Table 3.1, 2011 SO2 Monitoring Costs

				Previous	Amoritized	Hours an	d Costs		New Site H	lours and	Costs	
						Total	Total					Total
		# Old	Hours/	Years	Cost/	Amor.	Amor.	# New	Hours/	Years	Cost/	Amor.
Cost Element		Sites	Site	Amor.	Site	Hours	Cost	Sites	Site	Amor.	Site	Hours
1. Network Desig	gn											
1	Network design study (RO)	102	30	7	\$1,881	437	\$27,405					
1	Site selection (RO)	102	8	7	\$482	117	\$7,027					
Element #1 totals	6					554	\$34,432					
2. Site Installation	n											
1	Analyzer	486		7	\$10,200		\$708,171					
1	Spare analyzers	24		7	\$10,200		\$35,409					
1	Procurement	510	8	7	\$227	583	\$16,530					
1	Equipment installation	486	16	7	\$783	1,111	\$54,340					
1	Relocation costs											
Element #2 totals	5					1,694	\$814,450					
3. Supplies and S	Site Visits											
	Supplies											
1	Routine site visits											
Element #3 totals	5											
4. Maintenance												
	Spare parts/supplies											
1	Remedial repairs											
	Routine maintenance											
Element #4 totals	S											
5 Data Manageme	nent											
1	Data acquistion/processing											
1	Data reporting											
	Data validation											
1	Data distribution											
5 N	Minute SO2											
	Data acquistion/processing											
	Data reporting											
	Data validation											
	Data distribution											
Element # 5 totals	S											

6. Quality Ass	surance									
	Audits									
	Routine calibrations									
	Coordination/implementatio	n								
	Training									
	Reporting									
	QA plan review (annual) R	108	27	5	\$55	583	\$1,194			
	QA plan preparation (RO)									
Element #6 to	tals					583	\$1,194			
7. Supervision	n									
	Planning/coordination									
	Supervision/review									
	5 Minute SO2									
	Planning/coordination									
	Supervision/review									
Element #7 to	tals									
Summary of I	Burdens and Costs					2,831	\$850,077			
Summary Tot	tals									

1.151	(percent inflation 2004 to 2011)
1.175	(percent inflation 2004 to 2012)
1.198	(percent inflation 2004 to 2013)
1.020	(percent inflation 2010 to 2011)
1.041	(percent inflation 2010 to 2012)
1.062	(percent inflation 2010 to 2013)

Table:

										Previous .	Amoritized	l Hours an
Total	# Old				Summary SO2							Total
Amor.	Plus New	Labor	Labor	Labor	Labor	Non-labor	Equip/	# Old	Hours/	Years	Cost/	Amor.
Cost	Sites	Hours	O & M	Hours	Costs	O & M	Contract \$	Sites	Site	Amor.	Site	Hours
				437	\$27,405			102	30	7	\$1,920	437
				117	\$7,027			102	8	7	\$492	117
				554	\$34,432							554
							\$708,171	486		7	\$10,410	
							\$35,409	24		7	\$10,410	
				583	\$16,530			510	8	7	\$231	583
				1,111	\$54,340			486	16	7	\$799	1,111
							+					
				1,694	\$70,870		\$743,580					1,694
	400					447 500						
	486		#0.054.750	F0 000	#0.054.750	\$447,509						
	486	·	\$2,851,750		\$2,851,750	Φ447 F00						
		58,320	\$2,851,750	58,320	\$2,851,750	\$447,509						
	486					\$559,386						
	486	5,832	\$293,678	5,832	\$293,678	Ψ559,560						
	486	27,216	\$1,444,894	27,216	\$1,444,894							
	400	33,048	\$1,738,572	33,048	\$1,738,572	\$559,386						
		00,010	Ψ1,100,012	00,010	Ψ1,100,012	4000,000						
	486	6,804	\$355,769	6,804	\$355,769							
	486	4,374	\$244,452	4,374	\$244,452							
	486	5,832	\$318,850		\$318,850							
	486	1,944	\$102,927	1,944	\$102,927							
		, , , , , , , , , , , , , , , , , , ,	, ,	,								
	486	1,701	\$88,942	1,701	\$88,942							
	486	1,094	\$61,113	1,094	\$61,113							
	486	1,458	\$79,713	1,458	\$79,713							
	486	486	\$25,732	486	\$25,732							
		23,693	\$1,277,498	23,693	\$1,277,498							

486	17,496	\$1,047,730	17,496	\$1,047,730							
486	12,636	\$594,068	12,636	\$594,068							
486	1,944	\$117,471	1,944	\$117,471							
486	2,430	\$133,693	2,430	\$133,693							
486	2,916	\$175,647	2,916	\$175,647							
108	27	\$1,493	610	\$2,687			108	27	5	\$58	583
	37,449	\$2,070,102	38,032	\$2,071,296							583
486	5,832	\$379,264	5,832	\$379,264							
486	14,580	\$804,956	14,580	\$804,956							
486	1,458	\$94,816	1,458	\$94,816							
486	3,645	\$201,239	3,645	\$201,239							
	25,515	\$1,480,275	25,515	\$1,480,275							
	178,025	\$9,418,197	180,855	\$9,524,693	\$1,006,895	\$743,580					2,831
						\$11,275,168					

180,855 \$11,275,168

3.2, 2012 SO2 Monitoring Costs

d Costs		New Site	e Hours	and Costs									Julie 2010
Total					Total	Total	# Old				Summary SO2	2	
Amor.	# New	Hours/	Years	Cost/	Amor.	Amor.	Plus New	Labor	Labor	Labor	Labor	Non-labor	Equip/
Cost	Sites	Site	Amor.	Site	Hours	Cost	Sites	Hours	O & M	Hours	Costs	O & M	Contract \$
\$27,976										437	\$27,976		
\$7,174										117	\$7,174		
\$35,150										554	\$35,150		
\$722,751													\$722,751
\$36,138													\$36,138
\$16,875										583	\$16,875		
\$55,473										1,111	\$55,473		
\$831,237										1,694	\$72,348		\$758,889
							486					\$456,840	
							486	58,320			\$2,911,213		
								58,320	\$2,911,213	58,320	\$2,911,213	\$456,840	
							486					\$571,050	
							486	5,832	\$299,801	5,832	\$299,801		
							486	27,216	\$1,475,022	27,216	\$1,475,022	*== 4.0=0	
								33,048	\$1,774,823	33,048	\$1,774,823	\$571,050	
							400	0.004	#200 400	0.004	#2C2 4C2		
							486	6,804	\$363,188	6,804	\$363,188		
							486	4,374	\$249,549	4,374	\$249,549		
							486 486	5,832	\$325,499 \$105,073	5,832	\$325,499		
							486	1,944	\$105,073	1,944	\$105,073		
							486	1,701	\$90,797	1,701	\$90,797		
							486	1,701	\$62,387	1,701	\$62,387		
							486	1,458	\$81,375	-	\$81,375		
							486	486	\$26,268		\$26,268		
							400	23,693	\$1,304,135		\$1,304,135		
								23,093	φ1,504,135	23,093	Ψ1,304,133		

					1					
				486	17,496	\$1,069,577	17,496	\$1,069,577		
				486	12,636	\$606,455	12,636	\$606,455		
				486	1,944	\$119,921	1,944	\$119,921		
				486	2,430	\$136,481	2,430	\$136,481		
				486	2,916	\$179,310	2,916	\$179,310		
\$1,243				108	27	\$1,524	610	\$2,767		
\$1,243					37,449	\$2,113,267	38,032	\$2,114,510		
				486	5,832	\$387,172	5,832	\$387,172		
				486	14,580	\$821,741	14,580	\$821,741		
				486	1,458	\$96,793	1,458	\$96,793		
				486	3,645	\$205,435	3,645	\$205,435		
					25,515	\$1,511,141	25,515	\$1,511,141		
\$867,630					178,025	\$9,614,579	180,855	\$9,723,321	\$1,027,890	\$758,889
										\$11,510,100

180,855

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Table 3.3, 2013 SO2 Monitoring Costs

		Previous Amoritized Hours and Costs Total Total							New Site	Hours and	Costs				
Sites Site Amor. Site Hours Cost Sites Site Amor. Site Hours Cost Sites Hours						Total	Total					Total	Total	# Old	
102 30 7 \$1,958 437 \$28,524 41 30 7 \$1,958 176 \$11,466 102 8 7 \$502 117 \$7,314 41 8 7 \$502 47 \$2,940 41 8 7 \$502 47 \$2,940 41 8 8 7 \$502 47 \$2,940 41 8 8 7 \$502 47 \$2,940 41 8 8 7 \$502 47 \$2,940 41 8 8 7 \$502 47 \$2,940 41 8 8 7 \$233 \$14,406 41 8 8 7 \$233 \$14,406 41 8 8 7 \$10,620 \$31,110 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$33,120 \$10,620 \$10,620 \$10,620 \$10,620 \$10,620 \$10,62		# Old	Hours/	Years	Cost/	Amor.	Amor.	# New	Hours/	Years	Cost/	Amor.	Amor.	Plus New	Labor
102 8		Sites	Site	Amor.	Site	Hours	Cost	Sites	Site	Amor.	Site	Hours	Cost	Sites	Hours
102 8															
186		102	30	7	\$1,958	437	\$28,524	41	30	7	\$1,958	176	\$11,466		
486		102	8	7	\$502	117	\$7,314	41	8	7	\$502	47	\$2,940		
24 7 \$10,620 \$36,867 2 7 \$10,620 \$3,110 \$3,110 \$1,382 \$1,382 \$1,382 \$1,382 \$1,382 \$1,382 \$1,382 \$1,471 \$1,382 \$1,471 \$1,4771 \$1,694 \$847,962 \$1,41 \$71,467 \$1,467						554	\$35,838					223	\$14,406		
24 7 \$10,620 \$36,867 2 7 \$10,620 \$3,110 \$3,110 \$1,382 \$1,382 \$1,382 \$1,382 \$1,382 \$1,382 \$1,382 \$1,471 \$1,382 \$1,471 \$1,4771 \$1,694 \$847,962 \$1,41 \$71,467 \$1,467															
510 8 7 \$236 583 \$17,205 41 8 7 \$236 47 \$1,382 \$4,771 \$486 16 7 \$815 94 \$4,771 \$466 \$486 \$486 \$486 \$58,320 \$486 \$58,320 \$486 \$58,320 \$486 \$486 \$58,320 \$486 \$27,216 \$486 \$27,216 \$486 \$27,216 \$486 \$27,216 \$33,048 \$486 \$27,216 \$486 <td></td> <td>486</td> <td></td> <td>7</td> <td>\$10,620</td> <td></td> <td>\$737,331</td> <td>41</td> <td></td> <td>7</td> <td>\$10,620</td> <td></td> <td>\$62,203</td> <td></td> <td></td>		486		7	\$10,620		\$737,331	41		7	\$10,620		\$62,203		
486 16 7 \$815 1,111 \$56,559 41 16 7 \$815 94 \$4,771 486 486 486 486 486 58,320 58,320 58,320 58,320 486 27,216 486 27,216 486 27,216 486 27,216 486 4		24		7	\$10,620		\$36,867			7	\$10,620		\$3,110		
1,694 \$847,962		510	1 1	7	\$236	583	\$17,205	41	8	7	\$236	47	-		
486 58,320 58,320 486 58,320 486 5,832 486 27,216 486 27,216 486 27,216 486 486 5,832 486 27,216 486 486 486 4,374 486 4,374 486 4,374 486 5,832 486 4,374 486 5,832 486 4,374 486 5,832 486 1,944 486 1,701 486 1,701 486 1,701 486 1,701 486 1,701 486 1,094 486 1,094 486 1,458 486 486 486 486		486	16	7	\$815	1,111	\$56,559	41	16	7	\$815	94	\$4,771		
486 58,320 58,320 486 58,320 486 5,832 486 27,216 486 27,216 486 27,216 486 486 5,832 486 27,216 486 486 486 4,374 486 4,374 486 4,374 486 5,832 486 4,374 486 5,832 486 4,374 486 5,832 486 1,944 486 1,701 486 1,701 486 1,701 486 1,701 486 1,701 486 1,094 486 1,094 486 1,458 486 486 486 486															
486 58,320 486 486 5,832 486 27,216 486 486 27,216 486 486 27,216 486 486 486 486 487 486 4,374 488 4,374 488 4,374 488 5,832 488 4,374 488 4,374 488 5,832 488 4,374 488 5,832 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,458 488 1,458 488 1,458 488 488 488						1,694	\$847,962					141	\$71,467		
486 58,320 486 486 5,832 486 27,216 486 486 27,216 486 486 27,216 486 486 486 486 487 486 4,374 488 4,374 488 4,374 488 5,832 488 4,374 488 4,374 488 5,832 488 4,374 488 5,832 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,944 488 1,458 488 1,458 488 1,458 488 488 488															
March Marc															
486 486 5,832 486 27,216 41 574 \$31,239 486 6,804 41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 144 \$7,810 486 1,944 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 41 \$2,259 486 486 486														486	
486 5,832 7,216 41 574 \$31,239 486 6,804 41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 123 \$6,999 486 1,458 41 41 41 \$2,259 486 486															58,320
486 5,832 486 27,216 41 574 \$31,239 486 6,804 41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 123 \$6,999 486 1,458 41 41 41 \$2,259 486 486														400	
486 27,216 486 27,216 41 574 \$31,239 486 6,804 41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 144 \$7,810 486 1,701 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486															F 000
41 574 \$31,239 486 6,804 41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 144 \$7,810 486 1,701 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486															
41 574 \$31,239 486 6,804 41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 123 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486														486	
41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 144 \$7,810 486 1,701 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486	ŀ														33,048
41 369 \$21,465 486 4,374 41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 144 \$7,810 486 1,701 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486								11	[[74		¢21 220			406	6 004
41 492 \$27,997 486 5,832 41 164 \$9,038 486 1,944 41 144 \$7,810 486 1,701 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486									l						
41 164 \$9,038 486 1,944 41 144 \$7,810 486 1,701 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486									l						
41 144 \$7,810 486 1,701 41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486															
41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486								41	104		φ υ ,υδο			400	1,944
41 92 \$5,366 486 1,094 41 123 \$6,999 486 1,458 41 41 \$2,259 486 486								<i>/</i> 11	144		\$7.810			186	1 701
41 123 \$6,999 486 1,458 41 41 \$2,259 486 486									l						
41 41 \$2,259 486 486															
								71	1,999		\$112,173			700	23,693

1										ı	ı	1	
												486	17,496
												486	12,636
												486	1,944
												486	2,430
												486	2,916
102	15	5	\$978	306	\$19,942							108	54
						41	15	5	\$590	123	\$4,836		123
				306	\$19,942								37,599
												486	5,832
												486	14,580
												486	1,458
												486	3,645
													25,515
				2,554	\$903,743								178,175

Table 3.0, Summary of SO2 2

Labor	Labor	Labor	Non-labor	Equip/
O & M	Hours	Costs	O & M	Contract \$
	613	\$39,990		
	163	\$10,254		
	776	\$50,244		
				_
				\$799,534
				\$39,977
	630	\$18,587		
	1,205	\$61,331		
	1,835	\$79,918		\$839,511
			\$465,782	
\$2,968,198	58,320	\$2,968,198		
\$2,968,198	58,320	\$2,968,198	\$465,782	
			\$582,228	
\$305,670	5,832	\$305,670		
\$1,503,895	27,216	\$1,503,895		
\$1,809,565	33,048	\$1,809,565	\$582,228	
1		40-0 6		
\$370,297	6,804	\$370,297		
\$254,434	4,374	\$254,434		
\$331,870	5,832	\$331,870		
\$107,130	1,944	\$107,130		
		**		
\$92,574	1,701	\$92,574		
\$63,608	1,094	\$63,608		
\$82,967	1,458	\$82,967		
\$26,782	486	\$26,782		
\$1,329,663	23,693	\$1,329,663		

	2011				2012
	Summary SO2	2			Summary SO2
Labor	Labor	Non-labor	Equip/	Labor	Labor
Hours	Costs	O & M	Contract \$	Hours	Costs
437	\$27,405			437	\$27,976
117	\$7,027			117	\$7,174
554	\$34,432			554	\$35,150
			\$708,171		
			\$35,409		
583	\$16,530			583	\$16,875
1,111	\$54,340			1,111	\$55,473
1,694	\$70,870		\$743,580	1,694	\$72,348
		\$447,509			
58,320	\$2,851,750	* = = = = =		58,320	\$2,911,213
58,320	\$2,851,750	\$447,509		58,320	\$2,911,213
		# FF0.000			
5 000	#000.670	\$559,386		F 000	# 000 001
5,832	\$293,678			5,832	\$299,801
27,216	\$1,444,894	ΦΕΕΩ 20G		27,216	\$1,475,022
33,048	\$1,738,572	\$559,386		33,048	\$1,774,823
6,804	\$355,769			6,804	\$363,188
4,374	\$244,452			4,374	\$249,549
5,832	\$318,850			5,832	\$325,499
1,944	\$102,927			1,944	\$105,073
1,944	Ψ102,321			1,944	Ψ105,075
1,701	\$88,942			1,701	\$90,797
1,094	\$61,113			1,094	\$62,387
1,458	\$79,713			1,458	\$81,375
486	\$25,732			486	\$26,268
23,693	\$1,277,498			23,693	\$1,304,135

	j			
\$1,090,513	17,496	\$1,090,513		
\$618,326	12,636	\$618,326		
\$122,268	1,944	\$122,268		
\$139,152	2,430	\$139,152		
\$182,820	2,916	\$182,820		
\$3,107	360	\$23,050		
\$4,836	123	\$4,836		
\$2,161,023	37,905	\$2,180,965		
\$394,751	5,832	\$394,751		
\$837,826	14,580	\$837,826		
\$98,688	1,458	\$98,688		
\$209,457	3,645	\$209,457		
\$1,540,721	25,515	\$1,540,721		
\$9,809,170	181,091	\$9,959,274	\$1,048,010	\$839,511
				\$11,846,795

17,496	\$1,047,730			17,496	\$1,069,577
12,636	\$594,068			12,636	\$606,455
1,944	\$117,471			1,944	\$119,921
2,430	\$133,693			2,430	\$136,481
2,916	\$175,647			2,916	\$179,310
610	\$2,687			610	\$2,767
0	\$0			0	\$0
38,032	\$2,071,296			38,032	\$2,114,510
5,832	\$379,264			5,832	\$387,172
14,580	\$804,956			14,580	\$821,741
1,458	\$94,816			1,458	\$96,793
3,645	\$201,239			3,645	\$205,435
25,515	\$1,480,275			25,515	\$1,511,141
180,855	\$9,524,693	\$1,006,895	\$743,580	180,855	\$9,723,321
			\$11,275,168		

###

011-2013 Monitoring Costs

			0040						Julie 2010
			2013					2012 222	
2			Summary SO2				Average 2011	-	
Non-labor	Equip/	Labor	Labor	Non-labor	Equip/	Labor	Labor	Non-labor	Equip/
O & M	Contract \$	Hours	Costs	O & M	Contract \$	Hours	Costs	O & M	Contract \$
		613	\$39,990			496	\$31,790		
		163	\$10,254			132	\$8,152		
		776	\$50,244			628	\$39,942		
	\$722,751				\$799,534				\$743,486
	\$36,138				\$39,977				\$37,174
		630	\$18,587			599	\$17,331		
		1,205	\$61,331			1,142	\$57,048		
									\$0
	\$758,889	1,835	\$79,918		\$839,511	1,741	\$74,379		\$780,660
\$456,840				\$465,782				\$456,710	
		58,320	\$2,968,198			58,320	\$2,910,387		
\$456,840		58,320	\$2,968,198	\$465,782		58,320	\$2,910,387	\$456,710	
\$571,050				\$582,228				\$570,888	
		5,832	\$305,670	·		5,832	\$299,716		
		27,216	\$1,503,895			27,216	\$1,474,604		
\$571,050		33,048	\$1,809,565	\$582,228		33,048	\$1,774,320	\$570,888	
·								·	
		6,804	\$370,297			6,804	\$363,085		
		4,374	\$254,434			4,374	\$249,478		
		5,832	\$331,870			5,832	\$325,406		
		1,944	\$107,130			1,944	\$105,043		
		_,,	÷=5., =3 0			_,			
		1,701	\$92,574			1,701	\$90,771		
		1,094	\$63,608			1,094	\$62,370		
		1,458	\$82,967			1,458	\$81,352		
		486	\$26,782			486	\$26,261		
		23,693	\$1,329,663			23,693	\$1,303,765		
		20,000	Ψ1,020,000			20,000	Ψ±,500,700		

		1,944 2,430	\$122,268 \$139,152			1,944 2,430	\$119,886 \$136,442		
		2,916 360	\$182,820 \$23,050			2,916 527	\$179,259 \$9,501		
		123 37,905	\$4,836 \$2,180,965			41 37,990	\$1,612 \$2,122,257		
		5,832 14,580	\$394,751 \$837,826			5,832 14,580	\$387,062 \$821,508		
		1,458 3,645	\$98,688 \$209,457			1,458 3,645	\$96,766 \$205,377		
		25,515	\$1,540,721			25,515	\$1,510,712		
\$1,027,890	\$758,889	181,091	\$9,959,274	\$1,048,010	\$839,511	180,934	\$9,735,763	\$1,027,598	\$780,660
	\$11,510,100				\$11,846,795				\$11,544,021

Table 22.1, 2011 General SO2 Network Mon

		Previous A	moritized Ho	ours and Co	sts			New Site	Hours and	d Costs for
					Total	Total				
	# Old	Hours/	Years	Cost/	Amor.	Amor.	# New	Hours/	Years	Cost/
Cost Element	Sites	Site	Amor.	Site	Hours	Cost	Sites	Site	Amor.	Site
Network Design										
Network design study (see pollutan	t)									
Site selection (see pollutant)										
Additional indirect cost adj (\$2/hou)				146,592	\$337,455				
Element #1 totals	,									
2. Site Installation										
Multigas calibrator	162		7	\$16,114		\$372,924				
Zero air supply	162		7	\$4,604		\$106,550				
Ambient air intake manifold asseml	162		7	\$1,727		\$39,956				
Shelter (large, temp controlled)	162		10	\$29,351		\$475,478				
Shelter delivery charges	162		10	\$576		\$9,323				
Other shelter equipment/accessori	162		10	\$4,604		\$74,585				
Data logger	162		10	\$2,302		\$37,292				
Site preparation	162		7	\$5,180		\$119,868				
Power drop	162		7	\$806		\$18,646				
Land/lease	162			\$1,200		\$194,400				
Element #2 totals						\$1,449,023				
3. Sampling and Analysis										
Vehicle										
Travel time to sites	162				104	\$10,175				
Element #3 totals					104	\$10,175				
4. Maintenance										
Element #4 totals										
5. Data Management										
Analysis and trends (rep org)	108	208		\$10,564	22,464	\$1,140,899				
Element #5 totals					22,464	\$1,140,899				
6. Quality Assurance										
Multigas calibrator	108		7	\$16,114		\$248,616				
Zero air supply	108		7	\$4,604		\$71,033				
Miscellaneous equipment	108		7	\$2,302		\$35,517				
Element #6 totals						\$355,166				

7. Supervision						
Element #7 totals						
Summary of Burdens and Costs			22,568	\$2,955,262		
Summary Totals						

- 1.151 (percent inflation 2004 to 2011)
- 1.175 (percent inflation 2004 to 2012)
- 1.198 (percent inflation 2004 to 2013)
 - 1 (percent inflation 1998 to 2007)
 - 1 (percent inflation 1998 to 2008)
 - 1 (percent inflation 1998 to 2009)
 - 1 (percent inflation 2004 to 2006)
 - 1 (percent inflation 2004 to 2007)
 - 1 (percent inflation 2004 to 2008)
 - 1 (percent inflation 2004 to 2009)
 - 1 (percent inflation 2006 to 2007)
 - 1 (percent inflation 2006 to 2008)
 - 1 (percent inflation 2005 to 2007)
 - 1 (percent inflation 2005 to 2008)
 - 1 (percent inflation 2005 to 2009)
- 1.128 (percent inflation 2004 to 2010)
- 1.151 (percent inflation 2004 to 2011)
- 1.175 (percent inflation 2004 to 2012)

itoring Costs

	etwork									Previous Amo	ritized Hours a
Total	Total					Summary, Gei	neral Network				
Amor.	Amor.	# Old			Labor	Labor	Non-labor	Equip/	# Old	Hours/	Years
Hours	Cost	Plus New	Hours	O & M	Hours	Costs	O & M	Contract \$	Sites	Site	Amor.
							146,592	\$337,455			
							146,592	\$337,455			
								\$372,924	162		7
								\$106,550	162		7
								\$39,956	162		7
								\$475,478	162		10
								\$9,323	162		10
								\$74,585	162		10 10
								\$37,292	162		10
								\$119,868	162		7
								\$18,646	162		7
							\$194,400		162		
							\$194,400	\$1,254,623			
							Φ7F 222				
					104	#10 17F	\$75,232		100		
					104 104	\$10,175 \$10,175	\$75,232		162		
					104	\$10,175	Φ/5,232				
					22,464	\$1,140,899			108	208	
					22,464	\$1,140,899			100	200	
					22,404	Ψ1,140,000					
								\$248,616	130		7
								\$71,033	130		7
								\$35,517	130		7
								\$355,166			

		22,568	\$1,151,074	\$416,224	\$1,947,243		
					\$3,514,541		

22,568 \$3,371,486

Table 22.2, 2012 General SO2 Network Monitoring Costs

nd Costs				New Site	Hours and	Costs for	General N	etwork				
	Total	Total					Total	Total				
Cost/	Amor.	Amor.	# New	Hours/	Years	Cost/	Amor.	Amor.	# Old			Labor
Site	Hours	Cost	Sites	Site	Amor.	Site	Hours	Cost	Plus New	Hours	O & M	Hours
	147,160	\$345,826										
	147,160	\$345,826										
#10.4F0		# 000 700										
\$16,450		\$380,700 \$100,771										
\$4,700 \$1,763		\$108,771 \$40,789										
\$29,963		\$485,393										
\$588		\$9,518										
\$4,700		\$76,140										
\$2,350		\$38,070										
\$5,288		\$122,368										
\$823		\$19,035										
\$1,200		\$194,400										1,200
41,200		\$1,475,184										1,200
		+-,,										_,
	104	\$10,387										104
	104	\$10,387										104
		-										
\$10,784	22,464	\$1,164,688								22,464	\$1,164,688	22,464
	22,464	\$1,164,688								22,464	\$1,164,688	22,464
\$16,450		\$305,500										
\$4,700		\$87,286										
\$2,350		\$43,643				_						
		\$436,429										

169,728	\$3,432,513					\$1,164,688	23,768

169,728 \$4,821,162

Table 22.3, 2013 General SO2 Network

		Julie 2010										
					Previous Ai	moritized Hou	ırs and Costs				New Site F	lours and C
Summary, Ge								Total	Total			
Labor	Non-labor	Equip/		# Old	Hours/	Years	Cost/	Amor.	Amor.	# New	Hours/	Years
Costs	O & M	Contract \$		Sites	Site	Amor.	Site	Hours	Cost	Sites	Site	Amor.
	147,160	\$345,826						144,101	\$345,266			
	147,160	\$345,826						144,101	\$345,266			
		, , , , , , ,						_ :,_:	, , , , , , ,			
\$16,450		\$380,700		162		7	\$16,772		\$388,152			
\$4,700		\$108,771		162		7	\$4,792		\$110,901			
\$1,763		\$40,789		162		7	\$1,797		\$41,588			
\$29,963		\$485,393		162		10	\$30,549		\$494,894			
\$588		\$9,518		162		10	\$599		\$9,704			
\$4,700		\$76,140		162		10	\$4,792		\$77,630			
\$4,700		\$38,070	_	162		10	\$2,396		\$38,815			
фг 200							-					
\$5,288		\$122,368	_	162		7	\$5,391		\$124,763			
\$823		\$19,035		162		7	\$839		\$19,408			
		\$194,400		162			\$1,200		\$194,400			
\$64,273		\$1,475,184							\$1,500,254			
	\$76,800											
\$10,387				162				104	\$10,590			
\$10,387	\$76,800							104	\$10,590			
\$1,164,688				168	208		\$10,995	34,944	\$1,847,201			
\$1,164,688								34,944	\$1,847,201			
		\$305,500		156		7	\$16,772		\$373,776			
		\$87,286		156		7	\$4,792		\$106,793			
		\$43,643		156		7	\$2,396		\$53,397			
		\$436,429					,300		\$533,966			
		+ .55, .25							+555,566			

\$1,239,348	\$223,960	\$2,257,438			179,149	\$4,237,277		
		\$3,720,746						

Monitoring Costs

osts for Ger	neral Netw	ork									2011
	Total	Total					Summary, Gei	neral Network			Summary, Ge
Cost/	Amor.	Amor.	# Old			Labor	Labor	Non-labor	Equip/	Labor	Labor
Site	Hours	Cost	Plus New	Hours	O & M	Hours	Costs	O & M	Contract \$	Hours	Costs
								144,101	\$345,266		
								144,101	\$345,266	0	\$0
									\$388,152		
									\$110,901		
									\$41,588		
									\$494,894		
									\$9,704		
									\$77,630		
									\$38,815		
									\$124,763		
									\$19,408		
									\$194,400		
									\$1,500,254		
								\$78,304			
						104	\$10,590			104	\$10,175
						104	\$10,590	\$78,304		104	\$10,175
						34,944	\$1,847,201			22,464	\$1,140,899
						34,944	\$1,847,201			22,464	\$1,140,899
									\$373,776		
									\$106,793		
									\$53,397		
									\$533,966		

			35,048	\$1,857,791	\$222,405	\$2,379,486	22,568	\$1,151,074
						\$4,459,682		

179,149 ###

Table 22.0, Summary of General SO2 Network 2011-2013 Monitoring Costs

			2012				2013					
neral Network			Summary, Gene	eral Network			Summary, Gene	eral Network			Average 2011	
Non-labor	Equip/	Labor	Labor	Non-labor	Equip/	Labor	Labor	Non-labor	Equip/	Labor	Labor	
O & M	Contract \$	Hours	Costs	O & M	Contract \$	Hours	Costs	O & M	Contract \$	Hours	Costs	
											_	
	\$337,455				\$345,826				\$345,266			
	\$337,455	0	\$0		\$345,826	0	\$0		\$345,266	0	\$0	
	\$372,924				\$380,700				\$388,152			
	\$106,550				\$108,771				\$110,901			
	\$39,956				\$40,789				\$41,588			
	\$475,478				\$485,393				\$494,894			
	\$9,323											
	\$74,585				\$76,140				\$77,630			
	\$37,292				\$38,070				\$38,815			
	\$119,868				\$122,368				\$124,763			
	\$18,646				\$19,035				\$19,408			
	\$0				\$194,400				\$194,400			
	\$1,254,623				\$1,465,666				\$1,490,550			
\$75,232				\$76,800				\$78,304				
		104	\$10,387			104	\$10,590			104	\$10,384	
\$75,232		104	\$10,387	\$76,800		104	\$10,590	\$78,304		104	\$10,384	
		20.404	#1 104 000			04.044	#1 047 001			00.004	ф1 204 2C2	
		22,464	\$1,164,688			34,944	\$1,847,201			26,624	\$1,384,263	
		22,464	\$1,164,688			34,944	\$1,847,201			26,624	\$1,384,263	
	\$248,616				\$305,500				\$373,776			
	\$248,616 \$71,033				\$305,500 \$87,286				\$373,776 \$106,793			
									\$106,793 \$53,397			
	\$35,517 \$355,166				\$43,643 \$436,429				\$53,39 <i>1</i> \$533,966			
	Φ555,100				Ф430,429				ФЭЗЗ,900			

\$75,232	\$1,947,243	22,568	\$1,175,075	\$76,800	\$2,247,921	35,048	\$1,857,791	\$78,304	\$2,369,782	26,728	\$1,394,647
	\$3,173,549				\$3,499,796				\$4,305,877		

June 2010

-2013 General Network Non-labor Equip/ Contract \$		June 2010
Non-labor O & M		
\$342,849 \$342,849 \$380,592 \$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779	-2013 Gene	eral Network
\$342,849 \$342,849 \$380,592 \$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779	Non-labor	Equip/
\$342,849 \$380,592 \$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$309,297	O & M	Contract \$
\$342,849 \$380,592 \$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$309,297		
\$342,849 \$380,592 \$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$309,297		
\$342,849 \$380,592 \$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$309,297		
\$380,592 \$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$342,849
\$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$342,849
\$108,741 \$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		
\$40,778 \$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$380,592
\$485,255 \$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$108,741
\$3,108 \$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$40,778
\$76,118 \$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$485,255
\$38,059 \$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$3,108
\$122,333 \$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779		\$76,118
\$19,030 \$129,600 \$1,403,613 \$76,779 \$76,779 \$309,297		\$38,059
\$129,600 \$1,403,613 \$76,779 \$76,779 \$309,297		\$122,333
\$1,403,613 \$76,779 \$76,779 \$309,297		\$19,030
\$76,779 \$76,779 \$309,297		\$129,600
\$76,779		\$1,403,613
\$76,779		
\$309,297	\$76,779	
\$309,297		
	\$76,779	
		ا ا
\$88,371		
1		
\$44,185		
\$441,853		\$441,853

\$76,779	\$2,188,315
	\$3,659,741

								June 2010	
	EPA Regional	Offices	ITP	EPA OAQPS	EMA	D	Total E	:DA	EPA Regiona
Item	Hours	Costs	Hours	Costs	Hours	Costs	Hours	Costs	Hours
NAMS/SLAMS/PAMS oversight (includes site visits, annual network review)	5,772	\$333,546	Tiouis	Costs	3,342		9,114	\$530,873	5,772
QA audits (includes perf. audits NPAP, & systems audits)	2,414	\$146,562					2,414	\$146,562	2,414
Regional monitoring meeting with States	362	\$20,486					362	\$20,486	362
National or regional monitoring meetings	267	\$15,286					267	\$15,286	267
5. 105 Grant activities	1,002	\$51,385					1,002	\$51,385	1,002
7. Other items	573	\$16,925					573	\$16,925	573
Methods development in support regulatory program, and referenc and equivalent activities (See footnote)									
 In-house burdens for AIRS/AQS (includes AIRS Exec, AIRS TTN Web/Homepage, AIRS conference training) 	ce,		788	\$95,360			788	\$95,360	
Contractor support including hot line, enhancements maintenance, training, etc.			230	\$13,800			230	\$13,800	
11. Hardware/software NCC burden, national AQS costs				\$90,668			-	\$90,668	

									ı
12. AIR NOW				\$51,110			-	\$51,110	
13. Other (software purchased				\$6,903			-	\$6,903	
internal support									
Totals	10,390	\$584,190	1,017	\$257,840	3,342	\$197,327	14,749	\$1,039,356	10,390
Summary Totals							14,749	\$1,039,356	

Method development and reference and equivalent activities covered under another ICR (OMB # 2080.0005, EPA # 0559.08 for 4,718 hours and \$101,000.

1 (Inflation 1998 to 2011) 1 (Inflation 1998 to 2012) 1 (Inflation 1998 to 2013)

0.07651 ratio of 486 SO2 monitors to 6,352 total monitors operating on CY-2009

			_			Julie 2010					
		EPA OAQPS								EPA OAQPS	
.I Offices	ITPIC		EMA		Total			onal Offices	ITP		EMA
Costs	Hours	Costs	Hours	Costs	Hours	Costs	Hours	Costs	Hours	Costs	Hours
\$340,287			3,342	\$201,315	9,114	\$541,602	5,772	\$347,277			3,342
\$149,524					2,414	\$149,524	2,414	\$152,596			
\$20,900					362	\$20,900	362	\$21,329			
\$15,595					267	\$15,595	267	\$15,915			
\$52,424					1,002	\$52,424	1,002	\$53,500			
\$17,267					573	\$17,267	573	\$17,621			
	788	\$97,287			788	\$97,287			788	\$99,285	
	230	\$14,078			230	\$14,078			230	\$14,368	
		\$92,501			-	\$92,501				\$94,401	

		\$52,142			-	\$52,142				\$53,214	
		\$7,042			-	\$7,042				\$7,187	
\$595,996	1,017	\$263,050	3,342	\$201,315	14,749	\$1,060,361	10,390	\$608,239	1,017	\$268,454	3,342
					14,749	\$1,060,361					

		Julie 2010		2011 Summar	у		2012 Summary					
.D	Total	EPA	Labor	Labor	Non-labor	Equip	Labor	Labor	Non-labor	Equip		
Costs	Hours	Costs	Hours	Costs	O & M	Contract \$	Hours	Costs	O & M	Contract \$		
\$205,451	9,114	\$552,728	9,114	\$530,873			9,114	\$541,602				
	2,414	\$152,596	2,414	\$146,562			2,414	\$149,524				
	362	\$21,329	362	\$20,486			362	\$20,900				
	267	\$15,915	267	\$15,286			267	\$15,595				
	1,002	\$53,500	1,002	\$51,385			1,002	\$52,424				
	573	\$17,621	573	\$16,925			573	\$17,267				
	788	\$99,285			788	\$95,360			788	\$97,287		
	230	\$14,368			230	\$13,800			230	\$14,078		
		\$94,401				\$90,668				\$92,501		

		\$53,214				\$51,110				\$52,142
		\$7,187				\$6,903				\$7,042
\$205,451	14,749	\$1,082,144	13,732	\$781,517	1,017	\$257,840	13,732	\$797,311	1,017	\$263,050
	14,749	\$1,082,144			14,749	\$1,039,356			14,749	\$1,060,361

	2013 Summar	у		Average of 2011-2013 EPA Costs						
Labor	Labor	Non-labor	Equip	Labor	Labor	Non-labor	Equip			
Hours	Costs	O & M	Contract \$	Hours	Costs	O & M	Contract \$			
9,114	\$552,728			9,114	\$541,734					
2,414	\$152,596			2,414	\$149,561					
2,414	Ψ10Z,030				Ψ143,301					
362	\$21,329			362	\$20,905					
267	\$15,915			267	\$15,599					
1,002	\$53,500			1,002	\$52,436					
573	\$17,621			573	\$17,271					
		788	\$99,285			788	\$97,310			
		230	\$14,368			230	\$14,082			
			\$94,401				\$92,523			

			\$53,214				\$52,155
			\$7,187				\$7,044
13,732	\$813,690	1,017	\$268,454	13,732	\$797,506	1,017	\$263,115
		14,749	\$1,082,144			14,749	\$1,060,621

Summary for SO2 for 2011-2013 Monitoring Burden and Costs

	Average 2011-2013 SO2					Average :		
	Labor	Labor	Non-labor	Equip/	Total	Labor	Labor	
Cost Element	Hours	Costs	O & M	Contract \$	Cost	Hours	Costs	
Network Design	628	\$39,942			\$39,942			
2. Site Installation	1,741	\$74,379		\$780,660	\$855,039			
3. Sampling & Analysis	58,320	\$2,910,387	\$456,710		\$3,367,097	104	\$10,384	
4. Maintenance	33,048	\$1,774,320	\$570,888		\$2,345,208			
5. Data Management	23,693	\$1,303,765			\$1,303,765	26,624	\$1,384,263	
6. Quality Assurance	37,990	\$2,122,257			\$2,122,257			
7. Supervision	25,515	\$1,510,712			\$1,510,712			
Totals	180,934	\$9,735,763	\$1,027,598	\$780,660	\$11,544,021	26,728	\$1,394,647	

SO2 Grand Total Average 2011-2013

	Labor	Labor	Non-labor	Equip/	Total
Cost Element	Hours	Costs	O & M	Contract \$	Cost
1. Network Design	628	\$39,942	\$0	\$342,849	\$382,791
2. Site Installation	1,741	\$74,379	\$0	\$2,184,273	\$2,258,652
3. Sampling & Analysis	58,424	\$2,920,771	\$533,489	\$0	\$3,454,260
4. Maintenance	33,048	\$1,774,320	\$570,888	\$0	\$2,345,208
5. Data Management	50,317	\$2,688,028	\$0	\$0	\$2,688,028
6. Quality Assurance	37,990	\$2,122,257	\$0	\$441,853	\$2,564,110
7. Supervision	25,515	\$1,510,712	\$0	\$0	\$1,510,712
Totals	207,662	\$11,130,409	\$1,104,377	\$2,968,975	\$15,203,762

2011-2013 General Network							
Non-labor	Equip/	Total					
O & M	Contract \$	Cost					
	\$342,849	\$342,849					
	\$1,403,613	\$1,403,613					
\$76,779		\$87,163					
		\$1,384,263					
	\$441,853	\$441,853					
\$76,779	\$2,188,315	\$3,659,741					