

Labor Rates

Professional/Technical Level	Labor Rate (\$/hr)	Overhead Multiplier	Loaded Labor Rate (\$/hr)	Comment
Junior Technician (TEC1)	\$14.94	1.90	\$28.38	
Senior Technician (TEC2)	\$22.29	1.83	\$40.86	
Junior Professional (PRO1)	\$25.19	1.75	\$44.12	
Mid-level Professional (PRO2)	\$30.02	1.64	\$49.26	
Staff Professional (PRO3)	\$35.43	1.57	\$55.47	
Senior Professional (PRO4)	\$40.89	1.43	\$58.59	
Contractor	\$25.00	1.00	\$25.00	

Labor rates based on year

2013

Inflation Adjustment for	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Comment
Year 1		1.158						1.045	1.032	1.053	1.074	1.086	1.108	1.130	1.336	1.175	1.198			
Year 2		1.18						1.065	1.052	1.073	1.094	1.116	1.138	1.161	1.184	1.198	1.223			
Year 3		1.204						1.086	1.073	1.094	1.116	1.139	1.161	1.185	1.208	1.223	1.247			

Year 1 = 2013

**Monitoring
Equipment
Costs**

Pollutant	Analyzer		Routine Visits		Maintenance			
	Analyzer	Year	Supplies	Year	SpareParts/ Supplies	Year	Filters	Year
CO	\$10,000	2013	\$800	2013	\$1,000	2013		
Generic Network								
NATTS								
NO2	\$11,700	2013	\$800	2013	\$1,000	2013		
O3	\$7,200	2013	\$800	2013	\$1,000	2013		
PAMSVOC	\$30,000	2013	\$16,000	2013	\$3,000	2013		
PAMSNMOC	\$11,426	2013	\$800	2013	\$1,000	2013		
PAMSNOx	\$20,500	2013	\$800	2013	\$1,000	2013		
PAMSSurfMet	\$17,285	2013	\$750	2013	\$2,000	2013		
PAMSuperAir		2013	\$1,000	2013	\$2,000	2013		
PAMSCarbD	\$16,000	2013	\$250	2013	\$3,400	2013		
PAMSCarbE	\$16,000	2013	\$750	2013	\$10,200	2013		
PAMSHalfD	\$16,000	2013	\$125	2013	\$1,700	2013		
Pb	\$2,000	2013	\$150	2013	\$300	2013	\$150	2013
PM10	\$5,500	2013			\$950	2013		2013
PM25	\$7,000	2013			\$950	2013	\$400	2013
SO2	\$10,000	2013	\$800	2013	\$1,000	2013		

**Monitoring
Equipment
Costs**

Pollutant	Item 4	Cost	Year	Year	Item 5	Cost	Year
CO							
Generic Network	Shelter (large, temp	\$25,500	2013	2013	Shelter delivery charges	\$500	2013
NATTS							
NO2							
O3							
PAMSVOC							
PAMSNMOC							
PAMSNOx							
PAMSSurfMet							
PAMSuperAir	SODAR	\$65,000	2013	2013	Computer hardware & software	\$8,000	2013
PAMSCarbD	Supplies/reagents	\$1,200	2013	2013	Calibration Stds	\$1,500	2013
PAMSCarbE	Supplies/reagents	\$2,400	2013	2013	Calibration Stds	\$4,500	2013
PAMSHalfD	Supplies/reagents	\$600	2013	2013	Calibration Stds	\$1,500	2013
Pb							
PM10	Filter Tape	\$500	2013	2013	Audit/Calibration Kits (Filter Based)	\$125	2013
PM25	Data acquisition (la	\$400	2013	2013	Speciation sampling national contract	\$7,057,204	2013
SO2							

**Monitoring
Equipment
Costs**

Pollutant	Item 12	Cost	Year	Item 13	Cost	Year
CO						
Generic Network	Utilities	\$1,000	2013	Vehicle	\$65,362	2013
NATTS						
NO2						
O3						
PAMSVOC						
PAMSNMOC						
PAMSNOx						
PAMSSurfMet						
PAMSupperAir						
PAMSCarbD						
PAMSCarbE						
PAMSHalfD						
Pb						
PM10						
PM25						
SO2						

Data Entry for	SO2	Updated on	February 1, 2012	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				113	437	113	437	113	437	113	437
				113	22	113	22	113	22	113	22

General Costs													Non Labor O & M		
Element 1 - Network Design													Labor		
a) Network Design (by Reporting Organization)															
b) Site Selection (Reporting Organization)															
Sub Total - Hours															
Sub Total - Costs															

Element 2 - Site Installation															
Materials															
Labor															
Procurement															
Installation															
Sub Total - Hours															
Sub Total - Costs															

Element 3 - Supplies and Site Visits															
Supplies															
Routine visits															
Sub Total - Hours															
Sub Total - Costs															

Element 4 - Maintenance															
Spare parts/supplies															
Remedial Repairs															
Routine Maint.															
Sub Total - Hours															
Sub Total - Costs															

Element 5 - Data Management															
Data aquisition/processing															
Data reporting															
Data validation															
Data distribution															
Sub Total - Hours															
Sub Total - Costs															

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M		Equipment					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment					
Audits	Hours per site	0	0	0	20	16	0	36	NA	15,732	15,732	NA	15,732	NA	15,732	15,732									
	Cost per site	0	0	0	985	887	0	\$1,872	\$2,243	\$980,041	\$980,041	\$2,289	\$1,000,492	\$2,334	\$1,020,126	\$1,020,126	\$1,000,220	NA	NA	NA					
Routine Calibrations	Hours per site	0	26	0	0	0	0	26	NA	11,362	11,362	NA	11,362	NA	11,362	11,362									
	Cost per site	0	1062	0	0	0	0	\$1,062	\$1,272	\$555,985	\$555,985	\$1,299	\$567,587	\$1,324	\$578,725	\$578,725	\$567,432	NA	NA	NA					
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	1,748	1,748	NA	1,748	NA	1,748	1,748									
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$109,940	\$109,940	\$257	\$112,235	\$262	\$114,437	\$114,437	\$112,204	NA	NA	NA					
Training	Hours per site	0	1	1	2	1	0	5	NA	2,185	2,185	NA	2,185	NA	2,185	2,185									
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$125,123	\$125,123	\$292	\$127,734	\$298	\$130,240	\$130,240	\$127,699	NA	NA	NA					
Reporting	Hours per site	0	0	0	3	3	0	6	NA	2,622	2,622	NA	2,622	NA	2,622	2,622									
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$164,387	\$164,387	\$384	\$167,818	\$392	\$171,111	\$171,111	\$167,772	NA	NA	NA					
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	57	57	NA	57	NA	57	57									
	Cost	0	0	9	15	0	0	\$24	\$29	\$3,249	\$3,249	\$29	\$3,317	\$30	\$3,382	\$3,382	\$3,316	NA	NA	NA					
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	1695	339	NA	1695	NA	1695	339									
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$110,465	\$22,093	\$998	\$112,770	\$1,018	\$114,983	\$22,997	\$22,548	NA	NA	NA					
Sub Total - Hours		0	27	1	32	27	5	93	NA	NA	34,045	NA	NA	NA	NA	34,045									
Sub Total - Costs		\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,960,818	\$5,549	NA	\$2,001,736	\$5,658	NA	\$2,041,018	\$2,001,191	NA	NA					
Element 7 - Supervision																									
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment					
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	5,244	5,244	NA	5,244	NA	5,244	5,244									
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$354,951	\$354,951	\$829	\$362,358	\$845	\$369,469	\$369,469	\$362,259	NA	NA	NA					
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	13,110	13,110	NA	13,110	NA	13,110	13,110									
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$753,354	\$753,354	\$1,760	\$769,075	\$1,794	\$784,167	\$784,167	\$768,865	NA	NA	NA					
Sub Total - Hours		0	0	16	8	12	6	42	NA	18354	18354	NA	18354	NA	18354	18,354									
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$1,108,305	\$1,108,305	\$2,589	\$1,131,433	\$1,131,433	\$2,640	\$1,153,636	\$1,153,636	\$1,131,124	NA	NA					
Summary by Element																									
		SO2						Year 1			2013			Year 2			2014			Year 3			2015		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment		
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	4,294	613	NA	4,294	613	NA	4,294	613								
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$277,923	\$39,703	\$2,511	\$283,723	\$40,532	\$2,560	\$289,290	\$41,327	\$40,521	NA	NA	NA	NA	NA		
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	8,827	1,261	NA	8,827	1,261	NA	8,827	1,261								
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$851,616	\$1,073	\$0	\$868,636	\$1,094	\$0	\$885,682	\$67,186	NA	NA	NA	NA	\$801,458		
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	52440	52440	NA	52440	52440	NA	52440	52440								
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$3,087,756	\$3,087,756	\$7,213	\$3,152,192	\$3,152,192	\$7,355	\$3,214,050	\$3,214,050	\$3,151,333	\$427,444	NA	NA	NA	NA		
4 - Maintenance	Hours	0	22	11	35	0	0	68	NA	29716	29716	NA	29716	NA	29716	29716									
	Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$4,921	\$2,150,645	\$2,150,645	\$5,024	\$2,195,525	\$2,195,525	\$5,123	\$2,238,609	\$2,238,609	\$1,660,621	\$534,305	NA	NA	NA	NA		
5 - Data Managment	Hours	0	8	10	17	4	0	39	NA	17043	17043	NA	17043	NA	17043	17043									
	Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$2,189	\$956,482	\$956,482	\$2,234	\$976,442	\$976,442	\$2,278	\$995,604	\$995,604	\$976,176	NA	NA	NA	NA	NA		
6 - Quality Assurance	Hours	0	27	1	32	27	5	93	NA	NA	34,045	NA	NA	NA	NA	34,045									
	Costs	\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,960,818	\$5,549	NA	\$2,001,736	\$5,658	NA	\$2,041,018	\$2,001,191	\$0	NA	NA	NA	NA		
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	18354	18354	NA	18354	NA	18354	18,354									
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$1,108,305	\$1,108,305	\$2,589	\$1,131,433	\$1,131,433	\$2,640	\$1,153,636	\$1,153,636	\$1,131,124	NA	NA	NA	NA	NA		
Total	Hours	0	125	106	110	57	21	420	NA	130,674	153,472	NA	130,674	153,472	NA	130,674	153,472								
	Costs	\$0	\$2,716	\$2,097	\$5,435	\$3,161	\$1,230	\$21,417	\$25,658	\$7,581,111	\$10,155,325	\$26,193	\$7,739,314	\$10,366,495	\$26,707	\$7,891,189	\$10,569,926	\$9,028,152	\$961,750	\$801,458	NA	NA	NA		

Data Entry for	CO	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				92	303 Spares 15	92	303 Spares 15	92	303 Spares 15		92 303 Spares 15

General Costs													Non Labor O & M		
Element 1 - Network Design													Labor		
a) Network Design (by Reporting Organization)															
b) Site Selection (Reporting Organization)															
Sub Total - Hours															
Sub Total - Costs															

Element 2 - Site Installation															
Materials															
Labor															
Procurement															
Installation															
Sub Total - Hours															
Sub Total - Costs															

Element 3 - Supplies and Site Visits															
Supplies															
Routine visits															
Sub Total - Hours															
Sub Total - Costs															

Element 4 - Maintenance															
Spare parts/supplies															
Remedial Repairs															
Routine Maint.															
Sub Total - Hours															
Sub Total - Costs															

Element 5 - Data Management															
Data aquisition/processing															
Data reporting															
Data validation															
Data distribution															
Sub Total - Hours															
Sub Total - Costs															

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor	Non Labor O & M	Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost				
Audits	Hours per site	0	0	0	20	16	0	36	NA	10,908	10,908	NA	NA	10,908	10,908	10,908	10,908	10,908	NA	NA	NA
	Cost per site	0	0	0	985	887	0	\$1,872	\$2,243	\$679,525	\$679,525	\$2,289	\$693,705	\$693,705	\$2,334	\$707,318	\$707,318	\$693,516	NA	NA	NA
Routine Calibrations	Hours per site	0	26	0	0	0	0	26	NA	7,878	7,878	NA	7,878	7,878	NA	7,878	7,878	7,878	NA	NA	NA
	Cost per site	0	1062	0	0	0	0	\$1,062	\$1,272	\$385,500	\$385,500	\$1,299	\$393,544	\$393,544	\$1,324	\$401,267	\$401,267	\$393,437	NA	NA	NA
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	1,212	1,212	NA	1,212	1,212	NA	1,212	1,212	1,212	NA	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$76,229	\$76,229	\$257	\$77,819	\$77,819	\$262	\$79,347	\$79,347	\$77,798	NA	NA	NA
Training	Hours per site	0	1	1	2	1	0	5	NA	1,515	1,515	NA	1,515	1,515	NA	1,515	1,515	1,515	NA	NA	NA
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$86,756	\$86,756	\$292	\$88,566	\$88,566	\$298	\$90,304	\$90,304	\$88,542	NA	NA	NA
Reporting	Hours per site	0	0	0	3	3	0	6	NA	1,818	1,818	NA	1,818	1,818	NA	1,818	1,818	1,818	NA	NA	NA
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$113,980	\$113,980	\$384	\$116,359	\$116,359	\$392	\$118,642	\$118,642	\$116,327	NA	NA	NA
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	46	46	NA	46	46	NA	46	46	46	NA	NA	NA
	Cost	0	0	9	15	0	0	\$24	\$29	\$2,645	\$2,645	\$29	\$2,700	\$2,700	\$30	\$2,753	\$2,753	\$2,700	NA	NA	NA
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	1380	276	NA	1380	276	NA	1380	276	276	NA	NA	NA
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$89,936	\$17,987	\$998	\$91,813	\$18,363	\$1,018	\$93,615	\$18,723	\$18,358	NA	NA	NA
Sub Total - Hours		0	27	1	32	27	5	93	NA	NA	23,653	NA	NA	23,653	NA	NA	23,653	23,653	NA	NA	NA
Sub Total - Costs		\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,362,621	\$5,549	NA	\$1,391,057	\$5,658	NA	\$1,418,355	\$1,390,677	NA	NA	NA

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision			Labor	Non Labor O & M	Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost				
Planning/coordination	Hours per site	0	0	0	8	4	0	12	NA	3,636	3,636	NA	3,636	3,636	NA	3,636	3,636	3,636	NA	NA	NA
	Cost per site	0	0	0	444	234	0	\$678	\$812	\$246,110	\$246,110	\$829	\$251,246	\$251,246	\$845	\$256,176	\$256,176	\$251,177	NA	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	9,090	9,090	NA	9,090	9,090	NA	9,090	9,090	9,090	NA	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$522,348	\$522,348	\$1,760	\$533,249	\$533,249	\$1,794	\$543,713	\$543,713	\$533,103	NA	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	12726	12726	NA	12726	12726	NA	12726	12726	12,726	NA	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$768,458	\$768,458	\$2,589	\$784,495	\$784,495	\$2,640	\$799,889	\$799,889	\$784,281	NA	NA	NA

Summary by Element		CO						Year 1 2013			Year 2 2014			Year 3 2015			Labor	Non Labor O & M	Equipment		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total				Yearly Cost	
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	3,496	499	NA	3,496	499	NA	3,496	499	499	NA	NA	NA
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$226,273	\$32,325	\$2,511	\$230,995	\$32,999	\$2,560	\$235,528	\$33,647	\$32,990	NA	NA	NA
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	6,121	874	NA	6,121	874	NA	6,121	874	874	NA	NA	NA
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$590,480	\$1,073	\$0	\$602,281	\$1,094	\$0	\$614,100	\$46,585	NA	NA	\$555,702
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	36360	36360	NA	36360	36360	NA	36360	36360	36360	NA	NA	NA
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$2,140,939	\$2,140,939	\$7,213	\$2,185,616	\$2,185,616	\$7,355	\$2,228,506	\$2,228,506	\$2,185,020	\$296,374	NA	NA
4 - Maintenance	Hours	0	22	11	35	0	0	68	NA	20604	20604	NA	20604	20604	NA	20604	20604	20604	NA	NA	NA
	Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$4,921	\$1,491,179	\$1,491,179	\$5,024	\$1,522,297	\$1,522,297	\$5,123	\$1,552,171	\$1,552,171	\$1,151,415	\$370,468	NA	NA
5 - Data Managment	Hours	0	8	10	17	4	0	39	NA	11817	11817	NA	11817	11817	NA	11817	11817	11817	NA	NA	NA
	Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$2,189	\$663,190	\$663,190	\$2,234	\$677,030	\$677,030	\$2,278	\$690,316	\$690,316	\$676,845	NA	NA	NA
6 - Quality Assurance	Hours	0	27	1	32	27	5	93	NA	NA	23,653	NA	NA	23,653	NA	NA	23,653	23,653	NA	NA	NA
	Costs	\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,362,621	\$5,549	NA	\$1,391,057	\$5,658	NA	\$1,418,355	\$1,390,677	\$0	NA	NA
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	12726	12726	NA	12726	12726	NA	12726	12726	12,726	NA	NA	NA
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$768,458	\$768,458	\$2,589	\$784,495	\$784,495	\$2,640	\$799,889	\$799,889	\$784,281	NA	NA	NA
Total	Hours	0	125	106	110	57	21	420	NA	91,124	106,534	NA	91,124	106,534	NA	91,124	106,534	106,534	NA	NA	NA
	Costs	\$0	\$2,716	\$2,097	\$5,435	\$3,161	\$1,230	\$21,417	\$25,658	\$5,290,040	\$7,049,192	\$26,193	\$5,400,433	\$7,195,774	\$26,707	\$5,506,410	\$7,336,983	\$6,267,813	\$666,842	NA	\$555,702

Data Entry for	NO2	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
				87	368	87	420	87	420	87	87
Overall Comment				5.00%	18		21		21		20

General Costs													Labor		Non Labor O & M																	
Element 1 - Network Design													Element 1 - Network Design		Element 1 - Network Design		Element 1 - Network Design															
a) Network Design (by Reporting Organization)													Per RO		Entire Network		Per RO		Entire Network													
Labor Category													Adjusted		Total		Adjusted		Total		Adjusted		Total									
Hours per RO													NA		2610		NA		2,610		NA		373									
Costs per RO													\$1,958		\$170,305		\$1,998		\$173,859		\$2,038		\$177,271		\$25,324		\$24,830		NA		NA	
b) Site Selection (Reporting Organization)													Per RO		Entire Network		Per RO		Entire Network		Per RO		Entire Network		Per RO		Entire Network					
Hours per RO													NA		696		NA		696		NA		696		NA		99		NA			
Costs per RO													\$502		\$43,671		\$512		\$44,582		\$522		\$45,457		\$6,494		\$6,367		NA			
Sub Total - Hours													NA		3,306		NA		3,306		NA		3,306		NA		472		NA			
Sub Total - Costs													\$2,459		\$213,976		\$2,511		\$218,441		\$2,560		\$222,728		\$31,818		\$31,197		NA			

Element 2 - Site Installation													Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation													
Materials													Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total					
Analyzers													\$11,700		2013		\$14,017		\$5,158,109		\$14,309		\$6,009,822		\$14,590		\$6,127,758		\$875,394			
Spare Analyzers																																
Labor													Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total					
Procurement													NA		1,546		NA		1,764		NA		1,764		NA		252		242		NA	
Cost per site													0		0		\$241		\$106,251		\$246		\$108,336		\$15,477		\$14,561		NA			
Installation													NA		588		NA		6,720		NA		6,720		NA		960		920		NA	
Cost per site													0		327		\$832		\$349,289		\$848		\$356,143		\$50,878		\$47,868		NA			
Sub Total - Hours													0		8		NA		8,484		NA		8,484		1,212		1,162		NA			
Sub Total - Costs													\$0		\$327		\$1,051		\$966,550		\$1,094		\$985,518		\$62,428		\$62,428		NA			

Element 3 - Supplies and Site Visits													Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits											
Supplies													Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total			
Routine visits													\$958		\$352,691		\$978		\$410,928		\$998		\$418,992		\$998		\$418,992		NA	
Hours per site													NA		44,160		NA		50,400		NA		50,400		NA		48,320		NA	
Cost per site													\$6,107		\$2,247,525		\$6,235		\$2,618,639		\$6,357		\$2,670,027		\$2,670,027		\$2,510,063		NA	
Sub Total - Hours													NA		44,160		NA		50,400		NA		50,400		NA		48,320		NA	
Sub Total - Costs													\$7,066		\$2,600,216		\$7,213		\$3,029,567		\$7,355		\$3,089,019		\$3,089,019		\$2,906,267		\$394,204	

Element 4 - Maintenance													Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance													
Spare parts/supplies													Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total					
Remedial Repairs													\$1,198		\$440,864		\$1,223		\$513,660		\$1,247		\$523,740		\$1,247		\$523,740		NA			
Hours per site													NA		5,888		NA		6,720		NA		6,720		NA		6,443		NA			
Cost per site													\$895		\$329,325		\$914		\$383,704		\$932		\$391,234		\$391,234		\$368,088		NA			
Routine Maint.													NA		25,760		NA		29,400		NA		29,400		NA		29,400		28,187		NA	
Cost per site													\$3,947		\$1,452,647		\$4,030		\$1,692,510		\$4,109		\$1,725,723		\$1,725,723		\$1,623,627		NA			
Sub Total - Hours													NA		31,648		NA		36,120		NA		36,120		NA		34,629		NA			
Sub Total - Costs													\$6,040		\$2,222,836		\$6,166		\$2,589,874		\$6,287		\$2,640,697		\$2,640,697		\$1,991,714		\$492,755			

Element 5 - Data Management													Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management											
Data acquisition/processing													Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total		Per Site Adjusted		Entire Network Total			
Hours per site													NA		7,360		NA		8,400		NA		8,400		NA		8,053		NA	
Cost per site													\$1,161		\$427,197		\$1,185		\$497,737		\$1,208		\$507,504		\$507,504		\$477,479		NA	
Data reporting													NA		3,680		NA		4,200		NA		4,200		NA		4,027		NA	
Cost per site													\$495		\$218,228		\$605		\$254,262		\$617		\$259,251		\$259,251		\$243,914		NA	
Data validation													NA		5,520		NA		6,300		NA		6,300		NA		6,040		NA	
Cost per site													\$714		\$314,777		\$873		\$366,753		\$890		\$373,950		\$373,950		\$351,827		NA	
Data distribution													NA		1,840		NA		2,100		NA		2,100		NA		2,013		NA	
Cost per site													\$283		\$104,044		\$289		\$121,224		\$294		\$123,603		\$123,603		\$116,290		NA	
Sub Total - Hours													NA		18,400		NA		21,000		NA		21,000		NA		20,133		NA	
Sub Total - Costs													\$2,892		\$1,064,246		\$2,952		\$1,239,975		\$3,010		\$1,264,308		\$1,264,308		\$1,189,510		NA	

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M		Equipment					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment					
Audits	Hours per site	0	0	0	36	36	0	72	NA	26,496	26,496	NA	30,240	30,240	NA	30,240	28,992	NA	NA						
	Cost per site	0	0	0	1,773	1,997	0	\$3,770	\$4,516	\$1,662,057	\$1,662,057	\$4,611	\$1,936,498	\$1,936,498	\$4,701	\$1,974,500	\$1,857,685	NA	NA						
Routine Calibrations	Hours per site	0	24	24	0	0	0	48	NA	17,664	17,664	NA	20,160	20,160	NA	20,160	19,328	NA	NA						
	Cost per site	0	981	1,059	0	0	0	\$2,040	\$2,444	\$899,363	\$899,363	\$2,495	\$1,047,866	\$1,047,866	\$2,544	\$1,068,430	\$1,005,220	NA	NA						
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	1,472	1,472	NA	1,680	1,680	NA	1,680	1,611	NA	NA						
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$92,581	\$92,581	\$257	\$107,869	\$107,869	\$262	\$109,985	\$103,478	NA	NA						
Training	Hours per site	0	1	1	2	1	0	5	NA	1,840	1,840	NA	2,100	2,100	NA	2,100	2,013	NA	NA						
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$105,366	\$105,366	\$292	\$122,765	\$122,765	\$298	\$125,174	\$117,768	NA	NA						
Reporting	Hours per site	0	0	0	3	3	0	6	NA	2,208	2,208	NA	2,520	2,520	NA	2,520	2,416	NA	NA						
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$138,431	\$138,431	\$384	\$161,289	\$161,289	\$392	\$164,454	\$154,725	NA	NA						
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	44	44	NA	44	44	NA	44	44	NA	NA						
	Cost	0	0	9	15	0	0	\$24	\$29	\$2,501	\$2,501	\$29	\$2,554	\$2,554	\$30	\$2,604	\$2,604	\$2,553	NA	NA					
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	1,305	261	NA	1,305	261	NA	1,305	261	261	NA	NA					
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$85,048	\$17,010	\$998	\$86,823	\$17,365	\$1,018	\$88,527	\$17,705	\$17,360	NA	NA					
Sub Total - Hours		0	25	25	48	47	5	151	NA	NA	49,985	NA	NA	57,005	NA	NA	54,665								
Sub Total - Costs		\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$2,917,310	\$9,066	NA	\$3,396,205	\$9,244	NA	\$3,462,852	\$3,258,789							
Element 7 - Supervision																									
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment					
Planning/coordination	Hours per site	0	0	0	8	8	4	12	NA	4,416	4,416	NA	5,040	5,040	NA	5,040	5,040	4,832	NA	NA					
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$298,906	\$298,906	\$829	\$348,261	\$348,261	\$845	\$355,096	\$355,096	\$334,088	NA	NA					
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	11,040	11,040	NA	12,600	12,600	NA	12,600	12,600	12,080	NA	NA					
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$634,403	\$634,403	\$1,760	\$739,157	\$739,157	\$1,794	\$753,662	\$753,662	\$709,074	NA	NA					
Sub Total - Hours		0	0	16	8	12	6	42	NA	15,456	15,456	NA	17,640	17,640	NA	17,640	17,640	16,912	NA	NA					
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$933,309	\$933,309	\$2,589	\$1,087,418	\$1,087,418	\$2,640	\$1,108,758	\$1,108,758	\$1,043,162	NA	NA					
Summary by Element																									
		NO2						Year 1			2013			Year 2			2014			Year 3			2015		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment		
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	3,306	472	NA	3,306	472	NA	3,306	472	NA	3,306	472	472	NA	NA		
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$213,976	\$30,568	\$2,511	\$218,441	\$31,206	\$2,560	\$222,728	\$31,818	\$31,197	NA	NA					
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	7,434	1,062	NA	8,484	1,212	NA	8,484	1,212	1,162	NA	NA					
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$829,571	\$1,073	\$0	\$966,550	\$1,094	\$0	\$985,518	\$62,428	NA	\$864,784					
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	44,160	44,160	NA	50,400	50,400	NA	50,400	50,400	48,320	NA	NA					
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$2,600,216	\$2,600,216	\$7,213	\$3,029,567	\$3,029,567	\$7,355	\$3,089,019	\$3,089,019	\$2,906,267	\$394,204	NA					
4 - Maintenance	Hours	0	0	38	48	0	0	86	NA	31,648	31,648	NA	36,120	36,120	NA	36,120	36,120	34,629	NA	NA					
	Costs	\$0	\$0	\$1,677	\$2,365	\$0	\$0	\$5,042	\$6,040	\$2,222,836	\$2,222,836	\$6,166	\$2,589,874	\$2,589,874	\$6,287	\$2,640,697	\$2,640,697	\$1,991,714	\$492,755	NA					
5 - Data Management	Hours	0	0	18	25	7	0	50	NA	18,400	18,400	NA	21,000	21,000	NA	21,000	21,000	20,133	NA	NA					
	Costs	\$0	\$0	\$794	\$1,232	\$388	\$0	\$2,414	\$2,892	\$1,064,246	\$1,064,246	\$2,952	\$1,239,975	\$1,239,975	\$3,010	\$1,264,308	\$1,264,308	\$1,189,510	NA	NA					
6 - Quality Assurance	Hours	0	25	25	48	47	5	151	NA	NA	49,985	NA	NA	57,005	NA	NA	54,665	NA	NA						
	Costs	\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$2,917,310	\$9,066	NA	\$3,396,205	\$9,244	NA	\$3,462,852	\$3,258,789	\$0	NA					
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	15,456	15,456	NA	17,640	17,640	NA	17,640	17,640	16,912	NA	NA					
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$933,309	\$933,309	\$2,589	\$1,087,418	\$1,087,418	\$2,640	\$1,108,758	\$1,108,758	\$1,043,162	NA	NA					
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment					
	Hours	0	93	165	147	80	21	507	NA	120,404	161,183	NA	136,950	183,849	NA	136,950	183,849	176,293	NA	NA					
	Costs	\$0	\$1,409	\$4,702	\$7,258	\$4,437	\$1,230	\$25,814	\$30,925	\$7,034,583	\$10,598,056	\$31,571	\$8,165,275	\$12,340,796	\$32,190	\$8,325,509	\$12,582,970	\$10,483,068	\$886,958	\$864,784					

Data Entry for		O3		Updated on February 1, 2013		Year 1 2013		Year 2 2014		Year 3 2015		Average Yearly Costs		Equipment			
Overall Comment		Spare Factor 20.00%		Report Org 153		Sites 4 month 8, 5 month 78, 6 month 119, 7 month 385, 8 month 181, 9 month 37, 12 month 407, Total Sites 1215, Avg Percent Sampled 72.0%, Spares 243		Report Org 153		Sites 4 month 8, 5 month 78, 6 month 119, 7 month 385, 8 month 181, 9 month 37, 12 month 407, Total Sites 1215, Avg Percent Sampled 72.0%, Spares 243		Report Org 153		Sites 4 month 8, 5 month 78, 6 month 119, 7 month 385, 8 month 181, 9 month 37, 12 month 407, Total Sites 1215, Report Org 153			
General Costs																	
Element 1 - Network design		Years Amortized 7		Comment		Element 1 - Network Design		Element 1 - Network Design		Element 1 - Network Design		Element 1 - Network Design		Labor Non Labor O & M			
a) Network Design (by Reporting Organization)		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per RO Total		Per RO Adjusted Total		Per RO Adjusted Total		Per RO Adjusted Total		Per RO Adjusted Total			
Labor Category		0 0		10 10 10 10		30		NA 4590 656		NA 4,590 656		NA 4,590 656		NA 4,590 656			
Hours per RO		0 0		0 0 0 0		0		NA		NA		NA		NA			
Costs per RO		0 0		493 555 586		\$1,634		\$1,958 \$299,502 \$42,786		\$1,998 \$305,752 \$43,679		\$2,038 \$311,752 \$44,536		\$43,667 NA NA			
b) Site Selection (Reporting Organization)		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total			
Hours per RO		0 0		4 4 0 0		8		NA 1224 175		NA 1224 175		NA 1224 175		NA 1224 175			
Costs per RO		0 0		197 222 0 0		\$419		\$502 \$76,800 \$10,971		\$512 \$78,403 \$11,200		\$522 \$79,941 \$11,420		\$11,197 NA NA			
Sub Total - Hours		0 0		14 14 10 38		38		NA 5,814 831		NA 5814 831		NA 5,814 831		831 NA NA			
Sub Total - Costs		\$0 \$0		\$690 \$777 \$586 \$2,053		\$2,459 \$376,303 \$53,758		\$2,511 \$384,155 \$54,879		\$2,560 \$391,694 \$55,956		\$54,864 NA NA		\$1,833,581			
Element 2 - Site Installation		Years Amortized 7		Comment		Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation		Labor Non Labor O & M			
Materials		Unit cost Year		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total			
Spare Analyzers		\$7,200 2013		0 0		197 222 0 0		\$419		\$8,626 \$10,480,104 \$1,497,158		\$8,806 \$10,698,804 \$1,528,401		\$8,978 \$10,908,756 \$1,558,394		NA NA \$1,527,984	
Labor		0 0		0 0		0 0		0		NA 5,832 833		NA 5,832 833		NA 5,832 833		833 NA NA	
Procurement		0 0		197 222 0 0		\$197		\$236 \$344,097 \$49,157		\$241 \$292,731 \$41,819		\$246 \$298,476 \$42,639		\$44,538 NA NA		NA NA	
Hours per site		0 8		8 0 0 0		16		NA 19440 2777		NA 19,440 2777		NA 19,440 2777		NA 19,440 2777		2,777 NA NA	
Cost per site		0 327		353 0 0 0		\$680		NA \$815 \$989,788 \$141,398		NA \$832 \$1,010,443 \$144,349		NA \$848 \$1,030,271 \$147,182		\$144,310 NA NA		NA NA	
Sub Total - Hours		0 8		8 4 0 0		20		NA 25,272 3,610		NA 25,272 3,610		NA 25,272 3,610		3,610 NA NA		3,610 NA NA	
Sub Total - Costs		\$0 \$327		\$353 \$197 \$0 \$0 \$877		\$1,051 \$6,180,223 \$1,987,144		\$1,073 \$2,020,248 \$1,094		\$2,059,893 \$188,848 NA		\$2,059,893 \$188,848 NA		\$1,833,581			
Element 3 - Supplies and Site Visits (1)		Unit cost Year		Comment		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Labor Non Labor O & M			
Supplies		\$800 2013		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total			
Routine visits		0 60		60 0 0 0		120		NA 104,960 104,960		NA 104,960 104,960		NA 104,960 104,960		104,960 NA NA			
Hours per site		0 2451		2647 0 0 0		\$5,098		NA \$4,397 \$5,341,943 \$5,341,943		NA \$4,488 \$5,453,419 \$5,453,419		NA \$4,576 \$5,560,436 \$5,560,436		\$5,451,933 NA NA		NA NA	
Cost per site		0 60		60 0 0 0		120		NA 104,960 104,960		NA 104,960 104,960		NA 104,960 104,960		104,960 NA NA		NA NA	
Sub Total - Hours		\$0 \$60		\$60 \$0 \$0 \$0 \$5,898		\$6,180,223 \$6,180,223		\$5,193 \$6,309,193 \$6,309,193		\$5,295 \$6,433,004 \$6,433,004		\$5,451,933 \$855,541 NA		\$855,541 NA			
Sub Total - Costs		\$0 \$60		\$60 \$0 \$0 \$0 \$5,898		\$6,180,223 \$6,180,223		\$5,193 \$6,309,193 \$6,309,193		\$5,295 \$6,433,004 \$6,433,004		\$5,451,933 \$855,541 NA		\$855,541 NA			
Element 4 - Maintenance (1)		Unit cost Year		Comment		Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance		Labor Non Labor O & M			
Spare parts/supplies		\$1,000 2013		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total			
Remedial Repairs		0 6		3 3 0 0		12		NA 10,496 10,496		NA 10,496 10,496		NA 10,496 10,496		10,496 NA NA			
Hours per site		0 245		132 148 0 0		\$525		NA \$453 \$550,122 \$550,122		NA \$462 \$561,602 \$561,602		NA \$471 \$572,622 \$572,622		\$561,449 NA NA		NA NA	
Cost per site		0 16		8 32 0 0		56		NA 48,981 48,981		NA 48,981 48,981		NA 48,981 48,981		48,981 NA NA		NA NA	
Routine Maintenance		0 654		353 1576 0 0		\$2,583		NA \$2,228 \$2,706,598 \$2,706,598		NA \$2,274 \$2,763,080 \$2,763,080		NA \$2,319 \$2,817,302 \$2,817,302		\$2,762,327 NA NA		NA NA	
Hours per site		0 22		11 35 0 0		68		NA 59,477 59,477		NA 59,477 59,477		NA 59,477 59,477		59,477 NA NA		NA NA	
Cost per site		0 41		44 99 0 0		\$184		NA \$159 \$192,805 \$192,805		NA \$162 \$196,828 \$196,828		NA \$165 \$200,691 \$200,691		\$196,774 NA NA		NA NA	
Sub Total - Hours		\$0 \$899		\$485 \$1,724 \$0 \$0 \$4,108		\$3,543 \$4,304,571 \$4,304,571		\$3,617 \$4,394,399 \$4,394,399		\$3,688 \$4,480,634 \$4,480,634		\$3,323,775 \$1,069,426 NA		\$1,069,426 NA			
Sub Total - Costs		\$0 \$899		\$485 \$1,724 \$0 \$0 \$4,108		\$3,543 \$4,304,571 \$4,304,571		\$3,617 \$4,394,399 \$4,394,399		\$3,688 \$4,480,634 \$4,480,634		\$3,323,775 \$1,069,426 NA		\$1,069,426 NA			
Element 5 - Data Management (1)		Unit cost Year		Comment		Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management		Labor Non Labor O & M			
Data acquisition/processing		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total			
Hours per site		0 6		3 3 2 0		14		NA 12,245 12,245		NA 12,245 12,245		NA 12,245 12,245		12,245 NA NA			
Cost per site		0 245		132 148 111 0		\$636		NA \$549 \$666,433 \$666,433		NA \$560 \$680,340 \$680,340		NA \$571 \$693,691 \$693,691		\$680,155 NA NA		NA NA	
Data reporting		0 1		2 4 2 0		9		NA 7,872 7,872		NA 7,872 7,872		NA 7,872 7,872		7,872 NA NA		NA NA	
Hours per site		0 41		88 197 111 0		\$437		NA \$377 \$457,911 \$457,911		NA \$385 \$467,466 \$467,466		NA \$392 \$476,640 \$476,640		\$467,339 NA NA		NA NA	
Cost per site		0 0		176 394 0 0		\$570		NA \$492 \$597,275 \$597,275		NA \$502 \$609,739 \$609,739		NA \$512 \$621,704 \$621,704		\$609,573 NA NA		NA NA	
Data validation		0 1		1 2 0 0		4		NA 3,499 3,499		NA 3,499 3,499		NA 3,499 3,499		3,499 NA NA		NA NA	
Hours per site		0 41		44 99 0 0		\$184		NA \$159 \$192,805 \$192,805		NA \$162 \$196,828 \$196,828		NA \$165 \$200,691 \$200,691		\$196,774 NA NA		NA NA	
Cost per site		0 8		10 17 4 0		39		NA 34,112 34,112		NA 34,112 34,112		NA 34,112 34,112		34,112 NA NA		NA NA	
Sub Total - Hours		\$0 \$327		\$440 \$838 \$222 \$0 \$1,827		\$1,576 \$1,914,423 \$1,914,423		\$1,609 \$1,954,374 \$1,954,374		\$1,640 \$1,992,726 \$1,992,726		\$1,953,841 NA NA		\$1,953,841 NA			
Sub Total - Costs		\$0 \$327		\$440 \$838 \$222 \$0 \$1,827		\$1,576 \$1,914,423 \$1,914,423		\$1,609 \$1,954,374 \$1,954,374		\$1,640 \$1,992,726 \$1,992,726		\$1,953,841 NA NA		\$1,953,841 NA			

Element 6 - Quality Assurance (1)		Comment							Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance				
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network				
										Total	Yearly Cost		Total	Yearly Cost		Total	Yearly Cost			
Audits	Hours per site	0	0	0	20	16	0	36	NA	31,498	31,488	NA	31,498	31,488	NA	31,498	31,488	31,488	NA	NA
	Cost per site	0	0	0	985	887	0	\$1,872	\$1,614	\$1,961,576	\$1,961,576	\$1,648	\$2,002,511	\$2,002,511	\$1,681	\$2,041,808	\$2,041,808	\$2,001,965	NA	NA
Routine Calibrations	Hours per site	0	26	0	0	0	0	26	NA	22,741	22,741	NA	22,741	22,741	NA	22,741	22,741	22,741	NA	NA
	Cost per site	0	1062	0	0	0	0	\$1,062	\$916	\$1,112,817	\$1,112,817	\$935	\$1,136,040	\$1,136,040	\$953	\$1,158,333	\$1,158,333	\$1,135,730	NA	NA
Coordination/Implementation	Hours per site	0	0	0	2	2	0	4	NA	3,499	3,499	NA	3,499	3,499	NA	3,499	3,499	3,499	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$181	\$220,049	\$220,049	\$185	\$224,641	\$224,641	\$189	\$229,049	\$229,049	\$224,579	NA	NA
Training	Hours per site	0	1	1	2	1	0	5	NA	6,075	6,075	NA	6,075	6,075	NA	6,075	6,075	6,075	NA	NA
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$347,881	\$347,881	\$292	\$355,141	\$355,141	\$298	\$362,110	\$362,110	\$355,044	NA	NA
Reporting	Hours per site	0	0	0	3	2	0	5	NA	4,373	4,373	NA	4,373	4,373	NA	4,373	4,373	4,373	NA	NA
	Cost per site	0	0	0	148	111	0	\$259	\$223	\$271,393	\$271,393	\$228	\$277,057	\$277,057	\$233	\$282,494	\$282,494	\$276,981	NA	NA
QA Plan review (annual)	Hours per reporting organization	0	0	0.2	0.3	0	0	0.5	NA	77	77	NA	77	77	NA	77	77	77	NA	NA
	Cost per reporting organization	0	0	9	15	0	0	\$24	\$29	\$4,399	\$4,399	\$29	\$4,491	\$4,491	\$30	\$4,579	\$4,579	\$4,490	NA	NA
QA Plan preparation	Hours per reporting organization	0	0	0	5	5	5	15	NA	2295	459	NA	2295	459	NA	2295	459	459	NA	NA
	Cost per reporting organization	0	0	0	246	277	293	\$816	\$978	\$149,568	\$29,914	\$998	\$152,689	\$30,538	\$1,018	\$155,685	\$31,137	\$30,529	NA	NA
Sub Total - Hours		0	27	1	32	26	5	92	NA	NA	68,712	NA	NA	68,712	NA	NA	68,712	68,712	NA	NA
Sub Total - Costs		\$0	\$1,103	\$53	\$1,592	\$1,441	\$293	\$4,482	\$4,227	NA	\$3,948,030	\$4,316	NA	\$4,030,418	\$4,400	NA	\$4,109,510	\$4,029,319		

Element 7 - Supervision (1)		Comment							Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision				
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network				
										Total	Yearly Cost		Total	Yearly Cost		Total	Yearly Cost			
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	10,496	10,496	NA	10,496	10,496	NA	10,496	10,496	10,496	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$585	\$710,443	\$710,443	\$597	\$725,268	\$725,268	\$609	\$739,501	\$739,501	\$725,071	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	26,240	26,240	NA	26,240	26,240	NA	26,240	26,240	26,240	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,241	\$1,507,857	\$1,507,857	\$1,267	\$1,539,323	\$1,539,323	\$1,292	\$1,569,531	\$1,569,531	\$1,538,904	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736	36,736	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$1,826	\$2,218,300	\$2,218,300	\$1,864	\$2,264,592	\$2,264,592	\$1,900	\$2,309,032	\$2,309,032	\$2,263,974	NA	NA

Summary by Element		O3							Year 1			2013			Year 2			2014			Year 3			2015					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	NA	NA
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$376,303	\$53,758	\$2,511	\$384,155	\$54,879	\$2,560	\$391,694	\$55,956	\$2,560	\$391,694	\$55,956	\$2,560	\$391,694	\$55,956	\$2,560	\$391,694	\$55,956	\$54,864	NA	NA
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	NA	\$1,833,581
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$1,987,144	\$1,073	\$0	\$2,020,248	\$1,094	\$0	\$2,059,893	\$1,888,848	NA										
3 - Supplies and Site Visits	Hours	0	60	60	0	0	0	120	NA	10,496	10,496	NA	10,496	10,496	NA	10,496	10,496	NA	10,496	10,496	NA	10,496	10,496	NA	10,496	10,496	NA	NA	NA
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$5,087	\$6,180,223	\$6,180,223	\$5,193	\$6,309,193	\$6,309,193	\$5,295	\$6,433,004	\$6,433,004	\$5,451,933	\$855,541	NA									
4 - Maintenance	Hours	0	22	11	35	0	0	68	NA	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	59477.33333333	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	59477.33333333	59477.33333333	59477.33333333	59477.33333333	NA	NA
	Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$3,543	\$4,304,571	\$4,304,571	\$3,617	\$4,394,399	\$4,394,399	\$3,688	\$4,480,634	\$4,480,634	\$3,323,775	\$1,069,426	NA									
5 - Data Management	Hours	0	8	10	17	4	0	39	NA	3,4112	3,4112	NA	3,4112	3,4112	NA	3,4112	3,4112	NA	3,4112	3,4112	NA	3,4112	3,4112	NA	3,4112	3,4112	NA	NA	NA
	Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$1,576	\$1,914,423	\$1,914,423	\$1,609	\$1,954,374	\$1,954,374	\$1,640	\$1,992,726	\$1,992,726	\$1,953,841	NA	NA									
6 - Quality Assurance	Hours	0	27	1	32	28	5	92	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736	36,736	NA	NA									
	Costs	\$0	\$1,103	\$53	\$1,592	\$1,441	\$293	\$4,482	\$4,227	NA	\$3,948,030	\$4,316	NA	\$4,030,418	\$4,400	NA	\$4,109,510	\$4,029,319	\$0	NA									
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736	36,736	NA	NA									
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$1,826	\$2,218,300	\$2,218,300	\$1,864	\$2,264,592	\$2,264,592	\$1,900	\$2,309,032	\$2,309,032	\$2,263,974	NA	NA									
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost
	Hours	0	125	106	110	56	21	419	NA	266,371	308,438	NA	266,371	308,438	NA	266,371	308,438	308,438	NA	NA									
	Costs	\$0	\$2,716	\$2,097	\$5,435	\$3,106	\$1,230	\$21,362	\$19,769	\$14,993,819	\$20,606,448	\$20,181	\$15,306,712	\$21,028,102	\$20,577	\$15,607,089	\$21,440,755	\$17,266,555	\$1,924,966	\$1,833,581	NA								

1) Per site operating costs are weighted by the average percent sampling. For example, the operating expenses for a site operated for 6 months per year are assumed to be half that of a site operated for 12 months per year.

Data Entry for	PM10	Updated on	February 1, 2013	Analyzer Spare Factor	5.00%	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs
Overall Comment						Filter-Based Sites	1/1 (daily) 230 1/2 1 1/3 44 1/6 383 collocated 151 Total 809 Samplers 1545 Spares 77 Avg Percent Sampled 38% Continuous Sites 268 Spares 13 Platforms 947	Filter-Based Samplers	1/1 (daily) 230 1/2 1 1/3 44 1/6 383 collocated 151 Total 809 Samplers 1545 Spares 77 Avg Percent Sampled 38% Continuous Sites 268 Spares 13 Platforms 947	Filter-Based Samplers	1/1 (daily) 230 1/2 1 1/3 44 1/6 383 collocated 151 Total 809 Samplers 1545 Spares 77 Avg Percent Sampled 38% Continuous Sites 268 Spares 13 Platforms 947	Total Samplers 1545 Spares 77 Cont Samplers 268 Spares 13 Platforms 947

General Costs										Labor		Non Labor O & M	
Element 1 - Network Design													
a) Network Design (by Reporting Organization)													
b) Site Selection (Reporting Organization)													
Sub Total - Hours													
Sub Total - Costs													

Element 2 - Site Installation										Labor		Non Labor O & M	
Materials													
Labor													
Procurement													
Installation													
a) Sampler													
b) Cont Sampler													
Sub Total - Hours													
Sub Total - Costs													

Element 3 - Sampling and Analysis										Labor		Non Labor O & M	
Supplies													
Routine visits													
Laboratory													
Sub Total - Hours													
Sub Total - Costs													

Element 4 - Maintenance										Labor		Non Labor O & M	
Spare parts/supplies													
Remedial Repairs													
Routine Maint. Filter													
Sub Total - Hours													
Sub Total - Costs													

Element 5 - Data Management		Comment						Element 5 - Data Management				Element 5 - Data Management				Element 5 - Data Management					
								Per Site				Per Site				Per Site					
								Adjusted				Adjusted				Adjusted					
								Total				Total				Total					
								Yearly Cost				Yearly Cost				Yearly Cost					
Data acquisition/processing	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site	Per Site	Entire Network			Per Site	Entire Network			Per Site	Entire Network				
Filter - based	Hours per site	0	0	96	0	0	96	37	56,651	56,651	56,651	37	77,664	77,664	77,664	37	77,664	77,664	77,664	70,660	NA
Cost per site	\$0	\$0	\$4,236	\$0	\$0	\$0	\$4,236	\$1,938	\$2,994,685	\$2,994,685	\$2,994,685	\$5,181	\$4,191,128	\$4,191,128	\$4,191,128	\$5,282	\$4,273,374	\$4,273,374	\$4,273,374	\$3,819,729	NA
Continuous	Hours per site	0	0	6	6	0	12	12	3,216	3,216	3,216	12	3,216	3,216	3,216	12	3,216	3,216	3,216	3,216	NA
Cost per site	\$0	\$0	\$265	\$296	\$0	\$0	\$561	\$672	\$180,117	\$180,117	\$180,117	\$686	\$183,876	\$183,876	\$183,876	\$700	\$187,484	\$187,484	\$187,484	\$183,825	NA
Data reporting Filter	Hours per site	0	0	0	38	0	38	15	11,742	11,742	11,742	15	11,742	11,742	11,742	15	11,742	11,742	11,742	11,742	NA
Cost per site	\$0	\$0	\$0	\$1,872	\$0	\$0	\$1,872	\$857	\$692,981	\$692,981	\$692,981	\$874	\$707,442	\$707,442	\$707,442	\$892	\$721,325	\$721,325	\$721,325	\$707,249	NA
Continuous	Hours per site	0	0	6	12	0	18	18	4,824	4,824	4,824	18	4,824	4,824	4,824	18	4,824	4,824	4,824	4,824	NA
Cost per site	\$0	\$0	\$265	\$591	\$0	\$0	\$856	\$1,025	\$274,831	\$274,831	\$274,831	\$1,047	\$280,566	\$280,566	\$280,566	\$1,067	\$286,072	\$286,072	\$286,072	\$280,490	NA
Data validation Filter	Hours per site	0	0	24	72	48	144	55	44,496	44,496	44,496	55	44,496	44,496	44,496	55	44,496	44,496	44,496	44,496	NA
Cost per site	\$0	\$0	\$1,059	\$3,547	\$2,662	\$0	\$7,268	\$3,326	\$2,690,483	\$2,690,483	\$2,690,483	\$3,395	\$2,746,628	\$2,746,628	\$2,746,628	\$3,462	\$2,800,528	\$2,800,528	\$2,800,528	\$2,745,879	NA
Continuous	Hours per site	0	0	6	14	0	20	20	5,360	5,360	5,360	20	5,360	5,360	5,360	20	5,360	5,360	5,360	5,360	NA
Cost per site	\$0	\$0	\$265	\$690	\$0	\$0	\$955	\$1,144	\$306,616	\$306,616	\$306,616	\$1,168	\$313,015	\$313,015	\$313,015	\$1,191	\$319,157	\$319,157	\$319,157	\$312,929	NA
Data distribution	Hours per site	0	0	6	7	0	13	13	10,517	10,517	10,517	13	10,517	10,517	10,517	13	10,517	10,517	10,517	10,517	NA
Cost per site	\$0	\$0	\$265	\$345	\$0	\$0	\$610	\$279	\$225,811	\$225,811	\$225,811	\$285	\$230,523	\$230,523	\$230,523	\$291	\$235,047	\$235,047	\$235,047	\$230,460	NA
Continuous	Hours per site	0	0	2	2	2	6	6	1,608	1,608	1,608	6	1,608	1,608	1,608	6	1,608	1,608	1,608	1,608	NA
Cost per site	\$0	\$0	\$88	\$99	\$111	\$0	\$298	\$357	\$95,677	\$95,677	\$95,677	\$364	\$97,674	\$97,674	\$97,674	\$372	\$99,590	\$99,590	\$99,590	\$97,647	NA
Sub Total - Hours	0	0	146	151	50	0	347	175	138,414	138,414	138,414	175	159,427	159,427	159,427	175	159,427	159,427	159,427	152,423	NA
Sub Total - Costs	\$0	\$0	\$6,443	\$7,440	\$2,773	\$0	\$16,656	\$9,598	\$7,461,201	\$7,461,201	\$7,461,201	\$13,001	\$8,750,851	\$8,750,851	\$8,750,851	\$13,256	\$8,922,577	\$8,922,577	\$8,922,577	\$8,378,210	NA

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance				Labor		Non Labor O & M		
		Years Amortized						Per Site				Per Site				Labor		Non Labor O & M		
		7						Adjusted				Adjusted				Labor		Non Labor O & M		
		Year						Total				Total				Labor		Non Labor O & M		
		2013						Yearly Cost				Yearly Cost				Labor		Non Labor O & M		
Audit/Calibration Kits (Filter Based)	Unit cost	\$125	2013					\$150	\$98,536	\$2,815	\$153	\$100,592	\$2,874	\$156	\$102,566	\$2,930	NA	\$2,873		
Audit/Calibration Kits (Continuous)	Unit cost	\$360	2013					\$431	\$115,583	\$3,302	\$440	\$117,995	\$3,371	\$449	\$120,311	\$3,437	NA	\$3,376		
Audits - Filter based	Hours per site	0	0	0	35	34	69	26.4	21,321	21,321	26.4	21,321	21,321	26.4	21,321	21,321	21,321	21,321	21,321	NA
Cost per site	\$0	\$0	\$0	\$1,724	\$1,886	\$0	\$3,610	\$1,652	\$1,336,357	\$1,336,357	\$1,686	\$1,364,244	\$1,364,244	\$1,719	\$1,391,016	\$1,391,016	\$1,363,872	\$1,363,872	\$1,363,872	NA
Audits - Continuous	Hours per site	0	0	12	0	0	12	NA	3,216	3,216	NA	3,216	3,216	NA	3,216	3,216	3,216	3,216	3,216	NA
Cost per site	\$0	\$0	\$529	\$0	\$0	\$0	\$529	\$634	\$169,843	\$169,843	\$647	\$173,387	\$173,387	\$660	\$176,790	\$176,790	\$173,340	\$173,340	\$173,340	NA
Training - Filter	Hours per site	0	0	0	4	0	4	NA	2,632	2,632	NA	2,632	2,632	NA	2,632	2,632	3,035	3,035	3,035	NA
Cost per site	\$0	\$0	\$0	\$197	\$0	\$0	\$197	\$236	\$155,292	\$155,292	\$241	\$158,533	\$158,533	\$246	\$161,644	\$161,644	\$158,489	\$158,489	\$158,489	NA
Training - Continuous	Hours per site	0	0	2	2	1	5	NA	1,340	1,340	NA	1,340	1,340	NA	1,340	1,340	1,340	1,340	1,340	NA
Cost per site	\$0	\$0	\$88	\$99	\$55	\$0	\$242	\$290	\$77,697	\$77,697	\$296	\$79,319	\$79,319	\$302	\$80,875	\$80,875	\$79,297	\$79,297	\$79,297	NA
Reporting - Filter	Hours per site	0	0	0	6	6	12	NA	9,708	9,708	NA	9,708	9,708	NA	9,708	9,708	9,708	9,708	9,708	NA
Cost per site	\$0	\$0	\$0	\$296	\$333	\$0	\$629	\$754	\$609,615	\$609,615	\$769	\$622,337	\$622,337	\$784	\$634,550	\$634,550	\$622,167	\$622,167	\$622,167	NA
Reporting - Cont	Hours per site	0	0	2	2	1	5	NA	1,340	1,340	NA	1,340	1,340	NA	1,340	1,340	3,143	3,143	3,143	NA
Cost per site	\$0	\$0	\$88	\$99	\$55	\$0	\$242	\$290	\$77,697	\$77,697	\$296	\$79,319	\$79,319	\$302	\$80,875	\$80,875	\$79,297	\$79,297	\$79,297	NA
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0.5	NA	73	73	NA	73	73	NA	73	73	24	24	24	NA
Cost	Cost	0	0	9	15	0	24	\$29	\$4,198	\$4,198	\$29	\$0	\$0	\$30	\$0	\$0	\$1,399	\$1,399	\$1,399	NA
QA Plan preparation	Hours per RO	0	0	6	5	5	16	NA	2336	467	NA	0	0	NA	0	0	156	156	156	NA
Cost per RO	Cost per RO	0	0	265	246	277	\$789	\$944	\$137,828	\$27,566	\$964	\$0	\$0	\$983	\$0	\$0	\$9,189	\$9,189	\$9,189	NA
Sub Total - Hours	0	0	22	54	47	0	124	NA	41,966	40,097	NA	42,866	42,866	NA	42,866	42,866	41,943	41,943	41,943	NA
Sub Total - Costs	\$0	\$0	\$979	\$2,676	\$2,606	\$0	\$6,261	\$4,828	\$2,568,528	\$2,458,266	\$4,929	\$2,477,139	\$2,477,139	\$5,025	\$2,525,750	\$2,525,750	\$2,487,051	\$2,487,051	\$2,487,051	\$6,244

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision									
								Per Site				Per Site									
								Adjusted				Adjusted									
								Total				Total									
								Yearly Cost				Yearly Cost									
Planning/coordination	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site	Per Site	Entire Network			Per Site	Entire Network			Per Site	Entire Network				
Filter Based	Hours per site	0	0	0	2	2	4	NA	2,632	2,632	NA	2,632	2,632	NA	2,632	2,632	2,632	2,632	2,632	NA	
Cost per site	\$0	\$0	\$0	\$99	\$111	\$0	\$210	\$252	\$165,540	\$165,540	\$257	\$168,994	\$168,994	\$262	\$172,310	\$172,310	\$168,948	\$168,948	\$168,948	NA	
Continuous	Hours per site	0	0	0	6	12	18	NA	4,824	4,824	NA	4,824	4,824	NA	4,824	4,824	4,824	4,824	4,824	NA	
Cost per site	\$0	\$0	\$0	\$296	\$666	\$0	\$962	\$1,152	\$308,864	\$308,864	\$1,177	\$315,309	\$315,309	\$1,200	\$321,497	\$321,497	\$315,223	\$315,223	\$315,223	NA	
Supervision/review	Hours per site	0	0	0	3	3	6	NA	3,948	3,948	NA	3,948	3,948	NA	3,948	3,948	3,948	3,948	3,948	NA	
Filter Based	Hours per site	0	0	0	0	166	176	\$342	\$410	\$269,593	\$269,593	\$418	\$275,219	\$275,219	\$426	\$280,620	\$280,620	\$275,144	\$275,144	NA	
Cost per site	\$0	\$0	\$0	\$3	\$3	\$0	\$6	NA	1,608	1,608	NA	1,608	1,608	NA	1,608	1,608	1,608	1,608	1,608	NA	
Continuous	Hours per site	0	0	0	148	166	314	\$314	\$376	\$100,814	\$100,814	\$384	\$102,918	\$102,918	\$392	\$104,938	\$104,938	\$102,890	\$102,890	NA	
Cost per site	\$0	\$0	\$0	\$11	\$20	\$3	\$34	NA	13,012	13,012	NA	13,012	13,012	NA	13,012	13,012	13,012	13,012	13,012	NA	
Sub Total - Hours	0	0	0	11	20	3	34	NA	13,012	13,012	NA	13,012	13,012	NA	13,012	13,012	13,012	13,012	13,012	NA	
Sub Total - Costs	\$0	\$0	\$0	\$543	\$1,109	\$176	\$1,828	NA	\$844,810	\$844,810	NA	\$862,440	\$862,440	NA	\$879,364	\$879,364	\$862,205	\$862,205	\$862,205	NA	

NA
\$2,040,597
NA
NA
NA
NA
NA
NA
NA
NA
NA
\$2,040,597

Data Entry for	PM25	Updated on	December 5, 2012	Sampling Schedule				Sampler Type			Spares	Sampling Platforms		
Overall Comment	Report Org 133			1/1 (daily)	148	sequential	733	110			975			
				1/3	585	single channel	144	22						
				1/6	270	single channel collocated	190							
				seasonal	52	continuous	606	91						
				Filter-Based Total	1055	speciation	198							
				Avg Percent Sampled	39%	Analyzer Spare Factor	15.00%							

General Costs													Year 1 2013			Year 2 2014			Year 3 2015			Average Yearly Costs					
													Labor			Non Labor O & M			Equipment								
Element 1 - Network Design													Element 1 - Network Design			Element 1 - Network Design			Element 1 - Network Design								
a) Network Design (by Reporting Organization)													Per RO			Entire Network			Per RO			Entire Network					
Labor Category													Adjusted			Total			Adjusted			Total					
Hours per RO													NA			1,995			NA			1,995					
Costs per RO													\$978			\$130,017			\$998			\$132,730					
b) Site Selection (Reporting Organization)													Per RO			Entire Network			Per RO			Entire Network					
Hours per RO													NA			798			NA			798					
Costs per RO													\$357			\$47,482			\$364			\$48,472					
Sub Total - Hours													NA			2,793			NA			2,793					
Sub Total - Costs													\$1,335			\$177,498			\$1,362			\$181,202					

Element 2 - Site Installation													Element 2 - Site Installation			Element 2 - Site Installation			Element 2 - Site Installation											
Materials													Per Site			Entire Network			Per Site			Entire Network								
Unit cost													Adjusted			Total			Adjusted			Total								
Year													Adjusted			Total			Adjusted			Total								
Single-channel analyzers													\$8,386			\$1,207,584			\$8,561			\$1,232,784								
Spare Single-channel analyzers													\$8,386			\$181,138			\$8,561			\$184,918								
Collocated Single-channel analyzers													\$8,386			\$1,593,340			\$8,561			\$1,626,590								
Seasonal Single-channel analyzers													\$13,178			\$685,256			\$13,453			\$445,172								
Sequential Sampler													\$13,178			\$9,659,474			\$13,453			\$9,861,049								
Spare Sequential Samplers													\$13,178			\$1,448,921			\$13,453			\$1,479,157								
Continuous Sampler													\$21,923			\$13,285,580			\$22,381			\$13,562,825								
Spare Continuous Samplers													\$21,923			\$1,992,837			\$22,381			\$2,034,424								
Speciation Sampler													\$14,376			\$2,846,448			\$14,676			\$2,905,848								
Data acquisition (laptop/PDA)													\$479			\$536,225			\$489			\$547,415								
Sampling Platform													\$2,396			\$2,336,100			\$2,446			\$2,384,850								
Labor													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			34,327			NA			34,327								
Cost per site													\$895			\$1,919,976			\$914			\$1,960,042								
Procurement													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			4,904			NA			4,904								
Cost per site													\$747			\$274,282			\$932			\$1,998,506								
Installation													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			2,672			NA			2,672								
Cost per site													\$350			\$419			\$428			\$436								
a) Single Channel													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			5,864			NA			5,864								
Cost per site													\$419			\$307,347			\$428			\$313,761								
b) Sequential													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			416			NA			416								
Cost per site													\$350			\$419			\$428			\$436								
c) Seasonal													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			693			NA			693								
Cost per site													\$350			\$419			\$428			\$436								
d) Continuous													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			339			NA			339								
Cost per site													\$350			\$419			\$428			\$436								
e) Speciation													Per Site			Entire Network			Per Site			Entire Network								
Hours per site													NA			5534			NA			5666								
Cost per site													\$640			\$126,667			\$653			\$129,310								
Sub Total - Hours													NA			36,999			NA			36,999								
Sub Total - Costs													\$0			\$653			\$749			\$544			\$0					

Element 3 - Sampling and Analysis													Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits														
Supplies													Per Site			Entire Network			Per Site			Entire Network											
Unit cost													Adjusted			Total			Adjusted			Total											
Year													Adjusted			Total			Adjusted			Total											
Filters													\$423			\$446,375			\$432			\$455,690											
Speciation sampling national contract													\$8,454,530			\$8,454,530			\$8,630,960			\$8,630,960											
Microbalance													\$3,594			\$3,594			\$3,669			\$3,669											
Clean Room for Weighing													\$89,850			\$89,850			\$91,725			\$91,725											
Routine visits													Per Site			Entire Network			Per Site			Entire Network											
1/1, 1/3, and 1/6 sites													Hours per site			180			NA			103,590			103,590								
Cost per site													\$7,784			\$9,325			\$9,520			\$5,478,663			\$5,478,663								
Seasonal sites													Hours per site			45			NA			2,340			NA			2,340					
Cost per site													\$1,945			\$2,330			\$2,379			\$123,694			\$123,694								
Continuous sites													Hours per site			32			NA			19,392			NA			19,392					
Cost per site													\$1,546			\$1,852			\$1,891			\$1,145,799			\$1,145,799								
Speciation													Hours per site			180			NA			35,640			NA			35,640					
Cost per site													\$8,405			\$10,069			\$10,279			\$2,035,304			\$2,035,304								
Laboratory													Hours per site			240			94.2			45,819			94.2			45,819					
Cost per site													\$10,916			\$13,077			\$13,350			\$6,494,905			\$6,494,905								
Sub Total - Hours													NA			206,781			NA			206,781			NA			206,781					
Sub Total - Costs													\$0			\$8,499			\$4,677			\$9,015			\$0			\$0					

Element 4 - Maintenance			Comment					Element 4 - Maintenance				Element 4 - Maintenance				Element 4 - Maintenance									
Spare parts/supplies	Unit cost	Year	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network		NA	NA	NA	NA
										Adjusted	Total	Adjusted	Total	Adjusted	Total	Adjusted	Total	Adjusted	Total						
Sequential	\$300	2013							14	14	\$359	\$263,440	\$263,440	\$367	\$268,938	\$268,938	\$374	\$274,215	\$274,215	NA	\$268,864	NA			
Single channel	\$250	2013							8	8	\$300	\$100,033	\$100,033	\$306	\$102,121	\$102,121	\$312	\$104,125	\$104,125	NA	\$102,093	NA			
Seasonal	\$275	2013							14	14	\$329	\$17,131	\$17,131	\$336	\$17,489	\$17,489	\$343	\$17,832	\$17,832	NA	\$17,484	NA			
Continuous	\$155	2013							14	14	\$186	\$112,528	\$112,528	\$190	\$114,876	\$114,876	\$193	\$117,131	\$117,131	NA	\$114,845	NA			
Speciation	\$500	2013							14	14	\$599	\$118,602	\$118,602	\$612	\$121,077	\$121,077	\$624	\$123,453	\$123,453	NA	\$121,044	NA			
Remedial Repairs																									
Sequential	Hours per site		2	6	6	0	0	0	14	14	10,262	10,262	14	10,262	10,262	14	10,262	10,262	14	10,262	10,262	NA	NA	NA	NA
Single channel	Cost per site	\$0	\$82	\$265	\$296	\$0	\$0	\$0	\$643	\$770	\$564,640	\$564,640	\$786	\$576,423	\$576,423	\$802	\$587,735	\$587,735	\$576,266	NA	NA	NA	NA		
Seasonal	Hours per site	0	2	4	0	0	0	0	8	8	2,672	2,672	8	2,672	2,672	8	2,672	2,672	8	2,672	2,672	NA	NA	NA	NA
Continuous	Cost per site	\$0	\$82	\$88	\$197	\$0	\$0	\$0	\$367	\$440	\$146,848	\$146,848	\$449	\$149,913	\$149,913	\$458	\$152,855	\$152,855	\$149,872	NA	NA	NA	NA		
Speciation	Hours per site	0	2	6	6	0.0	0.0	0	14	14	728	728	14	728	728	14	728	728	14	728	728	NA	NA	NA	NA
Sequential	Cost per site	\$0	\$82	\$265	\$296	\$0	\$0	\$0	\$643	\$770	\$40,056	\$40,056	\$786	\$40,892	\$40,892	\$802	\$41,695	\$41,695	\$40,881	NA	NA	NA	NA		
Single channel	Hours per site	0	2	4	0	0	0	0	8	8	8,484	8,484	14	8,484	8,484	14	8,484	8,484	14	8,484	8,484	NA	NA	NA	NA
Seasonal	Cost per site	\$0	\$82	\$265	\$296	\$0	\$0	\$0	\$643	\$770	\$466,810	\$466,810	\$786	\$476,552	\$476,552	\$802	\$485,904	\$485,904	\$476,422	NA	NA	NA	NA		
Continuous	Hours per site	0	2	6	6	0.0	0.0	0	14	14	2,772	2,772	14	2,772	2,772	14	2,772	2,772	14	2,772	2,772	NA	NA	NA	NA
Speciation	Cost per site	\$0	\$0	\$176	\$296	\$222	\$0	\$0	\$694	\$831	\$164,620	\$164,620	\$849	\$168,055	\$168,055	\$865	\$171,353	\$171,353	\$168,009	NA	NA	NA	NA		
Routine Maintenance																									
Sequential	Hours per site	0	2	6	8	0	0	0	16	16	11,728	11,728	16	11,728	11,728	16	11,728	11,728	16	11,728	11,728	NA	NA	NA	NA
Single channel	Cost per site	\$0	\$82	\$265	\$394	\$0	\$0	\$0	\$741	\$888	\$650,697	\$650,697	\$906	\$664,276	\$664,276	\$924	\$677,312	\$677,312	\$664,095	NA	NA	NA	NA		
Seasonal	Hours per site	0	2	4	0	0	0	0	12	12	4,008	4,008	12	4,008	4,008	12	4,008	4,008	12	4,008	4,008	NA	NA	NA	NA
Continuous	Cost per site	\$0	\$82	\$176	\$296	\$0	\$0	\$0	\$554	\$664	\$221,673	\$221,673	\$678	\$226,299	\$226,299	\$691	\$230,740	\$230,740	\$226,237	NA	NA	NA	NA		
Speciation	Hours per site	0	2	6	8	0.0	0.0	0	16	16	832	832	16	832	832	16	832	832	16	832	832	NA	NA	NA	NA
Sequential	Cost per site	\$0	\$82	\$265	\$394	\$0	\$0	\$0	\$741	\$888	\$46,161	\$46,161	\$906	\$47,125	\$47,125	\$924	\$48,049	\$48,049	\$47,112	NA	NA	NA	NA		
Single channel	Hours per site	0	5	5	4	0.0	0.0	0	14	14	8,484	8,484	14	8,484	8,484	14	8,484	8,484	14	8,484	8,484	NA	NA	NA	NA
Seasonal	Cost per site	\$0	\$204	\$221	\$197	\$0	\$0	\$0	\$622	\$745	\$451,565	\$451,565	\$761	\$460,988	\$460,988	\$776	\$470,034	\$470,034	\$460,862	NA	NA	NA	NA		
Continuous	Hours per site	0	0	4	12	0.0	0.0	0	16	16	3,168	3,168	16	3,168	3,168	16	3,168	3,168	16	3,168	3,168	NA	NA	NA	NA
Speciation	Cost per site	\$0	\$0	\$176	\$591	\$0	\$0	\$0	\$767	\$919	\$181,935	\$181,935	\$938	\$185,732	\$185,732	\$956	\$189,377	\$189,377	\$185,681	NA	NA	NA	NA		
Sub Total - Hours	0	19	49	66	4	0	0	0	138	138	53,138	53,138	138	53,138	53,138	138	53,138	53,138	138	53,138	53,138	NA	NA	NA	NA
Sub Total - Costs	\$0	\$778	\$2,162	\$3,253	\$222	\$0	\$0	\$0	\$6,415	\$7,685	\$3,546,741	\$3,546,741	\$7,846	\$3,620,755	\$3,620,755	\$8,000	\$3,691,808	\$3,691,808	\$2,995,438	\$624,330	NA	NA	NA	NA	

Element 5 - Data Management			Comment					Element 5 - Data Management				Element 5 - Data Management				Element 5 - Data Management								
Data acquisition/processing	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network		NA	NA	NA	NA	
								Adjusted	Total	Adjusted	Total	Adjusted	Total	Adjusted	Total									
Sequential	Hours per site	0	18	54	18	0	0	90	90	65,970	65,970	90	65,970	65,970	90	65,970	65,970	90	65,970	65,970	NA	NA	NA	NA
Single-channel	Cost per site	0	735	2382	887	0	0	\$4,004	\$4,797	\$3,516,049	\$3,516,049	\$4,897	\$3,589,422	\$3,589,422	\$4,993	\$3,659,860	\$3,659,860	\$3,588,444	NA	NA	NA	NA		
Seasonal	Hours per site	0	0	6	12	0	0	18	18	6,012	6,012	18	6,012	6,012	18	6,012	6,012	18	6,012	6,012	NA	NA	NA	NA
Continuous	Cost per site	0	0	265	591	0	0	\$856	\$1,025	\$342,513	\$342,513	\$1,047	\$349,661	\$349,661	\$1,067	\$356,522	\$356,522	\$349,565	NA	NA	NA	NA		
Speciation	Hours per site	0	18	54	18	0	0	90	90	4,680	4,680	90	4,680	4,680	90	4,680	4,680	90	4,680	4,680	NA	NA	NA	NA
Sequential	Cost per site	0	735	2382	887	0	0	\$4,004	\$4,797	\$249,433	\$249,433	\$4,897	\$254,638	\$254,638	\$4,993	\$259,635	\$259,635	\$254,569	NA	NA	NA	NA		
Single-channel	Hours per site	0	0	2.5	10.5	3	0	16	16	9,696	9,696	16	9,696	9,696	16	9,696	9,696	16	9,696	9,696	NA	NA	NA	NA
Seasonal	Cost per site	0	0	110	517	166	0	\$793	\$950	\$575,708	\$575,708	\$970	\$587,722	\$587,722	\$989	\$599,256	\$599,256	\$587,562	NA	NA	NA	NA		
Continuous	Hours per site	0	4.5	13.5	4.5	0	0	22.5	23	16,493	16,493	23	16,493	16,493	22.5	16,493	16,493	22.5	16,493	16,493	NA	NA	NA	NA
Speciation	Cost per site	0	184	596	222	0	0	\$1,002	\$1,200	\$879,890	\$879,890	\$1,225	\$898,252	\$898,252	\$1,249	\$915,879	\$915,879	\$898,007	NA	NA	NA	NA		
Sequential	Hours per site	0	1	2	1	2	0	6	6	2,004	2,004	6	2,004	2,004	6.0	2,004	2,004	6.0	2,004	2,004	NA	NA	NA	NA
Single-channel	Cost per site	0	41	88	49	111	0	\$289	\$346	\$115,638	\$115,638	\$353	\$118,051	\$118,051	\$360	\$120,368	\$120,368	\$118,019	NA	NA	NA	NA		
Seasonal	Hours per site	0	4.5	13.5	4.5	0	0	22.5	23	1,170	1,170	23	1,170	1,170	22.5	1,170	1,170	22.5	1,170	1,170	NA	NA	NA	NA
Continuous	Cost per site	0	184	596	222	0	0	\$1,002	\$1,200	\$62,421	\$62,421	\$1,225	\$63,723	\$63,723	\$1,249	\$64,974	\$64,974	\$63,706	NA	NA	NA	NA		
Speciation	Hours per site	0	0	4	6	2	0	12	12	7,272	7,272	12	7,272	7,272	12.0	7,272	7,272	12.0	7,272	7,272	NA	NA	NA	NA
Sequential	Cost per site	0	0	176	296	111	0	\$583	\$698	\$423,251	\$423,251	\$713	\$432,083	\$432,083	\$727	\$440,563	\$440,563	\$431,966	NA	NA	NA	NA		
Single-channel	Hours per site	0	9	9	18	27	0	63	63	46,179	46,179	63	46,179	46,179	63.0	46,179	46,179	63.0	46,179	46,179	NA	NA	NA	NA
Seasonal	Cost per site	0	368	397	887	1498	0	\$3,150	\$3,774	\$2,766,122	\$2,766,122	\$3,852	\$2,823,846	\$2,823,846	\$3,928	\$2,879,261	\$2,879,261	\$2,823,076	NA	NA	NA	NA		
Continuous	Hours per site	0	0	4	6	2	0	12	12	3,340	3,340	12	3,340	3,340	12.0	3,340	3,340	12.0	3,340	3,340	NA	NA	NA	NA
Speciation	Cost per site	0	0	176	296	111	0	\$583	\$698	\$233,277	\$233,277	\$713	\$238,145	\$238,145	\$727	\$242,818	\$242,818	\$238,080	NA	NA	NA	NA		
Sequential	Hours per site	0	9	9	18	27	0	58.5	59	3,042	3,042	59	3,042	3,042	58.5	3,042	3,042	58.5	3,042	3,042	NA	NA	NA	NA
Single-channel	Cost per site	0	368	397	665	1498	0	\$2,928	\$3,508	\$182,403	\$182,403	\$3,581	\$186,209	\$186,209	\$3,651	\$189,863	\$189,863	\$186,158	NA	NA	NA	NA		
Seasonal	Hours per site																							

Element 6 - Quality Assurance		Years Amortized						Comment	Element 6 - Quality Assurance						Element 6 - Quality Assurance						Element 6 - Quality Assurance						Labor	Non Labor O & M	Equipment
		2013		2014		2015			Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network						
		Unit cost	Year						Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost						
Filter-based calibration kit		\$120	2013					\$144	\$151,667	\$4,333	\$147	\$154,832	\$4,424	\$150	\$157,870	\$4,511	NA	NA	NA	NA	NA	NA	\$4,423						
Continuous calibration kit		\$75	2013					\$90	\$54,449	\$1,556	\$92	\$55,585	\$1,588	\$94	\$56,676	\$1,619	NA	NA	NA	NA	NA	NA	\$1,588						
Audits		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network													
Sequential	Hours per site	0	2	6	2	0	0	10	10.0	7,330	10.0	7,330	10.0	7,330	10.0	7,330							7,330						
	Cost per site	0	82	265	99	0	0	\$446	\$534	\$391,648	\$545	\$399,821	\$556	\$407,667	\$407,667	\$399,712	NA	NA	NA	NA	NA	NA	\$399,712						
Single-channel	Hours per site	0	2	6	2	0	0	10	10	3,340	10	3,340	10	3,340	10	3,340							3,340						
	Cost per site	0	82	265	99	0	0	\$446	\$534	\$178,459	\$545	\$182,183	\$556	\$185,758	\$185,758	\$182,133	NA	NA	NA	NA	NA	NA	\$182,133						
Seasonal	Hours per site	0	2	6	2	0	0	10	10	520	10	520	10	520	10	520							520						
	Cost per site	0	82	265	99	0	0	\$446	\$534	\$27,784	\$545	\$28,364	\$556	\$28,920	\$28,920	\$28,356	NA	NA	NA	NA	NA	NA	\$28,356						
Continuous	Hours per site	0	3	5	2	0	0	10	10	6,060	10	6,060	10	6,060	10	6,060							6,060						
	Cost per site	0	123	221	99	0	0	\$443	\$531	\$321,613	\$542	\$328,324	\$552	\$334,767	\$334,767	\$328,235	NA	NA	NA	NA	NA	NA	\$328,235						
Reporting		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost						
Sequential	Hours per site	0	0	0	2	2	0	4	4	2,932	4	2,932	4	2,932	4	2,932							2,932						
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$184,408	\$257	\$188,256	\$262	\$191,951	\$191,951	\$188,205	NA	NA	NA	NA	NA	NA	\$188,205						
Single-channel	Hours per site	0	0	0	2	2	0	4	4	3,340	4	3,340	4	3,340	4	3,340							3,340						
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$84,028	\$257	\$85,781	\$262	\$87,465	\$87,465	\$85,758	NA	NA	NA	NA	NA	NA	\$85,758						
Seasonal	Hours per site	0	0	0	2	2	0	4	4	208	4	208	4	208	4	208							208						
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$13,082	\$257	\$13,355	\$262	\$13,617	\$13,617	\$13,352	NA	NA	NA	NA	NA	NA	\$13,352						
Continuous	Hours per site	0	0	0	2	2	0	4	4	2,424	4	2,424	4	2,424	4	2,424							2,424						
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$152,457	\$257	\$155,639	\$262	\$158,693	\$158,693	\$155,597	NA	NA	NA	NA	NA	NA	\$155,597						
Implementation/coordination		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost						
Sequential	Hours per site	0	5	5	2	1	0	13	13	9,529	13	9,529	13	9,529	13	9,529							9,529						
	Cost per site	0	204	221	99	55	0	\$579	\$694	\$508,440	\$708	\$519,050	\$722	\$529,236	\$529,236	\$519,908	NA	NA	NA	NA	NA	NA	\$519,908						
Single-channel	Hours per site	0	5	5	2	1	0	13	13	3,340	13	3,340	13	3,340	13	3,340							3,340						
	Cost per site	0	204	221	99	55	0	\$579	\$694	\$231,676	\$708	\$236,511	\$722	\$241,152	\$241,152	\$236,447	NA	NA	NA	NA	NA	NA	\$236,447						
Seasonal	Hours per site	0	5	5	2	1	0	13	13	676	13	676	13	676	13	676							676						
	Cost per site	0	204	221	99	55	0	\$579	\$694	\$36,069	\$708	\$36,822	\$722	\$37,545	\$37,545	\$36,812	NA	NA	NA	NA	NA	NA	\$36,812						
Continuous	Hours per site	0	0	5	5	2	1	13	13	7,878	13	7,878	13	7,878	13	7,878							7,878						
	Cost per site	0	0	221	246	111	59	\$637	\$763	\$462,454	\$779	\$472,105	\$794	\$481,369	\$481,369	\$471,976	NA	NA	NA	NA	NA	NA	\$471,976						
Training		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost						
Sequential	Hours per site	0	0	3	2	1	0	6	6	4,398	6	4,398	6	4,398	6	4,398							4,398						
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$251,146	\$350	\$256,387	\$357	\$261,419	\$261,419	\$256,317	NA	NA	NA	NA	NA	NA	\$256,317						
Single-channel	Hours per site	0	0	3	2	1	0	6	6	3,340	6	3,340	6	3,340	6	3,340							3,340						
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$114,438	\$350	\$116,826	\$357	\$119,118	\$119,118	\$116,794	NA	NA	NA	NA	NA	NA	\$116,794						
Seasonal	Hours per site	0	0	3	2	1	0	6	6	312	6	312	6	312	6	312							312						
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$17,817	\$350	\$18,188	\$357	\$18,545	\$18,545	\$18,183	NA	NA	NA	NA	NA	NA	\$18,183						
Continuous	Hours per site	0	0	3	2	1	0	6	6	3,636	6	3,636	6	3,636	6	3,636							3,636						
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$207,633	\$350	\$211,965	\$357	\$216,125	\$216,125	\$211,908	NA	NA	NA	NA	NA	NA	\$211,908						
QA Plan preparation		Years Amortized						Per RO	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network					
Hours per RO		0	0	5	5	5	0	15	NA	1,995	15	1,995	15	1,995	15	1,995							1,995						
Cost per RO		0	0	221	246	277	0	\$744	\$891	\$118,544	\$910	\$121,018	\$928	\$123,393	\$123,393	\$118,544	NA	NA	NA	NA	NA	NA	\$118,544						
QA Plan review (annual)		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Labor per RO	Adjusted per RO	Total	Yearly Cost	Adjusted per RO	Total	Yearly Cost	Adjusted per RO	Total	Yearly Cost	Adjusted per RO	Total	Yearly Cost	Adjusted per RO	Total	Yearly Cost						
Hours per RO		0	0	0	5	5	5	15	NA	1,995	15	1,995	15	1,995	15	1,995							1,995						
Cost		0	0	0	246	277	293	\$816	\$978	\$130,017	\$998	\$132,730	\$1,018	\$135,334	\$135,334	\$130,017	NA	NA	NA	NA	NA	NA	\$130,017						
Sub Total - Hours		0	24	60	45	27	6	162	132	59,263	132	59,263	132	59,263	132	59,263	NA	NA	NA	NA	NA	NA	59,263						
Sub Total - Costs		\$0	\$981	\$2,649	\$2,223	\$1,494	\$352	\$7,699	\$9,223	\$3,637,829	\$9,416	\$3,713,743	\$3,306,340	\$9,601	\$3,786,621	\$3,371,223	\$3,361,085	\$0	\$6,010				\$6,010						

Element 7 - Supervision		Years Amortized						Comment	Element 7 - Supervision						Element 7 - Supervision						Element 7 - Supervision						Labor	Non Labor O & M	Equipment
		2013		2014		2015			Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network						
		Unit cost	Year						Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost						
Planning/coordination		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network					
Sequential	Hours per site	0	6	3	3	0	0	12	NA	8,796	12	8,796	12	8,796	12	8,796							8,796						
	Cost per site	0	245	132	148	0	0	\$525	\$629	\$461,020	\$642	\$470,641	\$655	\$479,877	\$479,877	\$470,513	NA	NA	NA	NA	NA	NA	\$470,513						
Single Channel	Hours per site	0	6	3	3	0	0	12	NA	1,728	12	1,728	12	1,728	12	1,728							1,728						
	Cost per site	0	245	132	148	0	0	\$525	\$629	\$90,569	\$642	\$92,459	\$655	\$94,273	\$94,273	\$92,434	NA	NA	NA	NA	NA	NA	\$92,434						
Seasonal	Hours per site	0	6	3	3	0	0	12	NA	624	12	624	12	624	12	624							624						
	Cost per site	0	245	132	148	0	0	\$525	\$629	\$32,705	\$642	\$33,388	\$655	\$34,043	\$34,043	\$33,379	NA	NA	NA	NA	NA	NA	\$33,379						
Continuous	Hours per site	0	0	0	12	24	0	36	NA	21,816	36	21,816	36	21,816	36	21,816							21,816						
	Cost per site	0	0	0	591	1331	0	\$1,922	\$2,303	\$1,395,349	\$2,351	\$1,424,467	\$2,397	\$1,452,421	\$1,452,421	\$1,424,079	NA	NA	NA	NA	NA	NA	\$1,424,079						
Speciation	Hours per site	0	0	0	7	7	0	14	NA	2,772	14	2,772	14	2,772	14	2,772							2,772						
	Cost per site	0	0	0	3																								

Summary by Element	PM25								Year 1 2013			Year 2 2014			Year 3 2015					
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
1 - Network Design	Hours	0	0	2	7	7	5	21	NA	2,793	399	NA	2,793	399	NA	2,793	399	NA	2,793	399
	Costs	\$0	\$0	\$88	\$345	\$388	\$293	\$1,114	\$1,335	\$177,498	\$25,357	\$1,362	\$181,202	\$25,886	\$1,389	\$184,758	\$26,394	\$25,879	NA	NA
2 - Site Installation	Hours	0	16	17	11	0	0	44	NA	36,999	5,625	NA	36,999	5,625	NA	36,999	5,625	NA	36,999	5,625
	Costs	\$0	\$653	\$749	\$544	\$0	\$0	\$1,946	\$129,016	\$38,551,550	\$5,507,364	\$126,817	\$39,101,664	\$5,585,952	\$129,305	\$39,868,991	\$5,695,570	\$405,123	NA	\$5,191,173
3 - Supplies & site visits	Hours	0	208	196	273	0	0	677	NA	206,781	206,781	NA	206,781	206,781	NA	206,781	206,781	NA	206,781	19,392
	Costs	\$0	\$8,499	\$4,677	\$9,015	\$0	\$0	\$22,191	\$8,491,608	\$23,866,959	\$23,866,959	\$8,668,811	\$24,365,017	\$24,365,017	\$8,838,927	\$24,843,153	\$24,843,153	\$15,274,202	\$455,566	\$8,642,232
4 - Maintenance	Hours	0	19	49	66	4	0	138	138	53,138	53,138	138	53,138	53,138	138	53,138	53,138	138	53,138	53,138
	Costs	\$0	\$778	\$2,162	\$3,253	\$222	\$0	\$7,685	#REF!	\$3,546,741	\$3,546,741	\$7,846	\$3,620,755	\$3,620,755	\$8,000	\$3,691,808	\$3,691,808	\$2,995,438	\$624,330	NA
5 - Data Managment	Hours	0	64	176.5	139	86	1	466.5	467	193,215	193,215	467	193,215	193,215	467	193,215	193,215	467	193,215	193,215
	Costs	\$0	\$2,615	\$7,786	\$6,848	\$4,770	\$59	\$22,078	\$26,449	\$10,924,689	\$10,924,689	\$27,001	\$11,152,667	\$11,152,667	\$27,531	\$11,371,525	\$11,371,525	\$11,149,627	NA	NA
6 - Quality Assurance	Hours	0	24	60	45	27	6	162	132	59263	59263	132	59263	59263	132	59263	59263	132	59263	59263
	Costs	\$0	\$981	\$2,649	\$2,223	\$1,494	\$352	\$7,699	\$9,223	\$3,637,829	\$3,238,753	\$9,416	\$3,713,743	\$3,306,340	\$9,601	\$3,786,621	\$3,371,223	\$3,361,085	\$0	\$6,010
7 - Supervision	Hours	0	18	19	57	69	30	193	NA	79830	79830	NA	79830	79830	NA	79830	79830	NA	79830	NA
	Costs	\$0	\$735	\$838	\$2,808	\$3,828	\$1,757	\$9,966	NA	\$4,978,067	\$4,978,067	NA	\$5,081,950	\$5,081,950	NA	\$5,181,678	\$5,181,678	\$5,080,565	NA	NA
Total	Hours	0	349	520	598	193	42	1,702	NA	572,755	598,250	NA	572,755	598,250	NA	572,755	598,250	410,862	NA	NA
	Costs	\$0	\$14,261	\$18,949	\$25,036	\$10,702	\$2,461	\$72,679	NA	\$2,045,505	\$52,087,931	NA	\$3,503,255	\$53,138,567	NA	\$5,141,913	\$54,181,351	\$38,291,920	\$1,079,896	\$13,839,415

\$53,211,231

Data Entry for	Pb	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites 236 Spares 0	Report Org	Sites 236 Spares 0	Report Org	Sites 236 Spares 0	Report Org	Sites 75 Spares 0
Overall Comment				0.00%	75	75	75	75	75	75	75

General Costs													Labor		Non Labor O & M	
Element 1 - Network Design																
a) Network Design (by Reporting Organization)																
b) Site Selection (Reporting Organization)																
Sub Total - Hours																
Sub Total - Costs																

Element 2 - Site Installation																
Materials																
Labor																
Procurement																
Installation																
Sub Total - Hours																
Sub Total - Costs																

Element 3 - Sampling and Analysis																
Supplies																
Filters																
Lab Services																
Routine visits																
Sub Total - Hours																
Sub Total - Costs																

Element 4 - Maintenance																
Spare parts/supplies																
Remedial Repairs																
Routine Maint.																
Sub Total - Hours																
Sub Total - Costs																

Element 5 - Data Management																
Data aquisition/processing																
Data reporting																
Data validation																
Data distribution																
Sub Total - Hours																
Sub Total - Costs																

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor	Non Labor O & M	Equipment					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost								
Audits	Hours per site	6	4	2	0	0	0	12	NA	2,832	2,832	NA	2,832	2,832	NA	2,832	2,832	2,832	NA	NA	NA				
	Cost per site	170	163	88	0	0	0	\$421	\$504	\$119,028	\$119,028	\$515	\$121,512	\$121,512	\$525	\$123,897	\$123,897	\$121,479	NA	NA	NA				
Coordination/implementation	Hours per site	0	1	1	1	1	0	4	NA	944	944	NA	944	944	NA	944	944	944	NA	NA	NA				
	Cost per site	0	41	44	49	55	0	\$189	\$226	\$53,436	\$53,436	\$231	\$54,551	\$54,551	\$236	\$55,621	\$55,621	\$54,536	NA	NA	NA				
Training	Hours per site	0	4	0	0	0	0	4	NA	944	944	NA	944	944	NA	944	944	944	NA	NA	NA				
	Cost per site	0	163	0	0	0	0	\$163	\$195	\$46,085	\$46,085	\$199	\$47,046	\$47,046	\$203	\$47,970	\$47,970	\$47,034	NA	NA	NA				
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	38	38	NA	38	38	NA	38	38	38	NA	NA	NA				
	Cost	0	0	9	15	0	0	\$24	\$29	\$2,156	\$2,156	\$29	\$2,201	\$2,201	\$30	\$2,245	\$2,245	\$2,201	NA	NA	NA				
QA Plan preparation	Hours per RO	0	12	0	0	0	0	12	NA	900	180	NA	900	180	NA	900	180	180	NA	NA	NA				
	Cost	0	490	0	0	0	0	\$490	\$587	\$44,027	\$8,805	\$599	\$44,945	\$8,989	\$611	\$45,827	\$9,165	\$8,987	NA	NA	NA				
Sub Total - Hours		6	21	3	1	1	0	33	NA	5,658	4,938	NA	5,658	4,938	NA	5,658	4,938	4,938	NA	NA	NA				
Sub Total - Costs		\$170	\$857	\$141	\$64	\$55	\$0	\$1,287	\$1,542	\$264,732	\$229,510	\$1,574	\$270,256	\$234,300	\$1,605	\$275,560	\$238,898	\$234,236	NA	NA	NA				
Element 7 - Supervision																									
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost								
Planning/coordination	Hours per site	0	0	0	2	2	0	4	NA	944	944	NA	944	944	NA	944	944	944	NA	NA	NA				
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$59,373	\$59,373	\$257	\$60,612	\$60,612	\$262	\$61,801	\$61,801	\$60,595	NA	NA	NA				
Supervision/review	Hours per site	0	0	0	3	3	0	6	NA	1,416	1,416	NA	1,416	1,416	NA	1,416	1,416	1,416	NA	NA	NA				
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$88,777	\$88,777	\$384	\$90,629	\$90,629	\$392	\$92,408	\$92,408	\$90,604	NA	NA	NA				
Sub Total - Hours		0	0	0	5	5	0	10	NA	2360	2360	NA	2360	2360	NA	2360	2360	2,360	NA	NA	NA				
Sub Total - Costs		\$0	\$0	\$0	\$247	\$277	\$0	\$524	\$628	\$148,149	\$148,149	\$641	\$151,241	\$151,241	\$653	\$154,209	\$154,209	\$151,200	NA	NA	NA				
Summary by Element																									
		Pb						Year 1			2013			Year 2			2014			Year 3			2015		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
1 - Network Design	Hours	0	6	2	7	5	5	25	NA	1,875	268	NA	1,875	268	NA	1,875	268	NA	1,875	268	NA	NA	NA	NA	
	Costs	\$0	\$245	\$88	\$345	\$277	\$293	\$1,248	\$1,495	\$112,133	\$16,019	\$1,526	\$114,473	\$16,353	\$1,556	\$116,719	\$16,674	\$1,539	\$116,349	\$16,674	\$16,349	NA	NA	NA	
2 - Site Installation	Hours	8	8	0	0	0	0	16	NA	3,776	539	NA	3,776	539	NA	3,776	539	NA	3,776	539	NA	NA	NA	NA	
	Costs	\$227	\$327	\$0	\$0	\$0	\$0	\$554	\$664	\$0	\$108,204	\$678	\$0	\$110,462	\$691	\$0	\$112,630	\$22,837	\$112,630	\$22,837	NA	NA	\$87,595		
3 - Sampling and Analysis	Hours	0	30	60	0	0	0	90	NA	21240	21240	NA	21240	21240	NA	21240	21240	NA	21240	21240	NA	NA	NA	NA	
	Costs	\$0	\$30	\$60	\$0	\$0	\$0	\$4,023	\$6,928	\$1,635,016	\$1,635,016	\$4,920	\$1,204,445	\$1,204,445	\$7,211	\$1,701,891	\$1,701,891	\$1,117,552	\$1,701,891	\$1,117,552	\$86,565	NA	\$464,564		
4 - Maintenance	Hours	0	16	0	0	0	0	16	NA	3776	3776	NA	3776	3776	NA	3776	3776	NA	3776	3776	NA	NA	NA	NA	
	Costs	\$0	\$654	\$0	\$0	\$0	\$0	\$954	\$1,143	\$269,723	\$269,723	\$1,167	\$275,351	\$275,351	\$1,190	\$280,755	\$280,755	\$188,711	\$280,755	\$188,711	\$86,565	NA	NA		
5 - Data Management	Hours	0	0	4	17	0	0	21	NA	4956	4956	NA	4956	4956	NA	4956	4956	NA	4956	4956	NA	NA	NA	NA	
	Costs	\$0	\$0	\$176	\$837	\$0	\$0	\$1,013	\$1,214	\$286,403	\$286,403	\$1,239	\$292,380	\$292,380	\$1,263	\$298,118	\$298,118	\$292,300	\$298,118	\$292,300	NA	NA	NA		
6 - Quality Assurance	Hours	6	21	3	1	1	0	33	NA	5658	4938	NA	5658	4938	NA	5658	4938	4938	5658	4938	NA	NA	NA		
	Costs	\$170	\$857	\$141	\$64	\$55	\$0	\$1,287	\$1,542	\$264,732	\$229,510	\$1,574	\$270,256	\$234,300	\$1,605	\$275,560	\$238,898	\$234,236	\$275,560	\$238,898	\$234,236	\$0	NA		
7 - Supervision	Hours	0	0	0	5	5	0	10	NA	2360	2360	NA	2360	2360	NA	2360	2360	NA	2360	2360	NA	NA	NA		
	Costs	\$0	\$0	\$0	\$247	\$277	\$0	\$524	\$628	\$148,149	\$148,149	\$641	\$151,241	\$151,241	\$653	\$154,209	\$154,209	\$151,200	\$154,209	\$151,200	NA	NA	NA		
Total	Hours	14	81	69	30	11	5	211	NA	37,983	38,077	NA	37,983	38,077	NA	37,983	38,077	38,077	37,983	38,077	38,077	NA	NA		
	Costs	\$397	\$2,113	\$465	\$1,493	\$609	\$293	\$9,603	\$13,613	\$2,451,424	\$2,693,025	\$11,744	\$2,037,890	\$2,284,532	\$14,170	\$2,551,691	\$2,803,174	\$2,023,185	\$2,551,691	\$2,803,174	\$2,023,185	\$173,130	\$552,160		

Data Entry for	PAMSVOC	Updated on	February 1, 2013
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Overall Comment

General Costs

Element 1 - Network Design	Years Amortized	5	Comment
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a) Network Design (by Reporting Organization)

Labor Category	TEC1	TEC2	PRO1	PRO2	PRO3
Hours per RO	0	0	0	10	10
Costs per RO	0	0	0	493	555

b) Site Selection (Reporting Organization)

Hours per RO	0	0	0	4	4
Costs per RO	0	0	0	197	222
Sub Total - Hours	0	0	0	14	14
Sub Total - Costs	\$0	\$0	\$0	\$690	\$777

Element 2 - Site Installation	Years Amortized	5	Comment
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		Unit cost	Year			
Materials						
	Analyzers	\$30,000	2013			
	Canister sampling system	\$16,000	2013			
	Gas cleaning system	\$5,667	2013			
Labor		TEC1	TEC2	PRO1	PRO2	PRO3
Procurement	Hours per site	0	0	0	8	0
	Cost per site	0	0	0	394	0
Installation	Hours per site	0	0	0	10	5
	Cost per site	0	0	0	493	277
Sub Total - Hours		0	0	0	18	5
Sub Total - Costs		\$0	\$0	\$0	\$887	\$277

Element 3 - Supplies and Site Visits	Comment
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Supplies		Unit cost	Year			
		\$16,000	2013			
Routine visits		TEC1	TEC2	PRO1	PRO2	PRO3
	Hours per site	0	0	0	88	0
	Cost per site	0	0	0	4335	0
Sub Total - Hours		0	0	0	88	0
Sub Total - Costs		\$0	\$0	\$0	\$4,335	\$0

Element 4 - Maintenance	Comment
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Spare parts/supplies		Unit cost	Year			
		\$3,000	2013			
Remedial Repairs		TEC1	TEC2	PRO1	PRO2	PRO3
	Hours per site	0	0	0	24	8
	Cost per site	0	0	0	1182	444
Routine Maint.	Hours per site	0	0	0	48	16

Cost per site	0	0	0	2365	887
Sub Total - Hours	0	0	0	72	24
Sub Total - Costs	\$0	\$0	\$0	\$3,547	\$1,331

Element 5 - Data Management

Comment

	TEC1	TEC2	PRO1	PRO2	PRO3
Data aquisition/processing					
Hours per site	0	0	0	24	0
Cost per site	0	0	0	1182	0
Data reporting					
Hours per site	0	0	0	8	1
Cost per site	0	0	0	394	55
Data validation					
Hours per site	0	0	0	32	8
Cost per site	0	0	0	1576	444
Data distribution					
Hours per site	0	0	0	70	30
Cost per site	0	0	0	3448	1664
Sub Total - Hours	0	0	0	134	39
Sub Total - Costs	\$0	\$0	\$0	\$6,600	\$2,163

Element 6 - Quality Assurance

Comment

	TEC1	TEC2	PRO1	PRO2	PRO3
Audits					
Hours per site	0	0	0	8	8
Cost per site	0	0	0	394	444
Routine Calibrations					
Hours per site	0	0	0	16	0
Cost per site	0	0	0	788	0
Coordination/implementation					
Hours per site	0	0	0	4	2
Cost per site	0	0	0	197	111
Training					
Hours per site	0	0	0	0	16
Cost per site	0	0	0	0	887
Reporting					
Hours per site	0	0	0	6	2
Cost per site	0	0	0	296	111
QA Plan review (annual)					
Hours per RO	0	0	0	0	0
Cost	0	0	0	0	0
QA Plan preparation		Years Amortized	5		
Hours per RO	0	0	0	0	10
Cost per RO	0	0	0	0	555
Sub Total - Hours	0	0	0	34	38
Sub Total - Costs	\$0	\$0	\$0	\$1,675	\$2,108

Element 7 - Supervision

Comment

	TEC1	TEC2	PRO1	PRO2	PRO3
Planning/coordination					
Hours per site	0	0	0	0	20
Cost per site	0	0	0	0	1109
Supervision/review					
Hours per site	0	0	0	0	16
Cost per site	0	0	0	0	887
Sub Total - Hours	0	0	0	0	36

Sub Total - Costs		\$0	\$0	\$0	\$0	\$1,996
Summary by Element						
		PAMSVOC				
		TEC1	TEC2	PRO1	PRO2	PRO3
1 - Network Design	Hours	0	0	0	14	14
	Costs	\$0	\$0	\$0	\$690	\$777
2 - Site Installation	Hours	0	0	0	18	5
	Costs	\$0	\$0	\$0	\$887	\$277
3 - Supplies & site visits	Hours	0	0	0	88	0
	Costs	\$0	\$0	\$0	\$4,335	\$0
4 - Maintenance	Hours	0	0	0	72	24
	Costs	\$0	\$0	\$0	\$3,547	\$1,331
5 - Data Managment	Hours	0	0	0	134	39
	Costs	\$0	\$0	\$0	\$6,600	\$2,163
6 - Quality Assurance	Hours	0	0	0	34	38
	Costs	\$0	\$0	\$0	\$1,675	\$2,108
7 - Supervision	Hours	0	0	0	0	36
	Costs	\$0	\$0	\$0	\$0	\$1,996
Total		TEC1	TEC2	PRO1	PRO2	PRO3
	Hours	0	0	0	360	156
	Costs	\$0	\$0	\$0	\$17,734	\$8,652

	Year 1	2013		Year 2
Spare Factor				
0.00%	Report Org	Auto GC Sites	32	Report Org
	14	Canister Sites	38	14

		Element 1 - Network Design			Element 1 - Net
Per RO		Per RO	Entire Network		Per RO
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
10	30	NA	420	84	NA
586	\$1,634	\$1,958	\$27,405	\$5,481	\$1,998
0	8	NA	112	22	NA
0	\$419	\$502	\$7,027	\$1,405	\$512
10	38	NA	532	106	NA
\$586	\$2,053	\$2,459	\$34,433	\$6,887	\$2,511

		Element 2 - Site Installation			Element 2 - Site
Per Site		Per Site	Entire Network		Per Site
Adjusted		Adjusted	Total	Yearly Cost	Adjusted
		\$35,940	\$1,150,080	\$230,016	\$36,690
		\$19,168	\$728,384	\$145,677	\$19,568
		\$6,789	\$217,250	\$43,450	\$6,931
PRO4	Per Site Total				
0	8	NA	560	112	NA
0	\$394	\$472	\$33,041	\$6,608	\$482
0	15	NA	480	96	NA
0	\$770	\$922	\$29,519	\$5,904	\$942
0	23	NA	1,040	208	NA
\$0	\$1,164	\$1,394	62,560	\$431,655	\$1,424

		Element 3 - Supplies and Site Visits			Element 3 - Sup
Per Site		Per Site	Entire Network		Per Site
Adjusted		Adjusted	Total	Yearly Cost	Adjusted
		\$19,168	\$613,376	\$613,376	\$19,568
PRO4	Per Site Total				
0	88	NA	2,816	2,816	NA
0	\$4,335	\$5,193	\$166,187	\$166,187	\$5,302
0	88	NA	2,816	2,816	NA
\$0	\$20,335	\$24,361	\$779,563	\$779,563	\$24,870

		Element 4 - Maintenance			Element 4 - Mai
Per Site		Per Site	Entire Network		Per Site
Adjusted		Adjusted	Total	Yearly Cost	Adjusted
		\$3,594	\$115,008	\$115,008	\$3,669
PRO4	Per Site Total				
0	32	NA	1,024	1,024	NA
0	\$1,626	\$1,948	\$62,334	\$62,334	\$1,989
0	64	NA	2,048	2,048	NA

0	\$3,252	\$3,896	\$124,669	\$124,669	\$3,977
0	96	NA	3,072	3,072	NA
\$0	\$7,878	\$9,438	\$302,011	\$302,011	\$9,635

		Element 5 - Data Management			Element 5 - Dat
	Per Site	Per Site	Entire Network		Per Site
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
0	24	NA	768	768	NA
0	\$1,182	\$1,416	\$45,313	\$45,313	\$1,446
1	10	NA	320	320	NA
59	\$508	\$609	\$19,475	\$19,475	\$621
0	40	NA	1,280	1,280	NA
0	\$2,020	\$2,420	\$77,439	\$77,439	\$2,470
10	110	NA	3,520	3,520	NA
586	\$5,698	\$6,826	\$218,439	\$218,439	\$6,969
11	184	NA	5,888	5,888	NA
\$645	\$9,408	\$11,271	\$360,665	\$360,665	\$11,506

		Element 6 - Quality Assurance			Element 6 - Qu
	Per Site	Per Site	Entire Network		Per Site
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
0	16	NA	512	512	NA
0	\$838	\$1,004	\$32,126	\$32,126	\$1,025
0	16	NA	512	512	NA
0	\$788	\$944	\$30,209	\$30,209	\$964
PRO4	Total				Adjusted
0	6	NA	192	192	NA
0	\$308	\$369	\$11,807	\$11,807	\$377
0	16	NA	512	512	NA
0	\$887	\$1,063	\$34,004	\$34,004	\$1,085
0	8	NA	256	256	NA
0	\$407	\$488	\$15,603	\$15,603	\$498
PRO4	Labor per RO				Adjusted per RO
0	0	NA	0	0	NA
0	\$0	\$0	\$0	\$0	\$0
	Per RO				Per RO
5	15	NA	210	42	NA
293	\$848	\$1,016	\$14,223	\$2,845	\$1,037
5	77	NA	NA	2,026	NA
\$293	\$4,076	\$4,883	NA	\$126,593	\$4,985

		Element 7 - Supervision			Element 7 - Sup
	Per Site	Per Site	Entire Network		Per Site
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
0	20	NA	640	640	NA
0	\$1,109	\$1,329	\$42,515	\$42,515	\$1,356
8	24	NA	768	768	NA
469	\$1,356	\$1,624	\$51,984	\$51,984	\$1,658
8	44	NA	1408	1408	NA

\$469	\$2,465	\$2,953	\$94,498	\$94,498	\$3,015
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		2013				
		Year 1			Year 2	
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	
10	38	NA	532	106	NA	
\$586	\$2,053	\$2,459	\$34,433	\$6,887	\$2,511	
0	23	NA	1,040	208	NA	
\$0	\$1,164	\$1,394	\$62,560	\$431,655	\$1,424	
0	88	NA	2816	2816	NA	
\$0	\$20,335	\$24,361	\$779,563	\$779,563	\$24,870	
0	96	NA	3072	3072	NA	
\$0	\$7,878	\$9,438	\$302,011	\$302,011	\$9,635	
11	184	NA	5888	5888	NA	
\$645	\$9,408	\$11,271	\$360,665	\$360,665	\$11,506	
5	77	NA	NA	2026	NA	
\$293	\$4,076	\$4,883	NA	\$126,593	\$4,985	
8	44	NA	1408	1408	NA	
\$469	\$2,465	\$2,953	\$94,498	\$94,498	\$3,015	
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	
34	550	NA	14,756	15,524	NA	
\$1,993	\$47,379	\$56,760	1,633,729	\$2,101,871	\$57,945	

2014		Year 3	2015		Average Yearly
Sites	32	Report Org	Sites	32	Report Org
Canister Sites	38	14	Canister Sites	38	Canister Sites

Labor					
Network Design		Element 1 - Network Design			
Entire Network		Per RO	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
420	84	NA	420	84	84
\$27,977	\$5,595	\$2,038	\$28,526	\$5,705	\$5,594
112	22	NA	112	22	22
\$7,174	\$1,435	\$522	\$7,315	\$1,463	\$1,434
532	106	NA	532	106	106
\$35,151	\$7,030	\$2,560	\$35,841	\$7,168	\$7,028

Site Installation		Element 2 - Site Installation			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
\$1,174,080	\$234,816	\$37,410	\$1,197,120	\$239,424	NA
\$626,176	\$125,235	\$19,952	\$638,464	\$127,693	
\$221,784	\$44,357	\$7,067	\$226,136	\$45,227	NA
560	112	NA	560	112	112
\$15,420	\$3,084	\$491	\$15,722	\$3,144	\$4,279
480	96	NA	480	96	96
\$30,135	\$6,027	\$960	\$30,726	\$6,145	\$6,025
1,040	208	NA	1,040	208	208
45,554	\$413,519	\$1,452	46,448	\$421,634	\$10,304

Supplies and Site Visits		Element 3 - Supplies and Site Visits			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
\$626,176	\$626,176	\$19,952	\$638,464	\$638,464	NA
2,816	2,816	NA	2,816	2,816	2,816
\$169,655	\$169,655	\$5,406	\$172,984	\$172,984	\$169,608
2,816	2,816	NA	2,816	2,816	2,816
\$795,831	\$795,831	\$25,358	\$811,448	\$811,448	\$795,614

Maintenance		Element 4 - Maintenance			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
\$117,408	\$117,408	\$3,741	\$119,712	\$119,712	NA
1,024	1,024	NA	1,024	1,024	1,024
\$63,635	\$63,635	\$2,028	\$64,884	\$64,884	\$63,618
2,048	2,048	NA	2,048	2,048	2,048

\$127,270	\$127,270	\$4,055	\$129,768	\$129,768	\$127,236
3,072	3,072	NA	3,072	3,072	3,072
\$308,313	\$308,313	\$9,824	\$314,364	\$314,364	\$190,853

Data Management		Element 5 - Data Management			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
768	768	NA	768	768	768
\$46,259	\$46,259	\$1,474	\$47,167	\$47,167	\$46,246
320	320	NA	320	320	320
\$19,881	\$19,881	\$633	\$20,271	\$20,271	\$19,876
1,280	1,280	NA	1,280	1,280	1,280
\$79,055	\$79,055	\$2,519	\$80,606	\$80,606	\$79,033
3,520	3,520	NA	3,520	3,520	3,520
\$222,997	\$222,997	\$7,105	\$227,373	\$227,373	\$222,936
5,888	5,888	NA	5,888	5,888	5,888
\$368,191	\$368,191	\$11,732	\$375,417	\$375,417	\$368,091

Quality Assurance		Element 6 - Quality Assurance			Labor
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
512	512	NA	512	512	512
\$32,796	\$32,796	\$1,045	\$33,440	\$33,440	\$32,787
512	512	NA	512	512	512
\$30,839	\$30,839	\$983	\$31,444	\$31,444	\$30,831
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
192	192	NA	192	192	192
\$12,054	\$12,054	\$384	\$12,290	\$12,290	\$12,051
512	512	NA	512	512	512
\$34,714	\$34,714	\$1,106	\$35,395	\$35,395	\$34,704
256	256	NA	256	256	256
\$15,928	\$15,928	\$508	\$16,241	\$16,241	\$15,924
Total	Yearly Cost	Adjusted per RO	Total	Yearly Cost	
0	0	NA	0	0	0
\$0	\$0	\$0	\$0	\$0	\$0
Entire Network		Per RO	Entire Network		
210	42	NA	210	42	42
\$14,519	\$2,904	\$1,057	\$14,804	\$2,961	\$2,903
NA	2,026	NA	NA	2,026	2,026
NA	\$129,235	\$5,083	NA	\$131,771	\$129,200

Supervision		Element 7 - Supervision			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
640	640	NA	640	640	640
\$43,402	\$43,402	\$1,383	\$44,254	\$44,254	\$43,390
768	768	NA	768	768	768
\$53,068	\$53,068	\$1,691	\$54,110	\$54,110	\$53,054
1408	1408	NA	1408	1,408	1,408

\$96,470	\$96,470	\$3,074	\$98,363	\$98,363	\$96,444
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2014		Year 3	2015		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
532	106	NA	532	106	106
\$35,151	\$7,030	\$2,560	\$35,841	\$7,168	\$7,028
1,040	208	NA	1,040	208	208
\$45,554	\$413,519	\$1,452	\$46,448	\$421,634	\$10,304
2816	2816	NA	2816	2816	2816
\$795,831	\$795,831	\$25,358	\$811,448	\$811,448	\$795,614
3072	3072	NA	3072	3072	3072
\$308,313	\$308,313	\$9,824	\$314,364	\$314,364	\$190,853
5888	5888	NA	5888	5888	5888
\$368,191	\$368,191	\$11,732	\$375,417	\$375,417	\$368,091
NA	2026	NA	NA	2026	2026
NA	\$129,235	\$5,083	NA	\$131,771	\$129,200
1408	1408	NA	1408	1408	1408
\$96,470	\$96,470	\$3,074	\$98,363	\$98,363	\$96,444
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
14,756	15,524	NA	14,756	15,524	15,524
1,649,511	\$2,118,590	\$59,082	1,681,881	\$2,160,165	\$1,597,534

Early Costs	Equipment
14	
32	
38	
Non Labor O & M	
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	\$234,752
	\$132,868
NA	\$44,345
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	\$411,965
\$626,005	NA
NA	NA
NA	NA
NA	NA
\$626,005	NA
\$117,376	NA
NA	NA
NA	NA
NA	NA

NA	NA
NA	NA
\$117,376	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

Non Labor O & M	Equipment
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

NA	NA
NA	NA
NA	\$411,965
NA	NA
\$626,005	NA
\$117,376	NA
NA	NA
NA	NA
NA	NA
\$0	NA
NA	NA
NA	NA
	NA
\$743,381	\$411,965

Data Entry for	PAMSNMOC	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites 26 Spares 0	Report Org	Sites 26 Spares 0	Report Org	Sites 26 Spares 0	Report Org	Sites 7 Spares 26 Spares 0
Overall Comment				7	0	7	0	7	0	7	0

General Costs												Non Labor O & M		
Element 1 - Network Design												Labor		
a) Network Design (by Reporting Organization)														
b) Site Selection (Reporting Organization)														
Sub Total - Hours														
Sub Total - Costs														

Element 2 - Site Installation												Non Labor O & M		
Element 2 - Site Installation												Labor		
Materials														
Labor														
Procurement														
Installation														
Sub Total - Hours														
Sub Total - Costs														

Element 3 - Supplies and Site Visits												Non Labor O & M		
Element 3 - Supplies and Site Visits												Labor		
Supplies														
Routine visits														
Sub Total - Hours														
Sub Total - Costs														

Element 4 - Maintenance												Non Labor O & M		
Element 4 - Maintenance												Labor		
Spare parts/supplies														
Remedial Repairs														
Routine Maint.														
Sub Total - Hours														
Sub Total - Costs														

Element 5 - Data Management												Non Labor O & M		
Element 5 - Data Management												Labor		
Data aquisition/processing														
Data reporting														
Data validation														
Data distribution														
Sub Total - Hours														
Sub Total - Costs														

Data Entry for	PAMSNOx	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Precursor NOy	Report Org	Precursor NOy	Report Org	Precursor NOy	Report Org	Precursor NOy
				0.00%	103	0	103	0	103	0	20
Overall Comment				20	0	20	0	20	0	0	103
					Other		Other		Other		0
					Spares		Spares		Spares		0

General Costs													Labor		Non Labor O & M	
Element 1 - Network Design (1)																
a) Network Design (by Reporting Organization)																
b) Site Selection (Reporting Organization)																
Sub Total - Hours																
Sub Total - Costs																

Element 2 - Site Installation (1)																
Materials																
Labor																
Procurement																
Installation																
Sub Total - Hours																
Sub Total - Costs																

Element 3 - Supplies and Site Visits (1)																
Supplies																
Routine visits																
Sub Total - Hours																
Sub Total - Costs																

Element 4 - Maintenance (1)																
Spare parts/supplies																
Remedial Repairs																
Routine Maint.																
Sub Total - Hours																
Sub Total - Costs																

Element 5 - Data Management																
Data aquisition/processing																
Data reporting																
Data validation																
Data distribution																
Sub Total - Hours																
Sub Total - Costs																

Element 6 - Quality Assurance (1)		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor	Non Labor O & M	Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost				
Audits	Hours per site	0	0	36	36	0	0	72	NA	7,416	7,416	NA	7,416	NA	7,416	7,416		7,416	NA	NA	
	Cost per site	0	0	1588	1773	0	0	\$3,361	\$4,026	\$414,727	\$414,727	\$4,111	\$423,382	\$423,382	\$4,191	\$431,690	\$431,690	\$423,266	NA	NA	
Routine Calibrations	Hours per site	0	24	24	0	0	0	48	NA	4,944	4,944	NA	4,944	NA	4,944	4,944		4,944	NA	NA	
	Cost per site	0	981	1059	0	0	0	\$2,040	\$2,444	\$251,724	\$251,724	\$2,495	\$256,977	\$256,977	\$2,544	\$262,020	\$262,020	\$256,907	NA	NA	
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	412	412	NA	412	NA	412	412		412	NA	NA	
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$25,913	\$25,913	\$257	\$26,453	\$26,453	\$262	\$26,973	\$26,973	\$26,446	NA	NA	
Training	Hours per site	0	1	1	2	1	0	5	NA	515	515	NA	515	NA	515	515		515	NA	NA	
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$29,491	\$29,491	\$292	\$30,107	\$30,107	\$298	\$30,697	\$30,697	\$30,098	NA	NA	
Reporting	Hours per site	0	0	3	3	0	0	6	NA	618	618	NA	618	NA	618	618		618	NA	NA	
	Cost per site	0	0	132	148	0	0	\$280	\$335	\$34,550	\$34,550	\$342	\$35,271	\$35,271	\$349	\$35,963	\$35,963	\$35,262	NA	NA	
QA Plan review (annual)	Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0		0	NA	NA
	Cost	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA
QA Plan preparation	Hours per RO	0	0	5	5	5	0	15	NA	300	60	NA	300	NA	300	60		60	NA	NA	
	Cost per RO	0	0	221	246	277	0	\$744	\$891	\$17,826	\$3,565	\$910	\$18,198	\$3,640	\$928	\$18,555	\$3,711	\$3,639	NA	NA	
Sub Total - Hours		0	25	69	48	8	0	150	NA	NA	13,965	NA	NA	NA	NA	13,965		13,965	NA	NA	
Sub Total - Costs		\$0	\$1,022	\$3,044	\$2,365	\$443	\$0	\$6,874	\$8,235	NA	\$759,970	\$8,407	NA	\$775,830	\$8,572	NA	\$791,054	\$775,618			

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost			
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	1,236	1,236	NA	1,236	NA	1,236	1,236		1,236	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$83,661	\$83,661	\$829	\$85,407	\$85,407	\$845	\$87,083	\$87,083	\$85,384	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	3,090	3,090	NA	3,090	NA	3,090	3,090		3,090	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$177,564	\$177,564	\$1,760	\$181,269	\$181,269	\$1,794	\$184,827	\$184,827	\$181,220	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	4326	4326	NA	4326	NA	4326	4,326		4,326	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$261,225	\$261,225	\$2,589	\$266,676	\$266,676	\$2,640	\$271,910	\$271,910	\$266,604	NA	NA

Summary by Element		PAMSNOx						Year 1 2013			Year 2 2014			Year 3 2015						
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	0	0
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2 - Site Installation	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	0	0
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$505,915	\$0	\$0	\$516,473	\$0	\$0	\$526,608	\$0	NA	\$516,332
3 - Supplies & site visits	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	0	0
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$958	\$98,715	\$98,715	\$978	\$100,775	\$100,775	\$998	\$102,753	\$102,753	\$100,748	NA	\$100,748
4 - Maintenance	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	0	0
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,198	\$123,394	\$123,394	\$1,223	\$125,969	\$125,969	\$1,247	\$128,441	\$128,441	\$0	NA	\$125,935
5 - Data Management	Hours	0	0	7	13	0	0	20	NA	2060	2060	NA	2060	NA	2060	2060		2060	NA	NA
	Costs	\$0	\$0	\$309	\$641	\$0	\$0	\$950	\$1,138	\$117,224	\$117,224	\$1,162	\$119,671	\$119,671	\$1,185	\$122,019	\$122,019	\$119,638	NA	NA
6 - Quality Assurance	Hours	0	25	69	48	8	0	150	NA	NA	13,965	NA	NA	NA	NA	13,965		13,965	NA	NA
	Costs	\$0	\$1,022	\$3,044	\$2,365	\$443	\$0	\$6,874	\$8,235	NA	\$759,970	\$8,407	NA	\$775,830	\$8,572	NA	\$791,054	\$775,618	\$0	NA
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	4326	4326	NA	4326	NA	4326	4,326		4,326	NA	NA
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$261,225	\$261,225	\$2,589	\$266,676	\$266,676	\$2,640	\$271,910	\$271,910	\$266,604	NA	NA
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
	Hours	0	25	92	69	20	6	212	NA	6,386	20,351	NA	6,386	20,351	NA	6,386	20,351		20,351	NA
	Costs	\$0	\$1,022	\$4,059	\$3,400	\$1,109	\$351	\$9,941	\$14,066	\$600,559	\$1,866,444	\$14,359	\$613,091	\$1,905,394	\$14,641	\$625,122	\$1,942,785	\$1,262,608	\$226,682	\$516,332

1) includes costs for Precursor NOy analyzers only, NO2 analyzers are covered in NO2 network costs (see separate spreadsheet)

Data Entry for	PAMSSurfMet	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				18	83	18	83	18	83	18	83
				Spares	Spares	Spares	Spares	Spares	Spares	Spares	Spares
				4	4	4	4	4	4	4	4

General Costs													Non Labor O & M		
Element 1 - Network Design													Labor		
Network Design and Site Selection															
Per RO													Per RO		
Adjusted													Adjusted		
Total													Total		
Yearly Cost													Yearly Cost		
Hours per RO													Hours per RO		
Costs per RO													Costs per RO		
Sub Total - Hours													Sub Total - Hours		
Sub Total - Costs													Sub Total - Costs		

Element 2 - Site Installation													Non Labor O & M		
Element 2 - Site Installation													Labor		
Materials															
Per Site													Per Site		
Adjusted													Adjusted		
Total													Total		
Yearly Cost													Yearly Cost		
Hours per RO													Hours per RO		
Costs per RO													Costs per RO		
Sub Total - Hours													Sub Total - Hours		
Sub Total - Costs													Sub Total - Costs		

Element 3 - Supplies and Site Visits													Non Labor O & M		
Element 3 - Supplies and Site Visits													Labor		
Supplies															
Per Site													Per Site		
Adjusted													Adjusted		
Total													Total		
Yearly Cost													Yearly Cost		
Hours per site													Hours per site		
Cost per site													Cost per site		
Sub Total - Hours													Sub Total - Hours		
Sub Total - Costs													Sub Total - Costs		

Element 4 - Maintenance													Non Labor O & M		
Element 4 - Maintenance													Labor		
Spare parts/supplies															
Per Site													Per Site		
Adjusted													Adjusted		
Total													Total		
Yearly Cost													Yearly Cost		
Hours per site													Hours per site		
Cost per site													Cost per site		
Sub Total - Hours													Sub Total - Hours		
Sub Total - Costs													Sub Total - Costs		

Element 5 - Data Management													Non Labor O & M		
Element 5 - Data Management													Labor		
Data aquisition/processing															
Per Site													Per Site		
Adjusted													Adjusted		
Total													Total		
Yearly Cost													Yearly Cost		
Hours per site													Hours per site		
Cost per site													Cost per site		
Sub Total - Hours													Sub Total - Hours		
Sub Total - Costs													Sub Total - Costs		

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance				Element 6 - Quality Assurance				Non Labor O & M		Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment
Audits	Hours per site	0	0	0	36	36	0	72	NA	5,976	5,976	NA	5,976	NA	5,976	5,976	NA	5,976	5,976	5,976	5,976	NA	NA
	Cost per site	0	0	0	1773	1997	0	\$3,770	\$4,516	\$374,866	\$374,866	\$4,611	\$382,689	\$382,689	\$4,701	\$390,199	\$390,199	\$4,701	\$390,199	\$390,199	\$382,689	NA	NA
Routine Calibrations	Hours per site	0	24	24	0	0	0	48	NA	3,984	3,984	NA	3,984	NA	3,984	3,984	NA	3,984	3,984	3,984	3,984	NA	NA
	Cost per site	0	981	1059	0	0	0	\$2,040	\$2,444	\$202,845	\$202,845	\$2,495	\$207,078	\$207,078	\$2,544	\$211,142	\$211,142	\$2,544	\$211,142	\$211,142	\$207,022	NA	NA
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	332	332	NA	332	NA	332	332	NA	332	332	332	332	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$20,881	\$20,881	\$257	\$21,317	\$21,317	\$262	\$21,795	\$21,795	\$262	\$21,795	\$21,795	\$21,311	NA	NA
Training	Hours per site	0	1	1	2	1	0	5	NA	415	415	NA	415	NA	415	415	NA	415	415	415	415	NA	NA
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$23,765	\$23,765	\$292	\$24,261	\$24,261	\$298	\$24,737	\$24,737	\$298	\$24,737	\$24,737	\$24,254	NA	NA
Reporting	Hours per site	0	0	0	3	3	0	6	NA	498	498	NA	498	NA	498	498	NA	498	498	498	498	NA	NA
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$31,222	\$31,222	\$384	\$31,874	\$31,874	\$392	\$32,499	\$32,499	\$392	\$32,499	\$32,499	\$31,865	NA	NA
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	9	9	NA	9	NA	9	9	NA	9	9	9	9	NA	NA
	Cost	0	0	9	15	0	0	\$24	\$29	\$518	\$518	\$29	\$528	\$528	\$30	\$539	\$539	\$30	\$539	\$539	\$528	NA	NA
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	270	54	NA	270	54	NA	270	54	NA	270	54	54	NA	NA
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$17,596	\$3,519	\$998	\$17,963	\$3,593	\$1,018	\$18,316	\$3,663	\$1,018	\$18,316	\$3,663	\$3,592	NA	NA
Sub Total - Hours		0	25	25	48	47	5	151	NA	NA	11,268	NA	NA	11,268	NA	NA	11,268	NA	NA	11,268	NA	NA	NA
Sub Total - Costs		\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$657,616	\$9,066	NA	\$671,340	\$9,244	NA	\$684,514	\$9,244	NA	\$684,514	\$671,157	NA	NA

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision				Element 7 - Supervision				Non Labor O & M		Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	996	996	NA	996	NA	996	996	NA	996	996	996	996	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$67,416	\$67,416	\$829	\$68,823	\$68,823	\$845	\$70,174	\$70,174	\$845	\$70,174	\$70,174	\$68,804	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	2,490	2,490	NA	2,490	NA	2,490	2,490	NA	2,490	2,490	2,490	2,490	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$143,086	\$143,086	\$1,760	\$146,071	\$146,071	\$1,794	\$148,938	\$148,938	\$1,794	\$148,938	\$148,938	\$146,032	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	3486	3486	NA	3486	NA	3486	3486	NA	3486	3486	3486	3486	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$210,502	\$210,502	\$2,589	\$214,895	\$214,895	\$2,640	\$219,112	\$219,112	\$2,640	\$219,112	\$219,112	\$214,836	NA	NA

Summary by Element		AMSSurfMet							Year 1			2013			Year 2			2014			Year 3			2015			Non Labor O & M		Equipment
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment						
1 - Network Design	Hours	0	0	0	5	12	2	19	NA	342	68	NA	342	68	NA	342	68	NA	342	68	68	NA	NA						
	Costs	\$0	\$0	\$0	\$246	\$666	\$117	\$1,029	\$1,233	\$22,189	\$4,438	\$1,258	\$22,652	\$4,530	\$1,283	\$23,097	\$4,619	\$1,283	\$23,097	\$4,619	\$4,529	NA	NA						
2 - Site Installation	Hours	0	8	8	4	4	0	24	NA	2,025	405	NA	2,025	405	NA	2,025	405	NA	2,025	405	405	NA	NA						
	Costs	\$0	\$327	\$353	\$197	\$222	\$0	\$1,099	\$1,317	\$0	\$383,203	\$1,344	\$390,774	\$0	\$398,443	\$22,444	\$398,443	\$1,370	\$0	\$398,443	\$22,444	NA	\$368,362						
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	9960	9960	NA	9960	9960	NA	9960	9960	NA	9960	9960	9960	NA	NA						
	Costs	\$0	\$2,451	\$2,647	\$0	\$0	\$0	\$5,848	\$7,006	\$581,490	\$581,490	\$7,152	\$593,625	\$593,625	\$7,292	\$605,274	\$605,274	\$7,292	\$605,274	\$605,274	\$593,463	\$76,111	NA						
4 - Maintenance	Hours	0	0	38	48	0	0	86	NA	7138	7138	NA	7138	7138	NA	7138	7138	NA	7138	7138	7138	NA	NA						
	Costs	\$0	\$0	\$1,677	\$2,365	\$0	\$0	\$6,042	\$7,238	\$600,780	\$600,780	\$7,389	\$613,317	\$613,317	\$7,534	\$625,353	\$625,353	\$7,534	\$625,353	\$625,353	\$410,188	\$202,963	NA						
5 - Data Managment	Hours	0	0	18	25	7	0	50	NA	4150	4150	NA	4150	4150	NA	4150	4150	NA	4150	4150	4150	NA	NA						
	Costs	\$0	\$0	\$794	\$1,232	\$388	\$0	\$2,414	\$2,892	\$240,034	\$240,034	\$2,952	\$245,043	\$245,043	\$3,010	\$249,851	\$249,851	\$3,010	\$249,851	\$249,851	\$244,976	NA	NA						
6 - Quality Assurance	Hours	0	25	25	48	47	5	151	NA	NA	11268	NA	NA	11268	NA	NA	11268	NA	NA	11268	NA	NA	NA						
	Costs	\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$657,616	\$9,066	NA	\$671,340	\$9,244	NA	\$684,514	\$9,244	NA	\$684,514	\$671,157	\$0	NA						
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	3486	3486	NA	3486	NA	3486	3486	NA	3486	3486	3486	3486	NA	NA						
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$210,502	\$210,502	\$2,589	\$214,895	\$214,895	\$2,640	\$219,112	\$219,112	\$2,640	\$219,112	\$219,112	\$214,836	NA	NA						
Total																													
	Hours	0	93	165	138	82	13	492	NA	27,101	36,475	NA	27,101	36,475	NA	27,101	36,475	NA	27,101	36,475	36,475	NA	NA						
	Costs	\$0	\$3,800	\$7,289	\$6,814	\$4,548	\$761	\$25,962	\$31,102	1,654,995	\$2,678,063	\$31,752	1,689,532	\$2,733,524	\$32,375	1,722,687	\$2,787,166	\$32,375	1,722,687	\$2,787,166	\$2,161,593	\$279,074	\$368,362						

Data Entry for	PAMSUpperAir	Updated on	February 1, 2013	Spare Factor 0.00%	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment		
					Report Org	Sites 14	Report Org	Sites 14	Report Org	Sites 14	Report Org	Sites 14	Report Org	Sites 6
					6	0	6	0	6	0	6	0	6	0

General Costs														Labor	Non Labor O & M										
Element 1 - Network Design														Element 1 - Network Design		Element 1 - Network Design		Element 1 - Network Design							
Network Design and Site Selection (by Reporting Organization)														Per RO		Entire Network		Per RO		Entire Network		Per RO		Entire Network	
Labor Category	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
Hours per RO	0	0	0	5	12	2		19	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23		
Costs per RO	0	0	0	246	666	117		\$1,029	\$1,233	\$7,396	\$1,479	\$1,258	\$7,551	\$1,510	\$1,283	\$7,699	\$1,540	\$1,510	\$7,699	\$1,540	\$1,510	\$7,699	\$1,540		
Sub Total - Hours	0	0	0	5	12	2		19	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23		
Sub Total - Costs	\$0	\$0	\$0	\$246	\$666	\$117		\$1,029	\$1,233	\$7,396	\$1,479	\$1,258	\$7,551	\$1,510	\$1,283	\$7,699	\$1,540	\$1,510	\$7,699	\$1,540	\$1,510	\$7,699	\$1,540		

Element 2 - Site Installation														Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation							
Materials														Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network	
Unit cost	Year	Sites						Contractor	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
LAP/RASS	\$125,000	2013	5							\$149,750	\$748,750	\$149,750	\$152,875	\$764,375	\$152,875	\$155,875	\$779,375	\$155,875	\$155,875	\$779,375	\$155,875				
Radar profiler	\$125,000	2013	7							\$149,750	\$1,048,250	\$209,650	\$152,875	\$1,070,125	\$214,025	\$155,875	\$1,091,125	\$218,225	\$155,875	\$1,091,125	\$218,225				
Rawindsondes	\$45,000	2013	1							\$53,910	\$53,910	\$10,782	\$55,035	\$55,035	\$11,007	\$56,115	\$11,223	\$56,115	\$11,223	\$56,115	\$11,223				
SODAR	\$65,000	2013	1							\$77,870	\$77,870	\$15,574	\$79,495	\$79,495	\$15,899	\$81,055	\$16,211	\$81,055	\$16,211	\$81,055	\$16,211				
LAP/RASS +NEXRAD	\$125,000	2013	0							\$149,750	\$0	\$0	\$152,875	\$0	\$0	\$155,875	\$0	\$0	\$155,875	\$0	\$0	\$155,875	\$0		
Computer hardware & software	\$8,000	2013	0							\$9,584	\$134,176	\$26,835	\$9,784	\$136,976	\$27,395	\$9,976	\$139,664	\$27,933	\$9,976	\$139,664	\$27,933				
Total	\$8,000	2013	0							\$2,062,956	\$412,591	\$9,784	\$2,106,006	\$421,201	\$2,147,334	\$429,467	\$2,147,334	\$429,467	\$2,147,334	\$429,467					
Acceptance Testing	Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
Cost per site	0	\$981	\$0	\$1,182	\$0	\$0	\$0	\$300	\$2,463	\$2,951	\$41,309	\$8,262	\$3,012	\$42,171	\$8,434	\$3,071	\$42,999	\$8,600	\$3,071	\$42,999	\$8,600				
Procurement	Hours per site	0	0	0	8	8	0	0	\$838	NA	224	45	NA	224	45	NA	224	45	NA	224	45				
Cost per site	\$0	\$0	\$0	\$394	\$444	\$0	\$0	\$0	\$838	\$1,004	\$14,055	\$2,811	\$1,025	\$14,348	\$2,870	\$1,045	\$14,630	\$2,926	\$1,045	\$14,630	\$2,926				
Installation	Hours per site	0	0	0	10	5	0	0	\$15	NA	210	42	NA	210	42	NA	210	42	NA	210	42				
Cost per site	\$0	\$0	\$0	\$493	\$277	\$0	\$0	\$0	\$770	\$922	\$12,914	\$2,583	\$942	\$13,184	\$2,637	\$960	\$13,443	\$2,689	\$960	\$13,443	\$2,689				
Sub Total - Hours	0	0	0	18	13	0	0	0	31	NA	1,274	255	NA	1,274	255	NA	1,274	255	NA	1,274	255				
Sub Total - Costs	\$0	\$0	\$0	\$887	\$721	\$0	\$0	\$0	\$1,608	\$2,142	\$29,988	\$6,247	\$2,187	\$30,614	\$7,142	\$2,230	\$31,215	\$7,681	\$2,230	\$31,215	\$7,681				

Element 3 - Supplies and Site Visits														Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits							
Supplies														Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network	
Unit cost	Year	Sites						Contractor	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
Routine field service checks	Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
Cost per site	\$0	\$0	\$0	\$394	\$444	\$0	\$0	\$0	\$788	\$944	\$13,216	\$3,216	\$964	\$13,492	\$3,492	\$983	\$13,757	\$3,757	\$983	\$13,757	\$3,757				
Sub Total - Hours	0	0	0	16	0	0	0	0	16	NA	224	224	NA	224	224	NA	224	224	NA	224	224				
Sub Total - Costs	\$0	\$0	\$0	\$16	\$0	\$0	\$0	\$0	\$1,788	\$2,142	\$29,988	\$29,988	\$2,187	\$30,614	\$30,614	\$2,230	\$31,215	\$31,215	\$2,230	\$31,215	\$31,215				

Element 4 - Maintenance														Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance							
Spare parts/supplies														Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network	
Unit cost	Year	Sites						Contractor	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
Remedial Field Service	Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
Cost per site	\$0	\$0	\$0	\$0	\$246	\$0	\$0	\$0	\$246	\$295	\$4,126	\$4,126	\$301	\$4,212	\$4,212	\$307	\$4,295	\$4,295	\$307	\$4,295	\$4,295				
Sub Total - Hours	0	0	0	0	5	0	0	0	5	NA	70	70	NA	70	70	NA	70	70	NA	70	70				
Sub Total - Costs	\$0	\$0	\$0	\$0	\$246	\$0	\$0	\$0	\$246	\$295	\$4,126	\$4,126	\$301	\$4,212	\$4,212	\$307	\$4,295	\$4,295	\$307	\$4,295	\$4,295				

Element 5 - Data Management														Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management							
Data aquisition/processing, etc.														Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network	
Unit cost	Year	Sites						Contractor	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
Data validation	Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
Cost per site	\$0	\$0	\$0	\$132	\$148	\$0	\$0	\$0	\$280	\$335	\$4,696	\$4,696	\$342	\$4,794	\$4,794	\$349	\$4,888	\$4,888	\$349	\$4,888	\$4,888				
Sub Total - Hours	0	0	0	3	3	0	0	0	6	NA	84	84	NA	84	84	NA	84	84	NA	84	84				
Sub Total - Costs	\$0	\$0	\$0	\$197	\$0	\$0	\$0	\$0	\$197	\$236	\$3,304	\$3,304	\$241	\$3,373	\$3,373	\$246	\$3,439	\$3,439	\$246	\$3,439	\$3,439				

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance				Element 6 - Quality Assurance				Labor	Non Labor O & M	Equipment									
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost										
Audits	Hours per site	0	0	0	18	18	0		36	NA	504	504	NA	504	504	NA	504	504	NA	504	504	504	NA	NA	NA						
	Cost per site	\$0	\$0	\$0	\$887	\$998	\$0		\$1,885	\$2,258	\$31,615	\$31,615	\$2,305	\$32,275	\$32,275	\$2,351	\$32,908	\$32,908	\$2,351	\$32,908	\$32,908	\$32,266	NA	NA	NA						
Routine Calibrations	Hours per site	0	0	18	12	0	0		30	NA	420	420	NA	420	420	NA	420	420	NA	420	420	420	NA	NA	NA						
	Cost per site	\$0	\$0	\$794	\$591	\$0	\$0		\$1,385	\$1,659	\$23,229	\$23,229	\$1,694	\$23,714	\$23,714	\$1,727	\$24,179	\$24,179	\$1,727	\$24,179	\$24,179	\$23,708	NA	NA	NA						
Coordination/Implementation	Hours per site	0	0	0	1	1	0		2	NA	28	28	NA	28	28	NA	28	28	NA	28	28	28	NA	NA	NA						
	Cost per site	\$0	\$0	\$0	\$49	\$55	\$0		\$104	\$125	\$1,744	\$1,744	\$127	\$1,781	\$1,781	\$130	\$1,816	\$1,816	\$130	\$1,816	\$1,816	\$1,780	NA	NA	NA						
Training	Hours per site	0	1	1	2	1	0		5	NA	70	70	NA	70	70	NA	70	70	NA	70	70	70	NA	NA	NA						
	Cost per site	\$0	\$41	\$44	\$99	\$55	\$0		\$239	\$286	\$4,009	\$4,009	\$292	\$4,092	\$4,092	\$298	\$4,172	\$4,172	\$298	\$4,172	\$4,172	\$4,091	NA	NA	NA						
Reporting	Hours per site	0	0	0	3	3	0		6	NA	84	84	NA	84	84	NA	84	84	NA	84	84	84	NA	NA	NA						
	Cost per site	\$0	\$0	\$0	\$148	\$166	\$0		\$314	\$376	\$5,266	\$5,266	\$384	\$5,376	\$5,376	\$392	\$5,482	\$5,482	\$392	\$5,482	\$5,482	\$5,375	NA	NA	NA						
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0		0.5	NA	3	3	NA	3	3	NA	3	3	NA	3	3	3	NA	NA	NA						
	Cost	\$0	\$0	\$9	\$15	\$0	\$0		\$24	\$29	\$173	\$173	\$29	\$176	\$176	\$30	\$180	\$180	\$30	\$180	\$180	\$176	NA	NA	NA						
QA Plan preparation	Hours per RO	0	0	0	6	18	0		24	NA	144	144	29	144	144	29	144	144	29	144	144	29	NA	NA	NA						
	Cost per RO	\$0	\$0	\$0	\$296	\$998	\$0		\$1,294	\$1,550	\$9,301	\$1,860	\$1,583	\$9,495	\$9,495	\$1,899	\$1,614	\$9,682	\$1,614	\$9,682	\$9,682	\$1,899	NA	NA	NA						
Sub Total - Hours		0	1	19	42	41	0		104	NA	NA	1,138	NA	NA	1,138	NA	NA	1,138	NA	NA	1,138	1,138	NA	NA	NA						
Sub Total - Costs		\$0	\$41	\$847	\$2,085	\$2,272	\$0		\$5,245	\$6,284	NA	\$67,896	\$6,415	NA	\$69,313	\$6,541	NA	\$70,673	\$6,541	NA	\$70,673	\$69,294	NA	NA	NA						
Element 7 - Supervision																															
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost										
Planning/coordination	Hours per site	0	0	0	0	6	6		12	NA	168	168	NA	168	168	NA	168	168	NA	168	168	168	NA	NA	NA						
	Cost per site	\$0	\$0	\$0	\$0	\$333	\$352		\$685	\$821	\$11,489	\$11,489	\$838	\$11,729	\$11,729	\$854	\$11,959	\$11,959	\$854	\$11,959	\$11,959	\$11,725	NA	NA	NA						
Supervision/review	Hours per site	0	0	16	8	4	2		30	NA	420	420	NA	420	420	NA	420	420	NA	420	420	420	NA	NA	NA						
	Cost per site	\$0	\$0	\$706	\$394	\$222	\$117		\$1,439	\$1,724	\$24,135	\$24,135	\$1,760	\$24,639	\$24,639	\$1,794	\$25,122	\$25,122	\$1,794	\$25,122	\$25,122	\$24,632	NA	NA	NA						
Sub Total - Hours		0	0	16	8	10	8		42	NA	588	588	NA	588	588	NA	588	588	NA	588	588	588	NA	NA	NA						
Sub Total - Costs		\$0	\$0	\$706	\$394	\$555	\$469		\$2,124	\$2,545	\$35,624	\$35,624	\$2,598	\$36,367	\$36,367	\$2,649	\$37,081	\$37,081	\$2,649	\$37,081	\$37,081	\$36,587	NA	NA	NA						
Summary by Element																															
		PAMUpperAir						Year 1				2013				Year 2				2014				Year 3				2015			
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
1 - Network Design	Hours	0	0	0	5	12	2	19	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23					
	Costs	\$0	\$0	\$0	\$246	\$666	\$117	\$1,029	\$1,233	\$7,396	\$1,479	\$1,258	\$7,551	\$1,510	\$1,283	\$7,699	\$1,540	\$1,510	\$1,283	\$7,699	\$1,540	\$1,510	\$1,283	\$7,699	\$1,540	\$1,510					
2 - Site Installation	Hours	0	0	0	18	13	0	31	NA	1,274	255	NA	1,274	255	NA	1,274	255	NA	1,274	255	NA	1,274	255	NA	1,274	255					
	Costs	\$0	\$0	\$0	\$887	\$721	\$0	\$1,608	\$0	\$426,247	\$0	\$0	\$435,142	\$0	\$0	\$443,681	\$13,937	NA	NA	\$443,681	\$13,937	NA	NA	\$443,681	\$13,937	NA					
3 - Supplies & site visits	Hours	0	0	0	16	0	0	16	NA	224	224	NA	224	224	NA	224	224	NA	224	224	NA	224	224	NA	224	224					
	Costs	\$0	\$0	\$0	\$16	\$0	\$0	\$1,788	\$2,142	\$29,988	\$29,988	\$2,187	\$30,614	\$30,614	\$2,230	\$31,215	\$31,215	\$2,230	\$31,215	\$31,215	\$2,230	\$31,215	\$31,215	\$2,230	\$31,215	\$31,215					
4 - Maintenance	Hours	0	0	0	5	0	0	5	NA	70	70	NA	70	70	NA	70	70	NA	70	70	NA	70	70	NA	70	70					
	Costs	\$0	\$0	\$0	\$246	\$0	\$0	\$246	\$295	\$4,126	\$4,126	\$301	\$4,212	\$4,212	\$307	\$4,295	\$4,295	\$307	\$4,295	\$4,295	\$307	\$4,295	\$4,295	\$307	\$4,295	\$4,295					
5 - Data Management	Hours	0	0	3	7	0	0	10	NA	140	140	NA	140	140	NA	140	140	NA	140	140	NA	140	140	NA	140	140					
	Costs	\$0	\$0	\$132	\$345	\$0	\$0	\$477	\$571	\$8,000	\$8,000	\$583	\$8,167	\$8,167	\$595	\$8,327	\$8,327	\$595	\$8,327	\$8,327	\$595	\$8,327	\$8,327	\$595	\$8,327	\$8,327					
6 - Quality Assurance	Hours	0	1	19	42	41	0	104	NA	NA	1,138	NA	NA	1,138	NA	NA	1,138	NA	NA	1,138	NA	NA	1,138	NA	NA						
	Costs	\$0	\$41	\$847	\$2,085	\$2,272	\$0	\$5,245	\$6,284	NA	\$67,896	\$6,415	NA	\$69,313	\$6,541	NA	\$70,673	\$69,294	\$6,541	NA	\$70,673	\$69,294	\$6,541	NA	\$70,673						
7 - Supervision	Hours	0	0	16	8	10	8	42	NA	588	588	NA	588	588	NA	588	588	NA	588	588	NA	588	588	NA	588	588					
	Costs	\$0	\$0	\$706	\$394	\$555	\$469	\$2,124	\$2,545	\$35,624	\$35,624	\$2,598	\$36,367	\$36,367	\$2,649	\$37,081	\$37,081	\$2,649	\$37,081	\$37,081	\$2,649	\$37,081	\$37,081	\$2,649	\$37,081	\$37,081					
Total																															
	Hours	0	1	38	101	76	10	227	NA	2,410	2,437	NA	2,410	2,437	NA	2,410	2,437	NA	2,410	2,437	NA	2,410	2,437	NA	2,410	2,437					
	Costs	\$0	\$41	\$1,685	\$4,219	\$4,214	\$586	\$12,517	\$13,069	\$5,135	\$573,361	\$13,342	\$6,911	\$585,326	\$13,604	\$8,617	\$596,812	\$164,080	\$6,541	\$551,352	\$551,352	\$164,080	\$51,352	NA	NA	NA					

Data Entry for	PAMSCarBE	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	
				1	2	1	2	1	2	1	
Overall Comment				Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%

General Costs														Labor	Non Labor O & M
Element 1 - Network Design (see O3)															
a) Network Design (by Reporting Organization)															
Labor Category															
Hours per RO															
Costs per RO															
b) Site Selection (Reporting Organization)															
Hours per RO															
Costs per RO															
Sub Total - Hours															
Sub Total - Costs															

Element 2 - Site Installation															
Materials															
Spare Analyzers															
Labor															
Procurement															
Installation															
Sub Total - Hours															
Sub Total - Costs															

Element 3 - Supplies and Site Visits															
Supplies and Other Costs															
Amortized															
Routine visits															
Sub Total - Hours															
Sub Total - Costs															

Element 4 - Maintenance															
Spare parts/supplies															
Remedial Calibrations															
Repairs															
Routine Maint.															
Sub Total - Hours															
Sub Total - Costs															

Element 5 - Data Management															
Data acquisition/processing															
Data reporting															
Data validation															
Data distribution															
Sub Total - Hours															
Sub Total - Costs															

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	Non Labor O & M
Calibration Stds		\$4,500	2013						\$5,391	\$10,782	\$10,782		\$5,504	\$11,007	\$11,007		NA	\$11,004	
Calibrations	Hours per site	0	0	4	10	0	0	14	NA	28	28		NA	28	28		NA	28	
	Cost per site	0	0	176	493	0	0	\$669	\$801	\$1,603	\$1,603		\$818	\$1,636	\$1,636		\$834	\$1,668	\$1,636
Audits	Hours per site	0	0	4	8	0	0	12	NA	24	24		NA	24	24		NA	24	
	Cost per site	0	0	176	394	0	0	\$570	\$683	\$1,366	\$1,366		\$697	\$1,394	\$1,394		\$711	\$1,422	\$1,422
Training	Hours per site	0	1	8	5	2	0	16	NA	32	32		NA	32	32		NA	32	
	Cost per site	0	41	353	246	111	0	\$751	\$900	\$1,799	\$1,799		\$918	\$1,837	\$1,837		\$936	\$1,873	\$1,873
Coordination/implementation	Hours per site	0	0	0	12	4	0	16	NA	32	32		NA	32	32		NA	32	
	Cost per site	0	0	0	591	222	0	\$813	\$974	\$1,948	\$1,948		\$994	\$1,989	\$1,989		\$1,014	\$2,028	\$1,988
QA Plan preparation	Hours per RO	0	0	0	12	0	0	12	NA	12	2		NA	12	2		NA	12	
	Cost per RO	0	0	0	591	0	0	\$591	\$708	\$708	\$142		\$723	\$723	\$145		\$737	\$737	\$147
Sub Total - Hours		0	1	16	47	6	0	70	NA	118	118		NA	118	118		NA	118	
Sub Total - Costs		\$0	\$41	\$705	\$2,315	\$333	\$0	\$3,394	\$4,066	\$7,424	\$6,858		\$4,151	\$7,579	\$7,001		\$4,232	\$7,728	\$7,138

Element 7 - Supervision		Comment						Element 7 - Supervision			Element 7 - Supervision			Element 7 - Supervision					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	Non Labor O & M
Planning/coordination	Hours per site	0	0	0	24	12	0	36	NA	72	72		NA	72	72		72	NA	
	Cost per site	0	0	0	1182	666	0	\$1,848	\$2,214	\$4,428	\$4,428		\$2,260	\$4,520	\$4,520		\$2,304	\$4,609	\$4,609
Supervision/review	Hours per site	0	0	0	0	24	12	36	NA	72	72		NA	72	72		72	NA	
	Cost per site	0	0	0	0	1331	703	\$2,034	\$2,437	\$4,873	\$4,873		\$2,488	\$4,975	\$4,975		\$2,536	\$5,073	\$4,974
Sub Total - Hours		0	0	0	24	36	12	72	NA	144	144		NA	144	144		144	NA	
Sub Total - Costs		\$0	\$0	\$0	\$1,182	\$1,997	\$703	\$3,882	\$4,651	\$9,301	\$9,301		\$4,748	\$9,495	\$9,495		\$4,841	\$9,682	\$9,682

Summary by Element		PAMSCarBe							Year 1 2013			Year 2 2014			Year 3 2015				
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	Non Labor O & M
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	0	0		NA	0	0		0	NA	
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0		\$0	\$0	\$0
2 - Site Installation	Hours	0	6	0	8	0	0	14	NA	28	6		NA	28	6		28	6	
	Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$0	\$7,979		\$781	\$0	\$8,140		\$797	\$0	\$8,300
3 - Supplies & site visits	Hours	0	0	8	8	0	0	16	NA	32	32		NA	32	32		32	32	
	Costs	\$0	\$0	\$8	\$8	\$0	\$0	\$1,497	\$1,793	\$3,587	\$3,587		\$1,831	\$3,662	\$3,662		\$1,867	\$3,734	\$3,734
4 - Maintenance	Hours	0	0	76	164	0	0	240	NA	480	480		NA	480	480		480	480	
	Costs	\$0	\$0	\$3,353	\$8,079	\$0	\$0	\$26,318	\$31,529	\$63,058	\$63,058		\$32,070	\$64,140	\$64,140		\$32,589	\$65,178	\$65,178
5 - Data Management	Hours	0	0	24	88	14	2	128	NA	256	256		NA	256	256		256	256	
	Costs	\$0	\$0	\$1,059	\$4,335	\$777	\$117	\$6,288	\$7,533	\$15,066	\$15,066		\$7,690	\$15,380	\$15,380		\$7,841	\$15,682	\$15,682
6 - Quality Assurance	Hours	0	1	16	47	6	0	70	NA	140	118		NA	140	118		140	118	
	Costs	\$0	\$41	\$705	\$2,315	\$333	\$0	\$3,394	\$4,066	\$7,424	\$6,858		\$4,151	\$7,579	\$7,001		\$4,232	\$7,728	\$7,138
7 - Supervision	Hours	0	0	0	24	36	12	72	NA	144	144		NA	144	144		144	144	
	Costs	\$0	\$0	\$0	\$1,182	\$1,997	\$703	\$3,882	\$4,651	\$9,301	\$9,301		\$4,748	\$9,495	\$9,495		\$4,841	\$9,682	\$9,682
Total	Hours	0	7	124	339	56	14	540	NA	940	1,036		NA	940	1,036		940	1,036	
	Costs	\$0	\$286	\$5,125	\$16,313	\$3,107	\$820	\$42,018	\$50,338	\$91,012	\$105,843		\$51,271	\$92,677	\$107,818		\$52,167	\$94,275	\$109,713

Equipment

NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA

NA
NA
NA
NA
NA
NA

NA
\$7,825
NA
\$29,344
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
\$37,169

Data Entry for	PAMScarbD	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org
				6	8	6	8	6	8	6
Overall Comment				Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor
				6	8	6	8	6	8	6

General Costs														Labor	Non Labor O & M								
Element 1 - Network Design (see O3)																							
a) Network Design (by Reporting Organization)																							
Years Amortized							Comment			Element 1 - Network Design			Element 1 - Network Design			Element 1 - Network Design							
Labor Category							Per RO			Entire Network			Entire Network			Entire Network							
Hours per RO							Adjusted			Total			Total			Total							
Costs per RO							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost		
0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	0	
0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
b) Site Selection (Reporting Organization)							Per RO			Entire Network			Entire Network			Entire Network							
Hours per RO							Adjusted			Total			Total			Total							
Costs per RO							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	0	0
0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - Hours							NA			NA			NA			NA							
Sub Total - Costs							\$0			\$0			\$0			\$0							

Element 2 - Site Installation														Labor	Non Labor O & M								
Element 2 - Site Installation																							
Materials																							
Years Amortized							Comment			Element 2 - Site Installation			Element 2 - Site Installation			Element 2 - Site Installation							
Unit cost							Per Site			Entire Network			Entire Network			Entire Network							
Year							Adjusted			Total			Total			Total							
Spare Analyzers							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
\$16,000	2013							\$19,168	\$153,344	\$30,669	\$19,568	\$156,544	\$31,309	\$19,952	\$159,616	\$31,923	NA	NA	NA	NA	NA	NA	NA
Labor							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	0	0	8	0	0	8	NA	64	13	NA	64	13	NA	64	13	NA	64	13	NA	64	13	13	NA
0	0	0	394	0	0	\$394	\$472	\$3,776	\$755	\$482	\$3,855	\$771	\$491	\$3,931	\$786	\$491	\$3,931	\$786	\$491	\$3,931	\$786	\$771	NA
Installation							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	245	0	0	0	0	\$245	\$294	\$2,348	\$470	\$300	\$2,397	\$479	\$306	\$2,444	\$489	\$306	\$2,444	\$489	\$306	\$2,444	\$489	\$479	NA
Sub Total - Hours							NA			NA			NA			NA							
Sub Total - Costs							\$0			\$245			\$294			\$479							

Element 3 - Supplies and Site Visits														Labor	Non Labor O & M								
Element 3 - Supplies and Site Visits																							
Supplies and Other Costs																							
Years Amortized							Comment			Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits							
Unit cost							Per Site			Entire Network			Entire Network			Entire Network							
Year							Adjusted			Total			Total			Total							
Sample analysis							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
\$4,433	2013							\$5,311	\$42,486	\$42,486	\$5,422	\$43,372	\$43,372	\$5,528	\$44,224	\$44,224	NA	NA	NA	NA	NA	NA	\$43,361
Amortized							Per Site Total			Entire Network			Entire Network			Entire Network							
HPLC/UV with autosampler							Adjusted			Total			Total			Total							
Equipment (auxiliary)							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
\$59,000	2013							\$70,682	\$565,456	\$113,091	\$72,157	\$577,256	\$115,451	\$73,573	\$588,584	\$117,717	NA	NA	NA	NA	NA	NA	
Routine visits							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	16	16	0	0	0	32	NA	256	256	NA	256	256	NA	256	256	NA	256	256	NA	256	256	256	NA
0	654	706	0	0	0	\$1,360	\$1,629	\$13,034	\$13,034	\$1,663	\$13,306	\$13,306	\$1,696	\$13,567	\$13,567	\$1,719	\$13,839	\$13,839	\$1,742	\$14,101	\$14,101	\$13,303	NA
Sub Total - Hours							NA			NA			NA			NA							
Sub Total - Costs							\$0			\$16			\$16			\$16							

Element 4 - Maintenance														Labor	Non Labor O & M								
Element 4 - Maintenance																							
Spare parts/supplies																							
Years Amortized							Comment			Element 4 - Maintenance			Element 4 - Maintenance			Element 4 - Maintenance							
Unit cost							Per Site			Entire Network			Entire Network			Entire Network							
Year							Adjusted			Total			Total			Total							
Remedial Calibrations							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
\$3,400	2013							\$4,073	\$32,586	\$32,586	\$4,158	\$33,266	\$33,266	\$4,240	\$33,918	\$33,918	NA	NA	NA	NA	NA	NA	\$33,257
Repairs							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	8	72	24	0	0	104	NA	832	832	NA	6,656	6,656	NA	53,248	53,248	NA	428	428	NA	428	428	20,245	NA
0	327	3177	1182	0	0	\$4,686	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911	\$44,911	\$44,911
Routine Maint.							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	0	1412	3941	0	0	\$5,353	\$6,413	\$51,303	\$51,303	\$6,547	\$52,374	\$52,374	\$6,675	\$53,402	\$53,402	\$6,803	\$54,430	\$54,430	\$6,931	\$55,458	\$55,458	\$52,359	NA
Sub Total - Hours							NA			NA			NA			NA							
Sub Total - Costs							\$0			\$1,941			\$4,138			\$6,413							

Element 5 - Data Management														Labor	Non Labor O & M								
Element 5 - Data Management																							
Data acquisition/processing																							
Years Amortized							Comment			Element 5 - Data Management			Element 5 - Data Management			Element 5 - Data Management							
Per Site							Per Site			Entire Network			Entire Network			Entire Network							
Total							Adjusted			Total			Total			Total							
Hours per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	0	12	12	0	0	24	NA	192	192	NA	192	192	NA	192	192	NA	192	192	NA	192	192	192	NA
0	0	529	591	0	0	\$1,120	\$1,342	\$10,734	\$10,734	\$1,370	\$10,958	\$10,958	\$1,397	\$11,173	\$11,173	\$1,425	\$11,398	\$11,398	\$1,453	\$11,623	\$11,623	\$10,955	NA
Data reporting							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	0	0	8	1	1	10	NA	80	80	NA	621	621	NA	4,970	4,970	NA	39,760	39,760	NA	31,689	31,689	\$4,969	NA
0	0	0	394	55	59	\$508	\$609	\$4,869	\$4,869	\$621	\$4,970	\$4,970	\$633	\$5,068	\$5,068	\$666	\$5,167	\$5,167	\$699	\$5,266	\$5,266	\$4,969	NA
Data validation							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	0	0	24	6	0	30	NA	240	240	NA	1,853	1,853	NA	14,823	14,823	NA	118,584	118,584	NA	94,864	94,864	\$14,819	NA
0	0	0	1182	333	0	\$1,515	\$1,815	\$14,520	\$14,520	\$1,853	\$14,823	\$14,823	\$1,889	\$15,114	\$15,114	\$1,925	\$15,409	\$15,409	\$1,951	\$15,694	\$15,694	\$14,819	NA
Data distribution							Per Site Total			Entire Network			Entire Network			Entire Network							
Hours per site							Adjusted			Total			Total			Total							
Cost per site							Yearly Cost			Yearly Cost			Yearly Cost			Yearly Cost							
0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
0	0	12	44	7	1	64	NA	512	512	NA	512	512	NA	512	512	NA	512	512	NA	512	512	512	NA
Sub Total - Hours							NA			NA			NA			NA							
Sub Total - Costs							\$0			\$529			\$2,167			\$388							

Data Entry for	PAMSHalfD	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org
				7	10	7	10	7	10	7
Overall Comment				Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor
				7	0	7	0	7	0	7

General Costs													Labor	Non Labor O & M				
Element 1 - Network Design (see O3)																		
a) Network Design (by Reporting Organization)																		
Labor Category	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per RO Total	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost		
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
b) Site Selection (Reporting Organization)																		
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Sub Total - Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Element 2 - Site Installation																		
Materials																		
Unit cost	2013							Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Analizers	\$16,000						\$19,168	\$191,680	\$38,336	\$19,568	\$195,680	\$39,136	\$19,952	\$199,520	\$39,904	NA	NA	
Spare Analizers								\$0	\$0		\$0	\$0		\$0	\$0	NA	NA	
Labor																		
Procurement	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Hours per site	0	0	0	8	0	0	8	NA	80	16	NA	80	16	NA	80	16	16	NA
Cost per site	0	0	0	394	0	0	\$394	\$472	\$4,720	\$944	\$482	\$4,819	\$964	\$491	\$4,913	\$983	\$963	NA
Installation	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Hours per site	0	6	0	0	0	0	6	NA	60	12	NA	60	12	NA	60	12	12	NA
Cost per site	0	245	0	0	0	0	\$245	\$294	\$2,935	\$587	\$300	\$2,996	\$599	\$306	\$3,055	\$611	\$599	NA
Sub Total - Hours	0	6	0	8	0	0	14	NA	140	28	NA	140	28	NA	140	28	28	NA
Sub Total - Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$7,660	\$1,532	\$781	\$7,810	\$1,562	\$797	\$7,970	\$1,563	\$1,563	NA

Element 3 - Supplies and Site Visits																		
Supplies and Other Costs																		
Unit cost	2013							Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Supplies	\$125						\$150	\$1,498	\$1,498	\$153	\$1,529	\$1,529	\$156	\$1,559	\$1,559	NA	\$1,528	
Carbonyl sample cartridges	\$1,450						\$1,737	\$17,371	\$17,371	\$1,773	\$17,734	\$17,734	\$1,808	\$18,082	\$18,082	NA	\$17,729	
Supplies/reagents	\$600						\$719	\$7,188	\$7,188	\$734	\$7,338	\$7,338	\$748	\$7,482	\$7,482	NA	\$7,336	
Sample analysis	\$2,217						\$2,655	\$26,554	\$26,554	\$2,711	\$27,108	\$27,108	\$2,764	\$27,640	\$27,640	NA	\$27,100	
Amortized																		
HPLC/UV with autosampler	\$59,000	2013						\$70,682	\$706,820	\$141,364	\$72,157	\$721,570	\$144,314	\$73,573	\$735,730	\$147,146	NA	NA
Equipment (auxiliary)	\$1,000	2013						\$1,198	\$11,980	\$2,396	\$1,223	\$12,230	\$2,446	\$1,247	\$12,470	\$2,494	NA	NA
Routine visits																		
Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Cost per site	0	16	16	0	0	0	32	NA	320	320	NA	320	320	NA	320	320	320	NA
Sub Total - Hours	0	654	706	0	0	0	\$1,360	\$1,629	\$16,293	\$16,293	\$1,663	\$16,633	\$16,633	\$1,696	\$16,959	\$16,959	\$16,628	NA
Sub Total - Costs	\$0	\$16	\$16	\$0	\$0	\$0	\$1,485	\$1,779	\$17,790	\$17,790	\$1,816	\$18,162	\$18,162	\$1,852	\$18,518	\$18,518	\$17,268	\$53,693

Element 4 - Maintenance																		
Spare parts/supplies																		
Unit cost	2013							Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Remedial Calibrations	\$1,700						\$2,037	\$20,366	\$20,366	\$2,079	\$20,791	\$20,791	\$2,120	\$21,199	\$21,199	NA	\$20,785	
Repairs																		
Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Cost per site	0	0	6	2	0	0	8	NA	80	80	NA	80	80	NA	80	80	80	NA
Routine Maint.	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Hours per site	0	2	16	8	0	0	26	NA	260	260	NA	2,600	2,600	NA	26,000	26,000	9,620	NA
Cost per site	0	82	706	394	0	0	\$1,182	\$1,416	\$14,160	\$14,160	\$1,416	\$14,160	\$14,160	\$1,416	\$14,160	\$14,160	\$14,160	NA
Sub Total - Hours	0	0	16	40	0	0	56	NA	560	560	NA	5,600	5,600	NA	56,000	56,000	560	NA
Sub Total - Costs	\$0	\$0	\$971	\$2,070	\$0	\$0	\$5,923	\$7,096	\$70,958	\$70,958	\$7,214	\$72,143	\$72,143	\$7,328	\$73,281	\$73,281	\$51,342	\$20,785

Element 5 - Data Management																		
Data acquisition/processing																		
Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Cost per site	0	0	6	6	0	0	12	NA	120	120	NA	120	120	NA	120	120	120	NA
Data reporting	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Hours per site	0	0	0	4	0.5	0.5	5	NA	50	50	NA	50	50	NA	50	50	50	NA
Cost per site	0	0	265	296	0	0	\$561	\$672	\$6,721	\$6,721	\$686	\$6,861	\$6,861	\$700	\$6,996	\$6,996	\$6,859	NA
Data validation	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Hours per site	0	0	0	12	3	0	15	NA	150	150	NA	1,500	1,500	NA	15,000	15,000	1,500	NA
Cost per site	0	0	0	591	166	0	\$757	\$907	\$9,069	\$9,069	\$926	\$9,258	\$9,258	\$944	\$9,440	\$9,440	\$9,256	NA
Data distribution	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Hours per site	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Cost per site	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
Sub Total - Hours	0	0	6	22	3.5	0.5	32	NA	320	320	NA	320	320	NA	320	320	320	NA
Sub Total - Costs	\$0	\$0	\$265	\$1,084	\$194	\$29	\$1,572	\$1,883	\$18,833	\$18,833	\$1,923	\$19,226	\$19,226	\$1,960	\$19,603	\$19,603	\$19,220	NA

Element 6 - Quality Assurance	Comment							Element 6 - Quality Assurance			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor	Non Labor O & M									
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost											
Calibration Stds	\$1,500	2013						\$1,797	\$17,970	\$17,970	\$1,835	\$18,345	\$18,345	\$1,871	\$18,705	\$18,705	NA	\$18,340									
Calibrations	0	0	1	2.5	0	0	3.5	NA	35	35	NA	35	35	NA	35	35	35	NA	35								
Costs	0	0	44	123	0	0	\$167	\$200	\$2,001	\$2,001	\$204	\$2,042	\$2,042	\$208	\$2,082	\$2,082	\$2,042	NA	\$2,042								
Audits	0	0	2	4	0	0	6	NA	60	60	NA	60	60	NA	60	60	60	NA	60								
Costs	0	0	88	197	0	0	\$285	\$341	\$3,414	\$3,414	\$349	\$3,486	\$3,486	\$355	\$3,554	\$3,554	\$3,485	NA	\$3,485								
Training	0	0.5	4	2.5	1	0	8	NA	80	80	NA	80	80	NA	80	80	80	NA	80								
Costs	0	20	176	123	55	0	\$374	\$448	\$4,481	\$4,481	\$457	\$4,574	\$4,574	\$466	\$4,664	\$4,664	\$4,573	NA	\$4,573								
Coordination/implementation	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total				Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost											
Hours per site	0	0	0	3	1.5	0	4.5	NA	45	45	NA	45	45	NA	45	45	45	NA	45								
Costs	0	0	0	148	83	0	\$231	\$277	\$2,767	\$2,767	\$283	\$2,825	\$2,825	\$288	\$2,881	\$2,881	\$2,824	NA	\$2,824								
QA Plan preparation		Years Amortized	5	12	0	0	Per RO				Per RO	Entire Network		Per RO	Entire Network												
Hours per RO	0	0	0	591	0	0	\$591	NA	84	84	NA	84	17	NA	84	17	17	NA	17								
Cost per RO	0	0	0	\$91	0	0	\$91	\$708	\$4,956	\$991	\$723	\$5,060	\$1,012	\$737	\$5,159	\$1,032	\$1,012	NA	\$1,012								
Sub Total - Hours	0	1	7	24	3	0	34	NA	NA	237	NA	NA	237	NA	NA	237	237	NA	237								
Sub Total - Costs	\$0	\$20	\$308	\$1,182	\$138	\$0	\$1,648	\$1,974	\$17,619	\$13,654	\$2,016	\$17,987	\$13,939	\$2,055	\$18,340	\$14,213	\$13,935	\$13,935	\$18,340								
Element 7 - Supervision																											
Element 7 - Supervision	Comment							Element 7 - Supervision			Element 7 - Supervision			Element 7 - Supervision			Labor	Non Labor O & M									
Planning/coordination	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost											
Hours per site	0	0	0	6	3	0	9	NA	90	90	NA	90	90	NA	90	90	90	NA	90								
Cost per site	0	0	0	296	166	0	\$462	\$553	\$5,535	\$5,535	\$565	\$5,650	\$5,650	\$576	\$5,761	\$5,761	\$5,649	NA	\$5,649								
Supervision/review	0	0	0	6	3	0	9	NA	90	90	NA	90	90	NA	90	90	90	NA	90								
Cost per site	0	0	0	333	176	0	\$509	\$610	\$6,098	\$6,098	\$623	\$6,225	\$6,225	\$635	\$6,347	\$6,347	\$6,223	NA	\$6,223								
Sub Total - Hours	0	0	0	6	9	3	18	NA	180	180	NA	180	180	NA	180	180	180	NA	180								
Sub Total - Costs	\$0	\$0	\$0	\$296	\$499	\$176	\$971	\$1,163	\$11,633	\$11,633	\$1,188	\$11,875	\$11,875	\$1,211	\$12,108	\$12,108	\$11,872	NA	\$11,872								
Summary by Element																											
Summary by Element	PAMSHalfD							Year 1			2013			Year 2			2014			Year 3			2015			Labor	Non Labor O & M
1 - Network Design	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost								
Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0								
Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0								
2 - Site Installation	0	6	0	8	0	0	14	NA	140	28	NA	140	28	NA	140	28	NA	140	28								
Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$0	\$39,867	\$781	\$0	\$40,699	\$797	\$0	\$41,498	\$1,563	\$0	\$1,563								
3 - Supplies & site visits	0	16	16	0	0	0	32	NA	320	320	NA	320	320	NA	320	320	NA	320	320								
Costs	\$0	\$16	\$16	\$0	\$0	\$0	\$1,485	\$1,779	\$17,790	\$17,790	\$1,816	\$18,162	\$18,162	\$1,852	\$18,518	\$18,518	\$1,768	\$0	\$1,768								
4 - Maintenance	0	0	22	42	0	0	64	NA	640	640	NA	640	640	NA	640	640	NA	640	640								
Costs	\$0	\$0	\$971	\$2,070	\$0	\$0	\$5,923	\$7,096	\$70,958	\$70,958	\$7,214	\$72,143	\$72,143	\$7,328	\$73,281	\$73,281	\$51,342	\$0	\$51,342								
5 - Data Management	0	0	6	22	3.5	0.5	32	NA	320	320	NA	320	320	NA	320	320	NA	320	320								
Costs	\$0	\$0	\$265	\$1,084	\$194	\$29	\$1,572	\$1,883	\$18,833	\$18,833	\$1,923	\$19,226	\$19,226	\$1,960	\$19,603	\$19,603	\$19,220	NA	\$19,220								
6 - Quality Assurance	0	1	7	24	3	0	34	NA	NA	237	NA	NA	237	NA	NA	237	NA	NA	237								
Costs	\$0	\$20	\$308	\$1,182	\$138	\$0	\$1,648	\$1,974	\$17,619	\$13,654	\$2,016	\$17,987	\$13,939	\$2,055	\$18,340	\$14,213	\$13,935	\$18,340	\$13,935								
7 - Supervision	0	0	0	6	9	3	18	NA	180	180	NA	180	180	NA	180	180	NA	180	180								
Costs	\$0	\$0	\$0	\$296	\$499	\$176	\$971	\$1,163	\$11,633	\$11,633	\$1,188	\$11,875	\$11,875	\$1,211	\$12,108	\$12,108	\$11,872	NA	\$11,872								
Total	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost								
Hours	0	23	51	102	15	4	194	NA	1,600	1,725	NA	1,600	1,725	NA	1,600	1,725	1,725	NA	1,725								
Costs	\$0	\$281	\$1,560	\$5,026	\$831	\$205	\$12,238	\$14,661	\$119,213	\$172,734	\$14,938	\$121,405	\$176,043	\$15,203	\$123,510	\$179,220	\$115,200	\$92,819	\$92,819								

Equipment

NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA

NA
NA
NA
NA
NA
NA
NA

NA
\$39,125
NA
\$146,720
NA
NA
NA
NA
NA
NA
NA
NA
NA
\$185,845

Data Entry for	NATTS	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				22	27	22	27	22	27	22	27
				Spares	0	Spares	0	Spares	0	Spares	0

General Costs										Labor	Non Labor O & M	Equipment
Element 1 - Network Design												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 2 - Site Installation												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 3 - Supplies and Site Visits												
Supplies												
Analysis (grant to RO)												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 4 - Maintenance												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 5 - Data Management												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA

Element 6 - Quality Assurance										Labor	Non Labor O & M	Equipment
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 7 - Supervision												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA

Summary by Element		NATTS							Year 1 2013			Year 2 2014			Year 3 2015			Labor	Non Labor O & M	Equipment
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 - Site Installation	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 - Supplies & site visits	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155,003	\$3,410,071	\$3,410,071	\$158,238	\$3,481,233	\$3,481,233	\$161,343	\$3,549,548	\$3,549,548	NA	NA	3,480,284
4 - Maintenance	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5 - Data Management	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 - Quality Assurance	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7 - Supervision	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155,003	\$3,410,071	\$3,410,071	\$158,238	\$3,481,233	\$3,481,233	\$161,343	\$3,549,548	\$3,549,548	NA	NA	\$3,480,284

Data Entry for	Generic Network	Updated on February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
			Small Shelter Sites	1,294	Small Shelter Sites	1,294	Small Shelter Sites	1,294	Report Org Sites	168
			Large Shelter Sites	269	Large Shelter Sites	269	Large Shelter Sites	269	Sites	1294
			Total Shelter Sites	1,563	Total Shelter Sites	1,563	Total Shelter Sites	1,563		
			Other Sites	1,342	Other Sites	1,342	Other Sites	1,342		
			Total Sites	2,905	Total Sites	2,905	Total Sites	2,905		
Overall Comment			Report Org	168	Report Org	168	Report Org	168		
			QA Orgs	156	QA Orgs	156	QA Orgs	156		

General Costs									
Element 1 - Network Design									
a) Network Design (see individual pollutants)									
b) Site Selection (see individual pollutants)									
c) Travel other than monitoring sites									
d) Saturation studies									
e) Additional indirect cost adj (\$2/hour)									
Sub Total - Hours									
Sub Total - Costs									

Element 2 - Site Installation									
Materials									
Shelters									
Other									
Sub Total - Hours									
Sub Total - Costs									

Element 3 - Sampling and Analysis									
Supplies									
Open Path Monitoring									
Routine visits									
Sub Total - Hours									
Sub Total - Costs									

Element 4 - Maintenance - see individual pollutants									
Sub Total - Hours									
Sub Total - Costs									

Element 5 - Data Management									
Analysis and Trends (Rep. Org.)									
Sub Total - Hours									
Sub Total - Costs									

Element 6 - Quality Assurance				Comment			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor		Non Labor O & M	Equipment	
Equipment		Unit cost	Year	Years Amortized	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost				
Multigas calibrator		\$14,000	2013	7	\$16,772	\$2,616,432	\$373,776	\$17,122	\$2,671,032	\$381,576	\$17,458	\$2,723,448	\$389,064	NA	NA	\$381,472				
Zero air supply		\$4,000	2013		\$4,792	\$747,552	\$106,793	\$4,892	\$763,152	\$109,022	\$4,988	\$778,128	\$111,161	NA	NA	\$108,992				
Miscellaneous equipment		\$2,000	2013		\$2,396	\$373,776	\$53,397	\$2,446	\$381,576	\$54,511	\$2,494	\$389,064	\$55,581	NA	NA	\$54,496				
Sub Total - Hours					0	0	0	0	0	0	0	0	0	0	0	0				
Sub Total - Costs					\$23,960	\$3,737,760	\$533,966	\$24,460	\$3,815,760	\$545,109	\$24,940	\$3,890,640	\$555,806							\$544,960

Element 7 - Supervision - see individual pollutants				Comment			Element 7 - Supervision			Element 7 - Supervision			Element 7 - Supervision			Labor		Non Labor O & M	Equipment
Sub Total - Hours		Sub Total - Costs		Per Site	Entire Network		Per Site	Entire Network		Per Site	Entire Network		Per Site	Entire Network					
0		0		\$0	0	0	\$0	0	0	\$0	0	0	\$0	0	0	0	NA	NA	
0		0		\$0	0	0	\$0	0	0	\$0	0	0	\$0	0	0	0	NA	NA	

Summary by Element		Generic Network							Year 1 2013			Year 2 2014			Year 3 2015			Labor		Non Labor O & M	Equipment
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
1 - Network Design		0	0	0	0	0	0	41,504	41,504	0	0	0	0	41,504	0	0	41,504	41,504			
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$6,092,268	\$4,345,772	\$0	\$0	\$4,429,158	\$0	\$4,518,862	\$2,220,960	NA	4,431,264				
2 - Site Installation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102,835,223	\$22,909,540	\$0	\$104,981,200	\$23,387,619	NA	NA	\$23,381,245				
3 - Sampling and Analysis		0	0	0	0	1.6	1.6	3.2	3.2	11,906	11,906	3.2	11,906	11,906	3.2	11,906	11,906	11,906	NA	NA	
Costs		\$0	\$0	\$0	\$0	\$2	\$2	\$183	\$219	\$762,471	\$762,471	\$224	\$778,180	\$778,180	\$228	\$793,531	\$793,531	\$778,061	\$3,631,763	NA	
4 - Maintenance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	
5 - Data Managment		0	0	1040	0	0	0	1040	1040	174,720	174,720	1040	174,720	174,720	1040	174,720	174,720	174,720	NA	NA	
Costs		\$0	\$0	\$45,885	\$0	\$0	\$0	\$45,885	\$54,970	\$9,234,999	\$9,234,999	\$56,117	\$9,427,716	\$9,427,716	\$57,219	\$9,612,724	\$9,612,724	\$9,425,146	NA	NA	
6 - Quality Assurance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,960	\$3,737,760	\$533,966	\$24,460	\$3,815,760	\$545,109	\$24,940	\$3,890,640	\$555,806	NA	\$0	555,806	
7 - Supervision		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
Hours		0	0	1,040	0	2	2	42,547	NA	186,626	186,626	NA	186,626	228,130	NA	186,626	228,130	228,130	NA	NA	
Costs		\$0	\$0	\$45,885	\$0	\$2	\$2	\$6,138,336	\$4,424,921	\$116,570,453	\$33,440,976	\$80,801	\$115,187,096	\$38,567,782	\$82,387	\$117,447,593	\$39,327,498	\$12,424,167	\$3,631,763	\$28,913,274	

Cost Element	Average 2013-2015 SO2					Average 2013-2015 CO					Average 2013-2015 NO2				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	613	\$40,521			\$40,521	499	\$32,990			\$32,990	472	\$31,197			\$31,197
2. Site Installation	1,261	\$67,186		\$801,458	\$868,644	874	\$46,585		\$555,702	\$602,287	1,162	\$62,428		\$864,784	\$927,213
3. Sampling & Analysis	52,440	\$3,151,333	\$427,444		\$3,578,777	36,360	\$2,185,020	\$296,374		\$2,481,395	48,320	\$2,906,267	\$394,204		\$3,300,471
4. Maintenance	29,716	\$1,660,621	\$534,305		\$2,194,926	20,604	\$1,151,415	\$370,468		\$1,521,883	34,629	\$1,991,714	\$492,755		\$2,484,469
5. Data Management	17,043	\$976,176			\$976,176	11,817	\$676,845			\$676,845	20,133	\$1,189,510			\$1,189,510
6. Quality Assurance	34,045	\$2,001,191			\$2,001,191	23,653	\$1,390,677			\$1,390,677	54,665	\$3,258,789			\$3,258,789
7. Supervision	18,354	\$1,131,124			\$1,131,124	12,726	\$784,281			\$784,281	16,912	\$1,043,162			\$1,043,162
Totals	153,472	\$9,028,152	\$961,750	\$801,458	\$10,791,359	106,534	\$6,267,813	\$666,842	\$555,702	\$7,490,357	176,293	\$10,483,068	\$886,958	\$864,784	\$12,234,811

Cost Element	Average 2013-2015 O3					Average 2013-2015 PM 10					Average 2013-2015 PM 2.5				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	831	\$54,864			\$54,864	626	\$52,686			\$52,686	399	\$25,879			\$25,879
2. Site Installation	3,610	\$188,848		\$1,833,581	\$2,022,429	1,512	\$82,006		2,040,597	\$2,122,602	5,625	\$405,123		5,191,173	\$5,596,295
3. Sampling & Analysis	104,960	\$5,451,933	\$855,541		\$6,307,473	20,117	\$9,941,131	\$909,309	161,916	\$11,012,356	19,392	\$15,274,202	\$455,566	8,642,232	\$24,372,000
4. Maintenance	59,477	\$3,323,775	\$1,069,426		\$4,393,201	49,440	\$2,611,003	1,121,540		\$3,732,543	53,138	\$2,995,438	624,330		\$3,619,768
5. Data Management	34,112	\$1,953,841			\$1,953,841	152,423	\$8,378,210			\$8,378,210	193,215	\$1,149,627			\$1,149,627
6. Quality Assurance	68,712	\$4,029,319			\$4,029,319	41,943	\$2,487,051		6,244	\$2,493,295	59,263	\$3,361,085		6,010	\$3,367,096
7. Supervision	36,736	\$2,263,974			\$2,263,974	13,012	\$862,205			\$862,205	79,830	\$5,080,565			\$5,080,565
Totals	308,438	\$17,266,555	\$1,924,966	\$1,833,581	\$21,025,102	279,073	\$24,414,292	\$2,030,849	\$2,208,756	\$28,653,897	410,862	\$8,291,920	1,079,896	13,839,415	\$53,211,231

Cost Element	Average 2013-2015 Pb					Average 2013-2015 NATTS					Average 2013-2015 PAMS				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	268	\$16,349			\$16,349					\$0	198	\$13,097			\$13,097
2. Site Installation	539	\$22,837		\$87,595	\$110,432					\$0	1,028	\$485,131		\$1,868,641	\$2,353,772
3. Sampling & Analysis	21,240	\$1,117,552	\$86,565	\$464,564	\$1,668,681				\$3,480,284	\$3,480,284	16,728	\$1,741,506	\$1,059,515	293,440	\$3,094,461
4. Maintenance	3,776	\$188,711	\$86,565		\$275,276					\$0	14,192	\$899,033	561,258		\$1,460,290
5. Data Management	4,956	\$292,300			\$292,300					\$0	14,340	\$864,451			\$864,451
6. Quality Assurance	4,938	\$234,236			\$234,236					\$0	31,145	\$1,808,284	113,310		\$1,921,594
7. Supervision	2,360	\$151,200			\$151,200					\$0	11,512	\$722,623			\$722,623
Totals	38,077	\$2,023,185	\$173,130	\$552,160	\$2,748,474	0	\$0	\$0	\$3,480,284	\$3,480,284	89,142	6,534,124	1,734,083	2,162,081	10,430,289

Cost Element	Average 2013-2015 General Network				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	41,504	\$2,220,960		\$4,431,264	\$6,652,224
2. Site Installation				23,381,245	\$23,381,245
3. Sampling & Analysis	11,906	\$778,061	\$3,631,763		\$4,409,824
4. Maintenance					\$0
5. Data Management	174,720	\$9,425,146			\$9,425,146
6. Quality Assurance				\$555,806	\$555,806
7. Supervision					\$0
Totals	228,130	\$12,424,167	\$3,631,763	\$28,368,314	\$44,424,244

Cost Element	Grand Total Average 2013-2015				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	45,410	\$2,488,544	\$0	\$4,431,264	\$6,919,808
2. Site Installation	15,612	\$1,360,143	\$0	\$36,624,776	\$37,994,919
3. Sampling & Analysis	331,463	\$42,547,005	\$8,116,280	\$13,042,437	\$63,705,722
4. Maintenance	264,973	\$14,821,710	\$4,860,647	\$0	\$19,682,357
5. Data Management	622,759	\$34,906,106	\$0	\$0	\$34,906,106
6. Quality Assurance	318,362	\$18,570,633	\$113,310	\$568,060	\$19,252,003
7. Supervision	191,442	\$12,039,134	\$0	\$0	\$12,039,134
Totals	1,790,021	\$126,733,274	\$13,090,237	\$54,666,536	\$194,490,047

Table 1. Grand Total Average 2013-2015 Renewal for Labor Hours & Costs

Cost Element	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	45,410	\$2,488,544	\$0	\$4,431,264	\$6,919,808
2. Site Installation	15,612	\$1,360,143	\$0	\$36,624,776	\$37,984,919
3. Sampling & Analysis	331,463	\$42,547,005	\$8,116,280	\$13,042,437	\$63,705,722
4. Maintenance	264,973	\$14,821,710	\$4,860,647	\$0	\$19,682,357
5. Data Management	622,759	\$34,906,106	\$0	\$0	\$34,906,106
6. Quality Assurance	318,362	\$18,570,633	\$113,310	\$568,060	\$19,252,003
7. Supervision	191,442	\$12,039,134	\$0	\$0	\$12,039,134
Totals	1,790,021	\$126,733,274	\$13,090,237	\$54,666,536	\$194,490,047