

Appendix V6-5J

Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area



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Vegetation Sample Sites	8	11	13	14	16	18	21	22	23	29	CFW1	CFW2
Dust Deposition (g/m²/year)	7.47	2.01	2.07	2.05	8.03	2.48	2.54	2.39	3.32	1.71	9.77	1.35
Metal Dustfall Deposition												
Aluminum	2.16E-01	5.82E-02	6.00E-02	5.95E-02	2.33E-01	7.19E-02	7.38E-02	6.92E-02	9.62E-02	4.96E-02	2.83E-01	3.91E-02
Antimony	7.47E-07	2.01E-07	2.07E-07	2.05E-07	8.03E-07	2.48E-07	2.54E-07	2.39E-07	3.32E-07	1.71E-07	9.77E-07	1.35E-07
Arsenic	3.73E-06	1.00E-06	1.04E-06	1.03E-06	4.01E-06	1.24E-06	1.27E-06	1.19E-06	1.66E-06	8.56E-07	4.89E-06	6.75E-07
Barium	2.24E-05	6.03E-06	6.21E-06	6.16E-06	2.41E-05	7.44E-06	7.63E-06	7.16E-06	9.95E-06	5.14E-06	2.93E-05	4.05E-06
Beryllium	2.46E-06	6.63E-07	6.83E-07	6.78E-07	2.65E-06	8.18E-07	8.40E-07	7.87E-07	1.09E-06	5.65E-07	3.23E-06	4.45E-07
Bismuth	7.47E-07	2.01E-07	2.07E-07	2.05E-07	8.03E-07	2.48E-07	2.54E-07	2.39E-07	3.32E-07	1.71E-07	9.77E-07	1.35E-07
Cadmium	7.47E-07	2.01E-07	2.07E-07	2.05E-07	8.03E-07	2.48E-07	2.54E-07	2.39E-07	3.32E-07	1.71E-07	9.77E-07	1.35E-07
Calcium	2.39E-01	6.43E-02	6.62E-02	6.57E-02	2.57E-01	7.94E-02	8.14E-02	7.64E-02	1.06E-01	5.48E-02	3.13E-01	4.32E-02
Chromium	1.12E-03	3.01E-04	3.11E-04	3.08E-04	1.20E-03	3.72E-04	3.82E-04	3.58E-04	4.97E-04	2.57E-04	1.47E-03	2.02E-04
Cobalt	2.61E-04	7.03E-05	7.25E-05	7.19E-05	2.81E-04	8.68E-05	8.91E-05	8.35E-05	1.16E-04	5.99E-05	3.42E-04	4.72E-05
Copper	8.21E-04	2.21E-04	2.28E-04	2.26E-04	8.83E-04	2.73E-04	2.80E-04	2.62E-04	3.65E-04	1.88E-04	1.08E-03	1.48E-04
Iron	3.66E-01	9.84E-02	1.01E-01	1.01E-01	3.93E-01	1.22E-01	1.25E-01	1.17E-01	1.63E-01	8.39E-02	4.79E-01	6.61E-02
Lead	4.48E-06	1.21E-06	1.24E-06	1.23E-06	4.82E-06	1.49E-06	1.53E-06	1.43E-06	1.99E-06	1.03E-06	5.86E-06	8.10E-07
Magnesium	1.72E-01	4.62E-02	4.76E-02	4.72E-02	1.85E-01	5.70E-02	5.85E-02	5.49E-02	7.63E-02	3.94E-02	2.25E-01	3.10E-02
Manganese	6.94E-03	1.87E-03	1.93E-03	1.91E-03	7.46E-03	2.31E-03	2.37E-03	2.22E-03	3.08E-03	1.59E-03	9.09E-03	1.26E-03
Mercury	7.47E-08	2.01E-08	2.07E-08	2.05E-08	8.03E-08	2.48E-08	2.54E-08	2.39E-08	3.32E-08	1.71E-08	9.77E-08	1.35E-08
Molybdenum	3.73E-06	1.00E-06	1.04E-06	1.03E-06	4.01E-06	1.24E-06	1.27E-06	1.19E-06	1.66E-06	8.56E-07	4.89E-06	6.75E-07
Nickel	5.37E-04	1.45E-04	1.49E-04	1.48E-04	5.78E-04	1.79E-04	1.83E-04	1.72E-04	2.39E-04	1.23E-04	7.04E-04	9.72E-05
Phosphorus	1.64E-03	4.42E-04	4.55E-04	4.52E-04	1.77E-03	5.46E-04	5.60E-04	5.25E-04	7.30E-04	3.77E-04	2.15E-03	2.97E-04
Potassium	7.47E-04	2.01E-04	2.07E-04	2.05E-04	8.03E-04	2.48E-04	2.54E-04	2.39E-04	3.32E-04	1.71E-04	9.77E-04	1.35E-04
Selenium	3.73E-06	1.00E-06	1.04E-06	1.03E-06	4.01E-06	1.24E-06	1.27E-06	1.19E-06	1.66E-06	8.56E-07	4.89E-06	6.75E-07
Silver	7.47E-07	2.01E-07	2.07E-07	2.05E-07	8.03E-07	2.48E-07	2.54E-07	2.39E-07	3.32E-07	1.71E-07	9.77E-07	1.35E-07
Sodium	1.87E-03	5.02E-04	5.18E-04	5.13E-04	2.01E-03	6.20E-04	6.36E-04	5.97E-04	8.29E-04	4.28E-04	2.44E-03	3.37E-04
Strontium	1.05E-04	2.81E-05	2.90E-05	2.87E-05	1.12E-04	3.47E-05	3.56E-05	3.34E-05	4.64E-05	2.40E-05	1.37E-04	1.89E-05
Thallium	7.47E-07	2.01E-07	2.07E-07	2.05E-07	8.03E-07	2.48E-07	2.54E-07	2.39E-07	3.32E-07	1.71E-07	9.77E-07	1.35E-07
Tin	1.49E-05	4.02E-06	4.14E-06	4.11E-06	1.61E-05	4.96E-06	5.09E-06	4.77E-06	6.63E-06	3.42E-06	1.95E-05	2.70E-06
Titanium	1.64E-02	4.42E-03	4.55E-03	4.52E-03	1.77E-02	5.46E-03	5.60E-03	5.25E-03	7.30E-03	3.77E-03	2.15E-02	2.97E-03
Uranium	7.47E-07	2.01E-07	2.07E-07	2.05E-07	8.03E-07	2.48E-07	2.54E-07	2.39E-07	3.32E-07	1.71E-07	9.77E-07	1.35E-07
Vanadium	7.47E-04	2.01E-04	2.07E-04	2.05E-04	8.03E-04	2.48E-04	2.54E-04	2.39E-04	3.32E-04	1.71E-04	9.77E-04	1.35E-04
Zinc	4.40E-04	1.19E-04	1.22E-04	1.21E-04	4.74E-04	1.46E-04	1.50E-04	1.41E-04	1.96E-04	1.01E-04	5.77E-04	7.96E-05

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites	CFW3	CFW4	CFW5	CFW6	D06	D10	D12	D16	D20	D21	D22	D26
Dust Deposition (g/m²/year)	7.48	2.14	2.21	2.06	8.46	3.96	4.52	2.11	3.01	1.54	4.77	1.09
Metal Dustfall Deposition												
Aluminum	2.17E-01	6.22E-02	6.40E-02	5.97E-02	2.45E-01	1.15E-01	1.31E-01	6.11E-02	8.72E-02	4.47E-02	1.38E-01	3.17E-02
Antimony	7.48E-07	2.14E-07	2.21E-07	2.06E-07	8.46E-07	3.96E-07	4.52E-07	2.11E-07	3.01E-07	1.54E-07	4.77E-07	1.09E-07
Arsenic	3.74E-06	1.07E-06	1.10E-06	1.03E-06	4.23E-06	1.98E-06	2.26E-06	1.05E-06	1.50E-06	7.70E-07	2.38E-06	5.47E-07
Barium	2.24E-05	6.43E-06	6.62E-06	6.18E-06	2.54E-05	1.19E-05	1.36E-05	6.32E-06	9.02E-06	4.62E-06	1.43E-05	3.28E-06
Beryllium	2.47E-06	7.08E-07	7.28E-07	6.80E-07	2.79E-06	1.31E-06	1.49E-06	6.96E-07	9.92E-07	5.08E-07	1.57E-06	3.61E-07
Bismuth	7.48E-07	2.14E-07	2.21E-07	2.06E-07	8.46E-07	3.96E-07	4.52E-07	2.11E-07	3.01E-07	1.54E-07	4.77E-07	1.09E-07
Cadmium	7.48E-07	2.14E-07	2.21E-07	2.06E-07	8.46E-07	3.96E-07	4.52E-07	2.11E-07	3.01E-07	1.54E-07	4.77E-07	1.09E-07
Calcium	2.39E-01	6.86E-02	7.06E-02	6.59E-02	2.71E-01	1.27E-01	1.45E-01	6.75E-02	9.62E-02	4.93E-02	1.53E-01	3.50E-02
Chromium	1.12E-03	3.22E-04	3.31E-04	3.09E-04	1.27E-03	5.94E-04	6.78E-04	3.16E-04	4.51E-04	2.31E-04	7.15E-04	1.64E-04
Cobalt	2.62E-04	7.51E-05	7.72E-05	7.21E-05	2.96E-04	1.39E-04	1.58E-04	7.38E-05	1.05E-04	5.39E-05	1.67E-04	3.83E-05
Copper	8.23E-04	2.36E-04	2.43E-04	2.27E-04	9.31E-04	4.36E-04	4.97E-04	2.32E-04	3.31E-04	1.69E-04	5.24E-04	1.20E-04
Iron	3.66E-01	1.05E-01	1.08E-01	1.01E-01	4.15E-01	1.94E-01	2.21E-01	1.03E-01	1.47E-01	7.55E-02	2.34E-01	5.36E-02
Lead	4.49E-06	1.29E-06	1.32E-06	1.24E-06	5.08E-06	2.38E-06	2.71E-06	1.26E-06	1.80E-06	9.24E-07	2.86E-06	6.57E-07
Magnesium	1.72E-01	4.93E-02	5.07E-02	4.74E-02	1.95E-01	9.11E-02	1.04E-01	4.85E-02	6.91E-02	3.54E-02	1.10E-01	2.52E-02
Manganese	6.96E-03	1.99E-03	2.05E-03	1.92E-03	7.87E-03	3.69E-03	4.20E-03	1.96E-03	2.80E-03	1.43E-03	4.43E-03	1.02E-03
Mercury	7.48E-08	2.14E-08	2.21E-08	2.06E-08	8.46E-08	3.96E-08	4.52E-08	2.11E-08	3.01E-08	1.54E-08	4.77E-08	1.09E-08
Molybdenum	3.74E-06	1.07E-06	1.10E-06	1.03E-06	4.23E-06	1.98E-06	2.26E-06	1.05E-06	1.50E-06	7.70E-07	2.38E-06	5.47E-07
Nickel	5.38E-04	1.54E-04	1.59E-04	1.48E-04	6.09E-04	2.85E-04	3.25E-04	1.52E-04	2.16E-04	1.11E-04	3.43E-04	7.88E-05
Phosphorus	1.65E-03	4.72E-04	4.85E-04	4.53E-04	1.86E-03	8.72E-04	9.94E-04	4.64E-04	6.61E-04	3.39E-04	1.05E-03	2.41E-04
Potassium	7.48E-04	2.14E-04	2.21E-04	2.06E-04	8.46E-04	3.96E-04	4.52E-04	2.11E-04	3.01E-04	1.54E-04	4.77E-04	1.09E-04
Selenium	3.74E-06	1.07E-06	1.10E-06	1.03E-06	4.23E-06	1.98E-06	2.26E-06	1.05E-06	1.50E-06	7.70E-07	2.38E-06	5.47E-07
Silver	7.48E-07	2.14E-07	2.21E-07	2.06E-07	8.46E-07	3.96E-07	4.52E-07	2.11E-07	3.01E-07	1.54E-07	4.77E-07	1.09E-07
Sodium	1.87E-03	5.36E-04	5.52E-04	5.15E-04	2.12E-03	9.91E-04	1.13E-03	5.27E-04	7.52E-04	3.85E-04	1.19E-03	2.74E-04
Strontium	1.05E-04	3.00E-05	3.09E-05	2.88E-05	1.18E-04	5.55E-05	6.33E-05	2.95E-05	4.21E-05	2.16E-05	6.67E-05	1.53E-05
Thallium	7.48E-07	2.14E-07	2.21E-07	2.06E-07	8.46E-07	3.96E-07	4.52E-07	2.11E-07	3.01E-07	1.54E-07	4.77E-07	1.09E-07
Tin	1.50E-05	4.29E-06	4.41E-06	4.12E-06	1.69E-05	7.93E-06	9.04E-06	4.22E-06	6.01E-06	3.08E-06	9.53E-06	2.19E-06
Titanium	1.65E-02	4.72E-03	4.85E-03	4.53E-03	1.86E-02	8.72E-03	9.94E-03	4.64E-03	6.61E-03	3.39E-03	1.05E-02	2.41E-03
Uranium	7.48E-07	2.14E-07	2.21E-07	2.06E-07	8.46E-07	3.96E-07	4.52E-07	2.11E-07	3.01E-07	1.54E-07	4.77E-07	1.09E-07
Vanadium	7.48E-04	2.14E-04	2.21E-04	2.06E-04	8.46E-04	3.96E-04	4.52E-04	2.11E-04	3.01E-04	1.54E-04	4.77E-04	1.09E-04
Zinc	4.41E-04	1.27E-04	1.30E-04	1.22E-04	4.99E-04	2.34E-04	2.67E-04	1.24E-04	1.77E-04	9.09E-05	2.81E-04	6.46E-05

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Vegetation Sample Sites	D29	D32	D38	D39	D40	D42	D43	D50	D51	D52	D54	D55
Dust Deposition (g/m²/year)	1.08	0.969	0.797	0.798	0.848	3.73	6.23	0.779	7.21	57.1	1.02	1.22
Metal Dustfall Deposition												
Aluminum	3.13E-02	2.81E-02	2.31E-02	2.31E-02	2.46E-02	1.08E-01	1.81E-01	2.26E-02	2.09E-01	1.66E+00	2.94E-02	3.52E-02
Antimony	1.08E-07	9.69E-08	7.97E-08	7.98E-08	8.48E-08	3.73E-07	6.23E-07	7.79E-08	7.21E-07	5.71E-06	1.02E-07	1.22E-07
Arsenic	5.40E-07	4.85E-07	3.98E-07	3.99E-07	4.24E-07	1.87E-06	3.11E-06	3.90E-07	3.60E-06	2.86E-05	5.08E-07	6.08E-07
Barium	3.24E-06	2.91E-06	2.39E-06	2.39E-06	2.54E-06	1.12E-05	1.87E-05	2.34E-06	2.16E-05	1.71E-04	3.05E-06	3.65E-06
Beryllium	3.56E-07	3.20E-07	2.63E-07	2.63E-07	2.80E-07	1.23E-06	2.05E-06	2.57E-07	2.38E-06	1.88E-05	3.35E-07	4.01E-07
Bismuth	1.08E-07	9.69E-08	7.97E-08	7.98E-08	8.48E-08	3.73E-07	6.23E-07	7.79E-08	7.21E-07	5.71E-06	1.02E-07	1.22E-07
Cadmium	1.08E-07	9.69E-08	7.97E-08	7.98E-08	8.48E-08	3.73E-07	6.23E-07	7.79E-08	7.21E-07	5.71E-06	1.02E-07	1.22E-07
Calcium	3.46E-02	3.10E-02	2.55E-02	2.55E-02	2.71E-02	1.19E-01	1.99E-01	2.49E-02	2.31E-01	1.83E+00	3.25E-02	3.89E-02
Chromium	1.62E-04	1.45E-04	1.20E-04	1.20E-04	1.27E-04	5.60E-04	9.34E-04	1.17E-04	1.08E-03	8.57E-03	1.52E-04	1.82E-04
Cobalt	3.78E-05	3.39E-05	2.79E-05	2.79E-05	2.97E-05	1.31E-04	2.18E-04	2.73E-05	2.52E-04	2.00E-03	3.55E-05	4.25E-05
Copper	1.19E-04	1.07E-04	8.77E-05	8.78E-05	9.33E-05	4.11E-04	6.85E-04	8.57E-05	7.93E-04	6.28E-03	1.12E-04	1.34E-04
Iron	5.29E-02	4.75E-02	3.90E-02	3.91E-02	4.16E-02	1.83E-01	3.05E-01	3.82E-02	3.53E-01	2.80E+00	4.98E-02	5.95E-02
Lead	6.48E-07	5.82E-07	4.78E-07	4.79E-07	5.09E-07	2.24E-06	3.74E-06	4.68E-07	4.32E-06	3.43E-05	6.09E-07	7.29E-07
Magnesium	2.48E-02	2.23E-02	1.83E-02	1.84E-02	1.95E-02	8.59E-02	1.43E-01	1.79E-02	1.66E-01	1.31E+00	2.34E-02	2.79E-02
Manganese	1.00E-03	9.01E-04	7.41E-04	7.42E-04	7.89E-04	3.47E-03	5.79E-03	7.25E-04	6.70E-03	5.31E-02	9.44E-04	1.13E-03
Mercury	1.08E-08	9.69E-09	7.97E-09	7.98E-09	8.48E-09	3.73E-08	6.23E-08	7.79E-09	7.21E-08	5.71E-07	1.02E-08	1.22E-08
Molybdenum	5.40E-07	4.85E-07	3.98E-07	3.99E-07	4.24E-07	1.87E-06	3.11E-06	3.90E-07	3.60E-06	2.86E-05	5.08E-07	6.08E-07
Nickel	7.78E-05	6.98E-05	5.74E-05	5.75E-05	6.11E-05	2.69E-04	4.48E-04	5.61E-05	5.19E-04	4.11E-03	7.31E-05	8.75E-05
Phosphorus	2.38E-04	2.13E-04	1.75E-04	1.76E-04	1.87E-04	8.21E-04	1.37E-03	1.71E-04	1.59E-03	1.26E-02	2.23E-04	2.67E-04
Potassium	1.08E-04	9.69E-05	7.97E-05	7.98E-05	8.48E-05	3.73E-04	6.23E-04	7.79E-05	7.21E-04	5.71E-03	1.02E-04	1.22E-04
Selenium	5.40E-07	4.85E-07	3.98E-07	3.99E-07	4.24E-07	1.87E-06	3.11E-06	3.90E-07	3.60E-06	2.86E-05	5.08E-07	6.08E-07
Silver	1.08E-07	9.69E-08	7.97E-08	7.98E-08	8.48E-08	3.73E-07	6.23E-07	7.79E-08	7.21E-07	5.71E-06	1.02E-07	1.22E-07
Sodium	2.70E-04	2.42E-04	1.99E-04	2.00E-04	2.12E-04	9.33E-04	1.56E-03	1.95E-04	1.80E-03	1.43E-02	2.54E-04	3.04E-04
Strontium	1.51E-05	1.36E-05	1.12E-05	1.12E-05	1.19E-05	5.23E-05	8.72E-05	1.09E-05	1.01E-04	7.99E-04	1.42E-05	1.70E-05
Thallium	1.08E-07	9.69E-08	7.97E-08	7.98E-08	8.48E-08	3.73E-07	6.23E-07	7.79E-08	7.21E-07	5.71E-06	1.02E-07	1.22E-07
Tin	2.16E-06	1.94E-06	1.59E-06	1.60E-06	1.70E-06	7.47E-06	1.25E-05	1.56E-06	1.44E-05	1.14E-04	2.03E-06	2.43E-06
Titanium	2.38E-03	2.13E-03	1.75E-03	1.76E-03	1.87E-03	8.21E-03	1.37E-02	1.71E-03	1.59E-02	1.26E-01	2.23E-03	2.67E-03
Uranium	1.08E-07	9.69E-08	7.97E-08	7.98E-08	8.48E-08	3.73E-07	6.23E-07	7.79E-08	7.21E-07	5.71E-06	1.02E-07	1.22E-07
Vanadium	1.08E-04	9.69E-05	7.97E-05	7.98E-05	8.48E-05	3.73E-04	6.23E-04	7.79E-05	7.21E-04	5.71E-03	1.02E-04	1.22E-04
Zinc	6.37E-05	5.72E-05	4.70E-05	4.71E-05	5.01E-05	2.20E-04	3.67E-04	4.60E-05	4.25E-04	3.37E-03	5.99E-05	7.17E-05

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites	D57	D59	D61	D62	D63	D65	D70	D71	D72	D75	D76	D82
Dust Deposition (g/m²/year)	9.77	1.35	0.806	0.952	0.952	1.00	1.00	12.4	12.4	10.1	3.87	3.87
Metal Dustfall Deposition												
Aluminum	2.83E-01	3.91E-02	2.34E-02	2.76E-02	2.76E-02	2.91E-02	2.91E-02	3.59E-01	3.59E-01	2.92E-01	1.12E-01	1.12E-01
Antimony	9.77E-07	1.35E-07	8.06E-08	9.52E-08	9.52E-08	1.00E-07	1.00E-07	1.24E-06	1.24E-06	1.01E-06	3.87E-07	3.87E-07
Arsenic	4.89E-06	6.75E-07	4.03E-07	4.76E-07	4.76E-07	5.02E-07	5.02E-07	6.18E-06	6.18E-06	5.03E-06	1.93E-06	1.93E-06
Barium	2.93E-05	4.05E-06	2.42E-06	2.86E-06	2.86E-06	3.01E-06	3.01E-06	3.71E-05	3.71E-05	3.02E-05	1.16E-05	1.16E-05
Beryllium	3.23E-06	4.45E-07	2.66E-07	3.14E-07	3.14E-07	3.31E-07	3.31E-07	4.08E-06	4.08E-06	3.32E-06	1.28E-06	1.28E-06
Bismuth	9.77E-07	1.35E-07	8.06E-08	9.52E-08	9.52E-08	1.00E-07	1.00E-07	1.24E-06	1.24E-06	1.01E-06	3.87E-07	3.87E-07
Cadmium	9.77E-07	1.35E-07	8.06E-08	9.52E-08	9.52E-08	1.00E-07	1.00E-07	1.24E-06	1.24E-06	1.01E-06	3.87E-07	3.87E-07
Calcium	3.13E-01	4.32E-02	2.58E-02	3.05E-02	3.05E-02	3.21E-02	3.21E-02	3.96E-01	3.96E-01	3.22E-01	1.24E-01	1.24E-01
Chromium	1.47E-03	2.02E-04	1.21E-04	1.43E-04	1.43E-04	1.51E-04	1.51E-04	1.85E-03	1.85E-03	1.51E-03	5.80E-04	5.80E-04
Cobalt	3.42E-04	4.72E-05	2.82E-05	3.33E-05	3.33E-05	3.52E-05	3.52E-05	4.33E-04	4.33E-04	3.52E-04	1.35E-04	1.35E-04
Copper	1.08E-03	1.48E-04	8.86E-05	1.05E-04	1.05E-04	1.10E-04	1.10E-04	1.36E-03	1.36E-03	1.11E-03	4.25E-04	4.25E-04
Iron	4.79E-01	6.61E-02	3.95E-02	4.67E-02	4.67E-02	4.92E-02	4.92E-02	6.06E-01	6.06E-01	4.93E-01	1.89E-01	1.89E-01
Lead	5.86E-06	8.10E-07	4.83E-07	5.71E-07	5.71E-07	6.03E-07	6.03E-07	7.42E-06	7.42E-06	6.03E-06	2.32E-06	2.32E-06
Magnesium	2.25E-01	3.10E-02	1.85E-02	2.19E-02	2.19E-02	2.31E-02	2.31E-02	2.84E-01	2.84E-01	2.31E-01	8.89E-02	8.89E-02
Manganese	9.09E-03	1.26E-03	7.49E-04	8.86E-04	8.86E-04	9.34E-04	9.34E-04	1.15E-02	1.15E-02	9.35E-03	3.60E-03	3.60E-03
Mercury	9.77E-08	1.35E-08	8.06E-09	9.52E-09	9.52E-09	1.00E-08	1.00E-08	1.24E-07	1.24E-07	1.01E-07	3.87E-08	3.87E-08
Molybdenum	4.89E-06	6.75E-07	4.03E-07	4.76E-07	4.76E-07	5.02E-07	5.02E-07	6.18E-06	6.18E-06	5.03E-06	1.93E-06	1.93E-06
Nickel	7.04E-04	9.72E-05	5.80E-05	6.86E-05	6.86E-05	7.23E-05	7.23E-05	8.90E-04	8.90E-04	7.24E-04	2.78E-04	2.78E-04
Phosphorus	2.15E-03	2.97E-04	1.77E-04	2.09E-04	2.09E-04	2.21E-04	2.21E-04	2.72E-03	2.72E-03	2.21E-03	8.51E-04	8.51E-04
Potassium	9.77E-04	1.35E-04	8.06E-05	9.52E-05	9.52E-05	1.00E-04	1.00E-04	1.24E-03	1.24E-03	1.01E-03	3.87E-04	3.87E-04
Selenium	4.89E-06	6.75E-07	4.03E-07	4.76E-07	4.76E-07	5.02E-07	5.02E-07	6.18E-06	6.18E-06	5.03E-06	1.93E-06	1.93E-06
Silver	9.77E-07	1.35E-07	8.06E-08	9.52E-08	9.52E-08	1.00E-07	1.00E-07	1.24E-06	1.24E-06	1.01E-06	3.87E-07	3.87E-07
Sodium	2.44E-03	3.37E-04	2.01E-04	2.38E-04	2.38E-04	2.51E-04	2.51E-04	3.09E-03	3.09E-03	2.51E-03	9.67E-04	9.67E-04
Strontium	1.37E-04	1.89E-05	1.13E-05	1.33E-05	1.33E-05	1.41E-05	1.41E-05	1.73E-04	1.73E-04	1.41E-04	5.41E-05	5.41E-05
Thallium	9.77E-07	1.35E-07	8.06E-08	9.52E-08	9.52E-08	1.00E-07	1.00E-07	1.24E-06	1.24E-06	1.01E-06	3.87E-07	3.87E-07
Tin	1.95E-05	2.70E-06	1.61E-06	1.90E-06	1.90E-06	2.01E-06	2.01E-06	2.47E-05	2.47E-05	2.01E-05	7.73E-06	7.73E-06
Titanium	2.15E-02	2.97E-03	1.77E-03	2.09E-03	2.09E-03	2.21E-03	2.21E-03	2.72E-02	2.72E-02	2.21E-02	8.51E-03	8.51E-03
Uranium	9.77E-07	1.35E-07	8.06E-08	9.52E-08	9.52E-08	1.00E-07	1.00E-07	1.24E-06	1.24E-06	1.01E-06	3.87E-07	3.87E-07
Vanadium	9.77E-04	1.35E-04	8.06E-05	9.52E-05	9.52E-05	1.00E-04	1.00E-04	1.24E-03	1.24E-03	1.01E-03	3.87E-04	3.87E-04
Zinc	5.77E-04	7.96E-05	4.75E-05	5.62E-05	5.62E-05	5.93E-05	5.93E-05	7.29E-04	7.29E-04	5.93E-04	2.28E-04	2.28E-04

Notes:

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Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites	D88	D96	D99	D108	D109	D119	D122	D132	LSA-01	LSA-02	LSA-03	LSA-04
Dust Deposition (g/m²/year)	10.9	10.9	3.74	1.61	1.06	1.61	1.91	0.894	6.50	1.40	1.49	3.95
Metal Dustfall Deposition												
Aluminum	3.16E-01	3.16E-01	1.09E-01	4.66E-02	3.08E-02	4.66E-02	5.55E-02	2.59E-02	1.89E-01	4.05E-02	4.33E-02	1.14E-01
Antimony	1.09E-06	1.09E-06	3.74E-07	1.61E-07	1.06E-07	1.61E-07	1.91E-07	8.94E-08	6.50E-07	1.40E-07	1.49E-07	3.95E-07
Arsenic	5.44E-06	5.44E-06	1.87E-06	8.04E-07	5.31E-07	8.04E-07	9.57E-07	4.47E-07	3.25E-06	6.98E-07	7.46E-07	1.97E-06
Barium	3.27E-05	3.27E-05	1.12E-05	4.82E-06	3.19E-06	4.82E-06	5.74E-06	2.68E-06	1.95E-05	4.19E-06	4.48E-06	1.18E-05
Beryllium	3.59E-06	3.59E-06	1.24E-06	5.30E-07	3.51E-07	5.30E-07	6.32E-07	2.95E-07	2.15E-06	4.60E-07	4.92E-07	1.30E-06
Bismuth	1.09E-06	1.09E-06	3.74E-07	1.61E-07	1.06E-07	1.61E-07	1.91E-07	8.94E-08	6.50E-07	1.40E-07	1.49E-07	3.95E-07
Cadmium	1.09E-06	1.09E-06	3.74E-07	1.61E-07	1.06E-07	1.61E-07	1.91E-07	8.94E-08	6.50E-07	1.40E-07	1.49E-07	3.95E-07
Calcium	3.48E-01	3.48E-01	1.20E-01	5.14E-02	3.40E-02	5.14E-02	6.13E-02	2.86E-02	2.08E-01	4.46E-02	4.77E-02	1.26E-01
Chromium	1.63E-03	1.63E-03	5.61E-04	2.41E-04	1.59E-04	2.41E-04	2.87E-04	1.34E-04	9.75E-04	2.09E-04	2.24E-04	5.92E-04
Cobalt	3.81E-04	3.81E-04	1.31E-04	5.62E-05	3.72E-05	5.62E-05	6.70E-05	3.13E-05	2.28E-04	4.88E-05	5.22E-05	1.38E-04
Copper	1.20E-03	1.20E-03	4.12E-04	1.77E-04	1.17E-04	1.77E-04	2.11E-04	9.83E-05	7.15E-04	1.53E-04	1.64E-04	4.34E-04
Iron	5.34E-01	5.34E-01	1.83E-01	7.87E-02	5.21E-02	7.87E-02	9.38E-02	4.38E-02	3.19E-01	6.84E-02	7.31E-02	1.93E-01
Lead	6.53E-06	6.53E-06	2.25E-06	9.64E-07	6.38E-07	9.64E-07	1.15E-06	5.36E-07	3.90E-06	8.37E-07	8.95E-07	2.37E-06
Magnesium	2.50E-01	2.50E-01	8.61E-02	3.70E-02	2.44E-02	3.70E-02	4.40E-02	2.06E-02	1.50E-01	3.21E-02	3.43E-02	9.08E-02
Manganese	1.01E-02	1.01E-02	3.48E-03	1.49E-03	9.88E-04	1.49E-03	1.78E-03	8.31E-04	6.05E-03	1.30E-03	1.39E-03	3.67E-03
Mercury	1.09E-07	1.09E-07	3.74E-08	1.61E-08	1.06E-08	1.61E-08	1.91E-08	8.94E-09	6.50E-08	1.40E-08	1.49E-08	3.95E-08
Molybdenum	5.44E-06	5.44E-06	1.87E-06	8.04E-07	5.31E-07	8.04E-07	9.57E-07	4.47E-07	3.25E-06	6.98E-07	7.46E-07	1.97E-06
Nickel	7.84E-04	7.84E-04	2.70E-04	1.16E-04	7.65E-05	1.16E-04	1.38E-04	6.44E-05	4.68E-04	1.00E-04	1.07E-04	2.84E-04
Phosphorus	2.40E-03	2.40E-03	8.24E-04	3.54E-04	2.34E-04	3.54E-04	4.21E-04	1.97E-04	1.43E-03	3.07E-04	3.28E-04	8.68E-04
Potassium	1.09E-03	1.09E-03	3.74E-04	1.61E-04	1.06E-04	1.61E-04	1.91E-04	8.94E-05	6.50E-04	1.40E-04	1.49E-04	3.95E-04
Selenium	5.44E-06	5.44E-06	1.87E-06	8.04E-07	5.31E-07	8.04E-07	9.57E-07	4.47E-07	3.25E-06	6.98E-07	7.46E-07	1.97E-06
Silver	1.09E-06	1.09E-06	3.74E-07	1.61E-07	1.06E-07	1.61E-07	1.91E-07	8.94E-08	6.50E-07	1.40E-07	1.49E-07	3.95E-07
Sodium	2.72E-03	2.72E-03	9.36E-04	4.02E-04	2.66E-04	4.02E-04	4.79E-04	2.24E-04	1.63E-03	3.49E-04	3.73E-04	9.87E-04
Strontium	1.52E-04	1.52E-04	5.24E-05	2.25E-05	1.49E-05	2.25E-05	2.68E-05	1.25E-05	9.10E-05	1.95E-05	2.09E-05	5.52E-05
Thallium	1.09E-06	1.09E-06	3.74E-07	1.61E-07	1.06E-07	1.61E-07	1.91E-07	8.94E-08	6.50E-07	1.40E-07	1.49E-07	3.95E-07
Tin	2.18E-05	2.18E-05	7.49E-06	3.21E-06	2.13E-06	3.21E-06	3.83E-06	1.79E-06	1.30E-05	2.79E-06	2.98E-06	7.89E-06
Titanium	2.40E-02	2.40E-02	8.24E-03	3.54E-03	2.34E-03	3.54E-03	4.21E-03	1.97E-03	1.43E-02	3.07E-03	3.28E-03	8.68E-03
Uranium	1.09E-06	1.09E-06	3.74E-07	1.61E-07	1.06E-07	1.61E-07	1.91E-07	8.94E-08	6.50E-07	1.40E-07	1.49E-07	3.95E-07
Vanadium	1.09E-03	1.09E-03	3.74E-04	1.61E-04	1.06E-04	1.61E-04	1.91E-04	8.94E-05	6.50E-04	1.40E-04	1.49E-04	3.95E-04
Zinc	6.42E-04	6.42E-04	2.21E-04	9.48E-05	6.27E-05	9.48E-05	1.13E-04	5.27E-05	3.84E-04	8.23E-05	8.80E-05	2.33E-04

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites Dust Deposition (g/m²/year)	LSA-05	LSA-06	LSA-07	LSA-08	LSA-09	LSA-10	LSA-11	LSA-12	LSA-13	LSA-14	LSA-15	LSA-16
	0.795	0.848	0.786	0.784	1.91	0.820	0.808	0.894	4.68	2.22	1.13	2.89
Metal Dustfall Deposition												
Aluminum	2.30E-02	2.46E-02	2.28E-02	2.27E-02	5.55E-02	2.38E-02	2.34E-02	2.59E-02	1.36E-01	6.44E-02	3.27E-02	8.39E-02
Antimony	7.95E-08	8.48E-08	7.86E-08	7.84E-08	1.91E-07	8.20E-08	8.08E-08	8.94E-08	4.68E-07	2.22E-07	1.13E-07	2.89E-07
Arsenic	3.97E-07	4.24E-07	3.93E-07	3.92E-07	9.57E-07	4.10E-07	4.04E-07	4.47E-07	2.34E-06	1.11E-06	5.63E-07	1.45E-06
Barium	2.38E-06	2.54E-06	2.36E-06	2.35E-06	5.74E-06	2.46E-06	2.42E-06	2.68E-06	1.41E-05	6.66E-06	3.38E-06	8.68E-06
Beryllium	2.62E-07	2.80E-07	2.59E-07	2.59E-07	6.32E-07	2.71E-07	2.67E-07	2.95E-07	1.55E-06	7.33E-07	3.72E-07	9.54E-07
Bismuth	7.95E-08	8.48E-08	7.86E-08	7.84E-08	1.91E-07	8.20E-08	8.08E-08	8.94E-08	4.68E-07	2.22E-07	1.13E-07	2.89E-07
Cadmium	7.95E-08	8.48E-08	7.86E-08	7.84E-08	1.91E-07	8.20E-08	8.08E-08	8.94E-08	4.68E-07	2.22E-07	1.13E-07	2.89E-07
Calcium	2.54E-02	2.71E-02	2.51E-02	2.51E-02	6.13E-02	2.63E-02	2.59E-02	2.86E-02	1.50E-01	7.11E-02	3.60E-02	9.25E-02
Chromium	1.19E-04	1.27E-04	1.18E-04	1.18E-04	2.87E-04	1.23E-04	1.21E-04	1.34E-04	7.03E-04	3.33E-04	1.69E-04	4.34E-04
Cobalt	2.78E-05	2.97E-05	2.75E-05	2.74E-05	6.70E-05	2.87E-05	2.83E-05	3.13E-05	1.64E-04	7.77E-05	3.94E-05	1.01E-04
Copper	8.74E-05	9.33E-05	8.64E-05	8.62E-05	2.11E-04	9.02E-05	8.89E-05	9.83E-05	5.15E-04	2.44E-04	1.24E-04	3.18E-04
Iron	3.89E-02	4.16E-02	3.85E-02	3.84E-02	9.38E-02	4.02E-02	3.96E-02	4.38E-02	2.30E-01	1.09E-01	5.52E-02	1.42E-01
Lead	4.77E-07	5.09E-07	4.71E-07	4.70E-07	1.15E-06	4.92E-07	4.85E-07	5.36E-07	2.81E-06	1.33E-06	6.76E-07	1.74E-06
Magnesium	1.83E-02	1.95E-02	1.81E-02	1.80E-02	4.40E-02	1.89E-02	1.86E-02	2.06E-02	1.08E-01	5.11E-02	2.59E-02	6.65E-02
Manganese	7.39E-04	7.89E-04	7.31E-04	7.29E-04	1.78E-03	7.63E-04	7.52E-04	8.31E-04	4.36E-03	2.07E-03	1.05E-03	2.69E-03
Mercury	7.95E-09	8.48E-09	7.86E-09	7.84E-09	1.91E-08	8.20E-09	8.08E-09	8.94E-09	4.68E-08	2.22E-08	1.13E-08	2.89E-08
Molybdenum	3.97E-07	4.24E-07	3.93E-07	3.92E-07	9.57E-07	4.10E-07	4.04E-07	4.47E-07	2.34E-06	1.11E-06	5.63E-07	1.45E-06
Nickel	5.72E-05	6.11E-05	5.66E-05	5.64E-05	1.38E-04	5.91E-05	5.82E-05	6.44E-05	3.37E-04	1.60E-04	8.11E-05	2.08E-04
Phosphorus	1.75E-04	1.87E-04	1.73E-04	1.72E-04	4.21E-04	1.80E-04	1.78E-04	1.97E-04	1.03E-03	4.89E-04	2.48E-04	6.36E-04
Potassium	7.95E-05	8.48E-05	7.86E-05	7.84E-05	1.91E-04	8.20E-05	8.08E-05	8.94E-05	4.68E-04	2.22E-04	1.13E-04	2.89E-04
Selenium	3.97E-07	4.24E-07	3.93E-07	3.92E-07	9.57E-07	4.10E-07	4.04E-07	4.47E-07	2.34E-06	1.11E-06	5.63E-07	1.45E-06
Silver	7.95E-08	8.48E-08	7.86E-08	7.84E-08	1.91E-07	8.20E-08	8.08E-08	8.94E-08	4.68E-07	2.22E-07	1.13E-07	2.89E-07
Sodium	1.99E-04	2.12E-04	1.96E-04	1.96E-04	4.79E-04	2.05E-04	2.02E-04	2.24E-04	1.17E-03	5.55E-04	2.82E-04	7.23E-04
Strontium	1.11E-05	1.19E-05	1.10E-05	1.10E-05	2.68E-05	1.15E-05	1.13E-05	1.25E-05	6.56E-05	3.11E-05	1.58E-05	4.05E-05
Thallium	7.95E-08	8.48E-08	7.86E-08	7.84E-08	1.91E-07	8.20E-08	8.08E-08	8.94E-08	4.68E-07	2.22E-07	1.13E-07	2.89E-07
Tin	1.59E-06	1.70E-06	1.57E-06	1.57E-06	3.83E-06	1.64E-06	1.62E-06	1.79E-06	9.37E-06	4.44E-06	2.25E-06	5.78E-06
Titanium	1.75E-03	1.87E-03	1.73E-03	1.72E-03	4.21E-03	1.80E-03	1.78E-03	1.97E-03	1.03E-02	4.89E-03	2.48E-03	6.36E-03
Uranium	7.95E-08	8.48E-08	7.86E-08	7.84E-08	1.91E-07	8.20E-08	8.08E-08	8.94E-08	4.68E-07	2.22E-07	1.13E-07	2.89E-07
Vanadium	7.95E-05	8.48E-05	7.86E-05	7.84E-05	1.91E-04	8.20E-05	8.08E-05	8.94E-05	4.68E-04	2.22E-04	1.13E-04	2.89E-04
Zinc	4.69E-05	5.01E-05	4.64E-05	4.63E-05	1.13E-04	4.84E-05	4.77E-05	5.27E-05	2.76E-04	1.31E-04	6.64E-05	1.71E-04

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites	LSA-17	LSA-18	LSA-19	LSA-20	LSA-21	REFA-01	REFA-02	REFA-03	REFB-01	REFB-02	REFB-03	REFC-01
Dust Deposition (g/m²/year)	6.50	0.938	1.24	0.809	4.78	0.855	0.854	0.866	0.781	0.779	0.779	0.798
Metal Dustfall Deposition												
Aluminum	1.89E-01	2.72E-02	3.60E-02	2.35E-02	1.39E-01	2.48E-02	2.48E-02	2.51E-02	2.27E-02	2.26E-02	2.26E-02	2.31E-02
Antimony	6.50E-07	9.38E-08	1.24E-07	8.09E-08	4.78E-07	8.55E-08	8.54E-08	8.66E-08	7.81E-08	7.79E-08	7.79E-08	7.98E-08
Arsenic	3.25E-06	4.69E-07	6.21E-07	4.04E-07	2.39E-06	4.27E-07	4.27E-07	4.33E-07	3.91E-07	3.90E-07	3.90E-07	3.99E-07
Barium	1.95E-05	2.81E-06	3.72E-06	2.43E-06	1.44E-05	2.56E-06	2.56E-06	2.60E-06	2.34E-06	2.34E-06	2.34E-06	2.39E-06
Beryllium	2.15E-06	3.10E-07	4.10E-07	2.67E-07	1.58E-06	2.82E-07	2.82E-07	2.86E-07	2.58E-07	2.57E-07	2.57E-07	2.63E-07
Bismuth	6.50E-07	9.38E-08	1.24E-07	8.09E-08	4.78E-07	8.55E-08	8.54E-08	8.66E-08	7.81E-08	7.79E-08	7.79E-08	7.98E-08
Cadmium	6.50E-07	9.38E-08	1.24E-07	8.09E-08	4.78E-07	8.55E-08	8.54E-08	8.66E-08	7.81E-08	7.79E-08	7.79E-08	7.98E-08
Calcium	2.08E-01	3.00E-02	3.97E-02	2.59E-02	1.53E-01	2.74E-02	2.73E-02	2.77E-02	2.50E-02	2.49E-02	2.49E-02	2.55E-02
Chromium	9.75E-04	1.41E-04	1.86E-04	1.21E-04	7.18E-04	1.28E-04	1.28E-04	1.30E-04	1.17E-04	1.17E-04	1.17E-04	1.20E-04
Cobalt	2.28E-04	3.28E-05	4.34E-05	2.83E-05	1.67E-04	2.99E-05	2.99E-05	3.03E-05	2.73E-05	2.73E-05	2.73E-05	2.79E-05
Copper	7.15E-04	1.03E-04	1.37E-04	8.90E-05	5.26E-04	9.40E-05	9.40E-05	9.52E-05	8.59E-05	8.57E-05	8.57E-05	8.77E-05
Iron	3.19E-01	4.60E-02	6.08E-02	3.96E-02	2.34E-01	4.19E-02	4.19E-02	4.24E-02	3.83E-02	3.82E-02	3.82E-02	3.91E-02
Lead	3.90E-06	5.63E-07	7.45E-07	4.85E-07	2.87E-06	5.13E-07	5.13E-07	5.19E-07	4.69E-07	4.68E-07	4.68E-07	4.79E-07
Magnesium	1.50E-01	2.16E-02	2.85E-02	1.86E-02	1.10E-01	1.97E-02	1.96E-02	1.99E-02	1.80E-02	1.79E-02	1.79E-02	1.83E-02
Manganese	6.05E-03	8.73E-04	1.15E-03	7.52E-04	4.45E-03	7.95E-04	7.94E-04	8.05E-04	7.26E-04	7.25E-04	7.25E-04	7.42E-04
Mercury	6.50E-08	9.38E-09	1.24E-08	8.09E-09	4.78E-08	8.55E-09	8.54E-09	8.66E-09	7.81E-09	7.79E-09	7.79E-09	7.98E-09
Molybdenum	3.25E-06	4.69E-07	6.21E-07	4.04E-07	2.39E-06	4.27E-07	4.27E-07	4.33E-07	3.91E-07	3.90E-07	3.90E-07	3.99E-07
Nickel	4.68E-04	6.76E-05	8.94E-05	5.82E-05	3.44E-04	6.16E-05	6.15E-05	6.23E-05	5.62E-05	5.61E-05	5.61E-05	5.74E-05
Phosphorus	1.43E-03	2.06E-04	2.73E-04	1.78E-04	1.05E-03	1.88E-04	1.88E-04	1.90E-04	1.72E-04	1.71E-04	1.71E-04	1.75E-04
Potassium	6.50E-04	9.38E-05	1.24E-04	8.09E-05	4.78E-04	8.55E-05	8.54E-05	8.66E-05	7.81E-05	7.79E-05	7.79E-05	7.98E-05
Selenium	3.25E-06	4.69E-07	6.21E-07	4.04E-07	2.39E-06	4.27E-07	4.27E-07	4.33E-07	3.91E-07	3.90E-07	3.90E-07	3.99E-07
Silver	6.50E-07	9.38E-08	1.24E-07	8.09E-08	4.78E-07	8.55E-08	8.54E-08	8.66E-08	7.81E-08	7.79E-08	7.79E-08	7.98E-08
Sodium	1.63E-03	2.35E-04	3.10E-04	2.02E-04	1.20E-03	2.14E-04	2.14E-04	2.16E-04	1.95E-04	1.95E-04	1.95E-04	1.99E-04
Strontium	9.10E-05	1.31E-05	1.74E-05	1.13E-05	6.70E-05	1.20E-05	1.20E-05	1.21E-05	1.09E-05	1.09E-05	1.09E-05	1.12E-05
Thallium	6.50E-07	9.38E-08	1.24E-07	8.09E-08	4.78E-07	8.55E-08	8.54E-08	8.66E-08	7.81E-08	7.79E-08	7.79E-08	7.98E-08
Tin	1.30E-05	1.88E-06	2.48E-06	1.62E-06	9.57E-06	1.71E-06	1.71E-06	1.73E-06	1.56E-06	1.56E-06	1.56E-06	1.60E-06
Titanium	1.43E-02	2.06E-03	2.73E-03	1.78E-03	1.05E-02	1.88E-03	1.88E-03	1.90E-03	1.72E-03	1.71E-03	1.71E-03	1.75E-03
Uranium	6.50E-07	9.38E-08	1.24E-07	8.09E-08	4.78E-07	8.55E-08	8.54E-08	8.66E-08	7.81E-08	7.79E-08	7.79E-08	7.98E-08
Vanadium	6.50E-04	9.38E-05	1.24E-04	8.09E-05	4.78E-04	8.55E-05	8.54E-05	8.66E-05	7.81E-05	7.79E-05	7.79E-05	7.98E-05
Zinc	3.84E-04	5.54E-05	7.32E-05	4.77E-05	2.82E-04	5.04E-05	5.04E-05	5.11E-05	4.61E-05	4.60E-05	4.60E-05	4.71E-05

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites Dust Deposition (g/m²/year)	REFC-02 0.841	REFC-03 0.852	D73 4.51	D114 1.05	10 0.968	24 2.35	D89 0.820	D97 1.42	D93 1.13	D116 1.10	D86 3.84	D125 0.811
Metal Dustfall Deposition												
Aluminum	2.44E-02	2.47E-02	1.31E-01	3.05E-02	2.81E-02	6.81E-02	2.38E-02	4.11E-02	3.27E-02	3.20E-02	1.11E-01	2.35E-02
Antimony	8.41E-08	8.52E-08	4.51E-07	1.05E-07	9.68E-08	2.35E-07	8.20E-08	1.42E-07	1.13E-07	1.10E-07	3.84E-07	8.11E-08
Arsenic	4.21E-07	4.26E-07	2.25E-06	5.27E-07	4.84E-07	1.17E-06	4.10E-07	7.08E-07	5.63E-07	5.51E-07	1.92E-06	4.05E-07
Barium	2.52E-06	2.56E-06	1.35E-05	3.16E-06	2.90E-06	7.05E-06	2.46E-06	4.25E-06	3.38E-06	3.31E-06	1.15E-05	2.43E-06
Beryllium	2.78E-07	2.81E-07	1.49E-06	3.48E-07	3.19E-07	7.75E-07	2.71E-07	4.67E-07	3.72E-07	3.64E-07	1.27E-06	2.67E-07
Bismuth	8.41E-08	8.52E-08	4.51E-07	1.05E-07	9.68E-08	2.35E-07	8.20E-08	1.42E-07	1.13E-07	1.10E-07	3.84E-07	8.11E-08
Cadmium	8.41E-08	8.52E-08	4.51E-07	1.05E-07	9.68E-08	2.35E-07	8.20E-08	1.42E-07	1.13E-07	1.10E-07	3.84E-07	8.11E-08
Calcium	2.69E-02	2.73E-02	1.44E-01	3.37E-02	3.10E-02	7.52E-02	2.63E-02	4.53E-02	3.60E-02	3.53E-02	1.23E-01	2.59E-02
Chromium	1.26E-04	1.28E-04	6.76E-04	1.58E-04	1.45E-04	3.52E-04	1.23E-04	2.12E-04	1.69E-04	1.65E-04	5.75E-04	1.22E-04
Cobalt	2.94E-05	2.98E-05	1.58E-04	3.69E-05	3.39E-05	8.22E-05	2.87E-05	4.96E-05	3.94E-05	3.86E-05	1.34E-04	2.84E-05
Copper	9.25E-05	9.38E-05	4.96E-04	1.16E-04	1.06E-04	2.58E-04	9.02E-05	1.56E-04	1.24E-04	1.21E-04	4.22E-04	8.92E-05
Iron	4.12E-02	4.18E-02	2.21E-01	5.16E-02	4.74E-02	1.15E-01	4.02E-02	6.94E-02	5.52E-02	5.40E-02	1.88E-01	3.97E-02
Lead	5.05E-07	5.11E-07	2.70E-06	6.32E-07	5.81E-07	1.41E-06	4.92E-07	8.50E-07	6.76E-07	6.62E-07	2.30E-06	4.86E-07
Magnesium	1.93E-02	1.96E-02	1.04E-01	2.42E-02	2.23E-02	5.40E-02	1.89E-02	3.26E-02	2.59E-02	2.54E-02	8.82E-02	1.86E-02
Manganese	7.82E-04	7.93E-04	4.19E-03	9.80E-04	9.00E-04	2.18E-03	7.63E-04	1.32E-03	1.05E-03	1.03E-03	3.57E-03	7.54E-04
Mercury	8.41E-09	8.52E-09	4.51E-08	1.05E-08	9.68E-09	2.35E-08	8.20E-09	1.42E-08	1.13E-08	1.10E-08	3.84E-08	8.11E-09
Molybdenum	4.21E-07	4.26E-07	2.25E-06	5.27E-07	4.84E-07	1.17E-06	4.10E-07	7.08E-07	5.63E-07	5.51E-07	1.92E-06	4.05E-07
Nickel	6.06E-05	6.14E-05	3.25E-04	7.58E-05	6.97E-05	1.69E-04	5.91E-05	1.02E-04	8.11E-05	7.94E-05	2.76E-04	5.84E-05
Phosphorus	1.85E-04	1.88E-04	9.92E-04	2.32E-04	2.13E-04	5.17E-04	1.80E-04	3.12E-04	2.48E-04	2.43E-04	8.44E-04	1.78E-04
Potassium	8.41E-05	8.52E-05	4.51E-04	1.05E-04	9.68E-05	2.35E-04	8.20E-05	1.42E-04	1.13E-04	1.10E-04	3.84E-04	8.11E-05
Selenium	4.21E-07	4.26E-07	2.25E-06	5.27E-07	4.84E-07	1.17E-06	4.10E-07	7.08E-07	5.63E-07	5.51E-07	1.92E-06	4.05E-07
Silver	8.41E-08	8.52E-08	4.51E-07	1.05E-07	9.68E-08	2.35E-07	8.20E-08	1.42E-07	1.13E-07	1.10E-07	3.84E-07	8.11E-08
Sodium	2.10E-04	2.13E-04	1.13E-03	2.63E-04	2.42E-04	5.87E-04	2.05E-04	3.54E-04	2.82E-04	2.76E-04	9.59E-04	2.03E-04
Strontium	1.18E-05	1.19E-05	6.31E-05	1.47E-05	1.36E-05	3.29E-05	1.15E-05	1.98E-05	1.58E-05	1.54E-05	5.37E-05	1.13E-05
Thallium	8.41E-08	8.52E-08	4.51E-07	1.05E-07	9.68E-08	2.35E-07	8.20E-08	1.42E-07	1.13E-07	1.10E-07	3.84E-07	8.11E-08
Tin	1.68E-06	1.70E-06	9.01E-06	2.11E-06	1.94E-06	4.70E-06	1.64E-06	2.83E-06	2.25E-06	2.21E-06	7.67E-06	1.62E-06
Titanium	1.85E-03	1.88E-03	9.92E-03	2.32E-03	2.13E-03	5.17E-03	1.80E-03	3.12E-03	2.48E-03	2.43E-03	8.44E-03	1.78E-03
Uranium	8.41E-08	8.52E-08	4.51E-07	1.05E-07	9.68E-08	2.35E-07	8.20E-08	1.42E-07	1.13E-07	1.10E-07	3.84E-07	8.11E-08
Vanadium	8.41E-05	8.52E-05	4.51E-04	1.05E-04	9.68E-05	2.35E-04	8.20E-05	1.42E-04	1.13E-04	1.10E-04	3.84E-04	8.11E-05
Zinc	4.96E-05	5.03E-05	2.66E-04	6.22E-05	5.71E-05	1.39E-04	4.84E-05	8.36E-05	6.64E-05	6.51E-05	2.26E-04	4.78E-05

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites Dust Deposition (g/m²/year)	Lichen1 0.797	Lichen2 0.797	Lichen3 0.799	Lichen4 0.797	Lichen5 0.801	Lichen6 0.801	Lichen7 0.865	Lichen8 0.864	Lichen9 0.864	Lichen10 14.3	Lichen11 0.786	Lichen12 0.784
Metal Dustfall Deposition												
Aluminum	2.31E-02	2.31E-02	2.32E-02	2.31E-02	2.32E-02	2.32E-02	2.51E-02	2.51E-02	2.51E-02	4.15E-01	2.28E-02	2.27E-02
Antimony	7.97E-08	7.97E-08	7.99E-08	7.97E-08	8.01E-08	8.01E-08	8.65E-08	8.64E-08	8.64E-08	1.43E-06	7.86E-08	7.84E-08
Arsenic	3.99E-07	3.99E-07	3.99E-07	3.98E-07	4.00E-07	4.00E-07	4.33E-07	4.32E-07	4.32E-07	7.15E-06	3.93E-07	3.92E-07
Barium	2.39E-06	2.39E-06	2.40E-06	2.39E-06	2.40E-06	2.40E-06	2.60E-06	2.59E-06	2.59E-06	4.29E-05	2.36E-06	2.35E-06
Beryllium	2.63E-07	2.63E-07	2.64E-07	2.63E-07	2.64E-07	2.64E-07	2.86E-07	2.85E-07	2.85E-07	4.72E-06	2.59E-07	2.59E-07
Bismuth	7.97E-08	7.97E-08	7.99E-08	7.97E-08	8.01E-08	8.01E-08	8.65E-08	8.64E-08	8.64E-08	1.43E-06	7.86E-08	7.84E-08
Cadmium	7.97E-08	7.97E-08	7.99E-08	7.97E-08	8.01E-08	8.01E-08	8.65E-08	8.64E-08	8.64E-08	1.43E-06	7.86E-08	7.84E-08
Calcium	2.55E-02	2.55E-02	2.56E-02	2.55E-02	2.56E-02	2.56E-02	2.77E-02	2.76E-02	2.76E-02	4.58E-01	2.51E-02	2.51E-02
Chromium	1.20E-04	1.20E-04	1.20E-04	1.19E-04	1.20E-04	1.20E-04	1.30E-04	1.30E-04	1.30E-04	2.15E-03	1.18E-04	1.18E-04
Cobalt	2.79E-05	2.79E-05	2.80E-05	2.79E-05	2.80E-05	2.80E-05	3.03E-05	3.02E-05	3.02E-05	5.01E-04	2.75E-05	2.75E-05
Copper	8.77E-05	8.77E-05	8.79E-05	8.76E-05	8.81E-05	8.81E-05	9.52E-05	9.50E-05	9.50E-05	1.57E-03	8.64E-05	8.63E-05
Iron	3.91E-02	3.91E-02	3.91E-02	3.90E-02	3.92E-02	3.92E-02	4.24E-02	4.23E-02	4.23E-02	7.01E-01	3.85E-02	3.84E-02
Lead	4.78E-07	4.78E-07	4.79E-07	4.78E-07	4.80E-07	4.80E-07	5.19E-07	5.18E-07	5.18E-07	8.58E-06	4.72E-07	4.71E-07
Magnesium	1.83E-02	1.83E-02	1.84E-02	1.83E-02	1.84E-02	1.84E-02	1.99E-02	1.99E-02	1.99E-02	3.29E-01	1.81E-02	1.80E-02
Manganese	7.41E-04	7.41E-04	7.43E-04	7.41E-04	7.45E-04	7.45E-04	8.05E-04	8.04E-04	8.04E-04	1.33E-02	7.31E-04	7.29E-04
Mercury	7.97E-09	7.97E-09	7.99E-09	7.97E-09	8.01E-09	8.01E-09	8.65E-09	8.64E-09	8.64E-09	1.43E-07	7.86E-09	7.84E-09
Molybdenum	3.99E-07	3.99E-07	3.99E-07	3.98E-07	4.00E-07	4.00E-07	4.33E-07	4.32E-07	4.32E-07	7.15E-06	3.93E-07	3.92E-07
Nickel	5.74E-05	5.74E-05	5.75E-05	5.74E-05	5.77E-05	5.77E-05	6.23E-05	6.22E-05	6.22E-05	1.03E-03	5.66E-05	5.65E-05
Phosphorus	1.75E-04	1.75E-04	1.76E-04	1.75E-04	1.76E-04	1.76E-04	1.90E-04	1.90E-04	1.90E-04	3.15E-03	1.73E-04	1.73E-04
Potassium	7.97E-05	7.97E-05	7.99E-05	7.97E-05	8.01E-05	8.01E-05	8.65E-05	8.64E-05	8.64E-05	1.43E-03	7.86E-05	7.84E-05
Selenium	3.99E-07	3.99E-07	3.99E-07	3.98E-07	4.00E-07	4.00E-07	4.33E-07	4.32E-07	4.32E-07	7.15E-06	3.93E-07	3.92E-07
Silver	7.97E-08	7.97E-08	7.99E-08	7.97E-08	8.01E-08	8.01E-08	8.65E-08	8.64E-08	8.64E-08	1.43E-06	7.86E-08	7.84E-08
Sodium	1.99E-04	1.99E-04	2.00E-04	1.99E-04	2.00E-04	2.00E-04	2.16E-04	2.16E-04	2.16E-04	3.58E-03	1.96E-04	1.96E-04
Strontium	1.12E-05	1.12E-05	1.12E-05	1.12E-05	1.12E-05	1.12E-05	1.21E-05	1.21E-05	1.21E-05	2.00E-04	1.10E-05	1.10E-05
Thallium	7.97E-08	7.97E-08	7.99E-08	7.97E-08	8.01E-08	8.01E-08	8.65E-08	8.64E-08	8.64E-08	1.43E-06	7.86E-08	7.84E-08
Tin	1.59E-06	1.59E-06	1.60E-06	1.59E-06	1.60E-06	1.60E-06	1.73E-06	1.73E-06	1.73E-06	2.86E-05	1.57E-06	1.57E-06
Titanium	1.75E-03	1.75E-03	1.76E-03	1.75E-03	1.76E-03	1.76E-03	1.90E-03	1.90E-03	1.90E-03	3.15E-02	1.73E-03	1.73E-03
Uranium	7.97E-08	7.97E-08	7.99E-08	7.97E-08	8.01E-08	8.01E-08	8.65E-08	8.64E-08	8.64E-08	1.43E-06	7.86E-08	7.84E-08
Vanadium	7.97E-05	7.97E-05	7.99E-05	7.97E-05	8.01E-05	8.01E-05	8.65E-05	8.64E-05	8.64E-05	1.43E-03	7.86E-05	7.84E-05
Zinc	4.70E-05	4.70E-05	4.71E-05	4.70E-05	4.72E-05	4.72E-05	5.11E-05	5.10E-05	5.10E-05	8.44E-04	4.64E-05	4.63E-05

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.

Appendix V6-5J. Predicted Metal Concentrations Associated with Fugitive Dust during the Construction Phase at Vegetation Sites within the Human Health Local Study Area

Vegetation Sample Sites Dust Deposition (g/m²/year)	Lichen13 0.820	Lichen14 0.808	Lichen15 0.790
Metal Dustfall Deposition			
Aluminum	2.38E-02	2.34E-02	2.29E-02
Antimony	8.20E-08	8.08E-08	7.90E-08
Arsenic	4.10E-07	4.04E-07	3.95E-07
Barium	2.46E-06	2.42E-06	2.37E-06
Beryllium	2.71E-07	2.67E-07	2.61E-07
Bismuth	8.20E-08	8.08E-08	7.90E-08
Cadmium	8.20E-08	8.08E-08	7.90E-08
Calcium	2.62E-02	2.58E-02	2.53E-02
Chromium	1.23E-04	1.21E-04	1.19E-04
Cobalt	2.87E-05	2.83E-05	2.77E-05
Copper	9.02E-05	8.88E-05	8.69E-05
Iron	4.02E-02	3.96E-02	3.87E-02
Lead	4.92E-07	4.85E-07	4.74E-07
Magnesium	1.89E-02	1.86E-02	1.82E-02
Manganese	7.62E-04	7.51E-04	7.35E-04
Mercury	8.20E-09	8.08E-09	7.90E-09
Molybdenum	4.10E-07	4.04E-07	3.95E-07
Nickel	5.90E-05	5.81E-05	5.69E-05
Phosphorus	1.80E-04	1.78E-04	1.74E-04
Potassium	8.20E-05	8.08E-05	7.90E-05
Selenium	4.10E-07	4.04E-07	3.95E-07
Silver	8.20E-08	8.08E-08	7.90E-08
Sodium	2.05E-04	2.02E-04	1.98E-04
Strontium	1.15E-05	1.13E-05	1.11E-05
Thallium	8.20E-08	8.08E-08	7.90E-08
Tin	1.64E-06	1.62E-06	1.58E-06
Titanium	1.80E-03	1.78E-03	1.74E-03
Uranium	8.20E-08	8.08E-08	7.90E-08
Vanadium	8.20E-05	8.08E-05	7.90E-05
Zinc	4.84E-05	4.76E-05	4.66E-05

Notes:

All metal concentrations in dustfall are in units of g/m²/year.

Roads will be constructed from quarry rock, thus the metal proportion in quarry rock was applied to dustfall values to obtain the metal concentration in dustfall as the source of dustfall for all vegetation sites is road dust.