Figure 1 - Site Descriptions

	SITE ID	CITY	COUNTY	ADDRESS	Scale	Scale Comments	Reason for Monitor	ESTABLISHE	LATITUDE	LONGITUDE	MSA/CMSA
1	25-003-4002	ADAMS	BERKSHIRE	MT. GREYLOCK	Regional	High elevation Ozone Transport	Highest Concentration	5/1/1989	+42:38:12	-73:10:07	Pittsfield MSA
2	25-015-0103	AMHERST	HAMPSHIRE	NORTH PLEASANT	Urban	Springfield Area Ozone	Population Exposure	4/1/1988	+42:24:02	-72:31:25	Springfield MSA
3	25-025-0002	BOSTON	SUFFOLK	KENMORE SQUARE	Micro	Five Road Intersection	Highest Concentration; Population Exposure	1/1/1965	+42:20:56	-71:05:52	Boston CMSA; Boston Metropolitan MSA
4	25-025-0027	BOSTON	SUFFOLK	ONE CITY SQUARE	Middle		Highest Concentration; Population Exposure	1/1/1985	+42:22:22	-71:03:49	Boston CMSA; Boston Metropolitan MSA
5	25-025-0041	BOSTON	SUFFOLK	LONG ISLAND	Urban - PAMS	PAMS Boston Type 2A	Maximum Precursors; Area Background	12/1/1998	+42:19:03	-70:58:08	Boston CMSA; Boston Metropolitan MSA
6	25-025-0042	BOSTON	SUFFOLK	HARRISON AVENUE	Middle	CO Middle Scale	Population Exposure	12/15/1998	+42:19:46	-71:04:58	Boston CMSA; Boston Metropolitan MSA
7	25-025-0043	BOSTON	SUFFOLK	174 NORTH STREET	Middle		Population Exposure; Maximum Concentration	1/1/2000	+42:21:47	-71:03:16	Boston CMSA; Boston Metropolitan MSA
8	25-023-0004	BROCKTON	PLYMOUTH	120 COMMERCIAL ST	Middle		Population Exposure	12/15/1998	+42:07:97	-71:01:52	Boston CMSA; Brockton MSA
9	25-013-0008	CHICOPEE	HAMPDEN	ANDERSON ROAD	Urban	PAMS Springfield Type 2	PAMS - Max. Precursor; Others Population Exposure	1/1/1983	+42:11:40	-72:33:20	Springfield MSA
10	25-005-1002	FAIRHAVEN	BRISTOL	LEROY WOOD	Urban		Population Exposure	1/1/1982	+41:38:09	-70:52:47	Boston CMSA
11	25-005-1004	FALL RIVER	BRISTOL	GLOBE STREET	Neighborhood		Highest Concentration; Population Exposure	2/1/1975	+41:41:09	-71:10:11	Providence-Pawtucket-Fall River MSA
12	25-009-5005	HAVERHILL	ESSEX	WASHINGTON STREET	Urban	PM2.5 Neighborhood	Population Exposure	7/19/1994	+42:46:15	-71:06:10	Boston CMSA; Lawrence MSA
13	25-009-6001	LAWRENCE	ESSEX	WALL EXPERIMENT STA	Neighborhood		Population Exposure	4/3/1999	+42:41:55	-71:09:57	Boston CMSA; Lawrence MSA
14	25-017-0007	LOWELL	MIDDLESEX	OLD CITY HALL	Middle		Maximum Concentartion; Population Exposure	7/17/1981	+42:38:45	-71:18:42	Boston CMSA; Lowell MSA
15	25-009-2006	LYNN	ESSEX	390 PARKLAND	Urban	PAMS Boston Type 2	Pams - Max. Precursor; Ozone Population Exposure	1/1/1992	+42:28:29	-70:58:19	Boston CMSA; Boston Metropolitan MSA
16	25-021-3003	MILTON	NORFOLK	MILTON MA, BLUE HILL	Urban	PAMS Boston Type 1	Upwind Background PM2.5; Maximum Ozone	4/2/2002	+42:12:43	-71:06:52	Boston CMSA; Boston Metropolitan MSA
17	25-009-4004	NEWBURY	ESSEX	SUNSET BOULEVARD	Urban	PAMS Boston Type 3	Maximum Ozone Conc.; Population Exposure	8/1/1984	+42:47:25	-70:48:32	Boston CMSA; Boston Metropolitan MSA
18	25-003-5001	PITTSFIELD	BERKSHIRE	78 CENTER STREET	Neighborhood		Population Exposure	12/1/1998	+42:27:06	-73:15:18	Pittsfield MSA
19	25-003-0006	PITTSFIELD	BERKSHIRE	1 SOUTH STREET	Neighborhood		Population Exposure	12/1/2005	+42:26:52	-73:15:17	Pittsfield MSA
20	25-013-0016	SPRINGFIELD	HAMPDEN	LIBERTY STREET	Neighborhood		Population Exposure; Maximum Concentration	4/1/1988	+42:06:32	-72:35:29	Springfield MSA
21	25-013-2009	SPRINGFIELD	HAMPDEN	1860 MAIN STREET	Middle		Population Exposure; Maximum Concentration	1/1/2002	+42:10:74	-72:59:74	Springfield MSA
22	25-017-1102	STOW	MIDDLESEX	US MILITARY	Regional	Ozone Urban; Upper Air Regional	Maximum Ozone Conc.; Population Exposure	4/1/1998	+42:24:50	-71:29:09	Boston CMSA; Boston Metropolitan MSA
23	25-001-0002	TRURO	BARNSTABLE	FOX BOTTOM AREA	Regional	Regional Ozone Transport	General/Background	4/1/1987	+41:58:33	-70:01:27	No MSA; Downwind Providence-Pawtucket , RI
24	25-027-0024	UXBRIDGE	WORCESTER	366 E.HARTFORD AVE.	Urban	State line Upwind; Required for CMSA	Ozone Transport; Population Exposure	11/1/2008	+42:05:59	-71:37:12	Boston CMSA; Worcester MSA
25	25-017-4003	WALTHAM	MIDDLESEX	BEAVER STREET	Regional/Urban	Acid Rain Local and Transport	General/Background	1/1/1982	+42:23:01	-71:12:50	Boston CMSA; Boston Metropolitan MSA
26	25-015-4002	WARE	HAMPSHIRE	QUABBIN SUMMIT	Urban	PAMS Springfield Type3; PM Neighborhood	Maximum Ozone Conc.; Population Exposure	6/1/1985	+42:17:54	-72:20:05	Springfield MSA
27	25-027-0015	WORCESTER	WORCESTER	WORC. AIRPORT	Urban	Worcester/Springfield Interface - Ozone	Population Exposure	5/7/1979	+42:16:28	-71:52:34	Boston CMSA; Worcester MSA
28	25-027-0016	WORCESTER	WORCESTER	2 WASHINGTON STREET	Middle		Population Exposure	10/1/2003	+42:15:33	-71:47:57	Boston CMSA; Worcester MSA
29	25-027-0023	WORCESTER	WORCESTER	SUMMER STREET	Middle	CO Middle Scale	Population Exposure	1/1/2004	+42.15:50	-71.47:41	Boston CMSA; Worcester MSA

Figure 2 - Site Measurements

	SITE ID	CITY	ADDRESS	O3	CO	SO2	NO	NO2	NOx	NOA	NOY	METEOROLOGICAL	PM10 (LV)	PM25 (FRM)	BAM 2.5	VOC (TOXICS)	VOC (PAMS)	CARBONYLS	BLACK CARBON	SPECIAL MONITORING
1	25-003-4002	ADAMS	MT. GREYLOCK	O3																
2	25-015-0103	AMHERST	NORTH PLEASANT	O3																
3	25-025-0002	BOSTON	KENMORE SQUARE		CO	SO2	NO	NO2	NOx			TEMP	PM10 (LV)	PM2.5 (3-day)						
4	25-025-0027	BOSTON	ONE CITY SQUARE										PM10 (LV)	PM2.5 (3-DAY)						
5	25-025-0041	BOSTON	LONG ISLAND	O3			NO	NO2	NOx			WD, WS, TEM, RH, BP, SOLAR					VOC (PAMS)			
6	25-025-0042	BOSTON	HARRISON AVENUE	O3	TCO	TSO2	NO	NO2	NOx			WD, WS, TEM, RH, BP, SOLAR	PM10 (LV)(2)	PM2.5(3 DAY)	BAM 2.5(2)*	VOC (TOXICS)		CARBONYLS (6th-DAY)	BLACK CARBON	Speciation;PM10 (2) (HV TOXICS);Cr6+; PAHS
7	25-025-0043	BOSTON	174 NORTH STREET											PM2.5(2) (3.DAY)(Daily)	BAM 2.5*				BLACK CARBON	
8	25-023-0004	BROCKTON	120 COMMERCIAL ST											PM2.5 (2) (3-DAY)						
9	25-013-0008	CHICOPEE	ANDERSON ROAD	O3			NO	NO2	NOx			WD, WS, TEM, RH, BP, SOLAR		PM2.5 (3 DAY)			VOC (PAMS)	CARBONYLS (PAMS)		SPECIATION
10	25-005-1002	FAIRHAVEN	LEROY WOOD	O3								WD, WS, TEM, RH, BP, SOLAR								
11	25-005-1004	FALL RIVER	GLOBE STREET			SO2								PM2.5 (3-DAY)	BAM 2.5					
12	25-009-5005	HAVERHILL	WASHINGTON STREET	O3			NO	NO2	NOx			WD, WS, TEM, RH, BP, SOLAR		PM2.5 (3-DAY)	BAM 2.5					
13	25-009-6001	LAWRENCE	WALL EXPERIMENT STA											PM2.5 (3-DAY)						
14	25-017-0007	LOWELL	OLD CITY HALL		CO															
15	25-009-2006	LYNN	390 PARKLAND	O3	TCO		NO	NO2	NOx			FULL MET (UVB & PRECIP)		PM2.5 (3-DAY)	BAM 2.5	VOC (TOXICS)	VOC (PAMS)	CARBONYLS (PAMS)		
16	25-021-3003	MILTON	MILTON MA, BLUE HILL	O3			NO	NO2	NOx			WD, WS, TEM, RH, BP, SOLAR			BAM 2.5		VOC (PAMS)			
17	25-009-4004	NEWBURY	SUNSET BOULEVARD	O3			NO	NO2	NOx	NOA	NOY	WD, WS, TEM, RH, BP, SOLAR					VOC (PAMS)			
18	25-003-5001	PITTSFIELD	78 CENTER STREET											PM2.5 (3-DAY)						
19	25-003-0006	PITTSFIELD	1 SOUTH STREET												BAM 2.5					
20	25-013-0016	SPRINGFIELD	LIBERTY STREET		CO	SO2	NO	NO2	NOx					PM2.5 (2) (3-DAY)	BAM 2.5*				BLACK CARBON	
21	25-013-2009	SPRINGFIELD	1860 MAIN STREET										PM10 (LV)	PM2.5 (3-DAY)						
22	25-017-1102	STOW	US MILITARY	O3								WD, WS, TEM, RH, BP, SOLAR								UPPER AIR PROFILER
23	25-001-0002	TRURO	FOX BOTTOM AREA	O3								WD, WS, TEM, RH, BP, SOLAR		IMPR.PM2.5 (3-DAY)						
24	25-017-4003	UXBRIDGE	366 E.HARTFORD AVE.	O3								WD, WS, TEM, RH, BP, SOLAR								
25	25-017-4003	WALTHAM	BEAVER STREET									ACID RAIN								
26	25-015-4002	WARE	QUABBIN SUMMIT	O3		TSO2	NO	NO2	NOx	NOA	NOY	FULL MET (PRECIP)	PM10 (LV)	IMPR. PM2.5 (3-DAY)	BAM 2.5		VOC (PAMS)			
27	25-027-0015	WORCESTER	WORC. AIRPORT	O3								WS, WD, TEM								
28	25-027-0016	WORCESTER	2 WASHINGTON STREET											PM2.5 (3-DAY)						
29	25-027-0023	WORCESTER	SUMMER STREET		CO	SO2	NO	NO2	NOx				PM10 (LV)	PM2.5 (2)(3-DAY)	BAM 2.5*					

* Reporting BAM is Federal Equivalent Method (FEM) Model

TCO = Trace Range Carbon Monoxide

TSO2 = Trace Range Sulfur Dioxide

***Figure 3 - Sampling and Analytical Methods For DEP Measuremen* ts**

Parameter	Worksheet Abbreviation	Sampling Methodology	Analytical Method	Sample Frequency	Comments
Ozone	O3	Continuous Instrument	Ultra Violet (UV) Light Photometry	Continuous/Hourly	
Carbon Monoxide	CO	Continuous Instrument	Gas Filter Correlation; Non-Dispersive Infared (NDIR) Detection	Continuous/Hourly	
Sulfur Dioxide	SO2	Continuous Instrument	Pulsed Fluorescence	Continuous/Hourly	
Nitric Oxide	NO	Continuous Instrument	Chemiluminescence	Continuous/Hourly	Same instrument for NO, NO2, NOx
Nitrogen Dioxide	NO2	Continuous Instrument	Chemiluminescence	Continuous/Hourly	
Total Nitrogen Oxides	NOx	Continuous Instrument	Chemiluminescence	Continuous/Hourly	
Lead	Pb	High Volume	Acid Digestion; Atomic Absorbtion	1 Every 6th Day/24 hour	Kenmore only.
PM 2.5	PM 2.5	Low Volume; Size Selective	Gravimetric	1 Every 3rd Day/24 hour	
PM 10	PM 10	Low Volume; Size Selective	Gravimetric	1 Every 6th Day/24 hour	
PM2.5 Hourly	BAM	Continuous Instrument	Beta Attenuation	Hourly	
PM2.5 Speciation	STN	Low Volume; Size Selective	ICPMS /Ion Chromatography/ Total Carbon	1 Every 3rd Day/24 hour	Elements, Nitrates/Sulfates, Carbon on 3 filters.
IMPROVE Protocol	IMPROVE	Low Volume; Size Selective	IMPROVE Protocol	1 Every 6th Day/24 hour	Elements, Nitrates/Sulfates, Carbon on 3 filters. PM10 also; Ware and Truro only.
Black Carbon	BC	Continuous Instrument	Optical Transmittance	Continuous/Hourly	
Toxic Elements	HV Toxics	High Volume/PM10	ICP/MS	1 Every 6th Day/24 hour	Elements; Harrison Ave. Only
Toxic VOCs	VOCs (Toxics)	Passivated Canister	GC/MS	1 Every 6th Day/24 hour	Lynn/Harrison Ave Only; VOCs = Volatile Organic Compounds
Toxic Carbonyls	Carbonyls	DNPH on Silica Gel Traps	HPLC	1 Every 6th Day/24 hour	Lynn/Harrison Ave Only; Formaldehyde and Acetaldehyde
Chromium 6+	Cr6+	Coated Filter	Ion Chromatography	1 Every 6th Day/24 hour	Harrison Ave Only
PAMS VOCs	VOCs (PAMS)	Subambient Preconcentration	GC-FID	Hourly	Four PAMS Sites, PAMS Season (June-August)
PAMS VOCs	VOCs(PAMS)	Passivated Canister	GC-FID	8-3hours Every Third Day(Season)	Two Remaining PAMS Sites
PAMS VOCs	VOCs(PAMS)	Passivated Canister	GC-FID	1 Every 6th Day/24 hour (Year Round)	Lynn and Chicopee
Polyaromatic Hydrocarbons	PAHs	Quartz Filter; PUF Cartridge	GC/MS	1 Every 6th Day/24 hour (Year Round)	Harrison Ave Only
PAMS Carbonyls	Carbonyls (PAMS)	DNPH on Silica Gel Traps	HPLC	8-3hours Every Third Day(Season)	Lynn and Chicopee
Wind Speed/Direction	WS, WD	Continuous Instrument	Ultrasonic Sensors or Spot Reading	Hourly	Eleven Meteorological Sites in State
Solar	Solar	Continuous Instrument	Pyranometer	Hourly	Eleven Meteorological Sites in State
Relative Humidity	RH	Continuous Instrument	Electronic Sensor	Hourly	Eleven Meteorological Sites in State
Ambient Temperature	Tem	Continuous Instrument	Electronic Thermister	Hourly	Eleven Meteorological Sites in State
Barometric Pressure	BP	Continuous Instrument	Electronic Sensor	Hourly	Eleven Meteorological Sites in State
Ultra Violet Light	UVB	Continuous Instrument	Pyranometer	Hourly	Ware and Lynn Only
Precipitation	Precip	Continuous Instrument	Tipping Bucket	Hourly	Ware and Lynn Only
Upper Air Wind	Upper Air Profiler	Hourly Instrument	Radar Vectoring	Hourly	Stow Only
Upper Air Temperature	Upper Air Profiler	Hourly Instrument	Acoustic/ Radar Vectoring	Hourly	Stow Only