.40	29.00	5.60	24.30	23.40	22.60	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:45 AM	123.00	5.70	22.70	34.50	11.80	28.60	22.70	20.80	34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 7:00 AM	121.00	5.20	23.50	28.90	5.40	23.60	23.50	22.50	28.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 7:15 AM	122.00	8.60	29.00	34.20	5.20	29.60	29.00	24.70	34.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 7:30 AM	124.00	9.60	32.40	30.40	0.00	27.50	32.40	30.30	30.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 7:45 AM	120.00	7.60	30.80	35.10	4.30	31.10	30.80	31.30	35.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 8:00 AM	117.00	4.80	25.50	29.90	4.40	36.30	25.50	24.90	29.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 8:15 AM	149.00	4.70	26.60	25.80	0.00	28.90	26.60	23.80	25.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 8:30 AM	124.00	3.90	24.90	21.00	0.00	25.00	24.90	21.90	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 8:45 AM	113.00	7.80	22.90	25.70	2.80	27.00	22.90	18.40	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 9:00 AM	120.00	5.30	22.90	26.20	3.30	27.00	22.90	22.20	26.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 9:15 AM	137.00	9.50	21.80	19.90	0.00	22.80	21.80	18.20	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 9:30 AM	129.00	5.70	18.40	23.70	5.30	25.50	18.40	15.00	23.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 9:45 AM	129.00	6.70	15.90	16.50	0.60	17.70	15.90	13.30	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 10:00 AM	111.00	7.90	15.50	17.00	1.50	16.70	15.50	13.40	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 10:15 AM	109.00	5.10	17.20	18.40	1.20	17.40	17.20	14.40	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 10:30 AM	157.00	6.50	19.00	22.20	3.20	0.00	19.00	15.40	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 10:45 AM	137.00	6.00	21.30	25.40	4.10	25.20	21.30	17.20	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 11:00 AM	148.00	5.60	25.20	39.00	13.80	36.90	25.20	18.40	39.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 11:15 AM	127.00	5.70	21.60	32.00	10.40	29.10	21.60	17.20	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 11:30 AM	112.00	6.50	21.20	27.40	6.20	27.10	21.20	15.90	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 11:45 AM	83.00	6.60	21.30	15.60	0.00	21.30	18.10	15.60	25.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 12:00 PM	122.00	8.50	14.60	14.30	0.00	14.40	14.60	13.30	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 12:15 PM	84.00	6.60	13.10	11.80	0.00	13.10	13.90	11.80	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 12:30 PM	78.00	6.80	15.60	11.60	0.00	15.60	13.20	11.60	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 12:45 PM	97.00	6.40	15.20	15.60	0.40	16.60	15.20	12.40	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 1:00 PM	91.00	7.60	16.30	17.70	1.40	15.30	16.30	12.30	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 1:15 PM	92.00	6.50	15.40	15.00	0.00	13.60	15.40	11.20	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 1:30 PM	77.00	4.00	13.50	10.60	0.00	13.50	14.10	10.60	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 1:45 PM	88.00	8.10	14.80	11.20	0.00	14.80	16.10	11.20	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 2:00 PM	103.00	7.20	14.40	13.60	0.00	12.90	14.40	11.40	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 2:15 PM	81.00	7.30	14.80	11.90	0.00	14.80	16.60	11.90	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 2:30 PM	89.00	8.30	17.40	12.70	0.00	17.40	16.50	12.70	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 2:45 PM	87.00	6.30	0.00	14.80	0.00	0.00	19.90	14.80	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 3:00 PM	85.00	6.10	11.70	14.90	3.20	11.70	21.00	14.90	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 3:15 PM	89.00	8.00	13.70	14.10	0.40	13.70	17.80	14.10	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 3:30 PM	91.00	6.80	24.20	13.00	0.00	10.80	24.20	21.50	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 3:45 PM	92.00	5.20	17.20	16.60	0.00	15.60	17.20	14.00	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:00 PM	105.00	4.50	15.10	16.70	1.60	17.00	15.10	12.70	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:15 PM	106.00	8.50	15.80	19.20	3.40	15.00	15.80	13.10	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:30 PM	130.00	7.20	17.40	24.00	6.60	19.60	17.40	14.30	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 4:45 PM	100.00	6.30	20.00	21.00	1.00	17.60	20.00	14.20	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:00 PM	144.00	7.90	39.90	19.10	0.00	16.40	39.90	35.70	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:15 PM	120.00	10.80	28.90	17.60	0.00	16.40	28.90	21.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:30 PM	120.00	9.80	24.70	19.10	0.00	17.30	24.70	21.60	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 5:45 PM	138.00	5.80	21.80	28.30	6.50	22.80	21.80	19.00	28.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:00 PM	126.00	8.30	21.80	23.50	1.70	21.90	21.80	19.10	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:15 PM	175.00	9.30	23.80	32.80	9.00	24.20	23.80	16.80	32.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:30 PM	149.00	4.30	25.40	24.90	0.00	25.30	25.40	16.40	24.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 6:45 PM	131.00	3.90	29.20	39.60	10.40	37.20	29.20	18.60	39.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 7:00 PM	123.00	5.50	26.20	48.00	21.80	48.80	26.20	19.10	48.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 7:15 PM	111.00	7.20	23.60	26.70	3.10	26.60	23.60	17.60	26.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/27/14 7:30 PM	111.00	6.70	29.40	19.30</													



US Army Corps of Engineers®

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

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (ug/m ³)							Naphthalene (ug/m ³)						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
4/30/14 7:00 AM	180.00	4.20	6.60	0.00	0.00	0.00	6.70	6.60	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 7:15 AM	208.00	5.10	6.20	0.00	0.00	0.00	6.70	6.20	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 7:30 AM	212.00	3.00	6.20	5.20	0.00	5.20	7.10	6.20	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 7:45 AM	209.00	4.20	6.50	5.10	0.00	5.10	6.90	6.50	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:00 AM	177.00	3.90	7.10	7.30	0.20	5.10	7.10	6.70	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:15 AM	201.00	4.90	7.10	5.30	0.00	5.30	7.50	7.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:30 AM	213.00	4.10	6.90	5.40	0.00	5.40	7.20	6.90	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:45 AM	213.00	4.40	6.80	0.00	0.00	0.00	6.60	6.80	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:00 AM	203.00	3.40	6.70	0.00	0.00	0.00	6.70	6.70	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:15 AM	189.00	4.00	6.60	5.20	0.00	5.20	6.60	6.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:30 AM	206.00	3.90	6.60	5.50	0.00	5.50	6.30	6.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:45 AM	217.00	5.80	7.00	5.20	0.00	5.20	6.90	7.00	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:00 AM	210.00	5.20	7.40	5.30	0.00	5.30	6.90	7.40	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:15 AM	201.00	4.00	6.40	4.50	0.00	4.50	6.50	6.40	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:30 AM	196.00	4.70	6.30	4.90	0.00	4.90	5.80	6.30	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:45 AM	213.00	6.00	5.70	3.50	0.00	3.50	5.70	5.70	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:00 AM	208.00	6.30	5.50	4.50	0.00	4.50	5.70	5.50	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:15 AM	228.00	4.30	5.20	4.60	0.00	4.60	5.20	5.20	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:30 AM	216.00	4.50	4.80	0.00	0.00	0.00	5.40	4.80	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:45 AM	245.00	3.80	4.30	3.50	0.00	3.50	4.60	4.30	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 12:00 PM	221.00	4.50	4.40	0.00	0.00	0.00	4.60	4.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 12:15 PM	257.00	5.50	4.70	4.50	0.00	4.50	4.80	4.70	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 12:30 PM	243.00	5.50	4.70	4.00	0.00	4.00	4.80	4.70	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 12:45 PM	245.00	8.20	5.10	3.40	0.00	3.40	5.30	5.10	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 1:00 PM	228.00	5.50	5.60	3.70	0.00	3.70	5.30	5.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 1:15 PM	260.00	4.20	6.90	3.00	0.00	3.00	6.30	6.90	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 1:30 PM	255.00	5.00	15.20	3.30	0.00	3.30	9.10	15.20	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 1:45 PM	239.00	6.20	10.30	5.70	0.00	5.70	10.60	10.30	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 2:00 PM	270.00	5.70	6.60	7.00	0.40	3.10	7.00	7.70	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 2:15 PM	244.00	4.70	6.70	2.90	0.00	2.90	6.40	6.70	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 2:30 PM	261.00	8.00	6.50	3.20	0.00	3.20	6.10	6.50	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 2:45 PM	269.00	7.20	5.30	3.10	0.00	3.10	5.10	5.30	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 3:00 PM	262.00	6.00	5.10	4.20	0.00	4.20	5.00	5.10	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 3:15 PM	254.00	6.50	5.10	4.60	0.00	4.60	5.10	5.10	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 3:30 PM	257.00	6.00	5.10	5.60	0.50	5.60	5.10	5.10	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 3:45 PM	257.00	4.80	6.20	8.70	2.50	8.70	6.80	6.20	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 4:00 PM	259.00	7.70	5.50	0.00	0.00	0.00	5.90	5.50	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 4:15 PM	246.00	8.10	4.80	7.10	2.30	7.10	5.40	4.80	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 4:30 PM	263.00	7.30	5.40	6.90	1.50	6.90	5.70	5.40	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 4:45 PM	259.00	10.00	5.00	7.20	2.20	7.20	5.60	5.00	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 5:00 PM	237.00	5.70	4.10	7.00	2.90	7.00	5.10	4.10	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 5:15 PM	226.00	4.80	4.30	8.10	3.80	8.10	4.90	4.30	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 5:30 PM	263.00	6.60	3.80	7.20	3.40	7.20	4.80	3.80	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 5:45 PM	256.00	7.70	3.90	0.00	0.00	0.00	4.90	3.90	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 6:00 PM	244.00	4.20	4.80	10.40	5.60	10.40	5.80	4.80	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 6:15 PM	254.00	5.90	4.30	8.60	4.30	8.60	5.20	4.30	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 6:30 PM	246.00	5.90	4.00	0.00	0.00	0.00	4.60	4.00	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 6:45 PM	252.00	6.00	3.70	7.70	4.00	7.70	4.50	3.70	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 7:00 PM	230.00	3.80	4.10	9.70	5.60	9.70	5.10	4.10	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 7:15 PM	234.00	3.60	3.20	6.70	3.50	6.70	4.80	3.20	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 7:30 PM	262.00	4.50	3.40	6.60	3.20	6.60	4.90	3.40	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 7:45 PM	232.00	2.50	3.20	5.10	1.90	5.10	4.90	3.20	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:00 PM	236.00	3.10	3.20	5.20	2.00	5.20	4.90	3.20	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:15 PM	214.00	3.50	3.40	4.80	1.40	4.80	4.80	3.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:30 PM	224.00	3.20	3.30	4.60	1.30	4.60	4.80	3.30	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 8:45 PM	200.00	2.50	3.30	0.00	0.00	0.00	4.50	3.30	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:00 PM	190.00	2.50	3.40	0.00	0.00	0.00	4.50	3.40	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:15 PM	179.00	3.20	4.50	3.50	0.00	0.00	4.50	3.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:30 PM	199.00	3.50	3.50	3.70	0.20	3.70	5.10	3.50	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 9:45 PM	216.00	4.10	3.70	4.30	0.60	4.30	5.60	3.70	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:00 PM	186.00	4.10	5.40	5.40	0.00	5.40	6.50	5.40	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:15 PM	180.00	3.90	5.50	4.60	0.00	4.60	5.60	5.50	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:30 PM	199.00	3.10	5.30	5.60	0.30	5.60	6.00	5.30	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 10:45 PM	187.00	3.50	5.10	5.70	0.60	5.70	5.70	5.10	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:00 PM	199.00	4.80	5.30	6.70	1.40	6.70	6.80	5.30	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:15 PM	198.00	3.50	5.10	6.30	1.20	6.30	5.00	5.10	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:30 PM	200.00	4.80	5.20	6.30	1.10	6.30	5.90	5.20	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/30/14 11:45 PM	196.00	4.50	4.60	0.00	0.00	0.00	5.20	4.60	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IHC CDF Dredge Project : Air Monitoring Alarm Response Log

Air Monitoring Station: M1 M2 M3 M4 Dock

Air Monitoring Instrument:

Cerex Unit (Naphthalene) Thermo Unit (Particles) PID Monitor

Date & Time of alarm: 04/22/2014 to 04/23/2014 Email sent to site Technician? (Yes or **No**)

Technician responded to the alarm; Scott Peterson

1. Was dredging occurring at the time of the alarm? (Yes or **No**)

2. Alarm caused by:

- | | |
|-------------------------------------|-----------------------------|
| <input checked="" type="checkbox"/> | Loss of Power |
| <input type="checkbox"/> | Loss of Radio Communication |
| <input type="checkbox"/> | Out of Calibration |
| <input type="checkbox"/> | UV Alignment |
| <input type="checkbox"/> | Blockage in Air Tube |
| <input type="checkbox"/> | Air Quality |
| <input type="checkbox"/> | Other: weather |

3. Corrective Actions taken? (Yes or **No**)

4. Dredging suspended? (Yes or **No**)

5. Alarm logged in air monitoring action spreadsheet? (**Yes** or No)

Description of Action Taken:

A) There was an off site accident were the main high power lines were cut. Power to the site was off for less than 24 hours. The air units were started on the 23rd, and recalibrated on 4/24/2014.

IHC CDF Dredge Project : Air Monitoring Alarm Response Log

Air Monitoring Station: M1 M2 M3 M4 Dock

Air Monitoring Instrument:

Cerex Unit (Naphthalene) Thermo Unit (Particles) PID Monitor

Date & Time of alarm: 04/13/2014 2:45pm – 3pm, Email sent to site Technician? (Yes or No)

Technician responded to the alarm; Scott Peterson

1. Was dredging occurring at the time of the alarm? (Yes or No)

2. Alarm caused by:

- | | |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/> | Loss of Power |
| <input type="checkbox"/> | Loss of Radio Communication |
| <input type="checkbox"/> | Out of Calibration |
| <input type="checkbox"/> | UV Alignment |
| <input type="checkbox"/> | Blockage in Air Tube |
| <input type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Other: Site Conditions, High Winds |

3. Corrective Actions taken? (Yes or No)

4. Dredging suspended? (Yes or No)

5. Alarm logged in air monitoring action spreadsheet? (Yes or No)

Description of Action Taken:

A) Sunday there were several winds reaching 30 mph. Dust from the road, inside slope of the dike and center dike is assumed to caused the minimal alarm readings. After checking the air monitor unit there were no problems found.