

APPENDIX 4

HANNUKAINEN MINING OY

PILOT PLANT

Mass and Water Balance, 28.9.2017 Hour 10:00



GEOLOGIAN TUTKIMUSKESKUS • GEOLOGISKA FORSKNINGSCENTRALEN • GEOLOGICAL SURVEY OF FINLAND

PL / PB / P.O. Box 96
FI-02151 Espoo, Finland
Tel. +358 20 550 11
Fax +358 20 550 12

PL / PB / P.O. Box 1237
FI-70211 Kuopio, Finland
Tel. +358 20 550 11
Fax +358 20 550 13

PL / PB / P.O. Box 97
FI-67101 Kokkola, Finland
Tel. +358 20 550 11
Fax +358 20 550 5209

PL / PB / P.O. Box 77
FI-96101 Rovaniemi, Finland
Tel. +358 20 550 11
Fax +358 20 550 14

Y-tunnus / FO-nummer / Business ID: 0244680-7 • www.gtk.fi

1 HANNUKAINEN MATERIAL AND WATER BALANCE CALCULATION

Product	kg/h	wt%	Fe%	Sol-%	SG	Flow kg/h	Water l/h	Solids l/h	Flow l/h	Cell l	Tret Lab min	TRet min
Derrick us	750.4	100.0	35.3	27.9	3.9	2690	1939	192	2132			
CuRC	23.1	3.1	40.4	11.0	3.9	210	187	6	193	900	16	22.0
CuRT	727.3	96.9	35.1	24.3	3.9	2993	2266	186	2452			
CuCln1 Feed	27.5	3.7	13.5	3.9	203	176	7	183				
CuCC1	15.9	2.1	39.1	17.3	3.9	92	76	4	80	50	11	16.4
CuCT1	22.5	3.0	41.4	7.3	3.9	308	286	6	291			
CuCSC	4.3	0.6	40.2	17.5	3.9	25	20	1	22	50		10.3
CuCST	18.2	2.4	41.7	5.8	3.9	313	295	5	300			
CuCln2 Feed	31.6	4.2	10.8	3.9	293	261	8	269				
CuCC2	20.7	2.8	34.5	9.7	3.9	213	192	5	198	50	10	11.1
CuCT2	11.0	1.5	40.8	4.2	3.9	261	250	3	253			
CuCC3	5.0	0.7	35.3	33.8	3.9	15	10	1	11	50	8	15.2
CuCT3	15.7	2.1	34.2	6.7	3.9	235	219	4	223			
WLC1	374.8	50.0	59.5	43.0	4.8	872	497	78	575			
WLT1	352.5	47.0	9.2	12.5	3.0	2820	2467	117	2585			
WLC2	365.5	48.7	60.7	37.7	4.8	970	604	76	680			
WLT2	9.3	1.2	12.6	2.0	3.0	465	455	3	459			
WLC3	321.9	42.9	67.7	43.9	4.8	733	411	67	478			
WLT3	43.6	5.8	8.9	1.7	3.0	2567	2523	15	2538			
WLT1-3	405.4	54.0	9.3	8.0	3.0	5067	4662	135	4797			
CyUF	378.9	50.5	8.7	20.5	3.0	1848	1469	126	1595			
Cy OF	26.5	3.5	17.1	0.8	3.0	3318	3292	9	3300			
PyRC	32.9	4.4	19.1	7.2	3.0	457	424	11	435	600	14	22.6
PyRT	345.9	46.1	7.7	24.8	3.0	1395	1049	115	1164			
PyCln1 Feed	51.1	6.8	27.1	6.6	3.0	774	723	17	740			
PyCC	8.0	1.1	42.2	6.9	3.0	116	108	3	110	100	3	8.1
PyCT	43.1	5.7	24.3	3.6	3.0	1197	1154	14	1169			
Po Feed	321.9	42.9	67.7	30.0	4.8	1073	751	67	818			
PoRC	45.7	6.1	56.7	4.4	3.5	1039	993	13	1006	750	19	55.0
PoRT	276.2	36.8	69.6	46.8	4.8	590	314	58	372			
PoCC	10.7	1.4	60.2	6.9	3.5	155	144	3	147	100	3	6.0
PoCT	35.0	4.7	55.7	3.6	4.8	973	938	7	945			
WLC4	274.3	36.5	69.9	36.2	4.8	758	483	57	540			
WLT4	2.0	0.3	22.3	0.5	3.0	390	389	1	389			

