

Table 23-2
Total Project Point Source Emissions
Full Mine Development (20 Years)

Pollutant	PTE - Uncontr. (lb/hr)	PTE Uncontr. (tpy)	PTE w/control (lb/hr) [1]	PTE w/control (tpy) [1]	Proj. Act. Emiss. (tpy) [2]
Criteria Polutants					
PM10	11327.21	49580.14	274.67	1170.01	447.61
SO2	25.00	41.12	18.99	14.76	4.00
H2SO4/SO3	273.39	1197.43	2.79	12.20	9.46
PM	11332.33	49602.59	274.82	1170.67	448.13
NOx	56.40	247.02	56.40	247.02	94.91
VOC	6.92	20.84	6.68	19.79	6.82
CO	10.83	47.42	10.83	47.42	14.65
Pb	1.0497	4.5978	0.0105	0.0459	0.0336
Toxic Air Pollutants					
Antimony	0.0508	0.2225	0.0011	0.0048	0.0016
Arsenic	0.1039	0.4550	0.0024	0.0105	0.0034
Beryllium	0.0058	0.0252	0.0001	0.0005	0.0002
Cadmium	0.0101	0.0443	0.0003	0.0014	0.0008
Chromium	1.6144	7.0711	0.0364	0.1593	0.0526
Cobalt	9.0851	39.7926	0.0972	0.4258	0.2895
Manganese	14.3534	62.8678	0.3319	1.4538	0.4621
Mercury	0.0003	0.0011	0.0002	0.0007	0.0006
Nickel	183.1466	802.1822	1.8682	8.1829	5.8327
Phosphorus	4.9704	21.7702	0.1149	0.5034	0.1600
Selenium	0.0549	0.2403	0.0013	0.0056	0.0018
Barium	3.7423	16.3912	0.0871	0.3815	0.1224
Boron	1.0706	4.6890	0.0114	0.0500	0.0341
Copper	247.0929	1082.2671	2.8622	12.5365	7.8746
Molybdenum	0.0542	0.2372	0.0012	0.0053	0.0022
Vanadium	1.7258	7.5589	0.0397	0.1739	0.0566
Zinc	20.0011	87.6047	0.2056	0.9005	0.6501
Tellurium	0.4814	2.1087	0.0103	0.0453	0.0155
Hafnium	0.0207	0.0905	0.0004	0.0019	0.0007
POM	0.0015	0.0064	0.0015	0.0064	0.0009
2-Methylnaphthalene	2.51E-06	1.10E-05	2.51E-06	1.10E-05	1.10E-05
3-Methylchloranthrene	9.43E-08	4.13E-07	9.43E-08	4.13E-07	4.13E-07
7,12-Dimethylbenz(a)anthracene	8.38E-07	3.67E-06	8.38E-07	3.67E-06	3.67E-06
Acenaphthene	6.31E-06	2.76E-05	6.31E-06	2.76E-05	3.13E-06
Acenaphthylene	2.22E-05	9.74E-05	2.22E-05	9.74E-05	1.01E-05
Anthracene	1.65E-05	7.22E-05	1.65E-05	7.22E-05	7.72E-06
Benz(a)anthracene	1.48E-05	6.48E-05	1.48E-05	6.48E-05	6.85E-06
Benzo(a)pyrene	8.85E-07	3.88E-06	8.85E-07	3.88E-06	6.36E-07
Benzo(b)fluoranthene	5.28E-07	2.31E-06	5.28E-07	2.31E-06	6.03E-07

Benzo(g,h,i)perylene	4.34E-06	1.90E-05	4.34E-06	1.90E-05	2.15E-06
Benzo(k)fluoranthene	7.72E-07	3.38E-06	7.72E-07	3.38E-06	7.10E-07
Chrysene	3.18E-06	1.39E-05	3.18E-06	1.39E-05	1.77E-06
Dibenzo(a,h)anthracene	2.61E-06	1.14E-05	2.61E-06	1.14E-05	1.39E-06
Fluoranthene	6.69E-05	2.93E-04	6.69E-05	2.93E-04	3.05E-05
Fluorene	2.56E-04	1.12E-03	2.56E-04	1.12E-03	1.13E-04
Ideno(1,2,3-cd)pyrene	1.73E-06	7.60E-06	1.73E-06	7.60E-06	1.13E-06
Phenanthrene	2.59E-04	1.13E-03	2.59E-04	1.13E-03	1.20E-04
Pyrene	4.23E-05	1.85E-04	4.23E-05	1.85E-04	2.06E-05
Benzene	0.0084	0.0367	0.0084	0.0367	0.0045
Cumene	0.1532	0.1572	0.1532	0.1572	0.1354
Trimethylbenzene	1.2143	1.5970	1.2143	1.5970	1.3758
Dichlorobenzene	0.0001	0.0006	0.0001	0.0006	0.0006
Formaldehyde	0.0182	0.0796	0.0182	0.0796	0.0389
Hexane	0.1886	0.8259	0.1886	0.8259	0.8259
Toluene	0.0039	0.0172	0.0039	0.0172	0.0031
Naphthalene	0.0008	0.0035	0.0008	0.0035	0.0006
Xylene	0.1114	0.0896	0.1114	0.0896	0.0689
MIBC	0.0745	0.2596	0.0745	0.2596	0.2013
Isopropyl Alc.	1.0872	0.1329	1.0872	0.1329	0.1031
C8-C12 Isoalkanols	0.0063	0.0000	0.0063	0.0000	0.0000
HF	0.0416	0.1823	0.0004	0.0018	0.0014
HCl	56.3573	228.1750	4.9493	3.0081	2.3324
H2S	0.1079	0.4725	0.0295	0.1290	0.1001
CS2	1.6198	7.0947	0.5993	2.6250	2.0354
Crystalline Silica	0.0022	0.0098	0.0022	0.0098	0.0076
Fluorides (as F)	2.0209	8.8516	0.0435	0.1903	0.0650
Acetaldehyde	0.0067	0.0294	0.0067	0.0294	0.0029
Acrolein	0.0004	0.0018	0.0004	0.0018	0.0002
1,3-Butadiene	0.0002	0.0007	0.0002	0.0007	0.0001
Total HAP	272.96	1175.97	8.51	17.68	12.29
Green House Gasses					
CO2	45492	199256	45492	199256	162622
N2O	0.23	1.01	0.23	1.01	1.01
CH4	0.24	1.06	0.24	1.06	1.06

Notes:

- [1] Assumes existing control equipment for crushing plant and control equipment included in process design as well as intended measures to control fugitive dust. Control levels may be increased to meet BACT and/or MACT requirements.
- [2] Assumes crushing and hydrometallurgical plants process projected high end daily ore output from mine, 32,000 tpd. Also assumes 10% utilization for diesel mine dewatering pumps.