
From: Clark, Richard (MPCA) <richard.clark@state.mn.us>
Sent: Tuesday, March 24, 2015 3:52 PM
To: Lindsey France
Subject: RE: Mercury and Sulfate Values
Attachments: Book1.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

Attached is the data. (Some is approximated/rounded off, but still fully representative)

	2014	2013	2012	2011	2010
Hoyt L					
Hg	5.4	5.5	6.8	12.7	5.9
SO4	nd	nd	nd	nd	nd
Flow	0.347	0.289	0.276	0.281	0.236
Northshore					
Hg	0.6	0.8	0.6	0.8	0.6
SO4	25	23.5	28	22	28
Flow^	7.5	7.8	9.1	5.0	5.8
CE Pit 2W					
Hg	0.27	0.44	0.9	no dschrg	no dschrg
SO4	124	125	125	no dschrg	no dschrg
Flow*	2.8	3.7	1.3	no dschrg	no dschrg
CE Pit 3					
Hg	0.42	0.38	0.6	0.6	0.6
SO4	71	75	79	75	78
Flow	0.6	0.6	0.5	0.6	0.2
CE Pit 5S					
Hg	0.72	0.56	0.8	0.7	0.5
SO4	82	83	92	91	102
Flow**	0.5	0.5	0.5	0.5	0.5
CE Pit 5NW					
Hg	0.86	1.0	0.91	0.95	0.87
SO4	1059	1092	1114	1064	1094
Flow	0.9	0.7	0.7	1.5	0.5
Nugget					
Hg	0.5	0.6	no dschrg	no dschrg	0.6
SO4	478	482	no dschrg	no dschrg	387
Flow*	2.4	1.8	no dschrg	no dschrg	1.5
Mesabi Mining Pit 6					
Hg	0.5	0.54	0.5	0.5	0.6
SO4	1240	1240	1240	1200	1200
Flow***	1.3	1.3	1.3	1.3	1.3
Babbitt					
Hg	2.1	3.1	3.8	0.8	nd
SO4	29	32	38	42	nd
Flow	0.213	0.188	0.139	0.125	nd
Arcelor Laurentian					
Hg	0.92	1.02	0.98	1.0	0.89
SO4	144	141	134	122	108
Flow	3.2	3.0	3.3	3.2	3.3
Arcelor East Reserve					
Hg	1.6	1.2	1.6	2.0	3.7
SO4	267	225	209	149	90
Flow	1.1	2.0	1.95	2.0	2.1

nd = no data

* = flow may be seasonal; value reported is total flow averaged over 12 months

** = flow estimated

*** = discharge via the subsurface; flow estimated

^ = approximate

Hg = ng/L

SO4 = mg/L

Flow = mgd

From: Clark, Richard (MPCA) [mailto:richard.clark@state.mn.us]
Sent: Tuesday, March 24, 2015 8:33 AM
To: Lindsey France
Subject: RE: Mercury and Sulfate Values

Lindsey, per your request, here are some average 2013 data (in place of the previously delivered 2014 data) for some of the entities in the tables. I also added data for Babbitt POTW, Cliffs Erie Pit 5NW and Laurentian:

Hoyt Lakes POTW

Hg = 5.5 ng/L

SO4 = no data

Flow = 0.289 mgd

Northshore Mining (Discharge SD009 to Partridge R) Hg = 0.8 ng/L

SO4 = 24 mg/L

Flow = 7.8 mgd

Mesabi Nugget

Hg = 0.6 ng/L

SO4 = 482 mg/L

Flow = 3.5 mgd for 6 months, 0 mgd for 6 months

Cliffs Erie Pit 2W

Hg = 0.44 ng/L

SO4 = 125 mg/L

Flow = 5.5 mgd for 8 months, 0 mgd for 4 months

Cliffs Erie Pit 3

Hg = 0.38 ng/L

SO4 = 75 mg/L

Flow = 0.6 mg/L

Cliffs Erie Pit 5S

Hg = 0.56 ng/L

SO4 = 83 mg/L

Flow = ~0.5 mgd (estimated)

Babbitt POTW
Hg = 3.1 ng/L
SO₄ = 32 mg/L
Flow = 0.188 mgd

Cliffs Erie Pit 5NW
Hg = 1.0 ng/L
SO₄ = 1092 mg/L
Flow = 0.7 mgd

Arcelor Mittal Laurentian Mine
Hg = 1.02 ng/L
SO₄ = 141 mg/L
Flow = 3.0 mgd

Arcelor Mittal East Reserve
Hg = 1.2 ng/L
SO₄ = 225 mg/L
Flow = 2.0 mgd

MP Laskin = no new info

Mesabi Energy = no new info (but recognize that as an 'alternate' site for a project that is not going forward, there is an extremely small likelihood of being built)