

Appendix 3-5
Summary Table of RSP and PM2.5 Assessment Results
(Unmitigated)

Northern Portion

Appendix 3-5A Summary Table of Daily Average RSP Level of the Northern Portion (Unmitigated Scenario)

In calculating the unmitigated level, both the 1st highest value and the 10th highest value of each ASR were calculated by the ISCST software, and the results are presented below. The predicted RSP level due to this Project (both the 1st highest and the 10th highest values) has already exceeded the relevant air quality criteria at some of the ASRs regardless the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of RSP (i.e. background + Project contribution), the maximum daily average RSP level from the PATH output file (i.e. 122.4 $\mu\text{g}/\text{m}^3$) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	1st Highest Daily RSP (With Bkg. Level) *	1st Highest Daily RSP (W/o Bkg.)	1st Highest RSP Concentration, $\mu\text{g}/\text{m}^3$				10th Highest Daily RSP (With Bkg. Level) *	10th Highest Daily RSP (W/o Bkg.)	10th Highest RSP Concentration, $\mu\text{g}/\text{m}^3$					
							1st Highest RSP Concentration, $\mu\text{g}/\text{m}^3$						10th Highest RSP Concentration, $\mu\text{g}/\text{m}^3$					
							(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)			(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)		
A01	823101.1	837242.4	4.4	1.5	191	68	64.8	3.5	0.9	1.8	157	35	32.9	2.1	0.1	0.9		
A01A	823124.3	837181.3	4.4	1.5	178	55	52.1	3.2	1.2	1.4	146	23	21.7	1.5	0.1	0.5		
A02	823092.8	837314	4.4	1.5	184	62	56.8	5.0	1.2	4.0	161	39	35.6	3.0	0.4	1.3		
A02A	823119.9	837359.1	4.4	1.5	194	72	66.0	5.5	1.4	4.6	167	45	41.3	3.5	0.5	1.6		
A03	823260.8	837373.7	4.4	1.5	218	96	90.6	4.9	2.6	2.3	169	47	44.5	2.4	0.3	0.5		
A04	823276.8	837456.1	4.3	1.5	288	165	157.1	8.2	3.7	4.1	207	85	80.0	5.0	0.6	1.9		
A05	823287.1	837673.9	4.2	1.5	429	307	286.7	20.3	6.9	21.1	330	207	189.8	17.4	4.1	13.9		
A05A	823269.6	837644.5	4.2	1.5	413	291	271.8	18.9	6.4	20.6	314	191	174.3	16.8	3.9	13.7		
A05B	823308.7	837726.2	4.2	1.5	482	360	338.3	21.7	8.3	21.1	378	256	235.8	19.8	5.0	14.0		
A06	823405	837870	4.2	1.5	348	225	206.1	19.2	7.1	16.5	295	173	158.9	13.9	3.0	8.2		
A06A	823365.9	837883.6	4.2	1.5	308	186	169.9	16.0	5.5	17.5	266	143	130.1	13.3	2.1	8.1		
A07	823788.6	837892.5	3.1	1.5	153	30	28.0	2.1	0.5	1.4	144	21	20.4	0.8	0.1	0.0		
A08	823679.1	837571.7	2.3	1.5	160	37	34.6	2.8	0.4	1.1	141	19	18.3	0.4	0.1	0.0		
A09	823717.3	837567	3.5	1.5	157	35	32.3	2.7	0.3	1.1	139	17	16.3	0.4	0.0	0.0		
A10	823227.6	837343.9	4.4	1.5	213	91	85.8	5.0	2.3	2.3	164	42	39.7	2.3	0.3	0.7		
A10A	823188.8	837327.3	4.4	1.5	213	90	85.7	4.6	1.9	2.3	166	43	40.7	2.7	0.2	1.1		
A11	823382.1	837043.2	4.5	1.5	144	21	20.0	1.1	0.2	0.2	131	8	8.0	0.1	0.0	0.0		
A12	823509.2	837017.6	6.5	1.5	144	21	19.9	1.3	0.1	0.0	127	4	4.2	0.1	0.0	0.0		
A13	823171.4	837105	4.6	1.5	155	32	30.2	1.9	1.1	1.2	136	14	13.0	0.8	0.1	0.1		
A14	823175.5	837030.5	4.4	1.5	148	26	23.7	1.8	0.7	0.9	133	10	9.8	0.6	0.0	0.0		
A15	823271.8	836947.2	4.1	1.5	143	21	20.4	0.6	0.2	0.3	131	9	8.4	0.3	0.0	0.0		
A16	823496	837908.2	4.2	1.5	272	150	133.4	16.4	3.1	10.0	217	94	86.0	8.1	1.2	3.3		
A16A	823470.2	837871.6	4.2	1.5	375	252	234.4	17.8	6.1	13.7	294	172	160.2	11.7	2.4	5.9		
A17	823500.6	838152.4	5.7	1.5	162	39	33.0	6.1	1.0	4.8	149	26	23.1	3.2	0.3	1.1		
A18	823725.6	838015.9	3.5	1.5	163	40	36.5	3.7	0.5	2.1	140	18	16.4	1.4	0.1	0.0		
A19	823749.5	837459.6	3.3	1.5	143	21	19.4	1.4	0.1	0.5	130	8	7.7	0.2	0.0	0.0		
A20	823745.4	837355.3	4.2	1.5	139	17	15.2	1.3	0.2	0.2	128	5	5.3	0.1	0.0	0.0		
A21	823713.9	837274	4.2	1.5	140	17	16.0	1.2	0.2	0.0	128	5	5.1	0.2	0.0	0.0		
A22	823645.1	837066.1	3.5	1.5	133	11	10.1	0.9	0.1	0.0	127	4	4.0	0.1	0.0	0.0		
A23	823920.6	837886.7	3.6	1.5	146	24	22.4	1.6	0.3	1.3	134	11	10.8	0.5	0.1	0.0		
A24	823927.7	837923.6	3.5	1.5	143	21	19.3	1.3	0.2	1.1	134	12	11.3	0.5	0.0	0.0		
A25	823756	838085.2	4.9	1.5	160	38	34.4	3.4	0.5	1.8	138	16	14.2	1.4	0.0	0.0		
A26	823040.6	838098.6	4.4	1.5	155	32	28.1	4.3	0.5	2.5	134	12	9.6	2.1	0.0	0.3		
A27	823465.6	837089.9	4.5	1.5	146	24	22.3	1.7	0.2	0.1	128	6	5.4	0.1	0.0	0.0		
A28	823286.6	837864.2	4.3	1.5	444	322	302.3	19.4	6.5	17.0	299	177	161.8	15.1	2.4	9.3		
A29	823279.2	837826.6	4.3	1.5	468	346	322.8	23.1	7.2	15.2	353	231	212.1	18.4	3.4	12.5		
A30	823293.2	837534.5	4.5	1.5	357	235	222.4	12.3	5.1	12.2	276	154	143.8	10.1	1.7	5.2		
A31	823393.5	837959.7	3.9	1.5	234	112	99.8	12.0	2.6	8.8	197	75	67.3	7.3	0.9	4.3		
A32	823353	837069.1	4.5	1.5	146	24	22.6	1.2	0.2	0.3	132	10	9.7	0.2	0.0	0.0		
A33	823439.3	837932.1	3.9	1.5	253	131	115.3	15.3	3.3	11.2	216	94	85.4	8.1	1.3	4.7		
A34	823424.5	838140.2	5.2	1.5	176	54	48.0	5.7	1.1	4.5	154	31	28.1	3.0	0.3</			

ASR	X	Y	Z	Height above ground	1st Highest Daily RSP (With Bkg. Level) *	1st Highest Daily RSP (W/o Bkg.)	1st Highest RSP Concentration, $\mu\text{g}/\text{m}^3$				10th Highest Daily RSP (With Bkg. Level) *	10th Highest Daily RSP (W/o Bkg.)	10th Highest RSP Concentration, $\mu\text{g}/\text{m}^3$			
					With Bkg. Level	= Max of (A)+(B) or (C1)+(C2)	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)	With Bkg. Level	= Max of (Aa)+(Ba) or (C1a)+(C2a)	(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)
A21	823713.9	837274	4.2	7.5	139	16	15.0	1.1	0.2	0.0	128	5	5.0	0.2	0.0	0.0
A22	823645.1	837066.1	3.5	7.5	133	10	9.7	0.7	0.1	0.0	126	4	3.9	0.1	0.0	0.0
A23	823920.6	837886.7	3.6	7.5	143	20	19.2	1.1	0.3	0.9	133	11	10.4	0.4	0.1	0.0
A24	823927.7	837923.6	3.5	7.5	140	18	16.6	1.0	0.2	0.8	134	12	11.0	0.5	0.0	0.0
A25	823756	838085.2	4.9	7.5	157	34	32.1	2.3	0.5	1.5	137	15	13.5	1.1	0.0	0.0
A26	823040.6	838098.6	4.4	7.5	151	29	26.1	2.9	0.5	1.6	133	10	8.9	1.4	0.0	0.2
A27	823465.6	837089.9	4.5	7.5	145	22	20.8	1.3	0.2	0.1	128	5	5.3	0.1	0.0	0.0
A28	823286.6	837864.2	4.3	7.5	225	102	99.8	2.5	2.1	2.4	179	57	55.0	1.8	0.7	1.0
A29	823279.2	837826.6	4.3	7.5	222	100	97.3	2.2	1.9	2.0	193	70	68.5	1.7	1.0	1.1
A30	823293.2	837534.5	4.5	7.5	235	112	108.4	4.0	2.5	3.7	211	89	86.0	2.6	0.9	0.9
A31	823393.5	837959.7	3.9	7.5	198	76	72.8	3.2	1.8	2.9	178	56	53.4	2.3	0.6	1.1
A32	823353	837069.1	4.5	7.5	145	22	21.4	0.9	0.2	0.2	132	10	9.3	0.2	0.0	0.0
A33	823439.3	837932.1	3.9	7.5	205	83	79.2	3.7	2.2	3.2	182	60	56.9	3.1	0.8	1.0
A34	823424.5	838140.2	5.2	7.5	169	47	43.6	3.4	1.0	2.8	150	28	26.0	2.0	0.3	0.9
A35	823581.4	838166.3	5	7.5	151	29	24.9	3.7	0.7	2.8	141	18	16.2	2.1	0.2	0.3
A36	823703.1	837968.5	3.5	7.5	165	42	39.6	2.5	0.6	1.9	142	19	18.2	1.2	0.1	0.0
A1P	823478.5	837806.7	2	7.5	206	83	80.8	2.3	2.2	1.9	187	64	63.1	1.3	0.9	0.3
A2P	823371	837176.7	5	7.5	150	28	26.4	1.1	0.2	0.3	135	12	12.0	0.2	0.0	0.0
A3P	823392.8	837419.1	7	7.5	170	48	46.4	1.5	0.5	0.5	151	29	28.2	0.5	0.1	0.0
A4P	823424.3	837553.1	3	7.5	183	61	59.2	1.5	0.7	0.6	168	45	44.7	0.6	0.3	0.1
A5P	823687.9	837719	3	7.5	188	66	64.4	1.2	1.2	0.7	158	36	35.5	0.4	0.1	0.0
V01	823571.7	837355.7	3	7.5	143	20	18.8	1.5	0.3	0.0	133	11	10.3	0.4	0.0	0.0
V02	823780.1	837738.5	2.4	7.5	164	42	40.4	1.1	1.0	0.8	146	23	22.9	0.3	0.1	0.0
V03	823524.7	837232	3	7.5	147	25	23.6	0.9	0.1	0.0	130	8	7.8	0.2	0.0	0.0
V04	823384.5	837124.2	4.8	7.5	146	24	22.4	1.2	0.2	0.2	133	10	9.9	0.2	0.0	0.0
					482	360	100	100			378	256	100	100		

Max. RSP Level, $\mu\text{g}/\text{m}^3$

Relevant AQO Criteria, $\mu\text{g}/\text{m}^3$

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum daily average RSP level from the PATH output file is used for calculating the total RSP level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

Appendix 3-5B Summary Table of Daily Average PM_{2.5} Level of the Northern Portion (Unmitigated Scenario)

In calculating the unmitigated level, both the 1st highest value and the 10th highest value of each ASR were calculated by the ISCST software, and the results are presented below. The calculated PM_{2.5} level due to this Project (both the 1st highest and the 10th highest values) has already exceeded the relevant air quality criteria at some of the ASRs regardless the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of PM_{2.5} (i.e. background + Project contribution), the maximum daily average PM_{2.5} level from the PATH output file (i.e. 91.8 µg/m³) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	1st Highest Daily PM _{2.5} (With Bkg. Level) ^{* & **}	1st Highest Daily PM _{2.5} (W/o Bkg.) [*]	1st Highest PM _{2.5} Concentration, µg/m ³ **				10th Highest Daily PM _{2.5} (With Bkg. Level) ^{* & **}	10th Highest Daily PM _{2.5} (W/o Bkg.) ^{**}	10th Highest PM _{2.5} Concentration, µg/m ³ **			
							(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)			(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)
					With Bkg. Level	= Max of (A)+(B) or (C1)+(C2)	With Bkg. Level	With Bkg. Level	With Bkg. Level	With Bkg. Level	With Bkg. Level	With Bkg. Level	With Bkg. Level	With Bkg. Level	With Bkg. Level	With Bkg. Level
A01	823101.1	837242.4	4.4	1.5	112	20	19.4	1.1	0.3	0.5	102	11	9.9	0.6	0.0	0.3
A01A	823124.3	837181.3	4.4	1.5	108	17	15.6	1.0	0.4	0.4	99	7	6.5	0.5	0.0	0.2
A02	823092.8	837314	4.4	1.5	110	19	17.0	1.5	0.4	1.2	103	12	10.7	0.9	0.1	0.4
A02A	823119.9	837359.1	4.4	1.5	113	21	19.8	1.7	0.4	1.4	105	13	12.4	1.1	0.2	0.5
A03	823260.8	837373.7	4.4	1.5	120	29	27.2	1.5	0.8	0.7	106	14	13.4	0.7	0.1	0.2
A04	823276.8	837456.1	4.3	1.5	141	50	47.1	2.5	1.1	1.2	117	26	24.0	1.5	0.2	0.6
A05	823287.1	837673.9	4.2	1.5	184	92	86.0	6.1	2.1	6.3	154	62	56.9	5.2	1.2	4.2
A05A	823269.6	837644.5	4.2	1.5	179	87	81.5	5.7	1.9	6.2	149	57	52.3	5.0	1.2	4.1
A05B	823308.7	837726.2	4.2	1.5	200	108	101.5	6.5	2.5	6.3	168	77	70.7	5.9	1.5	4.2
A06	823405	837870	4.2	1.5	159	68	61.8	5.8	2.1	5.0	144	52	47.7	4.2	0.9	2.5
A06A	823365.9	837883.6	4.2	1.5	148	56	51.0	4.8	1.7	5.3	135	43	39.0	4.0	0.6	2.4
A07	823788.6	837882.5	3.1	1.5	101	9	8.4	0.6	0.2	0.4	98	6	6.1	0.2	0.0	0.0
A08	823679.1	837571.7	2.3	1.5	103	11	10.4	0.8	0.1	0.3	97	6	5.5	0.1	0.0	0.0
A09	823717.3	837567	3.5	1.5	102	11	9.7	0.8	0.1	0.3	97	5	4.9	0.1	0.0	0.0
A10	823227.6	837343.9	4.4	1.5	119	27	25.7	1.5	0.7	0.7	104	13	11.9	0.7	0.1	0.2
A10A	823188.8	837327.3	4.4	1.5	119	27	25.7	1.4	0.6	0.7	105	13	12.2	0.8	0.1	0.3
A11	823382.1	837043.2	4.5	1.5	98	6	6.0	0.3	0.1	0.1	94	2	2.4	0.0	0.0	0.0
A12	823509.2	837017.6	6.5	1.5	98	6	6.0	0.4	0.0	0.0	93	1	1.3	0.0	0.0	0.0
A13	823171.4	837105	4.6	1.5	101	10	9.1	0.6	0.3	0.4	96	4	3.9	0.2	0.0	0.0
A14	823175.5	837030.5	4.4	1.5	99	8	7.1	0.5	0.2	0.3	95	3	2.9	0.2	0.0	0.0
A15	823271.8	836947.2	4.1	1.5	98	6	6.1	0.2	0.1	0.1	94	3	2.5	0.1	0.0	0.0
A16	823496	837908.2	4.2	1.5	137	45	40.0	4.9	0.9	3.0	120	28	25.8	2.4	0.4	1.0
A16A	823470.2	837871.6	4.2	1.5	167	76	70.3	5.3	1.8	4.1	143	52	48.1	3.5	0.7	1.3
A17	823500.6	838152.4	5.7	1.5	104	12	9.9	1.8	0.3	1.4	100	8	6.9	1.0	0.1	0.3
A18	823725.6	838051.9	3.5	1.5	104	12	11.0	1.1	0.2	0.6	97	5	4.9	0.4	0.0	0.0
A19	823749.5	837459.6	3.3	1.5	98	6	5.8	0.4	0.0	0.2	94	2	2.3	0.1	0.0	0.0
A20	823745.4	837355.3	4.2	1.5	97	5	4.6	0.4	0.1	0.1	93	2	1.6	0.0	0.0	0.0
A21	823713.9	837274	4.2	1.5	97	5	4.8	0.4	0.1	0.0	93	2	1.5	0.1	0.0	0.0
A22	823645.1	837066.1	3.5	1.5	95	3	3.0	0.3	0.0	0.0	93	1	1.2	0.0	0.0	0.0
A23	823920.6	837886.7	3.6	1.5	99	7	6.7	0.5	0.1	0.4	95	3	3.2	0.2	0.0	0.0
A24	823927.7	837923.6	3.5	1.5	98	6	5.8	0.4	0.1	0.3	95	4	3.4	0.2	0.0	0.0
A25	823756	838085.2	4.9	1.5	103	11	10.3	1.0	0.2	0.5	96	5	4.3	0.4	0.0	0.0
A26	823040.6	838098.6	4.4	1.5	102	10	8.4	1.3	0.2	0.8	95	4	2.9	0.6	0.0	0.1
A27	823465.6	837089.9	4.5	1.5	99	7	6.7	0.5	0.1	0.0	93	2	1.6	0.0	0.0	0.0
A28	823286.6	837864.2	4.3	1.5	188	97	90.7	5.8	2.0	5.1	145	53	48.5	4.5	0.7	2.8
A29	823279.2	837826.6	4.3	1.5	196	104	96.8	6.9	2.2	4.6	161	69	63.6	5.5	1.0	3.8
A30	823293.2	837534.5	4.5	1.5	162	70	66.7	3.7	1.5	3.7	138	46	43.1	3.0	0.5	1.6
A31	823393.5	837959.7	3.9	1.5	125	34	29.9	3.6	0.8	2.6	114	22	20.2	2.2	0.3	1.3
A32	823353	837069.1	4.5	1.5	99	7	6.8	0.4	0.1	0.1	95	3	2.9	0.1	0.0	0.0
A33	823439.3	837932.1	3.9	1.5	131	39	34.6	4.6	1.0	3.4	120	28	25.6	2.4	0.4	1.4
A34	823424.5	838140.2	5.2	1.5	108	16	14.4	1.7	0.3	1.4	101	9	8.4	0.9	0.1	0.4
A35	823581.4															

ASR	X	Y	Z	Height above ground	1st Highest Daily PM2.5 (With Bkg. Level) * & **	1st Highest Daily PM2.5 (W/o Bkg.) **	1st Highest PM2.5 Concentration, $\mu\text{g}/\text{m}^3$ **				10th Highest Daily PM2.5 (With Bkg. Level) * & **	10th Highest Daily PM2.5 (W/o Bkg.) **	10th Highest PM2.5 Concentration, $\mu\text{g}/\text{m}^3$ **			
					With Bkg. Level	= Max of (A)+(B) or (C1)+(C2)	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)	With Bkg. Level	= Max of (Aa)+(Ba) or (C1a)+(C2a)	(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)
A21	823713.9	837274	4.2	7.5	97	5	4.5	0.3	0.1	0.0	93	2	1.5	0.1	0.0	0.0
A22	823645.1	837066.1	3.5	7.5	95	3	2.9	0.2	0.0	0.0	93	1	1.2	0.0	0.0	0.0
A23	823920.6	837886.7	3.6	7.5	98	6	5.8	0.3	0.1	0.3	95	3	3.1	0.1	0.0	0.0
A24	823927.7	837923.6	3.5	7.5	97	5	5.0	0.3	0.1	0.2	95	3	3.3	0.2	0.0	0.0
A25	823756	838085.2	4.9	7.5	102	10	9.6	0.7	0.2	0.5	96	4	4.1	0.3	0.0	0.0
A26	823040.6	838098.6	4.4	7.5	101	9	7.8	0.9	0.2	0.5	95	3	2.7	0.4	0.0	0.1
A27	823465.6	837089.9	4.5	7.5	98	7	6.2	0.4	0.1	0.0	93	2	1.6	0.0	0.0	0.0
A28	823286.6	837864.2	4.3	7.5	122	31	29.9	0.8	0.6	0.7	109	17	16.5	0.5	0.2	0.3
A29	823279.2	837826.6	4.3	7.5	122	30	29.2	0.7	0.6	0.6	113	21	20.6	0.5	0.3	0.3
A30	823293.2	837534.5	4.5	7.5	126	34	32.5	1.2	0.8	1.1	118	27	25.8	0.8	0.3	0.3
A31	823393.5	837959.7	3.9	7.5	115	23	21.8	1.0	0.5	0.9	109	17	16.0	0.7	0.2	0.3
A32	823353	837069.1	4.5	7.5	98	7	6.4	0.3	0.1	0.1	95	3	2.8	0.1	0.0	0.0
A33	823439.3	837932.1	3.9	7.5	117	25	23.8	1.1	0.7	1.0	110	18	17.1	0.9	0.2	0.3
A34	823424.5	838140.2	5.2	7.5	106	14	13.1	1.0	0.3	0.8	100	8	7.8	0.6	0.1	0.3
A35	823581.4	838166.3	5	7.5	100	9	7.5	1.1	0.2	0.8	97	5	4.9	0.6	0.1	0.1
A36	823703.1	837968.5	3.5	7.5	104	13	11.9	0.8	0.2	0.6	98	6	5.5	0.4	0.0	0.0
A1P	823478.5	837806.7	2	7.5	117	25	24.2	0.7	0.7	0.6	111	19	18.9	0.4	0.3	0.1
A2P	823371	837176.7	5	7.5	100	8	7.9	0.3	0.1	0.1	95	4	3.6	0.1	0.0	0.0
A3P	823392.8	837419.1	7	7.5	106	14	13.9	0.5	0.2	0.2	100	9	8.5	0.2	0.0	0.0
A4P	823424.3	837553.1	3	7.5	110	18	17.8	0.5	0.2	0.2	105	14	13.4	0.2	0.1	0.0
A5P	823687.9	837719	3	7.5	111	20	19.3	0.4	0.4	0.2	103	11	10.7	0.1	0.0	0.0
V01	823571.7	837355.7	3	7.5	98	6	5.6	0.5	0.1	0.0	95	3	3.1	0.1	0.0	0.0
V02	823780.1	837738.5	2.4	7.5	104	12	12.1	0.3	0.3	0.2	99	7	6.9	0.1	0.0	0.0
V03	823524.7	837232	3	7.5	99	7	7.1	0.3	0.0	0.0	94	2	2.3	0.1	0.0	0.0
V04	823384.5	837124.2	4.8	7.5	99	7	6.7	0.4	0.1	0.1	95	3	3.0	0.1	0.0	0.0
Max. PM2.5 Level, $\mu\text{g}/\text{m}^3$					200	108					168	77				
Relevant AQO Criteria, $\mu\text{g}/\text{m}^3$					75	75					75	75				

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum daily average PM2.5 level from the PATH output file is used for calculating the total PM2.5 level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

** The PM2.5 concentrations are calculated based on the predicted RSP concentrations by applying a PM2.5/RSP ratio of 0.3 according to the USEPA AP-42 reference document. Please refer to Appendix 3-10 for the justification of PM2.5/RSP ratio.

Appendix 3-5C Summary Table of Maximum Annual Average RSP Level of the Northern Portion (Unmitigated Scenario)

In calculating the unmitigated level, the predicted RSP level due to this Project has already exceeded the relevant air quality criteria at some of the ASRs regardless of the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of RSP (i.e. background + Project contribution), the maximum annual average RSP level from the PATH output file (i.e. 43.2 $\mu\text{g}/\text{m}^3$) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	Annual Average RSP (With Bkg. Level)*		Annual Average RSP (W/o Bkg.)		RSP Concentration, $\mu\text{g}/\text{m}^3$			
					With Bkg. Level		$=A+B+C1+C2$		(A) Cut and Cover and Haul Road (day-time)		(B) Wind erosion (Night-time)	
					With Bkg. Level	$=A+B+C1+C2$	With Bkg. Level	$=A+B+C1+C2$	With Bkg. Level	$=A+B+C1+C2$	With Bkg. Level	$=A+B+C1+C2$
A01	823101.1	837242.4	4.4	1.5	51	8	7.0	0.4	0.1	0.4		
A01A	823124.3	837181.3	4.4	1.5	49	6	5.1	0.3	0.1	0.2		
A02	823092.8	837314	4.4	1.5	54	11	9.3	0.7	0.2	0.7		
A02A	823119.9	837359.1	4.4	1.5	57	13	11.4	0.9	0.3	0.8		
A03	823260.8	837373.7	4.4	1.5	54	11	9.8	0.5	0.2	0.3		
A04	823276.8	837456.1	4.3	1.5	67	24	21.2	1.2	0.4	1.0		
A05	823287.1	837673.9	4.2	1.5	155	112	90.4	9.3	2.6	9.5		
A05A	823269.6	837644.5	4.2	1.5	142	99	79.6	8.3	2.3	8.5		
A05B	823308.7	837726.2	4.2	1.5	187	144	119.4	10.3	3.4	10.6		
A06	823405	837870	4.2	1.5	107	64	51.9	4.9	1.8	5.2		
A06A	823365.9	837883.6	4.2	1.5	93	50	39.4	4.2	1.4	4.5		
A07	823788.6	837882.5	3.1	1.5	47	3	3.1	0.1	0.1	0.1		
A08	823679.1	837571.7	2.3	1.5	46	3	3.0	0.1	0.1	0.0		
A09	823717.3	837567	3.5	1.5	46	3	2.6	0.1	0.1	0.0		
A10	823227.6	837343.9	4.4	1.5	54	10	9.2	0.5	0.2	0.4		
A10A	823188.8	837327.3	4.4	1.5	54	11	9.5	0.6	0.2	0.5		
A11	823382.1	837043.2	4.5	1.5	44	1	1.1	0.0	0.0	0.0		
A12	823509.2	837017.6	6.5	1.5	44	1	0.6	0.0	0.0	0.0		
A13	823171.4	837105	4.6	1.5	47	3	2.9	0.2	0.1	0.1		
A14	823175.5	837030.5	4.4	1.5	46	2	2.1	0.1	0.0	0.1		
A15	823271.8	836947.2	4.1	1.5	44	1	1.2	0.0	0.0	0.0		
A16	823496	837908.2	4.2	1.5	69	26	21.0	2.2	0.7	1.9		
A16A	823470.2	837871.6	4.2	1.5	96	53	44.9	3.3	1.4	3.1		
A17	823500.6	838152.4	5.7	1.5	49	6	4.5	0.7	0.2	0.7		
A18	823725.6	838015.9	3.5	1.5	47	4	3.3	0.2	0.1	0.2		
A19	823749.5	837459.6	3.3	1.5	45	1	1.3	0.0	0.0	0.0		
A20	823745.4	837355.3	4.2	1.5	44	1	0.8	0.0	0.0	0.0		
A21	823713.9	837274	4.2	1.5	44	1	0.7	0.0	0.0	0.0		
A22	823645.1	837066.1	3.5	1.5	44	0	0.4	0.0	0.0	0.0		
A23	823920.6	837886.7	3.6	1.5	45	2	1.9	0.1	0.0	0.1		
A24	823927.7	837923.6	3.5	1.5	45	2	1.7	0.1	0.0	0.1		
A25	823756	838085.2	4.9	1.5	46	3	2.6	0.2	0.1	0.2		
A26	823040.6	838098.6	4.4	1.5	45	2	1.4	0.4	0.1	0.3		
A27	823465.6	837089.9	4.5	1.5	44	1	0.9	0.0	0.0	0.0		
A28	823286.6	837864.2	4.3	1.5	101	58	45.2	5.0	1.6	5.7		
A29	823279.2	837826.6	4.3	1.5	132	89	71.4	7.3	2.3	7.8		
A30	823293.2	837534.5	4.5	1.5	104	61	53.1	3.3	1.3	3.0		
A31	823393.5	837959.7	3.9	1.5	62	19	14.1	1.9	0.5	2.1		
A32	823353	837069.1	4.5	1.5	45	1	1.3	0.0	0.0	0.0		
A33	823439.3	837932.1	3.9	1.5	68	25	19.2	2.3	0.7	2.4		
A34	823424.5	838140.2	5.2	1.5	50	6	4.9	0.6	0.2	0.7		
A35	823581.4	838166.3	5	1.5	48	5	3.4	0.6	0.1	0.5		
A36	823703.1	837968.5	3.5	1.5	48	5	4.0	0.3	0.1	0.2		
A1P	823478.5	837806.7	2	1.5	116	73	64.1	3.5	1.8	3.3		
A2P	823371	837176.7	5	1.5	45	2	1.7	0.0	0.0	0.0		
A3P	823392.8	837419.1	7	1.5	49	5	4.9	0.2	0.1	0.1		
A4P	823424.3	837553.1	3	1.5	57	14	13.0	0.4	0.2	0.2		
A5P	823687.9	837719	3	1.5	51	8	7.3	0.1	0.2	0.1		
V01	823571.7	837355.7	3	1.5	45	1	1.3	0.1	0.0	0.0		
V02	823780.1	837738.5	2.4	1.5	48	5	4.4	0.1	0.1	0.1		
V03	823524.7	837232	3	1.5	44	1	1.0	0.0	0.0	0.0		
V04	823384.5	837124.2	4.8	1.5	45	1	1.4	0.0	0.0	0.0		
A01	823101.1	837242.4	4.4	4.5	51	8	6.9	0.4	0.1	0.4		
A01A	823124.3	837181.3	4.4	4.5	49	6	5.0	0.3	0.1	0.2		
A02	823092.8	837314	4.4	4.5	54	11	9.1	0.6	0.2	0.6		
A02A	823119.9	837359.1	4.4	4.5	56	13	11.1	0.8	0.3	0.7		
A03	823260.8	837373.7	4.4	4.5	53	10	9.3	0.4	0.2	0.3		
A04	823276.8	837456.1	4.3	4.5	64	20	18.6	0.7	0.4	0.6		
A05	823287.1	837673.9	4.2	4.5	110	67	59.2	2.9	1.6	3.0		
A05A	823269.6	837644.5	4.2	4.5	105	62	54.4	2.9	1.5	3.0		
A05B	823308.7	837726.2	4.2	4.5	116	73	65.2	2.				

ASR	X	Y	Z	Height above ground	Annual Average RSP (With Bkg. Level)*		RSP Concentration, $\mu\text{g}/\text{m}^3$			
					Annual Average RSP (W/o Bkg.)		(A) Cut and Cover and Haul Road (day-time)		(B) Wind erosion (Night-time)	
					With Bkg. Level	=A+B+C1+C2			(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)
A32	823353	837069.1	4.5	4.5	45	1	1.3	0.0	0.0	0.0
A33	823439.3	837932.1	3.9	4.5	63	20	16.5	1.4	0.6	1.4
A34	823424.5	838140.2	5.2	4.5	49	6	4.7	0.5	0.2	0.6
A35	823581.4	838166.3	5	4.5	48	4	3.3	0.5	0.1	0.4
A36	823703.1	837968.5	3.5	4.5	48	4	3.8	0.2	0.1	0.2
A1P	823478.5	837806.7	2	4.5	81	37	34.8	0.9	0.9	0.7
A2P	823371	837176.7	5	4.5	45	2	1.7	0.0	0.0	0.0
A3P	823392.8	837419.1	7	4.5	48	5	4.7	0.1	0.1	0.0
A4P	823424.3	837553.1	3	4.5	55	12	11.5	0.3	0.2	0.1
A5P	823687.9	837719	3	4.5	51	7	7.0	0.1	0.2	0.1
V01	823571.7	837355.7	3	4.5	45	1	1.3	0.1	0.0	0.0
V02	823780.1	837738.5	2.4	4.5	48	5	4.3	0.1	0.1	0.1
V03	823524.7	837232	3	4.5	44	1	1.0	0.0	0.0	0.0
V04	823384.5	837124.2	4.8	4.5	45	1	1.4	0.0	0.0	0.0
A01	823101.1	837242.4	4.4	7.5	51	7	6.6	0.4	0.1	0.3
A01A	823124.3	837181.3	4.4	7.5	49	5	4.9	0.2	0.1	0.2
A02	823092.8	837314	4.4	7.5	53	10	8.7	0.5	0.2	0.5
A02A	823119.9	837359.1	4.4	7.5	55	12	10.5	0.6	0.2	0.6
A03	823260.8	837373.7	4.4	7.5	53	9	8.6	0.3	0.2	0.2
A04	823276.8	837456.1	4.3	7.5	60	17	15.5	0.4	0.3	0.4
A05	823287.1	837673.9	4.2	7.5	83	40	37.2	0.9	1.0	1.0
A05A	823269.6	837644.5	4.2	7.5	83	39	36.1	1.1	1.0	1.1
A05B	823308.7	837726.2	4.2	7.5	82	39	36.6	0.7	1.0	0.8
A06	823405	837870	4.2	7.5	62	18	16.8	0.5	0.5	0.5
A06A	823365.9	837883.6	4.2	7.5	59	16	14.5	0.5	0.5	0.5
A07	823788.6	837882.5	3.1	7.5	46	3	2.9	0.1	0.1	0.1
A08	823679.1	837571.7	2.3	7.5	46	3	2.8	0.0	0.1	0.0
A09	823717.3	837567	3.5	7.5	46	2	2.4	0.0	0.0	0.0
A10	823227.6	837343.9	4.4	7.5	52	9	8.4	0.3	0.2	0.3
A10A	823188.8	837327.3	4.4	7.5	53	10	8.7	0.4	0.2	0.3
A11	823382.1	837043.2	4.5	7.5	44	1	1.0	0.0	0.0	0.0
A12	823509.2	837017.6	6.5	7.5	44	1	0.6	0.0	0.0	0.0
A13	823171.4	837105	4.6	7.5	46	3	2.8	0.1	0.1	0.1
A14	823175.5	837030.5	4.4	7.5	45	2	2.0	0.1	0.0	0.1
A15	823271.8	836947.2	4.1	7.5	44	1	1.1	0.0	0.0	0.0
A16	823496	837908.2	4.2	7.5	58	15	13.3	0.6	0.4	0.5
A16A	823470.2	837871.6	4.2	7.5	61	17	15.9	0.5	0.5	0.4
A17	823500.6	838152.4	5.7	7.5	49	5	4.1	0.5	0.2	0.5
A18	823725.6	838015.9	3.5	7.5	47	4	3.0	0.2	0.1	0.2
A19	823749.5	837459.6	3.3	7.5	44	1	1.2	0.0	0.0	0.0
A20	823745.4	837355.3	4.2	7.5	44	1	0.8	0.0	0.0	0.0
A21	823713.9	837274	4.2	7.5	44	1	0.7	0.0	0.0	0.0
A22	823645.1	837066.1	3.5	7.5	44	0	0.4	0.0	0.0	0.0
A23	823920.6	837886.7	3.6	7.5	45	2	1.8	0.0	0.0	0.0
A24	823927.7	837923.6	3.5	7.5	45	2	1.6	0.0	0.0	0.0
A25	823756	838085.2	4.9	7.5	46	3	2.4	0.2	0.1	0.1
A26	823040.6	838098.6	4.4	7.5	45	2	1.3	0.3	0.0	0.2
A27	823465.6	837089.9	4.5	7.5	44	1	0.9	0.0	0.0	0.0
A28	823286.6	837864.2	4.3	7.5	56	13	11.5	0.5	0.4	0.6
A29	823279.2	837826.6	4.3	7.5	65	21	19.4	0.6	0.6	0.7
A30	823293.2	837534.5	4.5	7.5	72	28	26.6	0.6	0.6	0.6
A31	823393.5	837959.7	3.9	7.5	55	12	10.3	0.6	0.4	0.6
A32	823353	837069.1	4.5	7.5	44	1	1.2	0.0	0.0	0.0
A33	823439.3	837932.1	3.9	7.5	58	15	12.8	0.7	0.4	0.7
A34	823424.5	838140.2	5.2	7.5	49	6	4.5	0.4	0.2	0.5
A35	823581.4	838166.3	5	7.5	47	4	3.2	0.4	0.1	0.3
A36	823703.1	837968.5	3.5	7.5	47	4	3.6	0.2	0.1	0.2
A1P	823478.5	837806.7	2	7.5	63	20	19.2	0.3	0.5	0.2
A2P	823371	837176.7	5	7.5	45	2	1.6	0.0	0.0	0.0
A3P	823392.8	837419.1	7	7.5	48	5	4.3	0.1	0.1	0.0
A4P	823424.3	837553.1	3	7.5	53	10	9.3	0.1	0.2	0.1
A5P	823687.9	837719	3	7.5	50	7	6.4	0.1	0.2	0.0
V01	823571.7	837355.7	3	7.5	44	1	1.2	0.0	0.0	0.0
V02	823780.1	837738.5	2.4	7.5	47	4	4.1	0.0	0.1	0.0
V03	823524.7	837232	3	7.5	44	1	1.0	0.0	0.0	0.0
V04	823384.5	837124.2	4.8	7.5	45	1	1.3	0.0	0.0	0.0
Max. RSP Level, ug/m3					187	144				
Relevant AQO Criteria, ug/m3					50	50				

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum annual average RSP level from the PATH output file is used for calculating the total RSP level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

Appendix 3-5D Summary Table of Maximum Annual Average PM_{2.5} Level of the Northern Portion (Unmitigated Scenario)

In calculating the unmitigated level, the predicted PM_{2.5} level due to this Project has already exceeded the relevant air quality criteria at some of the ASRs regardless the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of PM_{2.5} (i.e. background + Project contribution), the maximum annual average PM_{2.5} level from the PATH output file (i.e. 30.7 µg/m³) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	Annual Average PM _{2.5} (With Bkg. Level) * & **		Annual Average PM _{2.5} (W/o Bkg.) **				PM _{2.5} Concentration, µg/m ³ **			
					With Bkg. Level		=A+B+C1+C2		(A) Cut and Cover and Haul Road (day-time)		(B) Wind erosion (Night-time)		(C1) Wind erosion (Day-time) (Holidays Only)	
A01	823101.1	837242.4	4.4	1.5	33	2			2.1	0.1	0.0	0.1		
A01A	823124.3	837181.3	4.4	1.5	32	2			1.5	0.1	0.0	0.1		
A02	823092.8	837314	4.4	1.5	34	3			2.8	0.2	0.1	0.2		
A02A	823119.9	837359.1	4.4	1.5	35	4			3.4	0.3	0.1	0.2		
A03	823260.8	837373.7	4.4	1.5	34	3			2.9	0.2	0.1	0.1		
A04	823276.8	837456.1	4.3	1.5	38	7			6.4	0.4	0.1	0.3		
A05	823287.1	837673.9	4.2	1.5	64	34			27.1	2.8	0.8	2.9		
A05A	823269.6	837644.5	4.2	1.5	60	30			23.9	2.5	0.7	2.6		
A05B	823308.7	837726.2	4.2	1.5	74	43			35.8	3.1	1.0	3.2		
A06	823405	837870	4.2	1.5	50	19			15.6	1.5	0.5	1.6		
A06A	823365.9	837883.6	4.2	1.5	46	15			11.8	1.3	0.4	1.4		
A07	823788.6	837882.5	3.1	1.5	32	1			0.9	0.0	0.0	0.0		
A08	823679.1	837571.7	2.3	1.5	32	1			0.9	0.0	0.0	0.0		
A09	823717.3	837567	3.5	1.5	32	1			0.8	0.0	0.0	0.0		
A10	823227.6	837343.9	4.4	1.5	34	3			2.8	0.2	0.1	0.1		
A10A	823188.8	837327.3	4.4	1.5	34	3			2.9	0.2	0.1	0.2		
A11	823382.1	837043.2	4.5	1.5	31	0			0.3	0.0	0.0	0.0		
A12	823509.2	837017.6	6.5	1.5	31	0			0.2	0.0	0.0	0.0		
A13	823171.4	837105	4.6	1.5	32	1			0.9	0.1	0.0	0.0		
A14	823175.5	837030.5	4.4	1.5	31	1			0.6	0.0	0.0	0.0		
A15	823271.8	836947.2	4.1	1.5	31	0			0.4	0.0	0.0	0.0		
A16	823496	837908.2	4.2	1.5	38	8			6.3	0.7	0.2	0.6		
A16A	823470.2	837871.6	4.2	1.5	47	16			13.5	1.0	0.4	0.9		
A17	823500.6	838152.4	5.7	1.5	33	2			1.4	0.2	0.1	0.2		
A18	823725.6	838015.9	3.5	1.5	32	1			1.0	0.1	0.0	0.1		
A19	823749.5	837459.6	3.3	1.5	31	0			0.4	0.0	0.0	0.0		
A20	823745.4	837355.3	4.2	1.5	31	0			0.2	0.0	0.0	0.0		
A21	823713.9	837274	4.2	1.5	31	0			0.2	0.0	0.0	0.0		
A22	823645.1	837066.1	3.5	1.5	31	0			0.1	0.0	0.0	0.0		
A23	823920.6	837886.7	3.6	1.5	31	1			0.6	0.0	0.0	0.0		
A24	823286.6	837864.2	4.3	1.5	48	17			13.6	1.5	0.5	1.7		
A25	823279.2	837826.6	4.3	1.5	57	27			21.4	2.2	0.7	2.3		
A26	823293.2	837534.5	4.5	1.5	49	18			15.9	1.0	0.4	0.9		
A27	823393.5	837959.7	3.9	1.5	36	6			4.2	0.6	0.2	0.6		
A28	823353	837069.1	4.5	1.5	31	0			0.4	0.0	0.0	0.0		
A29	823439.3	837932.1	3.9	1.5	38	7			5.8	0.7	0.2	0.7		
A30	823424.5	838140.2	5.2	1.5	33	2			1.5	0.2	0.1	0.2		
A31	823581.4	838166.3	5	1.5	32	1			1.0	0.2	0.0	0.2		
A32	823703.1	837968.5	3.5	1.5	32	1			1.2	0.1	0.0	0.1		
A1P	823478.5	837806.7	2	1.5	53	22			19.2	1.1	0.5	1.0		
A2P	823371	837176.7	5	1.5	31	1			0.5	0.0	0.0	0.0		
A3P	823392.8	837419.1	7	1.5	32	2			1.5	0.1	0.0	0.0		
A4P	823424.3	837553.1	3	1.5	35	4			3.9	0.1	0.1	0.1		
A5P	823687.9	837719	3	1.5	33	2			2.2	0.0	0.1	0.0		
V01	823571.7	837355.7	3	1.5	31	0			0.4	0.0	0.0	0.0		
V02	823780.1	837738.5	2.4	1.5	32	1			1.3	0.0	0.0	0.0		
V03	823524.7	837232	3	1.5	31	0			0.3	0.0	0.0	0.0		
V04	823384.5	837124.2	4.8	1.5	31	0			0.4	0.0	0.0	0.0		
A01	823101.1	837242.4	4.4	4.5	33	2			2.1	0.1	0.0	0.1		
A01A	823124.3	837181.3	4.4	4.5	32	2			1.5	0.1	0.0	0.1		
A02	823092.8	837314	4.4	4.5	34	3			2.7	0.2	0.1	0.2		
A02A	823119.9	837359.1	4.4	4.5	35	4			3.3	0.2	0.1	0.2		
A03	823260.8	837373.7	4.4	4.5	34	3			2.8	0.1	0.1	0.1		
A04	823276.8	837456.1	4.3	4.5	37	6			5.6	0.2	0.1	0.2		
A05	823287.1	837673.9	4.2	4.5	51	20			17.8	0.9	0.5	0.9		
A05A	823269.6	837644.5	4.2	4.5	49	19			16.3	0.9	0.5	0.9		
A05B	823308.7	837726.2	4.2	4.5	52	22			19.6	0.8	0.5	0.8		

ASR	X	Y	Z	Height above ground	Annual Average PM2.5 (With Bkg. Level) * & **		PM2.5 Concentration, $\mu\text{g}/\text{m}^3$ **			
					With Bkg. Level	=A+B+C1+C2	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)
A32	823353	837069.1	4.5	4.5	31	0	0.4	0.0	0.0	0.0
A33	823439.3	837932.1	3.9	4.5	37	6	5.0	0.4	0.2	0.4
A34	823424.5	838140.2	5.2	4.5	33	2	1.4	0.2	0.1	0.2
A35	823581.4	838166.3	5	4.5	32	1	1.0	0.2	0.0	0.1
A36	823703.1	837968.5	3.5	4.5	32	1	1.1	0.1	0.0	0.1
A1P	823478.5	837806.7	2	4.5	42	11	10.4	0.3	0.3	0.2
A2P	823371	837176.7	5	4.5	31	1	0.5	0.0	0.0	0.0
A3P	823392.8	837419.1	7	4.5	32	1	1.4	0.0	0.0	0.0
A4P	823424.3	837553.1	3	4.5	34	4	3.5	0.1	0.1	0.0
A5P	823687.9	837719	3	4.5	33	2	2.1	0.0	0.1	0.0
V01	823571.7	837355.7	3	4.5	31	0	0.4	0.0	0.0	0.0
V02	823780.1	837738.5	2.4	4.5	32	1	1.3	0.0	0.0	0.0
V03	823524.7	837232	3	4.5	31	0	0.3	0.0	0.0	0.0
V04	823384.5	837124.2	4.8	4.5	31	0	0.4	0.0	0.0	0.0
A01	823101.1	837242.4	4.4	7.5	33	2	2.0	0.1	0.0	0.1
A01A	823124.3	837181.3	4.4	7.5	32	2	1.5	0.1	0.0	0.1
A02	823092.8	837314	4.4	7.5	34	3	2.6	0.2	0.1	0.2
A02A	823119.9	837359.1	4.4	7.5	34	4	3.2	0.2	0.1	0.2
A03	823260.8	837373.7	4.4	7.5	33	3	2.6	0.1	0.1	0.1
A04	823276.8	837456.1	4.3	7.5	36	5	4.7	0.1	0.1	0.1
A05	823287.1	837673.9	4.2	7.5	43	12	11.2	0.3	0.3	0.3
A05A	823269.6	837644.5	4.2	7.5	42	12	10.8	0.3	0.3	0.3
A05B	823308.7	837726.2	4.2	7.5	42	12	11.0	0.2	0.3	0.2
A06	823405	837870	4.2	7.5	36	5	5.0	0.2	0.2	0.2
A06A	823365.9	837883.6	4.2	7.5	36	5	4.4	0.2	0.2	0.2
A07	823788.6	837882.5	3.1	7.5	32	1	0.9	0.0	0.0	0.0
A08	823679.1	837571.7	2.3	7.5	32	1	0.8	0.0	0.0	0.0
A09	823717.3	837567	3.5	7.5	31	1	0.7	0.0	0.0	0.0
A10	823227.6	837343.9	4.4	7.5	33	3	2.5	0.1	0.1	0.1
A10A	823188.8	837327.3	4.4	7.5	34	3	2.6	0.1	0.1	0.1
A11	823382.1	837043.2	4.5	7.5	31	0	0.3	0.0	0.0	0.0
A12	823509.2	837017.6	6.5	7.5	31	0	0.2	0.0	0.0	0.0
A13	823171.4	837105	4.6	7.5	32	1	0.8	0.0	0.0	0.0
A14	823175.5	837030.5	4.4	7.5	31	1	0.6	0.0	0.0	0.0
A15	823271.8	836947.2	4.1	7.5	31	0	0.3	0.0	0.0	0.0
A16	823496	837908.2	4.2	7.5	35	4	4.0	0.2	0.1	0.2
A16A	823470.2	837871.6	4.2	7.5	36	5	4.8	0.2	0.2	0.1
A17	823500.6	838152.4	5.7	7.5	32	2	1.2	0.2	0.1	0.2
A18	823725.6	838015.9	3.5	7.5	32	1	0.9	0.1	0.0	0.1
A19	823749.5	837459.6	3.3	7.5	31	0	0.4	0.0	0.0	0.0
A20	823745.4	837355.3	4.2	7.5	31	0	0.2	0.0	0.0	0.0
A21	823713.9	837274	4.2	7.5	31	0	0.2	0.0	0.0	0.0
A22	823645.1	837066.1	3.5	7.5	31	0	0.1	0.0	0.0	0.0
A23	823920.6	837886.7	3.6	7.5	31	1	0.5	0.0	0.0	0.0
A24	823927.7	837923.6	3.5	7.5	31	0	0.5	0.0	0.0	0.0
A25	823756	838085.2	4.9	7.5	32	1	0.7	0.1	0.0	0.0
A26	823040.6	838098.6	4.4	7.5	31	1	0.4	0.1	0.0	0.1
A27	823465.6	837089.9	4.5	7.5	31	0	0.3	0.0	0.0	0.0
A28	823286.6	837864.2	4.3	7.5	35	4	3.5	0.2	0.1	0.2
A29	823279.2	837826.6	4.3	7.5	37	6	5.8	0.2	0.2	0.2
A30	823293.2	837534.5	4.5	7.5	39	9	8.0	0.2	0.2	0.2
A31	823393.5	837959.7	3.9	7.5	34	4	3.1	0.2	0.1	0.2
A32	823353	837069.1	4.5	7.5	31	0	0.4	0.0	0.0	0.0
A33	823439.3	837932.1	3.9	7.5	35	4	3.8	0.2	0.1	0.2
A34	823424.5	838140.2	5.2	7.5	32	2	1.4	0.1	0.1	0.2
A35	823581.4	838166.3	5	7.5	32	1	1.0	0.1	0.0	0.1
A36	823703.1	837968.5	3.5	7.5	32	1	1.1	0.1	0.0	0.1
A1P	823478.5	837806.7	2	7.5	37	6	5.8	0.1	0.2	0.1
A2P	823371	837176.7	5	7.5	31	0	0.5	0.0	0.0	0.0
A3P	823392.8	837419.1	7	7.5	32	1	1.3	0.0	0.0	0.0
A4P	823424.3	837553.1	3	7.5	34	3	2.8	0.0	0.1	0.0
A5P	823687.9	837719	3	7.5	33	2	1.9	0.0	0.1	0.0
V01	823571.7	837355.7	3	7.5	31	0	0.4	0.0	0.0	0.0
V02	823780.1	837738.5	2.4	7.5	32	1	1.2	0.0	0.0	0.0
V03	823524.7	837232	3	7.5	31	0	0.3	0.0	0.0	0.0
V04	823384.5	837124.2	4.8	7.5	31	0	0.4	0.0	0.0	0.0
Max. PM2.5 Level, ug/m3					74	43				
Relevant AQO Criteria, ug/m3					35	35				

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum annual average PM2.5 level from the PATH output file is used for calculating the total PM2.5 level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

** The PM2.5 concentrations are calculated based on the predicted RSP concentrations by applying a PM2.5/RSP ratio of 0.3 according to the USEPA AP-42 reference document. Please refer to Appendix 3-10 for the justification of PM2.5/RSP ratio.

Southern Portion

Appendix 3-5E Summary Table of Daily Average RSP Level of the Southern Portion (Unmitigated Scenario)

In calculating the unmitigated level, both the 1st highest value and the 10th highest value of each ASR were calculated by the ISCST software, and the results are presented below. The predicted RSP level due to this Project (both the 1st highest and the 10th highest values) has already exceeded the relevant air quality criteria at some of the ASRs regardless the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of RSP (i.e. background + Project contribution), the maximum daily average RSP level from the PATH output file (i.e. $122.4 \mu\text{g}/\text{m}^3$) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	1st Highest Daily RSP (With Bkg. Level) *	1st Highest Daily RSP (W/o Bkg.)	1st Highest RSP Concentration, $\mu\text{g}/\text{m}^3$				10th Highest Daily RSP (With Bkg. Level) *	10th Highest Daily RSP (W/o Bkg.)	10th Highest RSP Concentration, $\mu\text{g}/\text{m}^3$						
														= Max of (A)+(B) or (C1)+(C2)					
							(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time) (Holidays Only)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)			(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time) (Holidays Only)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)			
A01	823101.1	837242.4	4.4	1.5	537	414	389.3	24.8	7.9	22.9	409	287	267.1	19.4	5.5	13.7			
A01A	823124.3	837181.3	4.4	1.5	431	309	286.2	22.4	7.1	18.9	360	238	220.8	16.8	4.3	14.0			
A02	823092.8	837314	4.4	1.5	501	379	357.9	21.1	6.9	18.6	386	264	248.0	15.6	4.4	12.5			
A02A	823119.9	837359.1	4.4	1.5	459	337	314.2	22.5	4.5	15.3	325	203	188.6	14.4	2.3	8.5			
A03	823260.8	837373.7	4.4	1.5	428	306	288.1	17.6	5.4	14.1	342	219	206.0	13.2	3.6	8.3			
A04	823276.8	837456.1	4.3	1.5	398	276	260.9	14.7	4.6	11.6	323	201	190.0	10.7	2.8	7.4			
A05	823287.1	837673.9	4.2	1.5	190	67	61.5	5.8	1.1	3.9	171	49	46.1	2.6	0.5	1.7			
A05A	823269.6	837644.5	4.2	1.5	202	80	73.4	6.5	1.1	3.6	172	49	46.3	3.1	0.5	1.8			
A05B	823308.7	837726.2	4.2	1.5	184	61	57.3	3.8	0.9	3.5	168	45	43.1	2.2	0.4	1.3			
A06	823405	837870	4.2	1.5	161	38	36.4	1.8	0.5	2.4	147	24	22.9	1.3	0.2	0.4			
A06A	823365.9	837883.6	4.2	1.5	168	45	43.1	2.1	0.6	2.3	152	29	28.0	1.4	0.2	0.5			
A07	823788.6	837882.5	3.1	1.5	137	14	13.2	1.0	0.2	1.0	129	7	6.5	0.2	0.0	0.0			
A08	823679.1	837571.7	2.3	1.5	160	38	35.1	2.9	0.3	1.3	136	13	12.8	0.6	0.1	0.0			
A09	823717.3	837567	3.5	1.5	154	32	28.9	2.8	0.2	1.4	134	11	10.6	0.5	0.1	0.0			
A10	823227.6	837343.9	4.4	1.5	424	301	278.6	22.5	5.9	14.7	352	229	214.0	15.2	3.3	10.2			
A10A	823188.8	837327.3	4.4	1.5	403	281	256.3	24.5	5.5	15.1	337	215	199.3	15.4	3.1	10.8			
A11	823382.1	837043.2	4.5	1.5	181	59	55.6	3.1	0.5	4.3	145	23	21.6	1.1	0.0	0.0			
A12	823509.2	837017.6	6.5	1.5	158	35	34.0	1.3	0.4	3.3	136	14	13.4	0.4	0.1	0.0			
A13	823171.4	837105	4.6	1.5	426	303	287.7	15.6	6.7	13.1	366	244	232.3	11.5	3.7	8.3			
A14	823175.5	837030.5	4.4	1.5	324	201	193.1	8.3	4.8	5.3	245	122	116.5	5.6	1.1	3.1			
A15	823271.8	836947.2	4.1	1.5	194	71	67.4	4.0	0.5	1.4	148	26	24.4	1.6	0.0	0.0			
A16	823496	837908.2	4.2	1.5	147	24	23.1	1.1	0.5	1.0	137	15	14.2	0.6	0.2	0.1			
A16A	823470.2	837871.6	4.2	1.5	149	27	25.7	1.3	0.5	1.3	139	17	15.8	0.8	0.2	0.2			
A17	823500.6	838152.4	5.7	1.5	140	18	16.8	1.0	0.2	1.1	133	10	9.6	0.7	0.1	0.1			
A18	823725.6	838015.9	3.5	1.5	136	14	13.0	0.7	0.4	0.8	128	6	5.7	0.2	0.0	0.0			
A19	823749.5	837459.6	3.3	1.5	152	29	28.1	1.3	0.3	1.3	136	14	13.4	0.4	0.1	0.0			
A20	823745.4	837355.3	4.2	1.5	161	39	37.2	1.3	0.4	1.7	137	14	13.9	0.3	0.1	0.0			
A21	823713.9	837274	4.2	1.5	170	48	46.3	1.7	0.6	1.3	141	19	18.5	0.2	0.1	0.0			
A22	823645.1	837066.1	3.5	1.5	157	34	33.3	0.9	0.6	1.8	135	13	12.6	0.2	0.0	0.0			
A23	823920.6	837866.7	3.6	1.5	140	18	16.9	1.0	0.2	0.7	127	4	4.2	0.2	0.0	0.0			
A24	823927.7	837923.6	3.5	1.5	138	16	14.8	0.7	0.2	0.8	127	5	4.8	0.2	0.0	0.0			
A25	823756	838085.2	4.9	1.5	134	11	10.6	0.7	0.3	0.7	127	5	4.7	0.2	0.0	0.0			
A26	823040.6	838098.6	4.4	1.5	141	19	17.3	1.6	0.2	0.9	128	6	4.7	1.0	0.0	0.2			
A27	823465.6	837089.9	4.5	1.5	177	54	53.2	1.2	1.0	4.1	148	26	25.1	0.8	0.1	0.0			
A28	823286	837864.2	4.3	1.5	161	39	35.4	3.5	0.6	2.5	150	27	25.7	1.6	0.3	0.9			
A29	823279.2	837826.6	4.3	1.5	164	42	37.8	3.9	0.7	2.6	151	29	27.0	1.7	0.3	1.1			
A30	823293.2	837534.5	4.5	1.5	280	157	146.5	10.6	2.3	8.0	232	110	103.6	5.9	1.3	3.7			
A31	823393.5	837959.7	3.9	1.5	157	35	32.8	1.8	0.5	2.1	145	23	21.5	1.1	0.2	0.4			
A32	823353	837069.1	4.5	1.5	196	74	70.2	3.8	0.7	5.6	159	37	35.1	1.5	0.1	0.0			
A33	823439.3	837932.1	3.9	1.5	151	28	26.9	1.4	0.4	1.6	139	17	15.8	1.0	0.1	0.2			
A34	823424.5	838140.2	5.2	1.5	147	25	23.1	1.4	0.3	1.6	138	15	14.5	0.8</td					

ASR	X	Y	Z	Height above ground	1st Highest Daily RSP (With Bkg. Level) *	1st Highest Daily RSP (W/o Bkg.)	1st Highest RSP Concentration, $\mu\text{g}/\text{m}^3$				10th Highest Daily RSP (With Bkg. Level) *	10th Highest Daily RSP (W/o Bkg.)	10th Highest RSP Concentration, $\mu\text{g}/\text{m}^3$			
					With Bkg. Level	= Max of (A)+(B) or (C1)+(C2)	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)	With Bkg. Level	= Max of (Aa)+(Ba) or (C1a)+(C2a)	(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)
A22	823645.1	837066.1	3.5	7.5	154	32	31.0	0.6	0.6	1.3	135	12	11.9	0.2	0.0	0.0
A23	823920.6	837886.7	3.6	7.5	140	17	16.5	0.8	0.2	0.7	127	4	4.1	0.2	0.0	0.0
A24	823927.7	837923.6	3.5	7.5	137	15	14.4	0.6	0.2	0.7	127	5	4.6	0.2	0.0	0.0
A25	823756	838085.2	4.9	7.5	134	11	10.5	0.6	0.3	0.6	127	5	4.7	0.2	0.0	0.0
A26	823040.6	838098.6	4.4	7.5	141	18	16.8	1.3	0.2	0.8	128	6	4.7	0.8	0.0	0.2
A27	823465.6	837089.9	4.5	7.5	168	45	44.6	0.7	0.9	2.0	145	22	22.0	0.4	0.1	0.0
A28	823286.6	837864.2	4.3	7.5	158	36	33.4	2.6	0.6	1.8	148	26	24.3	1.2	0.3	0.7
A29	823279.2	837826.6	4.3	7.5	161	38	35.4	2.8	0.6	1.9	149	27	25.5	1.3	0.3	0.9
A30	823293.2	837534.5	4.5	7.5	218	95	91.9	3.2	1.5	3.1	200	78	75.1	2.4	1.0	1.4
A31	823393.5	837959.7	3.9	7.5	155	33	31.1	1.5	0.4	1.7	144	22	20.6	1.0	0.2	0.4
A32	823353	837069.1	4.5	7.5	178	56	54.4	1.1	0.6	1.5	148	26	25.3	0.4	0.1	0.0
A33	823439.3	837932.1	3.9	7.5	149	27	25.7	1.3	0.4	1.4	139	16	15.3	0.9	0.1	0.2
A34	823424.5	838140.2	5.2	7.5	146	24	22.4	1.2	0.3	1.3	137	15	14.1	0.8	0.1	0.3
A35	823581.4	838166.3	5	7.5	136	14	13.0	0.6	0.2	0.6	131	9	8.1	0.4	0.1	0.0
A36	823703.1	837968.5	3.5	7.5	138	15	14.6	0.6	0.4	0.8	129	7	6.4	0.2	0.0	0.0
A1P	823478.5	837806.7	2	7.5	152	29	28.1	1.0	0.7	0.7	139	17	15.8	0.7	0.2	0.2
A2P	823371	837176.7	5	7.5	208	86	84.8	1.0	2.0	1.9	181	59	58.6	0.4	0.4	0.0
A3P	823392.8	837419.1	7	7.5	206	83	81.3	1.8	1.4	2.2	175	52	51.6	0.8	0.6	0.4
A4P	823424.3	837553.1	3	7.5	178	56	54.1	1.6	1.4	2.4	155	33	31.6	0.9	0.3	0.3
A5P	823687.9	837719	3	7.5	148	25	24.2	0.9	0.3	1.0	132	10	9.5	0.4	0.1	0.0
V01	823571.7	837355.7	3	7.5	185	62	60.8	1.5	0.6	1.5	148	26	25.5	0.5	0.2	0.0
V02	823780.1	837738.5	2.4	7.5	148	25	24.0	1.2	0.2	0.7	130	7	6.8	0.3	0.1	0.0
V03	823524.7	837232	3	7.5	191	69	67.4	1.2	1.2	1.4	157	35	34.4	0.3	0.2	0.0
V04	823384.5	837124.2	4.8	7.5	181	59	58.1	0.9	1.4	2.0	162	40	39.2	0.4	0.2	0.0
					537	414					409	287				
					100	100					100	100				

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum daily average RSP level from the PATH output file is used for calculating the total RSP level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

Appendix 3-5F Summary Table of Daily Average PM_{2.5} Level of the Southern Portion (Unmitigated Scenario)

In calculating the unmitigated level, both the 1st highest value and the 10th highest value of each ASR were calculated by the ISCST software, and the results are presented below. The calculated PM_{2.5} level due to this Project (both the 1st highest and the 10th highest values) has already exceeded the relevant air quality criteria at some of the ASRs regardless the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of PM_{2.5} (i.e. background + Project contribution), the maximum daily average PM_{2.5} level from the PATH output file (i.e. 91.8 µg/m³) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	1st Highest Daily PM _{2.5} (With Bkg. Level) ^{* & **}	1st Highest Daily PM _{2.5} (W/o Bkg.) [*]	1st Highest PM _{2.5} Concentration, µg/m ³ **				10th Highest Daily PM _{2.5} (With Bkg. Level) ^{* & **}	10th Highest Daily PM _{2.5} (W/o Bkg.) ^{**}	10th Highest PM _{2.5} Concentration, µg/m ³ **				
					With Bkg. Level	= Max of (A)+(B) or (C1)+(C2)	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)	With Bkg. Level	= Max of (Aa)+(Ba) or (C1a)+(C2a)	(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)	
							216	124	116.8	7.4	2.4	6.9	178	86	80.1	5.8	1.7
A01	823101.1	837242.4	4.4	1.5	216	124	116.8	7.4	2.4	6.9	178	86	80.1	5.8	1.7	4.1	
A01A	823124.3	837181.3	4.4	1.5	184	93	85.9	6.7	2.1	5.7	163	71	66.2	5.0	1.3	4.2	
A02	823092.8	837314	4.4	1.5	206	114	107.4	6.3	2.1	5.6	171	79	74.4	4.7	1.3	3.8	
A02A	823119.9	837359.1	4.4	1.5	193	101	94.3	6.8	1.4	4.6	153	61	56.6	4.3	0.7	2.6	
A03	823260.8	837373.7	4.4	1.5	184	92	86.4	5.3	1.6	4.2	158	66	61.8	4.0	1.1	2.5	
A04	823276.8	837456.1	4.3	1.5	174	83	78.3	4.4	1.4	3.5	152	60	57.0	3.2	0.8	2.2	
A05	823287.1	837673.9	4.2	1.5	112	20	18.5	1.7	0.3	1.2	106	15	13.8	0.8	0.2	0.5	
A05A	823269.6	837644.5	4.2	1.5	116	24	22.0	2.0	0.3	1.1	107	15	13.9	0.9	0.2	0.5	
A05B	823308.7	837726.2	4.2	1.5	110	18	17.2	1.1	0.3	1.1	105	14	12.9	0.7	0.1	0.4	
A06	8232405	837870	4.2	1.5	103	11	10.9	0.5	0.2	0.7	99	7	6.9	0.4	0.1	0.1	
A06A	823365.9	837883.6	4.2	1.5	105	14	12.9	0.6	0.2	0.7	101	9	8.4	0.4	0.1	0.2	
A07	823278.6	837882.5	3.1	1.5	96	4	4.0	0.3	0.1	0.3	94	2	2.0	0.1	0.0	0.0	
A08	823679.1	837571.7	2.3	1.5	103	11	10.5	0.9	0.1	0.4	96	4	3.8	0.2	0.0	0.0	
A09	823177.3	837567	3.5	1.5	101	10	8.7	0.8	0.1	0.4	95	3	3.2	0.2	0.0	0.0	
A10	823227.6	837343.9	4.4	1.5	182	90	83.6	6.8	1.8	4.4	161	69	64.2	4.6	1.0	3.1	
A10A	823188.8	837327.3	4.4	1.5	176	84	76.9	7.4	1.7	4.5	156	64	59.8	4.6	0.9	3.2	
A11	823382.1	837043.2	4.5	1.5	109	18	16.7	0.9	0.2	1.3	99	7	6.5	0.3	0.0	0.0	
A12	823509.2	837017.6	6.5	1.5	102	11	10.2	0.4	0.1	1.0	96	4	4.0	0.1	0.0	0.0	
A13	823171.4	837105	4.6	1.5	183	91	86.3	4.7	2.0	3.9	165	73	69.7	3.5	1.1	2.5	
A14	823175.5	837030.5	4.4	1.5	152	60	57.9	2.5	1.4	1.6	128	37	35.0	1.7	0.3	0.9	
A15	823271.8	836947.2	4.1	1.5	113	21	20.2	1.2	0.2	0.4	100	8	7.3	0.5	0.0	0.0	
A16	823249.6	837908.2	4.2	1.5	99	7	6.9	0.3	0.2	0.3	96	4	4.3	0.2	0.1	0.0	
A16A	823470.2	837871.6	4.2	1.5	100	8	7.7	0.4	0.2	0.4	97	5	4.7	0.2	0.1	0.1	
A17	823500.6	838152.4	5.7	1.5	97	5	5.0	0.3	0.1	0.3	95	3	2.9	0.2	0.0	0.0	
A18	823276.5	838015.9	3.5	1.5	96	4	3.9	0.2	0.1	0.2	94	2	1.7	0.1	0.0	0.0	
A19	823274.5	837459.6	3.3	1.5	101	9	8.4	0.4	0.1	0.4	96	4	4.0	0.1	0.0	0.0	
A20	823274.5	837355.3	4.2	1.5	103	12	11.2	0.4	0.1	0.5	96	4	4.2	0.1	0.0	0.0	
A21	823271.8	836947.2	4.1	1.5	106	14	13.9	0.5	0.2	0.4	97	6	5.6	0.1	0.0	0.0	
A22	823645.1	837066.1	3.5	1.5	102	10	10.0	0.3	0.2	0.5	96	4	3.8	0.1	0.0	0.0	
A23	823292.6	837886.7	3.6	1.5	97	5	5.1	0.3	0.1	0.2	93	1	1.3	0.1	0.0	0.0	
A24	823292.7	837923.6	3.5	1.5	96	5	4.4	0.2	0.1	0.2	93	2	1.4	0.1	0.0	0.0	
A25	823756	838085.2	4.9	1.5	95	3	3.2	0.2	0.1	0.2	93	1	1.4	0.1	0.0	0.0	
A26	823040.6	838098.6	4.4	1.5	97	6	5.2	0.5	0.1	0.3	94	2	1.4	0.3	0.0	0.1	
A27	823465.6	837089.9	4.5	1.5	108	16	16.0	0.4	0.3	1.2	100	8	7.5	0.2	0.0	0.0	
A28	823286.6	837864.2	4.3	1.5	103	12	10.6	1.1	0.2	0.8	100	8	7.7	0.5	0.1	0.3	
A29	823292.9	837826.6	4.3	1.5	104	13	11.3	1.2	0.2	0.8	100	9	8.1	0.5	0.1	0.3	
A30	823293.2	837534.5	4.5	1.5	139	47	44.0	3.2	0.7	2.4	125	33	31.1	1.8	0.4	1.1	
A31	823393.5	837959.7	3.9	1.5	102	10	9.8	0.5	0.2	0.6	99	7	6.5	0.3	0.1	0.1	
A32	823353	837069.1	4.5	1.5	114	22	21.1	1.1	0.2	1.7	103	11	10.5	0.5	0.0	0.0	
A33	823439.3	837932.1	3.9	1.5	100</												

ASR	X	Y	Z	Height above ground	1st Highest Daily PM2.5 (With Bkg. Level) * & **	1st Highest Daily PM2.5 (W/o Bkg.) **	1st Highest PM2.5 Concentration, $\mu\text{g}/\text{m}^3$ **				10th Highest Daily PM2.5 (With Bkg. Level) * & **	10th Highest Daily PM2.5 (W/o Bkg.) **	10th Highest PM2.5 Concentration, $\mu\text{g}/\text{m}^3$ **			
					With Bkg. Level	= Max of (A)+(B) or (C1)+(C2)	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)	With Bkg. Level	= Max of (Aa)+(Ba) or (C1a)+(C2a)	(Aa) Cut and Cover and Haul Road (day-time)	(Ba) Wind erosion (Night-time)	(C1a) Wind erosion (Day-time) (Holidays Only)	(C2a) Wind erosion (Night-time) (Holidays Only)
A21	823713.9	837274	4.2	7.5	105	13	13.0	0.3	0.2	0.3	97	5	5.2	0.1	0.0	0.0
A22	823645.1	837066.1	3.5	7.5	101	9	9.3	0.2	0.2	0.4	95	4	3.6	0.1	0.0	0.0
A23	823920.6	837886.7	3.6	7.5	97	5	5.0	0.2	0.1	0.2	93	1	1.2	0.1	0.0	0.0
A24	823927.7	837923.6	3.5	7.5	96	5	4.3	0.2	0.1	0.2	93	1	1.4	0.1	0.0	0.0
A25	823756	838085.2	4.9	7.5	95	3	3.2	0.2	0.1	0.2	93	1	1.4	0.1	0.0	0.0
A26	823040.6	838098.6	4.4	7.5	97	5	5.0	0.4	0.1	0.2	93	2	1.4	0.2	0.0	0.1
A27	823465.6	837089.9	4.5	7.5	105	14	13.4	0.2	0.3	0.6	99	7	6.6	0.1	0.0	0.0
A28	823286.6	837864.2	4.3	7.5	103	11	10.0	0.8	0.2	0.5	99	8	7.3	0.4	0.1	0.2
A29	823279.2	837826.6	4.3	7.5	103	11	10.6	0.8	0.2	0.6	100	8	7.7	0.4	0.1	0.3
A30	823293.2	837534.5	4.5	7.5	120	29	27.6	1.0	0.5	0.9	115	23	22.5	0.7	0.3	0.4
A31	823393.5	837959.7	3.9	7.5	102	10	9.3	0.5	0.1	0.5	98	6	6.2	0.3	0.1	0.1
A32	823353	837069.1	4.5	7.5	108	17	16.3	0.3	0.2	0.5	100	8	7.6	0.1	0.0	0.0
A33	823439.3	837932.1	3.9	7.5	100	8	7.7	0.4	0.1	0.4	97	5	4.6	0.3	0.0	0.1
A34	823424.5	838140.2	5.2	7.5	99	7	6.7	0.4	0.1	0.4	96	4	4.2	0.2	0.0	0.1
A35	823581.4	838166.3	5	7.5	96	4	3.9	0.2	0.1	0.2	94	3	2.4	0.1	0.0	0.0
A36	823703.1	837968.5	3.5	7.5	96	5	4.4	0.2	0.1	0.2	94	2	1.9	0.1	0.0	0.0
A1P	823478.5	837806.7	2	7.5	101	9	8.4	0.3	0.2	0.2	97	5	4.7	0.2	0.1	0.1
A2P	823371	837176.7	5	7.5	118	26	25.4	0.3	0.6	0.6	110	18	17.6	0.1	0.1	0.0
A3P	823392.8	837419.1	7	7.5	117	25	24.4	0.5	0.4	0.7	108	16	15.5	0.2	0.2	0.1
A4P	823424.3	837553.1	3	7.5	109	17	16.2	0.5	0.4	0.7	102	10	9.5	0.3	0.1	0.1
A5P	823687.9	837719	3	7.5	99	8	7.3	0.3	0.1	0.3	95	3	2.9	0.1	0.0	0.0
V01	823571.7	837355.7	3	7.5	110	19	18.2	0.5	0.2	0.5	100	8	7.7	0.2	0.1	0.0
V02	823780.1	837738.5	2.4	7.5	99	8	7.2	0.4	0.1	0.2	94	2	2.0	0.1	0.0	0.0
V03	823524.7	837232	3	7.5	112	21	20.2	0.4	0.4	0.4	102	10	10.3	0.1	0.1	0.0
V04	823384.5	837124.2	4.8	7.5	110	18	17.4	0.3	0.4	0.6	104	12	11.8	0.1	0.1	0.0
					216	124					178	86				
					75	75					75	75				

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum daily average PM2.5 level from the PATH output file is used for calculating the total PM2.5 level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

** The PM2.5 concentrations are calculated based on the predicted RSP concentrations by applying a PM2.5/RSP ratio of 0.3 according to the USEPA AP-42 reference document. Please refer to Appendix 3-10 for the justification of PM2.5/RSP ratio.

Appendix 3-5G Summary Table of Maximum Annual Average RSP Level of the Southern Portion (Unmitigated Scenario)

In calculating the unmitigated level, the predicted RSP level due to this Project has already exceeded the relevant air quality criteria at some of the ASRs regardless the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of RSP (i.e. background + Project contribution), the maximum annual average RSP level from the PATH output file (i.e. 43.2 $\mu\text{g}/\text{m}^3$) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	Annual Average RSP (With Bkg. Level) *		Annual Average RSP (W/o Bkg.)				RSP Concentration, $\mu\text{g}/\text{m}^3$			
					With Bkg. Level		$=A+B+C1+C2$		(A) Cut and Cover and Haul Road (day-time)		(B) Wind erosion (Night-time)		(C1) Wind erosion (Day-time) (Holidays Only)	
					With Bkg. Level	$=A+B+C1+C2$	With Bkg. Level	$=A+B+C1+C2$	With Bkg. Level	$=A+B+C1+C2$	With Bkg. Level	$=A+B+C1+C2$	With Bkg. Level	$=A+B+C1+C2$
A01	823101.1	837242.4	4.4	1.5	190	146	124.0	9.6	3.3	9.4				
A01A	823124.3	837181.3	4.4	1.5	162	118	99.1	8.7	2.6	8.0				
A02	823092.8	837314	4.4	1.5	135	92	75.2	7.2	2.0	7.7				
A02A	823119.9	837359.1	4.4	1.5	110	67	55.1	5.3	1.3	5.5				
A03	823260.8	837373.7	4.4	1.5	184	141	123.9	6.8	3.0	6.9				
A04	823276.8	837456.1	4.3	1.5	118	75	65.3	3.9	1.5	3.9				
A05	823287.1	837673.9	4.2	1.5	55	12	10.4	0.7	0.2	0.7				
A05A	823269.6	837644.5	4.2	1.5	56	12	10.6	0.8	0.2	0.8				
A05B	823308.7	837726.2	4.2	1.5	54	11	9.4	0.5	0.2	0.5				
A06	823405	837870	4.2	1.5	49	6	5.1	0.2	0.1	0.3				
A06A	823365.9	837883.6	4.2	1.5	50	7	5.9	0.3	0.1	0.3				
A07	823788.6	837882.5	3.1	1.5	44	1	1.0	0.0	0.0	0.1				
A08	823679.1	837571.7	2.3	1.5	45	2	2.0	0.1	0.0	0.1				
A09	823717.3	837567	3.5	1.5	45	2	1.8	0.1	0.0	0.1				
A10	823227.6	837343.9	4.4	1.5	167	124	106.2	7.6	2.6	7.8				
A10A	823188.8	837327.3	4.4	1.5	153	110	92.3	7.3	2.3	7.6				
A11	823382.1	837043.2	4.5	1.5	47	3	3.0	0.1	0.1	0.2				
A12	823509.2	837017.6	6.5	1.5	45	2	2.0	0.0	0.0	0.1				
A13	823171.4	837105	4.6	1.5	131	87	75.5	5.3	1.9	4.7				
A14	823175.5	837030.5	4.4	1.5	75	32	28.2	1.4	0.8	1.3				
A15	823271.8	836947.2	4.1	1.5	47	4	3.4	0.2	0.1	0.1				
A16	823496	837908.2	4.2	1.5	46	3	2.6	0.1	0.1	0.1				
A16A	823470.2	837871.6	4.2	1.5	47	4	3.2	0.1	0.1	0.1				
A17	823500.6	838152.4	5.7	1.5	46	2	2.2	0.1	0.0	0.1				
A18	823725.6	838015.9	3.5	1.5	44	1	1.0	0.0	0.0	0.0				
A19	823749.5	837459.6	3.3	1.5	45	2	2.0	0.0	0.0	0.1				
A20	823745.4	837355.3	4.2	1.5	46	3	2.4	0.0	0.1	0.1				
A21	823713.9	837274	4.2	1.5	46	3	2.7	0.0	0.1	0.1				
A22	823645.1	837066.1	3.5	1.5	45	2	2.0	0.0	0.1	0.1				
A23	823920.6	837886.7	3.6	1.5	44	1	0.7	0.0	0.0	0.0				
A24	823927.7	837923.6	3.5	1.5	44	1	0.7	0.0	0.0	0.0				
A25	823756	838085.2	4.9	1.5	44	1	0.8	0.0	0.0	0.0				
A26	823040.6	838098.6	4.4	1.5	44	1	0.8	0.2	0.0	0.1				
A27	823465.6	837089.9	4.5	1.5	48	4	3.9	0.1	0.1	0.2				
A28	823286.6	837864.2	4.3	1.5	50	6	5.4	0.4	0.1	0.4				
A29	823279.2	837826.6	4.3	1.5	50	7	5.8	0.4	0.1	0.5				
A30	823293.2	837534.5	4.5	1.5	72	29	25.2	1.5	0.5	1.7				
A31	823393.5	837959.7	3.9	1.5	48	5	4.6	0.2	0.1	0.2				
A32	823353	837069.1	4.5	1.5	49	5	4.8	0.2	0.1	0.3				
A33	823439.3	837932.1	3.9	1.5	48	4	3.8	0.2	0.1	0.2				
A34	823424.5	838140.2	5.2	1.5	47	4	3.1	0.1	0.1	0.2				
A35	823581.4	838166.3	5	1.5	45	2	1.5	0.1	0.0	0.1				
A36	823703.1	837968.5	3.5	1.5	44	1	1.1	0.0	0.0	0.1				
A1P	823478.5	837806.7	2	1.5	45	3	3.1	0.1	0.1	0.1				
A2P	823371	837176.7	5	1.5	59	16	14.3	0.3	0.4	0.5				
A3P	823392.8	837419.1	7	1.5	61	17	15.9	0.4	0.4	0.6				
A4P	823424.3	837553.1	3	1.5	51	8	7.1	0.2	0.2	0.3				
A5P	823687.9	837719	3	1.5	45	2	1.6	0.0	0.0	0.1				
V01	823571.7	837355.7	3	1.5	48	5	4.8	0.1	0.1	0.2				
V02	823780.1	837738.5	2.4	1.5	45	1	1.2	0.0	0.0	0.1				
V03	823524.7	837232	3	1.5	50	6	5.9	0.1	0.2	0.2				
V04	823384.5	837124.2	4.8	1.5	52	9	8.0	0.2	0.2	0.3				
A01	823101.1	837242.4	4.4	4.5	112	69	61.7	2.8	1.6	2.8				
A01A	823124.3	837181.3	4.4	4.5	118	74	66.8	3.0	1.7	2.8				
A02	823092.8	837314	4.4	4.5	87	43	38.0	2.1	1.0	2.3				
A02A	823119.9	837359.1	4.4	4.5	77	34	29							

ASR	X	Y	Z	Height above ground	Annual Average RSP (With Bkg. Level) *	Annual Average RSP (W/o Bkg.)	RSP Concentration, $\mu\text{g}/\text{m}^3$			
					With Bkg. Level	=A+B+C1+C2	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)
A33	823439.3	837932.1	3.9	4.5	47	4	3.7	0.2	0.1	0.2
A34	823424.5	838140.2	5.2	4.5	47	4	3.1	0.1	0.1	0.2
A35	823581.4	838166.3	5	4.5	45	2	1.4	0.1	0.0	0.1
A36	823703.1	837968.5	3.5	4.5	44	1	1.1	0.0	0.0	0.1
A1P	823478.5	837806.7	2	4.5	47	3	3.1	0.1	0.1	0.1
A2P	823371	837176.7	5	4.5	56	13	12.1	0.1	0.3	0.3
A3P	823392.8	837419.1	7	4.5	58	15	13.6	0.2	0.3	0.4
A4P	823424.3	837553.1	3	4.5	51	7	6.7	0.2	0.2	0.2
A5P	823687.9	837719	3	4.5	45	2	1.5	0.0	0.0	0.1
V01	823571.7	837355.7	3	4.5	48	5	4.6	0.1	0.1	0.1
V02	823780.1	837738.5	2.4	4.5	45	1	1.2	0.0	0.0	0.1
V03	823524.7	837232	3	4.5	49	6	5.6	0.1	0.2	0.1
V04	823384.5	837124.2	4.8	4.5	51	8	7.2	0.1	0.2	0.2
A01	823101.1	837242.4	4.4	7.5	81	37	34.6	0.9	0.9	0.9
A01A	823124.3	837181.3	4.4	7.5	87	44	41.1	1.0	1.0	0.9
A02	823092.8	837314	4.4	7.5	67	24	21.8	0.7	0.6	0.8
A02A	823119.9	837359.1	4.4	7.5	63	19	17.6	0.7	0.4	0.7
A03	823260.8	837373.7	4.4	7.5	75	31	29.7	0.5	0.7	0.5
A04	823276.8	837456.1	4.3	7.5	66	23	21.0	0.5	0.5	0.6
A05	823287.1	837673.9	4.2	7.5	54	11	9.5	0.4	0.2	0.5
A05A	823269.6	837644.5	4.2	7.5	54	11	9.5	0.5	0.2	0.5
A05B	823308.7	837726.2	4.2	7.5	53	10	8.7	0.4	0.2	0.4
A06	823405	837870	4.2	7.5	49	5	4.8	0.2	0.1	0.2
A06A	823365.9	837883.6	4.2	7.5	49	6	5.6	0.2	0.1	0.2
A07	823788.6	837882.5	3.1	7.5	44	1	1.0	0.0	0.0	0.0
A08	823679.1	837571.7	2.3	7.5	45	2	1.9	0.1	0.0	0.1
A09	823717.3	837567	3.5	7.5	45	2	1.7	0.1	0.0	0.1
A10	823227.6	837343.9	4.4	7.5	79	36	33.6	0.5	0.8	0.6
A10A	823188.8	837327.3	4.4	7.5	76	32	30.5	0.6	0.7	0.6
A11	823382.1	837043.2	4.5	7.5	46	3	2.5	0.1	0.1	0.1
A12	823509.2	837017.6	6.5	7.5	45	2	1.8	0.0	0.0	0.1
A13	823171.4	837105	4.6	7.5	79	36	33.6	0.6	0.8	0.6
A14	823175.5	837030.5	4.4	7.5	64	21	19.5	0.4	0.5	0.5
A15	823271.8	836947.2	4.1	7.5	46	3	2.9	0.1	0.1	0.1
A16	823496	837908.2	4.2	7.5	46	3	2.5	0.1	0.1	0.1
A16A	823470.2	837871.6	4.2	7.5	47	3	3.1	0.1	0.1	0.1
A17	823500.6	838152.4	5.7	7.5	46	2	2.2	0.1	0.0	0.1
A18	823725.6	838015.9	3.5	7.5	44	1	1.0	0.0	0.0	0.0
A19	823749.5	837459.6	3.3	7.5	45	2	1.9	0.0	0.0	0.1
A20	823745.4	837355.3	4.2	7.5	46	2	2.2	0.0	0.1	0.1
A21	823713.9	837274	4.2	7.5	46	3	2.5	0.0	0.1	0.0
A22	823645.1	837066.1	3.5	7.5	45	2	1.9	0.0	0.1	0.1
A23	823920.6	837886.7	3.6	7.5	44	1	0.7	0.0	0.0	0.0
A24	823927.7	837923.6	3.5	7.5	44	1	0.7	0.0	0.0	0.0
A25	823756	838085.2	4.9	7.5	44	1	0.8	0.0	0.0	0.0
A26	823040.6	838098.6	4.4	7.5	44	1	0.7	0.2	0.0	0.1
A27	823465.6	837089.9	4.5	7.5	47	4	3.4	0.0	0.1	0.1
A28	823286.6	837864.2	4.3	7.5	49	6	5.1	0.3	0.1	0.3
A29	823279.2	837826.6	4.3	7.5	50	6	5.5	0.3	0.1	0.4
A30	823293.2	837534.5	4.5	7.5	63	20	18.1	0.6	0.4	0.6
A31	823393.5	837959.7	3.9	7.5	48	5	4.4	0.2	0.1	0.2
A32	823353	837069.1	4.5	7.5	47	4	3.5	0.1	0.1	0.1
A33	823439.3	837932.1	3.9	7.5	47	4	3.6	0.2	0.1	0.2
A34	823424.5	838140.2	5.2	7.5	47	3	3.0	0.1	0.1	0.2
A35	823581.4	838166.3	5	7.5	45	2	1.4	0.1	0.0	0.1
A36	823703.1	837968.5	3.5	7.5	44	1	1.1	0.0	0.0	0.0
A1P	823478.5	837806.7	2	7.5	47	3	3.0	0.1	0.1	0.1
A2P	823371	837176.7	5	7.5	53	10	9.2	0.1	0.2	0.1
A3P	823392.8	837419.1	7	7.5	54	11	10.6	0.1	0.3	0.2
A4P	823424.3	837553.1	3	7.5	50	7	6.1	0.1	0.2	0.2
A5P	823687.9	837719	3	7.5	45	2	1.5	0.0	0.0	0.1
V01	823571.7	837355.7	3	7.5	48	5	4.3	0.1	0.1	0.1
V02	823780.1	837738.5	2.4	7.5	44	1	1.1	0.0	0.0	0.1
V03	823524.7	837232	3	7.5	49	5	5.1	0.1	0.1	0.1
V04	823384.5	837124.2	4.8	7.5	50	6	5.9	0.1	0.2	0.1
Max. RSP Level, ug/m3					190	146				
Relevant AQO Criteria, ug/m3					50	50				

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum annual average RSP level from the PATH output file is used for calculating the total RSP level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

Appendix 3-5H Summary Table of Maximum Annual Average PM_{2.5} Level of the Southern Portion (Unmitigated Scenario)

In calculating the unmitigated level, the predicted PM_{2.5} level due to this Project has already exceeded the relevant air quality criteria at some of the ASRs regardless the background level (i.e. mitigation measures will be required regardless the background level), thus in calculating the total concentration of PM_{2.5} (i.e. background + Project contribution), the maximum annual average PM_{2.5} level from the PATH output file (i.e. 30.7 µg/m³) is used (a conservative approach).

ASR	X	Y	Z	Height above ground	Annual Average PM _{2.5} (With Bkg. Level) *		PM _{2.5} Concentration, µg/m ³			
					Annual Average PM _{2.5} (W/o Bkg.)		PM _{2.5} Concentration, µg/m ³			
					With Bkg. Level	=A+B+C1+C2	(A) Cut and Cover and Haul Road (day-time)	(B) Wind erosion (Night-time)	(C1) Wind erosion (Day-time) (Holidays Only)	(C2) Wind erosion (Night-time) (Holidays Only)
A01	823101.1	837242.4	4.4	1.5	75	44	37.2	2.9	1.0	2.8
A01A	823124.3	837181.3	4.4	1.5	66	36	29.7	2.6	0.8	2.4
A02	823092.8	837314	4.4	1.5	58	28	22.6	2.2	0.6	2.3
A02A	823119.9	837359.1	4.4	1.5	51	20	16.5	1.6	0.4	1.7
A03	823260.8	837373.7	4.4	1.5	73	42	37.2	2.0	0.9	2.1
A04	823276.8	837456.1	4.3	1.5	53	22	19.6	1.2	0.5	1.2
A05	823287.1	837673.9	4.2	1.5	34	4	3.1	0.2	0.1	0.2
A05A	823269.6	837644.5	4.2	1.5	34	4	3.2	0.2	0.1	0.2
A05B	823308.7	837726.2	4.2	1.5	34	3	2.8	0.2	0.1	0.2
A06	823405	837870	4.2	1.5	32	2	1.5	0.1	0.0	0.1
A06A	823365.9	837883.6	4.2	1.5	33	2	1.8	0.1	0.0	0.1
A07	823788.6	837882.5	3.1	1.5	31	0	0.3	0.0	0.0	0.0
A08	823679.1	837571.7	2.3	1.5	31	1	0.6	0.0	0.0	0.0
A09	823717.3	837567	3.5	1.5	31	1	0.5	0.0	0.0	0.0
A10	823227.6	837343.9	4.4	1.5	68	37	31.9	2.3	0.8	2.3
A10A	823188.8	837327.3	4.4	1.5	64	33	27.7	2.2	0.7	2.3
A11	823382.1	837043.2	4.5	1.5	32	1	0.9	0.0	0.0	0.1
A12	823509.2	837017.6	6.5	1.5	31	1	0.6	0.0	0.0	0.0
A13	823171.4	837105	4.6	1.5	57	26	22.7	1.6	0.6	1.4
A14	823175.5	837030.5	4.4	1.5	40	10	8.5	0.4	0.2	0.4
A15	823271.8	836947.2	4.1	1.5	32	1	1.0	0.1	0.0	0.0
A16	823496	837908.2	4.2	1.5	32	1	0.8	0.0	0.0	0.0
A16A	823470.2	837871.6	4.2	1.5	32	1	1.0	0.0	0.0	0.0
A17	823500.6	838152.4	5.7	1.5	31	1	0.7	0.0	0.0	0.0
A18	823725.6	838015.9	3.5	1.5	31	0	0.3	0.0	0.0	0.0
A19	823749.5	837459.6	3.3	1.5	31	1	0.6	0.0	0.0	0.0
A20	823745.4	837355.3	4.2	1.5	31	1	0.7	0.0	0.0	0.0
A21	823713.9	837274	4.2	1.5	32	1	0.8	0.0	0.0	0.0
A22	823645.1	837066.1	3.5	1.5	31	1	0.6	0.0	0.0	0.0
A23	823920.6	837886.7	3.6	1.5	31	0	0.2	0.0	0.0	0.0
A24	823927.7	837923.6	3.5	1.5	31	0	0.2	0.0	0.0	0.0
A25	823756	838085.2	4.9	1.5	31	0	0.2	0.0	0.0	0.0
A26	823040.6	838098.6	4.4	1.5	31	0	0.2	0.1	0.0	0.0
A27	823465.6	837089.9	4.5	1.5	32	1	1.2	0.0	0.0	0.1
A28	823286.6	837864.2	4.3	1.5	33	2	1.6	0.1	0.0	0.1
A29	823279.2	837826.6	4.3	1.5	31	1	0.9	0.0	0.0	0.0
A30	823293.2	837534.5	4.5	1.5	51	21	7.6	0.5	0.2	0.5
A31	823393.5	837959.7	3.9	1.5	32	2	1.4	0.0	0.0	0.1
V01	823571.7	837355.7	3	1.5	31	0	0.2	0.0	0.0	0.0
V02	823780.1	837738.5	2.4	1.5	31	0	0.4	0.0	0.0	0.0
V03	823524.7	837232	3	1.5	33	2	1.8	0.0	0.1	0.1
V04	823384.5	837124.2	4.8	1.5	33	3	2.4	0.1	0.1	0.1
A01	823101.1	837242.4	4.4	4.5	51	21	18.5	0.8	0.5	0.8
A01A	823124.3	837181.3	4.4	4.5	53	22	20.0	0.9	0.5	0.8
A02	823092.8	837314	4.4	4.5	44	13	11.4	0.6	0.3	0.7
A02A	823119.9	837359.1	4.4	4.5	41	10	8.7	0.6	0.2	0.6
A03	823260.8	837373.7	4.4	4.5	49	19	17.3	0.4	0.4	0.5
A04	823276.8	837456.1	4.3	4.5	41	11	9.7	0.3	0.2	0.4
A05	823287.1	837673.9	4.2	4.5	34	3	3.0	0.2	0.1	0.2
A05A	823269.6	837644.5	4.2	4.5	34	4	3.1	0.2	0.1	0.2
A05B	823308.7	837726.2	4.2	4.5	34	3	2.8	0.2	0.1	0.2
A06	823405	837870	4.2	4.5	32	2	1.5	0.1	0.0	0.1
A06A	823365.9	837883.6	4.2	4.5	33	2	1.7	0.1	0.0	0.1
A07	823788.6	837882.5	3.1	4.5	31	0	0.3	0.0	0.0	0.0
A08	823679.1	837571.7	2.3	4.5	31	1	0.6	0.0	0.0	0.0
A09	823717.3	837567	3.5	4.5	31	1	0.5	0.0	0.0	0.0
A10	823227.6	837343.9	4.4	4.5	51	20	18.6	0.6	0.5	0.6
A10A	823188.8	837327.3	4.4	4.5	49	18	16.7	0.7	0.4	0.7
A11	823382.1	837043.2	4.5	4.5	32	1	0.8	0.0	0.0	0.0
A12	823509.2	837017.6	6.5	4.5	31	1	0.6	0.0	0.0	0.0
A13	823171.4	837105	4.6	4.5	48	17	15.8	0.5	0.4	0.5
A14	823175.5	837030.5	4.4	4.5	39	8	7.4	0.3	0.2	0.3
A15	823271.8	836947.2	4.1	4.5	32	1	1.0	0.0	0.0	0.0
A16	823496	837908.2	4.2	4.5	32	1	0.8	0.0	0.0	0.0
A16A	823470.2	837871.6	4.2	4.5	32	1	1.0	0.0	0.0	0.0
A17	823500.6	838152.4	5.7	4.5	31	1	0.7	0.0	0.0	0.0
A18	823725.6	838015.9	3.5	4.5	31	0	0.3	0.0	0.0	0.0
A19	823749.5	8374								

ASR	X	Y	Z	Height above ground	Annual Average PM2.5 (With Bkg. Level) *		PM2.5 Concentration, $\mu\text{g}/\text{m}^3$			
					Annual Average PM2.5 (W/o Bkg.)		(A) Cut and Cover and Haul Road (day-time)		(B) Wind erosion (Night-time)	
					With Bkg. Level	=A+B+C1+C2				(C1) Wind erosion (Day-time) (Holidays Only)
A32	823353	837069.1	4.5	4.5	32	1	1.3	0.0	0.0	0.1
A33	823439.3	837932.1	3.9	4.5	32	1	1.1	0.1	0.0	0.1
A34	823424.5	838140.2	5.2	4.5	32	1	0.9	0.0	0.0	0.1
A35	823581.4	838166.3	5	4.5	31	0	0.4	0.0	0.0	0.0
A36	823703.1	837968.5	3.5	4.5	31	0	0.3	0.0	0.0	0.0
A1P	823478.5	837806.7	2	4.5	32	1	0.9	0.0	0.0	0.0
A2P	823371	837176.7	5	4.5	35	4	3.6	0.0	0.1	0.1
A3P	823392.8	837419.1	7	4.5	35	4	4.1	0.1	0.1	0.1
A4P	823424.3	837553.1	3	4.5	33	2	2.0	0.1	0.1	0.1
A5P	823687.9	837719	3	4.5	31	0	0.5	0.0	0.0	0.0
V01	823571.7	837355.7	3	4.5	32	1	1.4	0.0	0.0	0.0
V02	823780.1	837738.5	2.4	4.5	31	0	0.4	0.0	0.0	0.0
V03	823524.7	837232	3	4.5	33	2	1.7	0.0	0.1	0.0
V04	823384.5	837124.2	4.8	4.5	33	2	2.2	0.0	0.1	0.1
A01	823101.1	837242.4	4.4	7.5	42	11	10.4	0.3	0.3	0.3
A01A	823124.3	837181.3	4.4	7.5	44	13	12.3	0.3	0.3	0.3
A02	823092.8	837314	4.4	7.5	38	7	6.5	0.2	0.2	0.2
A02A	823119.9	837359.1	4.4	7.5	37	6	5.3	0.2	0.1	0.2
A03	823260.8	837373.7	4.4	7.5	40	9	8.9	0.2	0.2	0.2
A04	823276.8	837456.1	4.3	7.5	37	7	6.3	0.2	0.2	0.2
A05	823287.1	837673.9	4.2	7.5	34	3	2.9	0.1	0.1	0.2
A05A	823269.6	837644.5	4.2	7.5	34	3	2.9	0.2	0.1	0.2
A05B	823308.7	837726.2	4.2	7.5	34	3	2.6	0.1	0.1	0.1
A06	823405	837870	4.2	7.5	32	2	1.4	0.1	0.0	0.1
A06A	823365.9	837883.6	4.2	7.5	33	2	1.7	0.1	0.0	0.1
A07	823788.6	837882.5	3.1	7.5	31	0	0.3	0.0	0.0	0.0
A08	823679.1	837571.7	2.3	7.5	31	1	0.6	0.0	0.0	0.0
A09	823717.3	837567	3.5	7.5	31	1	0.5	0.0	0.0	0.0
A10	823227.6	837343.9	4.4	7.5	41	11	10.1	0.2	0.2	0.2
A10A	823188.8	837327.3	4.4	7.5	40	10	9.2	0.2	0.2	0.2
A11	823382.1	837043.2	4.5	7.5	32	1	0.8	0.0	0.0	0.0
A12	823509.2	837017.6	6.5	7.5	31	1	0.5	0.0	0.0	0.0
A13	823171.4	837105	4.6	7.5	41	11	10.1	0.2	0.2	0.2
A14	823175.5	837030.5	4.4	7.5	37	6	5.9	0.1	0.2	0.2
A15	823271.8	836947.2	4.1	7.5	32	1	0.9	0.0	0.0	0.0
A16	823496	837908.2	4.2	7.5	32	1	0.8	0.0	0.0	0.0
A16A	823470.2	837871.6	4.2	7.5	32	1	0.9	0.0	0.0	0.0
A17	823500.6	838152.4	5.7	7.5	31	1	0.7	0.0	0.0	0.0
A18	823725.6	838015.9	3.5	7.5	31	0	0.3	0.0	0.0	0.0
A19	823749.5	837459.6	3.3	7.5	31	1	0.6	0.0	0.0	0.0
A20	823745.4	837355.3	4.2	7.5	31	1	0.7	0.0	0.0	0.0
A21	823713.9	837274	4.2	7.5	31	1	0.8	0.0	0.0	0.0
A22	823645.1	837066.1	3.5	7.5	31	1	0.6	0.0	0.0	0.0
A23	823920.6	837886.7	3.6	7.5	31	0	0.2	0.0	0.0	0.0
A24	823927.7	837923.6	3.5	7.5	31	0	0.2	0.0	0.0	0.0
A25	823756	838085.2	4.9	7.5	31	0	0.2	0.0	0.0	0.0
A26	823040.6	838098.6	4.4	7.5	31	0	0.2	0.1	0.0	0.0
A27	823465.6	837089.9	4.5	7.5	32	1	1.0	0.0	0.0	0.0
A28	823286.6	837864.2	4.3	7.5	32	2	1.5	0.1	0.0	0.1
A29	823279.2	837826.6	4.3	7.5	33	2	1.7	0.1	0.0	0.1
A30	823293.2	837534.5	4.5	7.5	37	6	5.4	0.2	0.1	0.2
A31	823393.5	837959.7	3.9	7.5	32	1	1.3	0.1	0.0	0.1
A32	823353	837069.1	4.5	7.5	32	1	1.1	0.0	0.0	0.0
A33	823439.3	837932.1	3.9	7.5	32	1	1.1	0.1	0.0	0.1
A34	823424.5	838140.2	5.2	7.5	32	1	0.9	0.0	0.0	0.1
A35	823581.4	838166.3	5	7.5	31	0	0.4	0.0	0.0	0.0
A36	823703.1	837968.5	3.5	7.5	31	0	0.3	0.0	0.0	0.0
A1P	823478.5	837806.7	2	7.5	32	1	0.9	0.0	0.0	0.0
A2P	823371	837176.7	5	7.5	34	3	2.8	0.0	0.1	0.0
A3P	823392.8	837419.1	7	7.5	34	3	3.2	0.0	0.1	0.1
A4P	823424.3	837553.1	3	7.5	33	2	1.8	0.0	0.1	0.1
A5P	823687.9	837719	3	7.5	31	0	0.5	0.0	0.0	0.0
V01	823571.7	837355.7	3	7.5	32	1	1.3	0.0	0.0	0.0
V02	823780.1	837738.5	2.4	7.5	31	0	0.3	0.0	0.0	0.0
V03	823524.7	837232	3	7.5	32	2	1.5	0.0	0.0	0.0
V04	823384.5	837124.2	4.8	7.5	33	2	1.8	0.0	0.1	0.0
Max. PM2.5 Level, ug/m3					75	44				
Relevant AQO Criteria, ug/m3					35	35				

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The maximum annual average PM2.5 level from the PATH output file is used for calculating the total PM2.5 level as the contribution from the Project has already exceeded the relevant air quality criteria (a conservative approach).

** The PM2.5 concentrations are calculated based on the predicted RSP concentrations by applying a PM2.5/RSP ratio of 0.3 according to the USEPA AP-42 reference document. Please refer to Appendix 3-10 for the justification of PM2.5/RSP ratio.