Nevada Division of Environmental Protection
Bureau of Air Pollution Control
Calendar Year 2009 Actual Production/Emission Reporting Form Addendum for Mercury Emissions

Cumulative NMCP Mercury Addendum Data Submittals

Pollutant ID	Production/Heat Rate	Production Units (eg. tons/yr)	Emissions Factor	Emissions Factor Units	HG Annual Emissions (lbs/yr)	Hours Operated	HG Co-Product (tons/yr)	Notes
Source: Newmont Mining Corporation - Twin Creeks Mine: AQOP AP1041-0723.01; NMCP AP1041-2218								
System Description: Juniper Mill Electric Induction Furnace (S2.001/TU4.001 - 1 of 2, only one operates at a time)								
Hg	34.00	tpy	0.000122	lbs/hr	0.0510	418	0.0000	Induction Furnace emissions factor derived from 2009 M29 stack test.
System Description: Juniper Mill Electric Induction Furnace (S2.001.1/TU4.002 - 1 of 2, only one operates at a time)								
Hg	28.70	tpy	0.000119	lbs/hr	0.0387	325	0.0000	Induction Furnace emissions factor derived from 2009 M29 stack test.
System Description: Juniper Mill Carbon Kiln (S2.002/TU4.003)								
Hg	5,667.00	tpy	0.000632	lbs/hr	4.8373	7,654	0.5580	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: New Mercury Retort Circuit A (S2.004/TU4.004)								
Hg	21.00	tpy	0.00000145	lbs/hr	0.0008	558	0.0000	Retort A emissions factor derived from 2009 M29 stack test.
System Description: New Mercury Retort Circuit B (S2.005/TU4.005)								
Hg	14.00	tpy	0.00000202	lbs/hr	0.0010	499	0.0000	Retort B emissions factor derived from 2009 M29 stack test.
System Description: Old Mercury Retort Circuit A (S2.004)								
Hg	25.85	tpy	0.000028	lbs/hr	0.0739	2,639	2.2770	Retort A emissions factor derived from 2008 M29 stack test. Unit was not tested in 2009, removed and replaced in October, 2009.
System Description: Old Mercury Retort Circuit B (S2.005)								
Hg	14.44	tpy	0.000028	lbs/hr	0.0420	1,500	1.3750	Retort B emissions factor derived from 2008 M29 stack test. Unit was not tested in 2009, removed and replaced in October, 2009.
System Description: Old Mercury Retort Circuit C (S2.005.1)								
Hg	12.83	tpy	0.000073	lbs/hr	0.1303	1,785	0.9030	Retort C emissions factor derived from 2008 M29 stack test. Unit was not tested in 2009, removed in October, 2009.
System Description: Old Mercury Retort Circuit D (S2.005.2)								
Hg	16.45	tpy	0.0000066	lbs/hr	0.0126	1,904	0.7940	Retort D emissions factor derived from 2008 M29 stack test. Unit was not tested in 2009, removed in October, 2009.
System Description: Sage Mill Autoclave (S2.023/TU4.014)								
Hg	1,849,150.00	tpy	0.0342	lbs/hr	283.2444	8,282	0.0000	Autoclave #1 emissions factor derived from 2009 M29 stack test.
System Description: Sage Mill Autoclave (S2.024/TU4.015)								
Hg	1,723,790.00	tpy	0.0129	lbs/hr	96.7758	7,502	0.0000	Autoclave #2 emissions factor derived from 2009 M29 stack test.
System Description: Electro-winning Cells (TU4.011 - six cells ducted to common stack)								
Hg	Not Reported	gals/yr	0.000577	lbs/hr	5.0545	8,760	0.0000	Electro-winning Cells emissions factor derived from 2009 M29 stack test.
System Description: Juniper Mill Pregnant & Barren Strip Solution Tanks (TU4.008 - TU4.010)								
Hg	Not Reported	gals/yr	0.00333	lbs/hr	29.1708	8,760	0.0000	Preg./Barren Tanks emissions factor derived from 2009 M29 stack test.
System Description: Pinon Mill Pregnant Strip Solution Tank (TU4.012)								
Hg	Not Reported	gals/yr	0.0001356	lbs/hr	1.1879	8,760	0.0010	Emissions estimate - refer to attached calculation.
System Description: Pinon Mill Barren Strip Solution Tank (TU4.013)								
Hg	Not Reported	gals/yr	0.0001356	lbs/hr	1.1879	8,760	0.0000	Emissions estimate - refer to attached calculation.
System Description: Laboratory Sample Prep. Room, Fire Assay Room, Wet Lab Room, Slurry Prep. Room, LECO Room, Instrumentation Room, Met Lab Room & Autoclave Room								
Hg					3.9471		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		434.3715		8.9100	CY2006 Co-product: 17,820.00 lbs/yr
			CY2007 Facility Total:		929.9303		13.2160	CY2007 Co-product: 26,432.00 lbs/yr.
			CY2008 Facility Total:		1,679.1864		8.8000	CY2008 Co-product: 17,600.00 lbs/yr.
			CY2009 Facility Total:		**425.7559**		**5.9080**	**CY2009 Co-product: 11,816.00 lbs/yr.**
Source: Yukon-Nevada Gold Corporation - Jerritt Canyon Mine: AQOP AP1041-0778; NMCP AP1041-2217								
System Description: West Roaster Process (S2.036 & PF1.213)								
Hg	91,014.00	tpy	0.0148	lbs/hr	24.8936	1,682	0.4000	Roaster emissions factor derived from December 2009 M29 stack test.
System Description: West Roaster Quench Stack								
Hg	Not Reported	tpy		lbs/hr	0.0000	1,682	0.0000	No testing completed to date, unable to test vent, no draft fan.
System Description: East Roaster Process (S2.041 & PF1.214)								
Hg	77,941.00	tpy	0.0735	lbs/hr	111.9405	1,523	1.7000	Roaster emissions factor derived from December 2009 M29 stack test.
System Description: East Roaster Quench Stack								
Hg	Not Reported	tpy		lbs/hr	0.0000	1,523	0.0000	No testing completed to date, unable to test vent, no draft fan.
System Description: Carbon Bed Venturi Scrubber (Retort - S2.051)								
Hg	Not Reported	tpy		lbs/hr	0.0000	2,930	0.0000	No M29 testing completed in 2009.
System Description: Ore Dryer (S2.026)								
Hg	192,824.00	tpy		lbs/hr	0.0000	1,238	0.0000	December 2009 M29 stack test demed invalid.

Source: Yukon-Nevada Gold Corporation - Jerritt Canyon Mine: AQOP AP1041-0778; NMCP AP1041-2217 (continued)								
System Description: Refining Process Induction Furnace (S2.050)								
Hg	5.00	tpy		lbs/hr	0.0000	831	0.0000	No M29 testing completed in 2009.
System Description: Laboratory Units Including Large Ore Drying Ovens (5 Units) and Electro-winning Cells								
Hg					2.1363		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	293.9245		2.9600	CY2006 Co-product: 5,920.00 lbs/yr.
				CY2007 Facility Total:	1,966.3934		1.0200	CY2007 Co-product: 2,040.00 lbs/yr.
				CY2008 Facility Total:	219.9723		0.7100	CY2008 Co-product: 1,420.00 lbs/yr.
				CY2009 Facility Total:	**138.9704**		**2.1000**	**CY2009 Co-product: 4,200.00 lbs/yr.**
Source: Newmont Mining Corporation - Gold Quarry: AQOP AP1041-0793; NMCP AP1041-2219								
System Description: Mill 6 Static Separator (Double Rotator Air Pre-Heater: S2.120/TU4.001)								
Hg	3,146,023.00	tpy	0.000671	lbs/hr	5.1231	7,635	0.0000	Static Seperator emissions factor derived from 2009 M29 stack test.
System Description: CFB North and South Ore Preheaters (S2.126 & S2.129/ TU4.002 & TU4.003)								
Hg	3,220,396.00	tpy	0.00205	lbs/hr	15.7686	7,692	0.0000	Ore Preheater's emissions factor derived from 2009 M29 stack test.
System Description: CFB North and South Ore Roasters (S2.133 & S2.145/TU4.004 & TU4.005)								
Hg	3,220,396.00	tpy	0.000157	lbs/hr	1.2076	7,692	4.1300	Ore Roaster's factor derived from 2009 M29 stack test.
System Description: ROTP North Calcine Quench Circuit (S2.158 & S2.159/TU4.006 - TU4.009)								
Hg	1,377,793.00	tpy	0.004034	lbs/hr	30.7028	7,611	0.0000	North Quench Circuit emissions factor derived from 2009 M29 stack test.
System Description: ROTP South Calcine Quench Circuit (S2.160 & S2.161/TU4.010 - TU4.013)								
Hg	1,842,603.00	tpy	0.00511	lbs/hr	39.3061	7,692	0.0000	South Quench Circuit emissions factor derived from 2009 M29 stack test.
System Description: AARL Carbon Stripping Circuit (Pregnant Tanks: TU4.014 & TU4.015)								
Hg	14,313.60	tpy	0.000907	lbs/hr	7.5190	8,290	0.0000	Pergnant Strip Tanks emissions factor derived from 2009 M29 stack test.
System Description: Refinery Barren Tank & Electro-winning Cells (TU4.016 & TU4.017)								
Hg	42,021,030.00	gals/yr	0.002223	lbs/hr	16.3524	7,356	0.0000	Barren Tank/EW Cells emissions factor derived from 2009 M29 stack test.
System Description: Refinery Mercury Retort Circuit (S2.041 - S2.046/TU4.018 - TU4.023)								
Hg	51.20	tpy	0.002565	lbs/hr	7.3872	2,880	1.2200	Retort Circuit emissions factor derived from 2009 M29 stack test.
System Description: Electric Refinery Induction Furnaces (S2.047 - S2.049/TU4.024 - TU4.026)								
Hg	76.00	tpy	0.133972	lbs/hr	75.5736	564	0.0000	Induction Furnace emissions factor derived from 2009 M29 stack test.
System Description: Carbon Kiln #1 (Zadra Process) Scrubber Stack (S2.056/TU4.027)								
Hg	6,670.00	tpy	0.001756	lbs/hr	13.2209	7,529	0.0200	Kiln Scrubber Stack emissions factor derived from 2009 M29 stack test.
System Description: Carbon Kiln #2 (AARL Process) Scrubber Stack (S2.058?TU4.028)								
Hg	6,635.00	tpy	0.010214	lbs/hr	66.6259	6,523	0.0200	Kiln Scrubber Stack emissions factor derived from 2009 M29 stack test.
System Description: Assay Laboratory, Met Laboratory & Integrated Laboratory								
Hg					1.8984		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	310.6937		2.7200	CY2006 Co-product: 5,440.00 lbs/yr.
				CY2007 Facility Total:	504.4204		6.1600	CY2007 Co-product: 12,320.00 lbs/yr.
				CY2008 Facility Total:	422.4137		6.7700	CY2008 Co-product: 13,540.00 lbs/yr.
				CY2009 Facility Total:	**280.6857**		**5.3900**	**CY2009 Co-product: 10.780 lbs/yr.**
Source: Newmont Mining Corporation - Midas Operations: AQOP AP1041-0766.01; NMCP AP1041-2253								
System Description: Refinery Furnace #1 (S2.035/TU4.001)								
Hg	78.00	tpy	0.00252	lbs/hr	2.5049	994	0.0000	Furnace #1 emissions factor derived from 2009 M29 stack test.
System Description: Refinery Furnace #2 (S2.036/TU4.002)								
Hg	120.00	tpy	0.00316	lbs/hr	1.8423	583	0.0000	Furnace #2 emissions factor derived from 2009 M29 stack test.
System Description: Retort A (S2.037/TU4.003)								
Hg	134.00	tpy	0.00000237	lbs/hr	0.0083	3,518	0.0000	Retort A emissions factor derived from 2009 M29 stack test.
System Description: Retort B (S2.038/TU4.004)								
Hg	94.00	tpy	0.0000835	lbs/hr	0.2601	3,115	0.0000	Retort B emissions factor derived from 2009 M29 stack test.
System Description: Assay Laboratory								
Hg				lbs/hr	1.8239		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	17.1801		0.0000	CY2006 Co-product: 0.00 lbs/yr.
				CY2007 Facility Total:	4.2457		0.0000	CY2007 Co-product: 0.00 lbs/yr.
				CY2008 Facility Total:	41.3420		0.0000	CY2008 Co-product: 0.00 lbs/yr.
				CY2009 Facility Total:	**6.4395**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Barrick, Bald Mountain Mine - Huntington Valley: AQOP AP1041-1362; NMCP AP1041-2246								
System Description: Propane Fired Carbon Regeneration Kiln (S2.001/TU4.001)								
Hg	96.99	tpy	0.000067	lbs/hr	0.0726	1,084	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Propane Fired Mercury Retort (S2.002/TU4.002)								
Hg	3.76	tpy	0.00000538	lbs/hr	0.0034	625	1.5600	Retort emissions factor derived from 2009 M29 stack test.
System Description: Propane Fired Bullion Furnace (S2.003/TU4.003)								
	4.00	tpy	0.00131	lbs/hr	0.1939	148	0.0000	Bullion Furnace emissions factor derived from 2009 M29 stack test.

Source: Barrick, Bald Mountain Mine - Huntington Valley: AQOP AP1041-1362; NMCP AP1041-2246 (continued)								
System Description: Electro-winning Circuit (IA1.024/TU4.004)								
Hg	47,320.50	tpy	0.000501	lbs/hr	2.5050	5,000	0.0000	Electro-winning Cells emissions factor derived from 2009 M29 stack test.
System Description: Barren Strip Solution Tank (TU4.005)								Barren Strip Solution Tank vented to a common stack with Electro-winning
Hg	47,320.50	tpy		lbs/hr	0.0000		0.0000	Cells, therefore, emissions factor is for both units.
System Description: Assay Laboratory								
Hg					3.1246		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	204.3025		2.9400	CY2006 Co-product: 5,880.00 lbs/yr.
				CY2007 Facility Total:	57.4138		2.2750	CY2007 Co-product: 4,550.00 lbs/yr.
				CY2008 Facility Total:	278.3220		2.6000	CY2008 Co-product: 5,200.00 lbs/yr.
				CY2009 Facility Total:	**5.8995**		**1.5600**	**CY2009 Co-product: 3,120.00 lbs/yr.**
Source: Kennecott Rawhide Mining Company - Denton-Rawhide Mine: AQOP AP1041-1116.02; NMCP AP1041-2245								
System Description: Carbon Regeneration Kiln (S2.001/TU4.001)								
Hg	270.00	tpy	0.000222	lbs/hr	1.4390	6,482	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Electro-winning Circuit (IA3.007/TU4.002)								
Hg	Not Reported	gals/yr	0.0000838	lbs/hr	0.5541	6,612	0.0000	Electro-winning Cells emissions factor derived from 2009 M29 stack test.
System Description: Refinery Induction Furnace (S2.004/TU4.003)								
Hg	8.25	tpy	0.0957	lbs/hr	9.4934	99	0.0000	Refinery Furnace emissions factor derived from 2009 M29 stack test.
System Description: System 1 - Mercury Retort (System 2 - S2.002)								
Hg	8.25	tpy	0.000285	lbs/hr	0.5022	1,762	0.0258	Retort emissions factor derived from 2009 M29 stack test.
System Description: Fire Assay Laboratory								
Hg					0.0142		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	351.5928		0.0621	CY2006 Co-product: 124.20 lbs/yr.
				CY2007 Facility Total:	39.5645		0.0276	CY2007 Co-product: 55.20 lbs/yr.
				CY2008 Facility Total:	13.0908		0.0262	CY2008 Co-product: 52.40 lbs/yr.
				CY2009 Facility Total:	**12.0029**		**0.0258**	**CY2009 Co-product: 51.60 lbs/yr.**
Source: Hycroft Resources & Development, Inc. - Crofoot/Lewis Project: AQOP AP1041-0334.02; NMCP AP1041-2255								
System Description: Mercury Retort (TU4.001)								
Hg	Not Reported	tpy	0.0000408	lbs/hr	0.0764	1,872	0.8000	Retort emissions factor derived from 2009 M29 stack test.
System Description: Smelting Furnace (TU4.002)								
Hg	Not Reported	tpy	0.000016	lbs/hr	0.0188	1,172	0.0000	Refinery Furnace emissions factor derived from 2009 M29 stack test.
System Description: Assay Laboratory								
Hg					4.4348		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	0.0000		0.0000	CY2006 Co-product: 0.00 lbs/yr.
				CY2007 Facility Total:	0.0000		0.0000	CY2007 Co-product: 0.00 lbs/yr.
				CY2008 Facility Total:	0.0000		0.0000	CY2008 Co-product: 0.00 lbs/yr.
				CY2009 Facility Total:	**4.5299**		**0.8000**	**CY2009 Co-product: 1,600.00 lbs/yr.**
Source: Antler Peak Gold, Inc. (formerly Metallic Ventures, Inc).: AQOP AP1041-1202; NMCP AP1041-2248								
System Description: Dore Furnace, Carbon Reactivation Kiln								
Hg					0.2838		0.0000	Facility did not operate in 2009. Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	0.0000		0.0000	CY2006 Co-product: 0.00 lbs/yr.
				CY2007 Facility Total:	0.0000		0.0000	CY2007 Co-product: 0.00 lbs/yr.
				CY2008 Facility Total:	0.2838		0.0000	CY2008 Co-product: 0.00 lbs/yr.
				CY2009 Facility Total:	**0.2838**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Coeur D'Alene Mining Corporation - Coeur Rochester Mine: AQOP AP1044-0063.02; NMCP AP1041-2242								
System Description: Refinery Furnace (TU4.001)								
Hg	80.40	tpy	0.00899	lbs/hr	2.5194	280	0.0000	Refinery Furnace emissions factor derived from 2009 M29 stack test.
System Description: Mercury Retorts (TU4.002/TU4.003)								
Hg	114.48	tpy	0.00000405	lbs/hr	0.0097	2,400	10.7000	Retort emissions factor derived from 2009 M29 stack test.
System Description: Assay Laboratory								
Hg					1.8805		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	2.8872		16.1000	CY2006 Co-product: 32,200.00 lbs/yr.
				CY2007 Facility Total:	137.0958		15.4000	CY2007 Co-product: 30,800.00 lbs/yr.
				CY2008 Facility Total:	1.8805		15.6000	CY2008 Co-product: 31,200.00 lbs/yr.
				CY2009 Facility Total:	**4.4097**		**10.7000**	**CY2009 Co-product: 21,400.00 lbs/yr.**
Source: Newmont Mining Corporation - Lone Tree Mine: AQOP AP1041-0059; NMCP AP1041-2251								
System Description: Electro-winning Cells (East Stack)								
Hg	3,985,248.00	gals/yr	0.00013	lbs/hr	0.1747	1,344	0.0000	EW Cells emissions factor derived from 2009 M29 stack test.
System Description: Electro-winning Cells (West Stack)								
Hg	3,985,248.00	gals/yr	0.000554	lbs/hr	0.7446	1,344	0.0000	EW Cells emissions factor derived from 2009 M29 stack test.

Source: Newmont Mining Corporation - Lone Tree Mine: AQOP AP1041-0059; NMCP AP1041-2251 (continued)								
System Description: Electro-winning Cells (Scavenger Stack)								
Hg	3,985,248.00	gals/yr	0.000138	lbs/hr	0.1855	1,344	0.0000	EW Cells emissions factor derived from 2009 M29 stack test.
System Description: Pregnant and Barren Solution Tanks								
Hg	351.00	tpy - carbon	0.00375	lbs/hr	4.2300	1,128	0.0000	Preg./Barren Tanks emissions factor derived from 2009 M29 stack tests.
System Description: Sample Room, Fire Assay Room, Wet Laboratory, LECO Laboratory, Met Laboratory								
Hg					1.8788		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		622.1013		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		148.0964		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		67.1251		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		**7.2136**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Barrick Cortez, Inc. - Cortez Hills and Pipeline Projects: AQOP AP1041-2141; NMCP AP1041-2220								
System Description: Refinery Induction Furnace #1 (S2.002/TU4.003)								
Hg	20.70	tpy	0.000106	lbs/hr	0.0409	385	0.0000	Refinery Furnace emissions factor derived from 2009 M29 stack test.
System Description: Refinery Induction Furnace #2 (S2.003/TU4.004)								
Hg	0.80	tpy	0.000131	lbs/hr	0.0032	25	0.0000	Refinery Furnace emissions factor derived from 2009 M29 stack test.
System Description: Electric Carbon Reactivation Kiln #1 (S2.007/TU4.005)								
Hg	86.60	tpy	0.0000497	lbs/hr	0.0081	163	0.0000	Carbon Kiln #1 emissions factor derived from 2010 M29 stack test. Major component failure forced repairs delaying testing until 01/28/10.
System Description: Electric Carbon Reactivation Kiln #2 (S2.008/TU4.006)								
Hg	1,398.50	tpy	0.0000168	lbs/hr	0.0393	2,341	0.0170	Carbon Kiln #2 emissions factor derived from 2009 M29 stack test.
System Description: East Electro-winning Cells (IA1.096/TU4.001)								
Hg	Not Reported	gals/min	0.0000268	lbs/hr	0.1891	7,055	0.0000	EW Cells emissions factor derived from 2009 M29 stack test.
System Description: West Electro-winning Cells (IA1.097/TU4.002)								
Hg	Not Reported	gals/min	0.0000125	lbs/hr	0.0955	7,641	0.0000	EW Cells emissions factor derived from 2009 M29 stack test.
System Description: Fire Assay Fusion Furnaces (S2.018a-f/TU4.007a-f)								
Hg	15.21	tpy	0.0000299	lbs/hr	0.1527	5,107	0.0000	Furnace emissions factor derived from 2009 M29 stack test.
System Description: Pregnant and Barren Strip Solution Tanks (TU4.008 & TU4.009)								
Hg	Not Reported	gals/yr	0.00000803	lbs/hr	0.0588	7,317	0.0000	Preg./Barren Tanks emissions factor derived from 2009 M29 stack test.
System Description: Assay Laboratory (Analytical Lab Building), Met Laboratory, Strip Circuit Area (Mill Building), Refinery Gold Sludge Drying Oven								
Hg					0.8029		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		166.7059		0.1200	CY2006 Co-product: 240.00 lbs/yr.
			CY2007 Facility Total:		208.0466		0.3200	CY2007 Co-product: 640.00 lbs/yr.
			CY2008 Facility Total:		75.8638		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		**1.3905**		**0.0170**	**CY2009 Co-product: 34.00 lbs/yr.**
Source: Florida Canyon Mining, Inc. - Florida Canyon Mine: AQOP AP1041-0106.02; NMCP AP1041-2256								
System Description: Mercurt Retort (System 6 - S2.003/TU4.004)								
Hg	1.09	tpy	0.0000026	lbs/hr	0.0002	79	0.0000	Retort emissions factor derived from 2009 M29 stack test.
System Description: Mercurt Retort (System 6 - S2.004/TU4.005)								
Hg	10.26	tpy	0.00000055	lbs/hr	0.0005	928	0.8120	Retort emissions factor derived from 2009 M29 stack test.
System Description: Summit Valley Electro-winning Cell A (TU4.002)								
Hg	60.00	gals/min	0.00083	lbs/hr	7.2708	8,760	0.0000	Electro-winning Cells emissions factor derived from 2009 M29 stack test.
System Description: Summit Valley Electro-winning Cell B (TU4.003)								
Hg	60.00	gals/min	0.00071	lbs/hr	6.2196	8,760	0.0000	Electro-winning Cells emissions factor derived from 2009 M29 stack test.
System Description: Combustion Air International Carbon Regeneration Kiln (System 9 - S2.007/TU4.008)								
Hg	1,659.73	tpy	0.00515	lbs/hr	32.4017	6,292	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Inductotherm Dore Furnace (System 7 - S2.005/TU4.001)								
Hg	8.80	tpy	0.00027	lbs/hr	0.0882	327	0.0000	Dore Furnace emissions factor derived from 2009 M29 stack test.
System Description: Pregnant Tank (TU4.006)								
Hg	8,760.00	hrs/yr		lbs/hr	0.0000	8,760	0.0000	No emissions factor available - closed circuit.
System Description: Barren Tank (TU4.007)								
Hg	8,760.00	hrs/yr		lbs/hr	0.0000	8,760	0.0000	No emissions factor available - closed circuit.
System Description: Assay Laboratory								
Hg					3.6307		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		440.7382		0.2264	CY2006 Co-product: 452.80 lbs/yr.
			CY2007 Facility Total:		19.0000		0.0072	CY2007 Co-product: 14.40 lbs/yr.
			CY2008 Facility Total:		162.3117		0.2875	CY2008 Co-product: 575.00 lbs/yr.
			CY2009 Facility Total:		**49.6118**		**0.8120**	**CY2009 Co-product: 1,624.00 lbs/yr.**

Source: Round Mountain Gold Corporation - Smoky Valley Common Operation: AQOP AP1041-0444.01; NMCP AP1041-2250								
System Description: Carbon Regeneration Kiln (S2.121/TU4.001)								
Hg	3,312.00	tpy	0.0000699	lbs/hr	0.6048	8,652	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Pregnant Strip Solution Tank (Shares a common stack with S2.121/TU4.002)								
Hg	Approx. 45	gals/min		lbs/hr	0.0000	8,760	0.0000	Emissions combined with Carbon Kiln.
System Description: Barren Strip Solution Tank #1 (Shares a common stack with S2.121/TU4.003)								
Hg	Approx. 45	gals/min		lbs/hr	0.0000	8,760	0.0000	Emissions combined with Carbon Kiln.
System Description: Barren Strip Solution Tank #2 (Shares a common stack with S2.121/TU4.004)								
Hg	Approx. 45	gals/min		lbs/hr	0.0000	8,760	0.0000	Emissions combined with Carbon Kiln.
System Description: Electric Induction Furnace (S2.130/TU4.005)								
Hg	47.00	tpy	0.00158	lbs/hr	0.9227	584	0.0000	Induction Furnace emissions factor derived from 2009 M29
System Description: Refinery Electro-winning Vent & Ovens, Assay Laboratory Ovens.								
Hg					3.0603		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		57.0585		0.0085	CY2006 Co-product: 17.00 lbs/yr.
			CY2007 Facility Total:		59.6652		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		8.3173		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		**4.5878**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Homestake Mining Company of California - Ruby Hill Mine: AQOP AP1041-0713.01; NMCP AP1041-2252								
System Description: Electric Carbon Regeneration Kiln (S2.019/TU4.001)								
Hg	94.40	tpy	0.00077	lbs/hr	0.9810	1,274	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Electric Mercury Retort (S2.022/TU4.003)								
Hg	5.61	tpy	0.0000008	lbs/hr	0.0007	911	0.1762	Retort emissions factor derived from 2009 M29 stack test.
System Description: Electric Refinery Induction Furnace (S2.013/TU4.002)								
Hg	4.46	tpy	0.00187	lbs/hr	0.1870	100	0.0000	Furnace emissions factor derived from 2009 M29 stack test.
System Description: Electro-winning Cells 1 & 2 (IA1.005/TU4.004)								
Hg		gals/yr	0.00054	lbs/hr	4.7304	8,760	0.0000	Electro-winning Cells emissions factor derived from 2009 M29 stack test.
System Description: Pregnant and Barren Strip Solution Tanks (TU4.005)								Pregnant and Barren Strip Solution Tanks vented to a common stack with
Hg		gals/yr		lbs/hr	0.0000		0.0000	Electro-winning Cells, therefore, emissions factor is for both units.
System Description: Assay Laboratory								
Hg					1.3883		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		28.7825		0.5000	CY2007 Co-product: 1,000.00 lbs/yr.
			CY2007 Facility Total:		35.2201		0.3800	CY2007 Co-product: 760.00 lbs/yr.
			CY2008 Facility Total:		1.3883		0.2400	CY2008 Co-product: 480.00 lbs/yr.
			CY2009 Facility Total:		**7.2874**		**0.1762**	**CY2009 Co-product: 352.40 lbs/yr.**
Source: Marigold Mining Company - Marigold Mine: AQOP AP1041-0158.02; NMCP AP1041-2254								
System Description: Carbon Regeneration Kiln (S2.013A/TU4.001)								
Hg	741.40	tpy	0.0000009	lbs/hr	0.0041	4,515	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Mercury Retort (S2.014/TU4.002)								
Hg	9.20	tpy	0.000041	lbs/hr	0.0468	1,142	0.8160	Retort emissions factor derived from 2009 M29 stack test.
System Description: Tilting Crucible Furnace (S2.015/TU4.003)								
Hg	5.70	tpy	0.000564	lbs/hr	0.1180	209	0.0000	Furnace emissions factor derived from 2009 M29 stack test.
System Description: Electro-winning Circuit (TU4.004)								
Hg	50,256.00	tpy	0.000041	lbs/hr				Electro-winning Cells emissions factor derived from 2009 M29 stack test.
System Description: Pregnant Strip Solution Tank (TU4.005)								Pregnant and Barren Strip Solution Tanks vented to a common stack with
Hg	50,256.00	tpy	See Notes	lbs/hr				Electro-winning Cells, therefore, emissions factor is for all three units.
System Description: Barren Strip Solution Tank (TU4.006)								
Hg	50,256.00	tpy	See Notes	lbs/hr	0.2653	6,470	0.0000	
System Description: Assay Laboratory								
Hg					4.0198		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		908.0610		0.1675	CY2006 Co-product: 335.00 lbs/yr.
			CY2007 Facility Total:		5.2255		0.2450	CY2007 Co-product: 490.00 lbs/yr.
			CY2008 Facility Total:		10.4883		0.5690	CY2008 Co-product: 1,138.00 lbs/yr.
			CY2009 Facility Total:		**4.4540**		**0.8160**	**CY2009 Co-product: 1,632.0 lbs/yr.**
Source: Borealis Mining Company: AQOP AP1041-2125; NMCP AP1041-2228								
System Description:								
Hg					0.0000		0.0000	Facility did not operate in 2009.
			CY2006 Facility Total:		0.0000		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		0.0000		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		0.0000		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		**0.0000**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**

Source: Barrick Turquoise Ridge, Inc. - Getchell Mine: AQOP AP1041-0292.01; NMCP AP1041-2249								
System Description: Assay/Met Laboratory								
Hg					4.9462		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		10.6752		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		4.9660		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		4.9462		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		**4.9462**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Eden Research, LLC: AQOP AP1041-2511; NMCP AP1041-2638								
System Description: Assay Laboratory								
Hg					2.7982		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2009 Facility Total:		**2.7982**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Royal Standard Minerals, Inc. - Manhattan Mine: AQOP AP1041-1457; NMCP AP1041-2303								
System Description: Dore Smelting Furnace								
Hg					4.1040		0.0000	Facility did not operate in 2009 Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		0.0000		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		4.1040		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		4.1040		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		**4.1040**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Newmont Mining Corporation - Phoenix Mine: AQOP AP1041-0220.02; NMCP AP1041-2247								
System Description: Electric Carbon Regeneration Kiln (S2.002/TU4.001)								
Hg	2,310.00	tpy	0.0000785	lbs/hr	0.3022	3,850	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Mercury Retort (S2.014/TU4.002)								
Hg	16.80	tpy	0.000339	lbs/hr	0.6407	1,890	0.0000	Retort emissions factor derived from 2009 M29 stack test.
System Description: Pregnant & Barren Strip Solution Tanks								
Hg					0.0940		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
System Description: Electro-winning Cells								
Hg					0.2733		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		2.3061		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		0.4579		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		**1.3102**		**0.0000**	**CY2009 Co-product: 0.00 lbs/yr.**
Source: Barrick Goldstrick Mines, Inc.: AQOP AP1041-0739.01; NMCP AP1041-2221								
System Description: Roaster Mill Circuit #1 Air Pre-Heater and Dry Grinding Process (S2.204 & S2.205.01 - S2.205.12/TU4.001)								
Hg	2,495,594.00	tpy	0.00053	lbs/hr	4.10962	7,754	0.0000	Roaster Mill Circuit #1 emissions factor derived from 2009 M29 stack test.
System Description: Roaster Mill Circuit #2 Air Pre-Heater and Dry Grinding Process (S2.206 & S2.207.01 - S2.207.12/TU4.002)								
Hg	2,404,814.00	tpy	0.00662	lbs/hr	52.0001	7,855	0.0000	Roaster Mill Circuit #2 emissions factor derived from 2009 M29 stack test.
System Description: Roasters #1 & #2 (S2.209.1 & S2.209.2/TU4.003 & TU4.004)								
Hg	5,491,210.00	tpy	0.02189	lbs/hr	172.14296	7,864	60.1260	Roaster Circuit emissions factor derived from 2009 M29 stack test. Testing was conducted during dual Roaster operations. Annual hours operated is the average of individual Roaster operations. Roaster #1 operated 7,851 hrs/yr, Roaster #2 operated 7,876 hrs/yr.
System Description: Roaster Circuit #1 Quenching Process (S2.210/TU4.005)								
Hg	2,897,993.00	tpy	0.00446	lbs/hr	35.01546	7,851	0.0000	Roaster Quench Circuit #1 emissions factor derived from 2009 M29 stack test.
System Description: Roaster Circuit #2 Quenching Process (S2.211/TU4.006)								
Hg	2,593,217.00	tpy	0.00465	lbs/hr	36.6234	7,876	0.0000	Roaster Quench Circuit #2 emissions factor derived from 2009 M29 stack test.
System Description: Analytical Assay Laboratory (S2.051/TU4.007)								
Hg	68.00	tpy	0.0001	lbs/hr	0.8045	8,045	0.0000	Assay Lab emissions factor derived from 2009 M29 satck test.
System Description: Carbon Reactivation Kiln (S2.004.1/TU4.008)								
Hg	12,701.00	tpy	0.00041	lbs/hr	3.0861	7,527	0.0000	Carbon Kiln emissions factor derived from 2009 M29 stack test.
System Description: Pregnant & Barren Strip Solution Tank Circuit A (TU4.009 & TU4.011)								
Hg	Not Reported	gals/yr	0.0005	lbs/hr	4.3800	8,760	0.0000	Preg./Barren Tanks emissions factor derived from 2009 M29 stack test.
System Description: Pregnant & Barren Strip Solution Tank Circuit B (TU4.010 & TU4.012)								
Hg	Not Reported	gals/yr	0.00037	lbs/hr	3.2412	8,760	0.0000	Preg./Barren Tanks emissions factor derived from 2009 M29 stack test.
System Description: Autoclave Circuit #1 (S2.015/TU4.013)					Acidic Operation			
Hg	464,338.00	tpy	0.00072	lbs/hr	3.6504	5,070	0.0000	Autoclave Circuit #1 emissions factor derived from 2009 M29 stack test. Testing was conducted in 2009 during acidic operations mode only.

Source: Barrick Goldstrick Mines, Inc.: AQOP AP1041-0739.01; NMCP AP1041-2221 (continued)								
System Description: Autoclave Circuit #1 (S2.015/TU4.013)					Alkaline Operation			
Hg	60,743.00	tpy		lbs/hr	0.0000	387	0.0000	No 2009 NDEP approved M29 testing during alkaline operations mode. Autoclave #1 (TU4.013) operated 387 hours in alkaline mode. Internal testing was conducted, but the NDEP did not pre-approve the testing protocol or methodology, nor validate the test results.
System Description: Autoclave Circuit #2 (S2.016 & S2.017/TU4.014 & TU4.015))						Acidic Operation		
Hg	918,520.00	tpy	0.00086	lbs/hr	3.2508	3,780	0.0000	Autoclave Circuit #2 emissions factor derived from 2009 M29 stack test. Testing was conducted during dual Autoclave operation and only during acidic operations mode. Annual hours operated is the average of individual Autoclave operations. Autoclave #2 (TU4.014) operated 4,296 hrs/yr; Autoclave #3 (TU4.015) operated 3,263 hrs/yr.
System Description: Autoclave Circuit #2 (S2.016 & S2.017/TU4.014 & TU4.015))						Alkaline Operation		
Hg	764,200.00	tpy		lbs/hr	0.0000	3,386	0.0000	No 2009 NDEP approved M29 testing during alkaline operations mode. Autoclave #2 (TU4.014) operated 3,591 hours in alkaline mode and Autoclave #3 (TU4.015) operated 3,186 hours in alkaline mode (average of 3,386 hours). Internal testing was conducted, but the NDEP did not pre-approve the testing protocol or methodology, nor validate the test results.
System Description: Autoclave Circuit #3 (S2.018/TU4.016)					Acidic Operation			
Hg	531,350.00	tpy	0.00107	lbs/hr	4.6385	4,335	0.0000	Autoclave Circuit #3 emissions factor derived from 2009 M29 stack test. Testing was conducted in 2009 during acidic operations mode only.
System Description: Autoclave Circuit #3 (S2.018/TU4.016)					Alkaline Operation			
Hg	210,101.00	tpy		lbs/hr	0.0000	1,344	0.0000	No 2009 NDEP approved M29 testing during alkaline operations mode. Autoclave #3 (TU4.016) operated 1,344 hours in alkaline mode. Internal testing was conducted, but the NDEP did not pre-approve the testing protocol or methodology, nor validate the test results.
System Description: Autoclave Circuit #4 (S2.019 & S2.020/TU4.017 & TU4.018)						Acidic Operation		
Hg	1,251,783.00	tpy	0.00117	lbs/hr	6.0910	5,206	0.0000	Autoclave Circuit #4 emissions factor derived from 2009 M29 stack test. Testing was conducted during dual Autoclave operation and only during acidic operations mode. Annual hours operated is the average of individual Autoclave operations. Autoclave #5 (TU4.017) operated 5,056 hrs/yr; Autoclave #6 (TU4.018) operated 5,356 hrs/yr.
System Description: Autoclave Circuit #4 (S2.019 & S2.020/TU4.017 & TU4.018)						Alkaline Operation		
Hg	556,572.00	tpy		lbs/hr	0.0000	2,514	0.0000	No 2009 NDEP approved M29 testing during alkaline operations mode. Autoclave #5 (TU4.017) operated 2,430 hours in alkaline mode and Autoclave #6 (TU4.018) operated 2,598 hours in alkaline mode (average of 2,514 hours). Internal testing was conducted, but the NDEP did not pre-approve the testing protocol or methodology, nor validate the test results.
System Description: Mercury Retorts #1 (S2.009/TU4.019)								
Hg	32.00	tpy	0.00245	lbs/hr	4.5521	1,858	0.0000	Retort emissions factor derived from 2009 M29 stack test.
System Description: Mercury Retorts #2 (S2.010/TU4.020)								
Hg	36.00	tpy	0.00087	lbs/hr	1.8740	2,154	0.0000	Retort emissions factor derived from 2009 M29 stack test.
System Description: Mercury Retorts #3 (S2.011/TU4.021)								
Hg	30.00	tpy	0.00332	lbs/hr	6.1619	1,856	0.0000	Retort emissions factor derived from 2009 M29 stack test.
System Description: Mercury Retorts #1 - #3 (Cumulative Co-product)								
Hg							1.7470	Cumulative co-product for all three mercury retorts.
System Description: East & West Refinery Furnaces & Electro-winning Cells combined vented through a common carbon filter and stack (S2.013 & S2.014/TU4.022 & TU4.023)								
Hg	82.00	tpy	0.02869	lbs/hr	12.5088	436	0.0000	Furnaces's/EW Cells emissions factor derived from 2009 M29 stack test. Testing was conducted during dual Furnace and EW Cell operations. Annual hours operated is the average of individual Furnace operations. East Furnace (TU4.022) operated 442 hrs/yr; West Furnace (TU4.023) operated 430 hrs/yr.
System Description: Electro-winning Cells only (TU4.024)								
Hg	Not Reported	gals/yr	0.00154	lbs/hr	11.1558	7,244	0.0000	EW Cells emissions factor derived from 2009 M29 stack test while the Furnaces were not operating. Total EW Cell operating hours were 7,680 hrs/yr. Combined Furnace/EW Cell operating hours of 436 hrs/yr. was subtracted from total hours operated to arrive at 7,244 hours of EW Cell operations only.

Source: Barrick Goldstrick Mines, Inc.: AQOP AP1041-0739.01; NMCP AP1041-2221 (continued)							
System Description: Assay, Mill, Mill Met, Autoclave, Autoclave Met and Roaster Pumphouse Laboratories, Strip Circuit Area and Ore Fines Fee System.							
Hg				4.4965		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:	616.7650		98.5500	CY2006 Co-product: 197,100.00 lbs/yr.
			CY2007 Facility Total:	708.6590		58.6300	CY2007 Co-product: 117,260.00 lbs/yr.
			CY2008 Facility Total:	166.0557		87.3300	CY2008 Co-product: 134,660.00 lbs/yr.
			CY2009 Facility Total:	**369.7831**		**61.8730**	**CY2009 Co-product: 123,746.00 lbs/yr.**

Note that the total value is lower than actual industry-wide emissions due to a few thermal units which were unable to test in the reporting year and the absence of 2009 test data for Barrick Goldstrike's autoclaves under alkaline operating conditions.

In March 2010, Barrick Goldstrike tested under acidic vs. alkaline ore operating conditions. This was the first time a Method 29 test was conducted for autoclaves operating in alkaline mode. As Hg loading between the two conditions is similar, emissions were not expected to be affected. However, internal Barrick testing in 2009 showed a notable difference in emissions with alkaline conditions emitting more Hg to the atmosphere. Because the first official test was not conducted until 2010, there are no alkaline conditions emission factors for the autoclaves that apply to the 2009 reporting year. Barrick has voluntarily ceased operations under alkaline conditions until new Hg controls can be installed. In 2009, approximately 1/3 of autoclave operations at Barrick Goldstrike were under alkaline conditions.

Barrick's 2010 internal test consisted of (5) 2-run Method 29 tests. Seven of the 10 runs had isokinetic issues most likely due to the high moisture content of the exhaust gas. Assuming that the tests are representative of emissions, acidic ore emits at approximately 10-5 gr/dscf, while alkaline ore emits at approximately 10-3 gr/dscf. The possible difference in 2009 Hg emisions could have been as high as an additional 600 lbs. of Hg, assuming that the 2010 non-validated Barrick internal tests are representative. NvMACT analysis is underway to determine appropriate Hg controls under alkaline conditions for the autoclaves at Barrick Goldstrike and should begin public notice in August, 2010.

CY 2009 Cumulative Totals			
Process Emissions lbs/yr		Co-Product tpy	CY 2009 process emissions were solely derived using one consistent FRM testing methodology (Method 29). Testing protocols were reviewed prior to test commencement and all final report submittals were reviewed to ensure reporting accuracy. In general, testing went much better in 2009 than in 2008 with far fewer testing irregularities or instances where test results were invalidated.
1,336.46		**90.18**	Co-product: 180,360.00 lbs/yr
CY 2008 Cumulative Totals			CY 2008 process emissions were largely derived using one consistent FRM testing methodology (Method 29). Testing protocols were reviewed prior to test commencement and all final report submittals were reviewed to ensure reporting accuracy. Some facilities had entire testing events, or in some cases just one or more runs of a test event, invalidated due to irregularities in testing protocol, poor sample handling procedures or laboratory errors. Yukon-Nevada Corporation - Jeritt Canyon Mine (formerly Queenstake Resources) did not test in 2008 due to the temporary NDEP ordered shutdown of the facility.
Process Emissions lbs/yr		Co-Product tpy	
3,165.90		**102.93**	Co-product: 205,860.00 lbs/yr
CY 2007 Cumulative Totals			CY 2007 process emissions were largely derived using one consistent FRM testing methodology (Method 29) with scattered M101A and OHM results used in lieu of M29 due to test schedule conflicts/logistics issues. Testing protocals were reviewed prior to test commencement and all final report submittals were reviewed to ensure reporting accuracy.
Process Emissions lbs/yr		Co-Product tpy	
4,764.52		**97.68**	Co-product: 195,360.00 lbs/yr
CY 2006 Cumulative Totals			CY 2006 process emissions and co-product values were accepted "as submitted" due to variability in testing methodology, emission calculation methods and/or the lack of current FRM test results.
Process Emissions lbs/yr		Co-Product tpy	
4,468.15		**133.26**	Co-product: 266,520.00 lbs/yr