た。振とう法による溶出試験と同じである。

(3) 結　果

篩分結果をTable D-11 に示し，供試試料の分析結果をTable D-12，D-13 に示す。また溶出試験の結果をTable D-14に示す。定点の懸濁物質試料，廃さい試料の粒度はともに，大きい方から小さい方に，5μ～25μ，25μ～53μ，53μ～74μの順になる。このうち，5μ～25μのサイズは，Philex廃さいが34.4%，Benguet廃さいが44.1%とそれぞれの定常操業時の試料と考えられるが，Itogon廃さいは12.6%と他より低い値を示し，Itogon精錬場の定常操業時の試料かどうか不明である。一方，定点B，C，D，Eそれぞれの3試料の中では，定点Cの試料によるばらつきは大きいものの定点B，D，Eの試料は，類似の粒度分布を示す。定点，B，C，D，Eの試料の間で，粒度分布を比較すると，定点Bの試料は，定点，D，Eの試料より，細粒懸濁物質に富むといえる。定点Cの試料は，上述のとおり，定点Bの試料と定点Dの試料との間をばらついている。

Philex, Benguet, Itogonの廃さいとも，粒度によるCu ,As の含有率の差は，採取したそれぞれの1試料に関するかぎり，ないようである。Zn はBenguet, Itogon 廃さいとも，細粒懸濁物質の方が高い含有率を示す。一方，定点の懸濁物質のうち，定点Bの試料では，Cu , Zn , As とも細粒懸濁物質の方が高い含有率を示す。定点C，D，Eの試料のうち，ほぼ半数は，定点Bと同じく，細粒懸濁物質の方が，Cu, Zn, As 含有率が高いが，残りはその傾向が認められない。

溶出率については，Philexの廃さいのCu, Zn, As 成分は，細粒物質からの方が粗粒物質からよりも溶出しやすいことを示している。Benguet , Itogon の廃さいのCu 成分は逆に細粒物質の方が溶出しにくい。定点D試料のCu 成分，定点C試料のZn 成分，定点EのAs 成分については，細粒懸濁物質からの方が粗粒懸濁物質からよりも溶出しやすい。

7. 粒度試験

(1) 篩分試験

第1次調査時に，ダム上流部に堆積する堆砂の粒度分布を知るために，Binga ダムの堆砂の篩分試験を実施した。試験結果は，Table D-16 ，Fig. D-4 に示す通りで，径2 mm 以下の粒子の比率はBD102 で60%を示すが，他の3試料は28～36%で少ない。又，径74μ以下の粒子は，一番多いBD104でも19%で非常に少ない。この結果，ダムの上流部の堆砂は細粒部分が少ないことが明らかにされた。

(2) 沈降試験

第２次調査時に，ダム上流部の堆砂の粒度，特に下限値を把握するために，Ambuklaoダム，Bingaダムの比較的細粒部を対象とし，２mmアンダーの試料を用い現場における沈降試験を実施した。試験結果は，Table D-16 Fig. D-5に示す。AD204，AD207，BD201，BD202，BD203は１分以内に大部分の粒子が沈降し，その他のものも５分以内に大部分の粒子が沈降した。これらから前者は粗粒砂～細粒砂を主体とする堆積物，後者はAD205を除き，中粒砂～極細粒砂を含む堆積物であり，シルトおよび，粘土粒子は大部分下流に流し去られていることが明らかになった。ただAD205は，上流部の堆砂としては特殊なもので肉眼観察からも，又自重により嵩が減少することからも，シルト粒子を主体とすると考えられる。この試験の結果から，廃さいを，ダム上流部に堆積するであろう部分と，下流部に流れ去るであろう部分に分ける場合，３分程度の沈降時間の後にサンプリングすればよいことが判明し，この操作を行って分級したPhilexの廃さいの粗粒部を，乾湿くり返し法による溶出試験（第２次）およびモデル試験に供した。

(3) 粒度試験

第１次，第２次調査では廃さい（３鉱山，各３試料），Philex 廃さい粗粒部（モデル試験用試料として分級したもの），発電用貯水池の堆砂及びかんがい用水路の堆砂についてBureau of Soilsに依頼し，粒度試験を行った。第３次調査では廃さい（３鉱山，各１試料）の粒度試験を日本で行った。これらの結果をTable D-17 及び Fig. D-6に示す。

1) 選鉱廃さい

第１次，第２次調査のうちPhilex鉱さいは，試験結果のばらつきが大きいが，細粒砂，極細粒砂サイズを中心としており，３鉱山の中で一番粗い，Itogon廃さいは細粒砂からシルトの粒度のものが多く，前者より細粒部分が多い。Benguet 廃さいは，粗粒部がサイクロンで分級し除かれたあとの廃さいであるため，極細粒砂・シルトサイズを中心としており，３鉱山の中で一番細かい。

第３次調査の試料ではPhilex,Benguet,Itogon鉱さいの粘土分（５μ以下）はそれぞれ，１７.５％，７.８％，２２.３％，又，シルト分（５μ～７４μ）はそれぞれ50.3％，５６.９％，７０.４％である。このうちBenguet の粘土分は7.8％と他に比べて低く，Benguet 鉱さいの平均的な粒度分布を示していないと考えられる。

因みにコロイド分（１μ以下）はそれぞれ7.0％，0.5％，8.5％とBenguet廃さいの試料には著しくコロイド分が少なくなっている。

2) 発電用貯水池の堆砂

本試験に供した試料は，前述の沈降試験に供した試料と同じものである。

Table I-30 に示した様に，AD202，AD204，AD207，BD201，BD202，BD203が砂，AD201，AD203，AD206がローム砂，AD205がシルトロームとして区分されている。この区分は，AD202の扱いに違いがあるが，沈降試験の結果とよく整合している。

3) Philex廃さい粗粒部

本試料は，乾湿繰り返し法による溶出試験（第2次）および，モデル試験用試料として分級したもので，粒度試験の結果は発電用貯水池の堆砂のうち粗いものと粒度組成がよく似ており，分級の目的を達したことを示している。

4) かんがい用水路の堆砂

本サンプルは，かんがい用水路の堆砂をモデル試験の参考として溶出試験を行ったものと同じ試料で，かんがい用水路の堆砂も，粗粒部，細粒部が層をなしていることを示している。

(4) 長時間沈降試験

Ambuklao ダム，Binga ダムの貯留水は，乾季の調査では濁度が低く，清澄であった。このことから，San Roque ダムから流出する濁水も，ダム内に貯留され水流がおそくなる時はかなり清澄になると思われる。このことを確認し長期にわたる濁度の変化を把握するため定点（A点及びE点）から採取した試料をメスシリンダー内に静置し，定期的に上面から0～10 cm の範囲の水の濁度を測定した。その結果をTable D-19 に示す。

第2次調査では，定点Eの流下水を2試料を，第3次調査では定点Eの3試料，定点A点の1試料を供試した。このうちE点の5試料は静置後1時間の濁度が380ppm～800ppm を示していたものが7日後にはそれぞれ1.8ppm～8.5ppmと10ppm以下まで清澄になる。

一方，A点の洪水時の試料は静置後1時間後178 ppmであったにもかかわらず7日後11.5ppmとE点の試料よりも高い値を示す。

8. 分析に関する補足

(1) 副次的成分の分析結果

予備調査時に採取した固形分の主要なものについて，副次的成分の分析を行った。その結果をTable D-20に示す。分析の結果，更に検討を行う必要のある成分は認められていない。

予備調査時に採取した水試料の分析は15成分について実施し，その結果分析成分を7成分にしぼっている。前掲の分析結果表は7成分のみ表示しているので，残り8成分の分析結果をTable D-21，D-22に一括示す。

(2) チェック分析の結果

第1次調査，第2次調査時に採取した水試料のうち，各々10試料，13試料についてチェック分析を実施した。その結果をTable D-23，D-24に示す。

検討結果は次に示す様に比国，日本の分析結果はよく整合している。

RATIO OF CHEMICAL ANALYSES VALUES IN THE PHILIPPINES AND JAPAN

	2nd Stage			1st Stage			
	n	$\bar{x}$	σ_{n-1}		n	$\bar{x}$	σ_{n-1}
Cu	5	0.994	0.1709	Cu	2	0.890	0.166
Zn	3	1.0	0.03	Zn	4	0.780	0.387
As	5	1.362	0.9446	As	4	1.050	0.574
Ca	13	1.083	0.1138	Ca	6	1.245	0.113
Mg	13	1.0146	0.0826	Mg	6	1.080	0.092
SO_4	13	0.9538	0.0481	SO_4	10	0.764	0.264

n : The number compared

$\bar{x}$: Average ratio of chemical analyses values

σ_{n-1} : Standard deviation

(3) Cu及びZnの検出限界

水試料中のCu及びZn濃度は一般に低く，検出限界を出来得るだけ下げることが要求された。従って本調査では次に示す様な分析方法によって検出限界を下げる様に努めた。

	analytical method	detection limit Cu(mg/ℓ)	detection limit Zn(mg/ℓ)
1st stage	Flame atomic absorption analysis	0.02	0.01
2nd stage	Flame atomic absorption analysis with pretreatment of solvent extraction method	0.01	0.02
3rd stage	Flame atomic absorption analysis with pretreatment of solvent extraction method	0.01	0.01
	Flameless atomic absorption analysis	0.005	0.005

Detection limit of Cu in the 3rd stage survey is 0.01mg/ℓ since Apr. 1 till Apr.17, and 0.005 mg/ℓ after Apr.17.

Detection limit of Zn in the 3rd stage survey is 0.01mg/ℓ since Apr. 1 till May 9, and 0.005 mg/ℓ after May 9.

Table D-1 APPARATUS FOR TESTS

Test	Apparatus	Description	Reference (stage used)
Shaking Method	Recipro Shaker	Maker: TAIYO SCIENTIFIC INDUSTRIAL CO.	
		Type: SRII	①②③
		Shaking Speed: 100~300 stroke/min	
		Shaking Width: 40 mm	
		Input Power: 200VA	
Aeration Method	Compressor	Maker: HITACHI	
		Type: RC20	①②
		Normal Pressure: 0.4 kg/cm^2	
		Discharge: 130ℓ/min at normal pressure	
		Input Power: 400W	
	Compressor	Maker: SINKU KIKO	③
		Type: DA15S	
		Normal Pressure: 2.7 x 10^{4}Pa	
		Discharge: 15ℓ/min	
		Input Power: 25W	
Wet and Dry Repetition Method	Pump	Type: Mini-Pump	①②
	Pump	Type: Mini Pump	③
	Drying Oven	Maker: YAMATO	
		Type: DS63	①②③
		Temperature: 40°C – 250°C	
		Accuracy: ±1°C	
		Input Power: 1400VA	
Bacteria Addition Method	Pump	Mini-Pump	
Common for All the Tests	Balance	Maker: Mettler, Switzerland	
		Type: AE160	①
	pH Mater	Maker: HITACHI-HORIBA	②③
		Type: M-8	
	Conductivity Meter	Maker: TOA ELECTRONIC	
		Type: CM-1K	

Table D-2 EXTRACTION TEST BY SHAKING METHOD

Sample No.	Description	Solid for Test					Solution								Elution Ratio			
		Weight (g)	Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Description	Volume (ℓ)	Water Temperature (°C)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Cu	Zn	As	S
PM110	Philex Mill Tailings	400	470	50	<2.0	0.26	Stick Water	0.22	30.0	9.4	2,100	0.04	<0.01	<0.0005	1,600				
							Solvent	4.0	–	–	–	–	–	–	–				
							Eluate	4.0	26.5	9.1	470	<0.02	<0.01	0.0006	191	n.d.	n.d.	n.c.	0.13
PM215	Philex Mill Tailings	800	720	100	5.8	0.33	Stick Water	1.52	26.0	9.3	2,700	<0.01	<0.02	0.0010	1,584				
							Solvent	1.7	–	–	–	–	–	–	–				
							Eluate	1.7	31.0	8.5	1,700	0.115	<0.02	0.0080	1,084	0.33×10^{-3}	n.d.	0.26×10^{-2}	n.c.
PM310	Philex Mill Tailings	100	810	45	1.1	0.19	Stick Water	0.023	27.0	7.9	1,300	<0.005	0.014	0.0005	905				
							Solvent	1.0	–	5.3	3.7	<0.005	<0.005	<0.0005	<1				
							Eluate	1.0	29.0	8.5	400	<0.005	0.007	<0.0005	161	n.d.	0.93×10^{-3}	n.d.	0.25
BM110	Benguet Mill Tailings	400	270	710	57	2.27	Stick Water	0.76	25.5	11.3	2,900	22.0	10.7	0.0067	1,458				
							Solvent	4.0	–	–	–	–	–	–	–				
							Eluate	4.0	28.0	10.8	540	1.24	0.04	0.0086	182	n.c.	n.c.	0.13×10^{-2}	n.c.
BM215	Benguet Mill Tailings	800	300	880	73	2.44	Stick Water	2.67	26.0	12.1	4,100	39	15	0.0037	1,443				
							Solvent	1.7	–	–	–	–	–	–	–				
							Eluate	1.7	30.0	8.8	2,900	2.7	<0.02	0.0065	1,648	n.c.	n.d.	0.20×10^{-4}	n.c.
BM310	Benguet Mill Tailings	100	230	630	76	2.93	Stick Water	0.045	27.0	9.5	2,500	8.2	1.1	0.0085	1,628				
							Solvent	1.0		5.3	3.7	<0.005	<0.005	<0.0005	<1				
							Eluate	1.0	29.0	8.6	130	<0.005	0.010	0.0245	35	n.d.	n.c.	0.31×10^{-2}	m
IM110	Itogon Mill Tailings	400	130	270	220	1.29	Stick Water	1.24	22.5	10.4	630	0.02	3.60	0.102	90				
							Solvent	4.0	–	–	–	–	–	–	–				
							Eluate	4.0	28.5	9.5	890	0.08	<0.01	–	12	0.57×10^{-3}	n.d.	n.c.	n.c.
IM215	Itogon Mill Tailings	800	130	310	220	1.54	Stick Water	2.12	23.0	11.4	1,400	17	6.5	0.0505	234				
							Solvent	1.7	–	–	–	–	–	–	–				
							Eluate	1.7	28.0	8.8	600	0.705	<0.02	0.380	206	n.c.	n.d.	0.31×10^{-3}	n.c.
IM310	Itogon Mill Tailings	100	120	300	170	2.23	Stick Water	0.032	27.0	8.3	420	<0.005	0.016	0.0700	52				
							Solvent	1.0	–	5.3	3.7	<0.005	<0.005	<0.0005	<1				
							Eluate	1.0	29.0	8.9	110	<0.005	0.007	0.0230	26	n.d.	0.13×10^{-3}	0.12×10^{-2}	0.36×10^{-2}

n.d. : Elution ratio cannot be calculated, because the ingredient in the eluate is below a confidence limit of chemical analysis.
n.c. : Elution ratio cannot be calculated, because precipitation takes place under test conditions.

Table D-3 EXTRACTION TEST BY SHAKING METHOD

Sample No.	Description	Depth (m)	Solid for Test					Eluate after Shaking							Elution Ratio			
			Weight (g)	Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Volume (ℓ)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Cu	Zn	As	S
PS211	Philex No. 1 boring	0.0– 0.5	800	1,400	54	1.4	0.31	1.7	8.10	2,350	0.007	<0.02	0.0008	1,456	0.11×10^{-4}	n.d.	0.12×10^{-2}	0.33
PS212	– ditto –	2.0– 4.0	800	990	49	1.3	0.30	1.7	8.20	2,300	0.007	<0.02	0.0009	1,359	0.15×10^{-4}	n.d.	0.15×10^{-2}	0.32
PS213	– ditto –	4.0– 6.0	800	1,200	60	1.7	0.28	1.7	8.30	2,450	0.010	<0.02	0.0009	1,488	0.18×10^{-4}	n.d.	0.11×10^{-2}	0.38
PS214	– ditto –	6.0– 8.0	800	1,100	47	1.2	0.25	1.7	8.30	2,400	0.008	0.02	0.0010	1,464	0.15×10^{-4}	0.91×10^{-3}	0.18×10^{-2}	0.42
PS215	– ditto –	8.0–10.0	800	1,200	53	1.1	0.26	1.7	8.30	2,300	0.083	0.02	0.0011	1,439	0.15×10^{-3}	0.80×10^{-3}	0.21×10^{-2}	0.39
PS221	Philex No. 2 boring	0.0– 2.0	800	1,300	41	1.0	0.30	1.7	8.05	2,500	0.002	<0.02	0.0010	1,365	0.33×10^{-5}	n.d.	0.21×10^{-2}	0.32
PS222	– ditto –	2.0– 4.0	800	1,100	44	1.1	0.24	1.7	8.20	2,500	0.008	<0.02	0.0005	1,292	0.15×10^{-4}	n.d.	0.97×10^{-3}	q 0.38
PS223	– ditto –	4.0– 6.0	800	1,100	44	<1.0	0.16	1.7	8.25	2,100	0.010	0.03	0.0008	1,373	0.19×10^{-4}	0.15×10^{-2}	n.c.	0.61
PS224	– ditto –	6.0– 8.0	800	1,500	44	1.0	0.18	1.7	8.20	2,000	0.015	0.02	0.0008	1,205	0.21×10^{-4}	0.97×10^{-3}	0.17×10^{-2}	0.48
PS225	– ditto –	8.0–10.0	800	1,200	45	1.2	0.29	1.7	8.20	2,500	0.008	0.02	0.0012	1,439	0.14×10^{-4}	0.95×10^{-3}	0.21×10^{-2}	0.35
PS231	Philex No. 3 boring	0.0– 2.0	800	1,900	48	1.0	0.28	1.7	8.30	1,800	0.010	0.03	<0.0005	1,067	0.11×10^{-4}	0.13×10^{-2}	n.d.	0.27
PS232	– ditto –	2.0– 4.0	800	1,700	44	<1.0	0.31	1.7	8.25	2,200	0.010	0.02	0.0005	1,359	0.13×10^{-4}	0.97×10^{-3}	n.c.	0.31
PS233	– ditto –	4.0– 6.0	800	1,600	46	<1.0	0.33	1.7	8.30	2,400	0.008	0.02	<0.0005	1,523	0.11×10^{-4}	0.93×10^{-3}	n.d.	0.33
PS234	– ditto –	6.0– 8.0	800	1,500	42	1.3	0.35	1.7	8.20	2,450	0.007	0.02	0.0007	1,635	0.99×10^{-5}	0.10×10^{-2}	0.11×10^{-2}	0.33
PS235	– ditto –	8.0–10.0	800	1,400	46	<1.0	0.34	1.7	8.00	2,450	0.007	0.03	0.0006	1,511	0.11×10^{-4}	0.14×10^{-2}	n.c.	0.32
	Average of 15 samples														0.22×10^{-4}	0.11×10^{-2}	0.14×10^{-2}	0.37
BS211	Benguet No. 1 boring	0.0– 0.5	800	1,000	930	130	3.14	1.7	–	2,600	0.018	0.10	0.0010	1,621	0.38×10^{-4}	0.23×10^{-3}	0.16×10^{-4}	0.37×10^{-1}
BS212	– ditto –	2.0– 4.0	800	1,800	740	140	3.33	1.7	8.80	2,450	0.010	<0.02	0.0032	1,428	0.12×10^{-4}	n.d.	0.49×10^{-4}	0.30×10^{-1}
BS213	– ditto –	4.0– 6.0	800	2,100	650	120	3.44	1.7	8.90	2,300	0.008	0.02	0.0280	1,508	0.81×10^{-5}	0.66×10^{-4}	0.50×10^{-3}	0.31×10^{-1}
BS214	– ditto –	6.0– 8.0	800	2,100	510	120	3.77	1.7	8.10	2,400	0.008	0.04	0.0120	1,500	0.81×10^{-5}	0.17×10^{-3}	0.21×10^{-3}	0.28×10^{-1}
BS215	– ditto –	8.0–10.0	800	1,700	610	130	3.71	1.7	8.15	2,400	0.008	0.04	0.0091	1,387	0.10×10^{-5}	0.14×10^{-3}	0.15×10^{-3}	0.27×10^{-1}
BS221	Benguet No. 2 boring	0.0– 0.5	800	1,300	850	85	2.46	1.7	9.50	2,700	0.024	0.02	0.0064	1,481	0.39×10^{-4}	0.50×10^{-4}	0.16×10^{-3}	0.43×10^{-1}
BS222	– ditto –	2.0– 4.0	800	290	880	140	3.62	1.7	8.60	2,450	0.016	0.02	0.0230	1,501	0.12×10^{-3}	0.48×10^{-4}	0.35×10^{-3}	0.29×10^{-1}
BS223	– ditto –	4.0– 6.0	800	300	840	140	3.33	1.7	8.59	2,350	0.010	0.02	0.0115	1,445	0.71×10^{-4}	0.51×10^{-4}	0.17×10^{-3}	0.31×10^{-1}
BS224	– ditto –	6.0– 8.0	800	330	780	120	3.22	1.7	8.65	2,300	0.011	0.03	0.0127	1,468	0.71×10^{-4}	0.82×10^{-4}	0.23×10^{-3}	0.32×10^{-1}
BS225	– ditto –	8.0–10.0	800	320	680	130	2.99	1.7	8.55	2,300	0.015	0.04	0.0136	1,466	0.10×10^{-3}	0.13×10^{-3}	0.22×10^{-3}	0.35×10^{-1}
BS231	Benguet No. 3 boring	0.0– 0.5	800	200	800	120	2.94	1.7	8.60	2,400	0.011	0.04	0.0057	1,337	0.12×10^{-3}	0.11×10^{-3}	0.10×10^{-3}	0.32×10^{-1}
BS232	– ditto –	2.0– 4.0	800	180	750	110	2.63	1.7	8.45	2,400	0.006	0.02	0.0076	1,342	0.71×10^{-4}	0.57×10^{-4}	0.15×10^{-3}	0.36×10^{-1}
BS233	– ditto –	4.0– 6.0	800	260	730	120	2.69	1.7	8.50	2,300	0.007	0.02	0.0142	1,351	0.57×10^{-4}	0.58×10^{-4}	0.25×10^{-3}	0.36×10^{-1}
BS234	– ditto –	6.0– 8.0	800	370	770	120	3.33	1.7	8.20	2,450	0.006	0.03	0.0102	1,350	0.35×10^{-4}	0.83×10^{-4}	0.18×10^{-3}	0.29×10^{-1}
BS235	– ditto –	8.0–10.0	800	360	640	110	3.36	1.7	8.50	2,300	0.009	0.03	0.0087	1,347	0.53×10^{-4}	0.10×10^{-3}	0.17×10^{-3}	0.28×10^{-1}
	Average of 15 samples														0.59×10^{-4}	0.98×10^{-3}	0.19×10^{-3}	0.32×10^{-1}

n.d. : Elution ratio cannot be calculated because the ingredient in the eluate is below a confidence limit of chemical analysis.
n.c. : Elution ratio cannot be calculated because precipitation takes place under the test condition.

Table D-4 EXTRACTION TEST BY AERATION METHOD

Sample No.	Description	Solid for Test					Solution								Elution Ratio			
		Weight (g)	Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Description	Volume (ℓ)	Water Temperature (°C)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Cu	Zn	As	S
PM110	Philex Mill Tailings	12,600	470	50	<2.0	0.26	Stick water	55	30.0	9.4	2,100	0.04	<0.01	<0.0005	1,600				
							Solvent	340	28.0	7.6	280	<0.02	1.86	0.0011	300				
							Eluate	395	27.0	8.1	960	0.03	0.03	0.0006	–	–	–	–	–
PM215	Philex Mill Tailings	303,000	720	100	5.8	0.33	Stick water	64	26.0	9.3	2,650	<0.02	<0.02	0.0010	1,584				
							Solvent	300	27.5	8.3	260	0.02	<0.02	0.0029	4				
							Eluate	321	30.0	8.5	1,900	0.008	<0.02	0.0055	1,137	n.c.	n.d.	0.65×10^{-3}	0.11
PM310	Philex Mill Tailings	500	810	45	1.1	0.19	Stick water	0.115	27.0	7.9	1,300	<0.005	0.014	0.005	905				
							Solvent	5	–	5.3	4.5	<0.005	<0.005	<0.0005	<1				
							Eluate	5	28.0	8.1	460	0.014	<0.005	<0.0005	157	0.14×10^{-3}	n.d.	n.d.	0.24
		1,000	810	45	1.1	0.19	Stick water	0.230	27.0	7.9	1,300	<0.005	0.014	0.005	905				
							Solvent	5	–	5.3	4.5	<0.005	<0.005	<0.0005	<1				
							Eluate	5	28.5	8.1	620	0.007	0.008	0.0024	268	0.27×10^{-4}	0.54×10^{-3}	0.87×10^{-2}	0.20
BM110	Benguet Mill Tailings	17,400	270	710	57	2.27	Stick water	54	25.5	11.3	2,900	22.0	10.7	0.0067	1,458				
							Solvent	340	28.0	7.6	280	<0.02	1.86	0.0011	300				
							Eluate	394	27.0	9.6	810	0.03	0.17	0.0175	390	–	–	–	–
BM215	Benguet Mill Tailings	118,000	300	880	73	2.44	Stick water	437	26.0	12.1	4,100	39	15	0.0039	1,443				
							Solvent	300	27.0	8.4	310	<0.02	<0.02	0.0024	3				
							Eluate	432	30.0	10.3	2,300	15	20	0.0135	610	n.c.	n.c.	0.40×10^{-3}	n.c.
BM310	Benguet Mill Tailings	500	230	630	76	2.93	Stick water	0.225	27.0	9.5	2,500	8.2	1.1	0.0085	1,628				
							Solvent	5	–	5.3	4.5	<0.005	<0.005	<0.0005	<1				
							Eluate	5	28.0	8.4	190	<0.005	<0.005	0.0150	23	n.d.	n.d.	0.19×10^{-2}	n.c.
		1,000	230	630	76	2.93	Stick water	0.450	27.0	9.5	2,500	8.2	1.1	0.0085	1,628				
							Solvent	5	–	5.3	4.5	<0.005	<0.005	<0.0005	<1				
							Eluate	5	29.0	8.3	280	<0.005	0.011	0.0228	70	n.d.	n.c.	0.14×10^{-2}	n.c.
IM110	Itogon Mill Tailings	5,800	130	270	220	1.29	Stick water	58	22.5	10.4	630	0.02	3.60	0.1021	90				
							Solvent	340	28.0	7.6	280	<0.02	1.86	0.0011	300				
							Eluate	398	27.0	8.3	320	0.17	0.08	0.1159	36	–	–	–	–
IM215	Itogon Mill Tailings	154,000	130	310	220	1.54	Stick water	46	23.0	11.4	1,400	17	6.5	0.0505	234				
							Solvent	300	27.0	8.4	310	<0.02	<0.02	0.0036	3				
							Eluate	410	26.0	9.3	430	4.2	<0.02	0.860	111	n.c.	n.d.	0.10×10^{-1}	0.48×10^{-2}
IM310	Itogon Mill Tailings	500	120	300	170	2.23	Stick water	0.160	27.0	8.3	420	<0.005	0.0016	0.0700	52				
							Solvent	5	–	5.3	4.5	<0.005	<0.005	<0.0005	<1				
							Eluate	5	29.0	8.4	170	<0.005	0.006	0.0098	20	n.d.	0.10×10^{-3}	0.43×10^{-3}	0.27×10^{-2}
		1,000	120	300	170	2.23	Stick water	0.320	27.0	8.3	420	<0.005	0.016	0.0700	52				
							Solvent	5	–	5.3	4.5	<0.005	<0.005	<0.0005	<1				
							Eluate	5	28.5	8.3	240	<0.005	0.015	0.0175	58	n.d.	0.19×10^{-3}	0.38×10^{-3}	0.41×10^{-2}
PS299	Philex Mill Tailings (in pond)	119,000	1,309	47	10.7	0.27	Stick water	–	–	–	–	–	–	–	–				
							Solvent	300	28.0	8.0	270	<0.01	<0.02	0.0041	3				
							Eluate	300	29.0	88.0	1,700	0.017	<0.02	0.0024	950	2.3×10^{-4}	n.d.	n.c.	0.29
BS299	Benguet Mill Tailings (in pond)	118,000	646	715	125	3.29	Stick water	–	–	–	–	–	–	–	–				
							Solvent	300	30.0	8.0	610	<0.01	<0.03	0.0040	128				
							Eluate	300	31.0	8.1	2,400	0.003	<0.02	0.034	1,316	n.c.	n.d.	0.61×10^{-3}	0.31×10^{-1}

n.d. : Elution ratio cannot be calculated, because the ingredient in the eluate is below a confidence limit of chemical analysis.
n.c. : Elution ratio cannot be calculated, because precipitation takes place under test conditions.

Table D-5 EXTRACTION TEST BY WET AND DRY REPETITION METHOD (FIRST STAGE)

Sample No.	Description	Cycle	Solid for Test					Stick Water					Eluate After 1 Cycle Process							Elution Ratio			
			Weight (g)	Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Volume (ℓ)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Volume (ℓ)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Cu	Zn	As	S
PM111	Philex mill tailings after aeration method	1	190	470	50	<2	0.36	0.93	0.03	0.03	0.0006	40	10	8.2	500	<0.02	<0.01	<0.0005	107	n.d.	n.d.	n.d.	0.50
PM112	– ditto –	2											10	8.5	420	<0.02	0.02	0.0011	47	n.d.	n.c.	n.c.	0.21
PM113	– ditto –	3											10	8.5	400	<0.02	<0.01	0.0010	54	n.d.	n.d.	n.c.	0.25
PM114	– ditto –	4											10	8.4	370	<0.02	<0.01	0.0009	40	n.d.	n.d.	n.c.	0.18
BM111	Benguet mill tailings after aeration method	1	29	270	710	57	2.27	0.99	0.03	0.17	0.0175	390	10	8.3	510	0.07	<0.01	0.0173	127	0.86×10^{-2}	n.d.	0.94×10^{-1}	0.45
BM112	– ditto –	2											10	8.4	400	<0.02	0.01	0.0184	47	n.d.	n.c.	0.10	0.42×10^{-2}
BM113	– ditto –	3											10	8.5	400	<0.02	<0.01	0.0134	47	n.d.	n.d.	0.71×10^{-1}	0.42×10^{-2}
BM114	– ditto –	4											10	8.5	380	<0.02	<0.01	0.0059	48	n.d.	n.d.	0.25×10^{-1}	0.48×10^{-2}
IM111	Itogon mill tailings after aeration method	1	66	130	270	220	1.29	0.98	0.17	0.08	0.1159	36	10	8.4	330	<0.02	0.03	0.0675	15	n.d.	n.c.	0.39×10^{-1}	0.45×10^{-1}
IM112	– ditto –	2											10	8.6	340	<0.02	0.04	0.0190	12	n.d.	n.c.	0.52×10^{-2}	0.33×10^{-2}
IM113	– ditto –	3											10	8.6	300	<0.02	0.04	0.0118	13	n.d.	n.c.	0.22×10^{-2}	0.37×10^{-2}
IM114	– ditto –	4											10	8.5	340	<0.02	0.04	0.0121	28	n.d.	n.c.	0.43×10^{-2}	0.96×10^{-2}
BD1031	Sediments in Binga reservoir	1	1,000	640	140	2	0.14	–	–	–	–	–	10	8.3	720	0.02	<0.01	0.0027	47	n.c.	n.d.	0.14×10^{-1}	0.11
BD1032	– ditto –	2											10	8.7	350	<0.02	<0.01	<0.0005	27	n.d.	n.d.	n.d.	0.64×10^{-2}
BD1033	– ditto –	3											10	8.7	320	<0.02	<0.01	0.0017	28	n.d.	n.d.	0.85×10^{-2}	0.67×10^{-2}
BD1034	– ditto –	4											10	8.8	310	<0.02	<0.01	0.0005	27	n.d.	n.d.	0.25×10^{-2}	0.64×10^{-2}

n.d. : Elution ratio cannot be calculated, because the ingredient in the eluate is below a detection limit of chemical analysis.
n.c. : Elution ratio cannot be calculated, because precipitation takes place under test conditions.

Table D-6 EXTRACTION TEST BY WET AND DRY REPETITION METHOD SECOND AND THIRD STAGE

Sample No.	Description	Cycle	Solid for Test					Stick Water					up: Solvent before the cycle process down: Additional Water							Eluate after 1 Cycle Process									Elution Ratio			
			Weight (kg)	Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Volume (ℓ)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Volume (ℓ)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Volume (ℓ)	WT (°C)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Cu	Zn	As	S
WPM211	Philex Mill Tailings	1	4.0	3000	54	1.9	0.44	0.34	<0.02	<0.02	0.0010	1584	10	6.4	6.4	<0.02	<0.02	<0.0005	<1	10.34		8.2	1100	0.016	<0.02	0.0007	588	0.25×10^{-4}	n.d.	0.58×10^{-2}	0.11
													–	–	–	–	–	–	–												
WPM212		2	4.0					0.40	0.016	<0.02	0.0007	588	10	6.4	6.4	<0.02	<0.02	<0.0005	<1	10.00		8.1	580	0.010	<0.02	0.0008	204	n.c.	n.d.	0.66×10^{-3}	0.34×10^{-1}
													8.4	–	–	–	–	–	–												
WPM213		3	4.0					0.40	0.010	<0.02	0.0008	204	10	6.4	6.4	<0.02	<0.02	<0.0005	<1	10.00		7.8	430	0.012	<0.02	0.0007	163	n.c.	n.d.	0.27×10^{-3}	0.29×10^{-1}
													8.4	–	–	–	–	–	–												
WPM214		4	4.0					0.40	0.012	<0.02	0.0007	163	10	6.4	2.6	<0.02	<0.02	0.0006	<1	10.00		7.7	400	0.024	<0.02	0.0009	138	0.43×10^{-4}	n.d.	n.c.	0.25×10^{-1}
													8.4	–	–	–	–	–	–												
WPM		5	4.0					0.40	0.024	<0.02	0.0009	138	10	6.4	2.6	<0.02	<0.02	0.0006	<1	10.00		7.8	390	0.016	<0.02	0.0014	119	n.c.	n.d.	0.11×10^{-3}	0.21×10^{-1}
													8.4	–	–	–	–	–	–												
WPM311	Philex Mill Tailings	1	1.14	810	45	1.1	0.19	0.61	<0.005	0.014	0.0005	905	10.0	6.0	2.0	0.008	0.006	<0.0005	<1	10.61	27.0	8.1	520	0.012	0.008	0.0010	203	0.50×10^{-4}	0.32×10^{-3}	0.62×10^{-2}	0.25
													0.0	–	–	–	–	–	–												
WPM312		2	1.14					0.51	0.012	0.008	0.0010	203	10.0	5.3	4.2	–	–	–	–	10.00	29.0	8.1	330	<0.005	0.006	<0.0005	113	n.d.	0.74×10^{-2}	n.d.	0.16
													3.0	6.0	2.0	0.008	0.006	<0.0005	<1												
WPM313		3	1.14					0.45	<0.005	0.006	<0.0005	113	10.0	5.1	5.7	<0.005	<0.005	0.0007	<1	10.00	27.0	8.3	270	0.006	0.005	<0.0005	63	0.37×10^{-4}	0.43×10^{-3}	n.d.	0.88×10^{-1}
													3.0	5.3	4.2	–	–	–	–												
WPM314		4	1.14					0.44	0.006	0.005	<0.0005	63	10.0	5.3	3.7	<0.005	<0.005	<0.0005	<1	10.00	30.0	8.3	220	0.011	<0.005	0.0009	51	0.81×10^{-4}	n.d.	0.34×10^{-3}	0.72×10^{-1}
													3.0	5.1	5.7	<0.005	<0.005	0.0007	<1												
WPM315		5	1.14					0.51	0.011	<0.005	0.0009	51	10.0	5.8	2.4	–	–	–	–	10.00	30.0	8.3	210	<0.005	<0.005	0.0007	41	n.d.	n.d.	0.46×10^{-3}	0.59×10^{-1}
													3.0	5.3	3.7	<0.005	<0.005	<0.0005	<1												
WBM311	Benguet Mill Tailings	1	1.09	230	630	76	2.93	0.91	8.2	1.1	0.0085	1628	10.0	6.0	2.0	0.008	0.006	<0.0005	<1	10.91	27.5	9.5	980	1.9	<0.005	0.0084	468	0.53×10^{-1}	n.d.	0.10×10^{-2}	0.38×10^{-1}
													0.0	–	–	–	–	–	–												
WBM312		2	1.08					0.56	1.9	<0.005	0.0084	468	10.0	5.3	4.2	–	–	–	–	10.00	29.0	8.2	870	<0.005	0.007	0.0136	425	n.d.	0.74×10^{-4}	0.16×10^{-2}	0.42×10^{-1}
													3.0	6.0	2.0	0.008	0.006	<0.0005	<1												
WBM313		3	1.07					0.56	<0.005	0.007	0.0136	425	10.0	5.1	5.7	<0.005	<0.005	0.0007	<1	10.00	27.0	8.3	400	<0.005	<0.005	0.0114	141	n.d.	n.d.	0.12×10^{-2}	0.12×10^{-1}
													3.0	5.3	4.2	–	–	–	–												
WBM314		4	1.06					0.64	<0.005	<0.005	0.0114	141	10.0	5.3	3.7	<0.005	<0.005	<0.0005	<1	10.00	30.0	8.3	310	0.005	0.008	0.0216	100	0.65×10^{-4}	0.69×10^{-3}	0.25×10^{-2}	0.97×10^{-2}
													3.0	5.1	5.7	<0.005	<0.005	<0.0007	<1												
WBM315		5	1.06					0.57	0.005	0.008	0.0216	100	10.0	5.8	2.4	–	–	–	–	10.00	30.5	8.3	260	<0.005	0.007	0.0273	73	n.d.	0.87×10^{-4}	0.32×10^{-2}	0.72×10^{-2}
													3.0	5.3	3.7	<0.005	<0.005	<0.0005	<1												

n.d. : Elution ratio can not be calculated because the ingredient in the eluate is below a confidence limit of chemical analysis.
WT : Water Temperature

Table D-7 CULTURE OF BACTERIA

Culture of Ferrabacillus ferrooxidans	
$(NH_4)_2SO_4$	0.15 g
$MgSO_4 \cdot 7H_2O$	0.50 g
$Ca(NO_3)_2$	0.01 g
KCℓ	0.05 g
K_2HPO_4	0.05 g
Distilled Water	1,000 mℓ
Culture of Thiobacillus thioparus	
$Na_2S_2O_3 \cdot 5H_2O$	10.0 g
$MgSO_4 \cdot 7H_2O$	0.1 g
$NH_4Cℓ$	0.1 g
$MnSO_4$	0.02 g
K_2HPO_4	2.0 g
$CaCℓ_2$	0.1 g
$FeCℓ_3$ $6H_2O$	0.02 g
Distilled Water	1,000 mℓ

Table D-8 EXTRACTION TEST BY A BACTERIA ADDITION

Sample No.	Description	Cycle	Solid for Test					Stick Water					Eluate after 1 Cycle Process								Elution Ratio			
			Weight (kg)	Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Volume (ℓ)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Volume (ℓ)	WT (°C)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Cu	Zn	As	SO_4
TPM311	Philex Mill Tailings (Without Bacteria)	1	1.70	810	45	1.1	0.19	0.94	<0.005	0.014	0.0005	905	10.12	29.5	3.3	1600	2.4	0.50	0.0030	201	0.18×10^{-1}	0.66×10^{-1}	0.16×10^{-1}	0.12×10^{0}
TPM312		2	1.70					9.12	2.4	0.50	0.0030	201	10.17	29.5	3.2	2400	2.9	0.40	0.0030	336	0.55×10^{-2}	n.c.	0.17×10^{-2}	0.16×10^{0}
TPM313		3	1.70					9.17	2.9	0.40	0.0030	336	10.20	28.0	3.1	2700	2.2	0.50	0.0025	385	n.c.	0.19×10^{-1}	n.c.	0.87×10^{-1}
TPM314		4	1.70					9.20	2.2	0.50	0.0025	385	10.23	28.5	3.0	2900	2.4	0.52	0.0021	419	0.31×10^{-2}	0.94×10^{-2}	n.c.	0.77×10^{-1}
TPM315		5	1.70					9.23	2.4	0.52	0.0021	419	10.26	29.0	3.1	2800	2.4	0.50	0.0024	417	0.18×10^{-2}	0.43×10^{-2}	0.28×10^{-2}	0.42×10^{-1}
XPM311	Philex Mill Tailings (With Bacteria)	1	1.70	810	45	1.1	0.19	0.67	<0.005	0.014	0.0005	905	10.14	29.0	3.1	2100	2.1	0.40	0.0020	263	0.15×10^{-1}	0.53×10^{-1}	0.11×10^{-1}	0.21×10^{0}
XPM312		2	1.70					9.14	2.1	0.40	0.0020	263	10.18	29.5	3.0	2600	2.9	0.28	0.0018	338	0.75×10^{-2}	n.c.	n.c.	0.11×10^{0}
XPM313		3	1.70					9.18	2.9	0.28	0.0018	338	10.21	28.0	3.1	2700	2.8	0.40	0.0021	394	0.14×10^{-2}	0.20×10^{-1}	0.26×10^{-2}	0.95×10^{-1}
XPM314		4	1.70					9.21	2.8	0.40	0.0021	394	10.23	28.0	3.1	2800	2.5	0.42	0.0019	401	n.c.	0.80×10^{-2}	n.c.	0.49×10^{-1}
XPM315		5	1.70					9.23	2.5	0.42	0.0019	401	10.25	29.0	3.0	2700	2.9	0.50	0.0016	404	0.48×10^{-2}	0.16×10^{-1}	n.c.	0.45×10^{-1}
TBM311	Benguet Mill Tailings (Without Bacteria)	1	1.70	230	630	76	2.93	1.90	8.2	1.1	0.0085	1628	10.21	29.0	3.2	2800	0.12	0.70	0.0085	564	n.c.	0.57×10^{-2}	0.61×10^{-3}	0.29×10^{-1}
TBM312		2	1.70					9.21	0.12	0.70	0.0085	564	10.36	29.5	3.3	4400	0.12	1.1	0.0148	829	0.35×10^{-3}	0.46×10^{-3}	0.58×10^{-3}	0.23×10^{-1}
TBM313		3	1.70					9.36	0.12	1.1	0.0148	829	10.43	28.0	3.0	4800	0.10	1.1	0.0141	837	n.c.	0.11×10^{-2}	0.66×10^{-4}	0.65×10^{-2}
TBM314		4	1.70					9.43	0.10	1.1	0.0141	837	10.49	28.0	3.2	5000	0.10	1.2	0.0131	832	0.27×10^{-3}	0.21×10^{-2}	0.34×10^{-4}	0.56×10^{-2}
TBM315		5	1.70					9.49	0.10	1.2	0.0131	832	10.57	29.0	3.3	4700	0.14	1.26	0.0126	825	0.14×10^{-2}	0.18×10^{-2}	0.69×10^{-4}	0.55×10^{-2}
XBM311	Benguet Mill Tailings (With Bacteria)	1	1.70	230	630	76	2.93	0.90	8.2	1.10	0.0085	1628	10.24	29.0	3.1	3600	0.14	1.10	0.0115	598	n.c.	0.96×10^{-2}	0.85×10^{-3}	0.31×10^{-1}
XBM312		2	1.70					9.24	0.14	1.10	0.0115	598	10.35	29.5	3.2	4600	0.15	1.20	0.0185	754	0.66×10^{-3}	0.21×10^{-2}	0.66×10^{-3}	0.15×10^{-1}
XBM313		3	1.70					9.35	0.15	1.20	0.0185	754	10.42	27.5	3.1	4500	0.034	1.06	0.0144	723	n.c.	n.c.	n.c.	0.32×10^{-2}
XBM314		4	1.70					9.42	0.034	1.06	0.0144	723	10.47	28.0	3.1	4800	0.080	1.05	0.0112	763	0.13×10^{-2}	0.94×10^{-3}	n.c.	0.79×10^{-2}
XBM315		5	1.70					9.47	0.080	1.05	0.0112	763	10.53	29.0	3.1	4400	0.110	1.20	0.0120	752	0.10×10^{-2}	0.25×10^{-2}	0.16×10^{-3}	0.46×10^{-2}

WT : Water Temperature
n.c. : Elution ratio can not be calculated because precipitation takes place under test conditions.

Table D-9 MODEL TEST (FOR PHILEX MILL TAILINGS)

Sample No.	Solid for Test					Eluate after Shaking									Elution Ratio			
	Sampling Date	Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Volume (ℓ)	WT (°C)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Moisture Content (%)	Cu	Zn	As	S
YPM2111	Mar. 4	2,800	47	2.6	0.38	1.7	27.0	7.8	1000	0.015	<0.02	0.0007	444	5.4	0.11×10^{-4}	n.d.	0.57×10^{-3}	0.83×10^{-1}
YPM2112	Apr. 5	2,400	130	1.6	0.26	1.7	31.0	7.8	1000	0.010	0.017	<0.0005	528	4.5	0.89×10^{-5}	0.28×10^{-3}	n.d.	0.14
YPM2113	May 5	2,700	40	1.6	0.21	1.7	29.5	7.9	1100	0.015	0.010	0.0005	563	6.0	0.12×10^{-4}	0.53×10^{-3}	0.66×10^{-3}	0.19
YPM2114	June 5	2,600	45	1.9	<0.10	1.7	30.0	7.6	1100	0.017	0.015	<0.0005	620	6.5	0.14×10^{-4}	0.71×10^{-3}	n.d.	n.c.
YPM2115	July 5	2,600	50	2.0	<0.10	1.7	29.5	8.0	1100	0.010	0.02	0.0006	644	7.5	0.82×10^{-5}	0.85×10^{-3}	0.64×10^{-3}	n.c.
YPM2116	Aug. 5	2,600	35	2.4	<0.10	1.7	25.5	7.7	1200	0.011	0.016	<0.0005	629	7.5	0.90×10^{-5}	0.97×10^{-3}	n.d.	n.c.
Average															0.11×10^{-4}	0.67×10^{-3}	0.62×10^{-3}	0.14
YPM2121	Mar. 4	2,800	47	2.6	0.38	1.7	28.0	8.1	900	<0.010	<0.02	<0.0005	396	5.1	n.d.	n.d.	n.d.	0.74×10^{-1}
YPM2122	Apr. 5	2,600	35	2.5	<0.10	1.7	31.0	7.7	950	0.017	0.015	<0.0005	441	4.4	0.14×10^{-4}	0.91×10^{-3}	n.d.	n.c.
YPM2123	May 5	2,300	45	2.0	<0.10	1.7	29.5	7.9	1100	0.018	0.012	<0.0005	576	4.7	0.17×10^{-4}	0.57×10^{-3}	n.d.	n.c.
YPM2124	June 5	2,600	53	2.2	0.10	1.7	30.0	7.7	1100	<0.005	0.010	<0.0005	645	6.7	n.d.	0.40×10^{-3}	n.d.	0.46
YPM2125	July 5	2,500	50	2.4	0.10	1.7	29.0	7.9	1200	0.010	0.018	<0.0005	628	7.7	0.85×10^{-5}	0.77×10^{-3}	n.d.	0.44
YPM2126	Aug. 5	2,700	45	1.9	0.11	1.7	26.0	7.7	1200	0.020	0.011	<0.0005	653	7.3	0.16×10^{-4}	0.52×10^{-3}	n.d.	0.42
Average															0.14×10^{-4}	0.69×10^{-3}	–	0.35

n.d. : Elution ratio cannot be calculated, because the ingredient in the eluate is below a confidence limit of chemical analysis.
n.c. : Elution ratio cannot be calculated, because precipitation takes place under test conditions.
WT : Water Temperature

Table D-10 MODEL TEST (IRRIGATION CANAL)

No.	Sampling Date	Weight (g)	Solid for Test				Eluate									Elution Ratio			
			Cu (ppm)	Zn (ppm)	As (ppm)	S (%)	Volume (ℓ)	WT (°C)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Moisture Content (%)	Cu	Zn	As	S
GS21	Dec. 15	800	690	39	3.0	<0.10	1.7	–	8.1	73	0.023	0.03	0.0021	13	–	0.71×10^{-4}	0.16×10^{-2}	0.15×10^{-2}	n.c.
GS22	Feb. 6	800	630	76	5.7	<0.10	1.7	–	7.8	350	0.076	0.03	0.0030	126	–	0.26×10^{-3}	0.84×10^{-3}	0.11×10^{-2}	n.c.
GS23	Mar. 5	800	840	44	3.2	<0.10	1.7	29	7.7	100	0.022	<0.02	0.0025	24	–	0.58×10^{-4}	n.d.	0.17×10^{-2}	n.c.
GS24	Apr. 5	800	830	35	2.2	<0.10	1.7	34	7.9	72	0.026	0.010	0.0029	17	3.1	0.67×10^{-4}	0.61×10^{-3}	0.28×10^{-2}	n.c.
GS25	May 10	800	760	40	3.6	<0.10	1.7	32	8.4	100	0.036	0.010	0.0054	22	24.9	0.10×10^{-3}	0.53×10^{-3}	0.32×10^{-2}	n.c.
GS26	June 8	800	850	46	4.0	<0.10	1.7	28	8.3	81	0.021	0.007	0.0028	18	30.0	0.53×10^{-4}	0.32×10^{-3}	0.15×10^{-2}	n.c.
	July Aug.	Samples were not able to be collected because of irrigation water.																	
	Average		760	47	3.6	<0.10										0.10×10^{-4}	0.78×10^{-3}	0.20×10^{-2}	n.c.

n.d. : Elution ratio cannot be calculated because the ingredient in the eluate is below 0.02 mg/ℓ.
n.c. : Elution ratio cannot be calculated because precipitation takes place under test conditions.

Table D-11 SIEVE ANALYSIS OF SS AT FIXED POINTS AND MILL TAILINGS

	Sampling Date	Rate of flow (m^3/s)	SS (No.3+, mg/ℓ)	Distribution (wt%)			
				74μm+	53μm–74μm	25μm–53μm	5μm–25μm
B point	Aug. 5	3.17	190	7.9	5.4	15.0	71.7
	Aug. 14	4.94	2,100	4.1	3.1	10.9	81.9
	Aug. 24	14.30	460	40.5	5.3	8.4	45.8
C point	Aug. 3	2.85	23,000	14.8	5.1	18.3	61.8
	Aug. 12	4.31	5,400	60.5	3.8	9.2	26.5
	Aug. 23	7.82	5,800	39.3	8.7	14.6	37.4
D point	Aug. 4	1.62	1,100	41.5	12.3	16.6	29.6
	Aug. 13	2.43	2,100	51.7	6.3	11.5	30.5
	Aug. 22	4.22	1,700	43.1	6.9	18.1	31.9
E point	Aug. 3	92.60	630	25.1	7.5	19.7	47.7
	Aug. 14	88.43	1,800	21.3	8.6	20.8	49.3
	Aug. 24	160.01	1,300	43.8	9.0	16.4	30.8
Philex Mill Tailings	July 27		220,000	40.3	9.1	16.2	34.4
Benguet Mill Tailings	July 30		60,000	28.6	9.7	17.6	44.1
Itogon Mill Tailings	July 30		3,500	73.1	6.6	7.7	12.6

Table D-12 CHEMICAL ANAYSES OF SIEVED SUSPENDED SOLIDS AT FIXED POINTS

Fixed Point	Sampling Time	Sampling Date	Size	Analysis No.	Sample No.	Cu ppm	Zn ppm	As ppm	S %
B	1	Aug. 5	74μ +	S-3025	B-311	110	330	35	0.20
		"	53μ~74μ	S-3026	B-312	150	440	41	<0.10
		"	25μ~53μ	S-3027	B-313	170	550	46	0.44
		"	5μ~25μ	S-3028	B-314	330	740	100	1.44
	2	Aug. 14	74μ+	S-3029	B-321	100	260	40	<0.10
		"	53μ~74μ	S-3030	B-322	78	210	28	<0.10
		"	25μ~53μ	S-3031	B-323	120	350	29	0.40
		"	5μ~25μ	S-3032	B-324	210	780	84	1.64
	3	Aug. 24	74μ+	S-3033	B-331	110	260	35	<0.10
		"	53μ~74μ	S-3034	B-332	150	690	43	0.36
		"	25μ~53μ	S-3035	B-333	180	750	49	0.77
		"	5μ~25μ	S-3036	B-334	330	1000	84	0.33
C	1	Aug. 3	74μ+	S-3037	C-311	1000	60	1.2	<0.10
		"	53μ~74μ	S-3038	C-312	1000	49	1.2	<0.10
		"	25μ~53μ	S-3039	C-313	830	75	1.0	<0.10
		"	5μ~25μ	S-3040	C-314	1300	98	1.5	<0.10
	2	Aug. 12	74μ+	S-3041	C-321	1500	44	1.6	0.11
		"	53μ~74μ	S-3042	C-322	1900	130	1.9	0.24
		"	25μ~53μ	S-3043	C-323	1900	79	1.9	0.11
		"	5μ~25μ	S-3044	C-324	2400	160	2.0	0.21
	3	Aug. 23	74μ+	S-3045	C-331	960	43	1.1	<0.10
		"	53μ~74μ	S-3046	C-332	940	51	1.4	<0.10
		"	25μ~53μ	S-3047	C-333	910	63	1.4	<0.10
		"	5μ~25μ	S-3048	C-334	1400	130	1.6	<0.10
D	1	Aug. 4	74μ+	S-3049	D-311	580	56	1.0	<0.10
		"	53μ~74μ	S-3050	D-312	540	57	1.1	<0.10
		"	25μ~53μ	S-3051	D-313	820	90	1.5	0.18
		"	5μ~25μ	S-3052	D-314	1100	190	3.0	0.11
	2	Aug. 13	74μ+	S-3053	D-321	220	68	<1.0	<0.10
		"	53μ~74μ	S-3054	D-322	260	90	1.2	<0.10
		"	25μ~53μ	S-3055	D-323	310	93	1.2	<0.10
		"	5μ~25μ	S-3056	D-324	730	170	2.0	<0.10
	3	Aug. 22	74μ+	S-3057	D-331	560	48	<1.0	<0.10
		"	53μ~74μ	S-3058	D-332	1100	100	1.7	0.20
		"	25μ~53μ	S-3059	D-333	1100	55	1.7	0.19
		"	5μ~25μ	S-3060	D-334	950	130	1.7	<0.10
E	1	Aug. 3	74μ+	S-3061	E-311	570	68	3.1	<0.10
		"	53μ~74μ	S-3062	E-312	720	140	6.2	<0.10
		"	25μ~53μ	S-3063	E-313	1200	130	6.1	<0.10
		"	5μ~25μ	S-3064	E-314	1500	170	7.1	0.11
	2	Aug. 14	74μ+	S-3065	E-321	540	78	2.5	<0.10
		"	53μ~74μ	S-3066	E-322	750	160	2.8	<0.10
		"	25μ~53μ	S-3067	E-323	730	95	2.5	<0.10
		"	5μ~25μ	S-3068	E-324	1200	120	2.9	<0.10
	3	Aug. 24	74μ+	S-3069	E-331	650	75	6.4	<0.10
		"	53μ~74μ	S-3070	E-332	950	100	11	0.26
		"	25μ~53μ	S-3071	E-333	850	130	7.9	0.24
		"	5μ~25μ	S-3072	E-334	990	160	6.6	<0.10

Table D-13 CHEMICAL ANALYSES OF SIEVED MILL TAILINGS

Locality	Grain Size	Sample No.	Cu (ppm)	Zn (ppm)	As (ppm)	S %
Philex	74μ+	PM-311	1200	50	1.1	<0.10
	53μ~74μ	PM-312	430	89	<1.0	<0.10
	25μ~53μ	PM-313	320	130	<1.0	<0.10
	5μ~25μ	PM-314	590	120	1.0	<0.10
Benguet	74μ+	BM-311	70	210	28	0.63
	53μ~74μ	BM-312	260	720	90	3.18
	25μ~53μ	BM-313	360	840	140	5.35
	5μ~25μ	BM-314	240	840	100	2.73
Itogon	74μ+	IM-311	73	190	73	0.72
	53μ~74μ	IM-312	140	340	190	2.64
	25μ~53μ	IM-313	170	440	250	3.55
	5μ~25μ	IM-314	140	520	170	1.31

Table D-14 EXTRACTION TEST BY SHAKING METHOD UNDER AN ACIDIC CONDITION

Description	Sample No.	Size (μm)	Source Solid: Weight (kg)	Cu (ppm)	Zn (ppm)	As (ppm)	S %	Eluate: Volume (ℓ)	WT (°C)	pH	EC (μS/cm)	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	SO_4 (mg/ℓ)	Elution Ratio: Cu	Zn	As	S
Fixed Point B	B311	74 +	0.05	110	330	35	0.20	0.5	30.0	2.3	11000	0.3	7.0	0.0298	52	0.27×10^{-1}	0.21	0.85×10^{-3}	0.87×10^{-1}
	B312	53~74	0.05	150	440	41	<0.10	0.5	32.0	1.3	26000	1.2	8.8	0.0773	3	0.80×10^{-1}	0.20	0.19×10^{-1}	n.c.
	B313	25~53	0.05	170	550	46	0.44	0.5	32.0	1.8	15000	1.8	1.26	0.1100	8	0.11	0.23×10^{-1}	0.24×10^{-1}	0.61×10^{-1}
	B314	5~25	0.05	330	740	100	1.44	0.5	32.0	5.6	9700	0.3	6.0	0.0250	68	0.91×10^{-3}	0.81×10^{-1}	0.25×10^{-2}	0.16×10^{-1}
Fixed Point C	C311	74, +	0.05	1000	60	1.2	<0.10	0.5	32.0	1.2	33000	21.0	0.44	0.0041	79	0.21	0.73×10^{-2}	0.34×10^{-1}	n.c.
	C312	53~74	0.05	1000	49	1.2	<0.10	0.5	32.0	1.2	31000	10.0	0.90	0.0037	79	0.10	0.18	0.31×10^{-1}	n.c.
	C313	25~53	0.05	830	75	1.0	<0.10	0.5	32.0	1.3	27000	7.0	2.3	0.0060	123	0.84×10^{-1}	0.31	0.60×10^{-1}	n.c.
	C314	5 ~25	0.05	1300	98	1.5	<0.10	0.5	32.0	1.3	25000	14.0	3.5	0.0099	97	0.11	0.36	0.66×10^{-1}	n.c.
Fixed Point D	D311	74 +	0.05	580	56	1.0	<0.10	0.5	32.0	1.2	33000	1.6	1.9	0.0039	14	0.28×10^{-1}	0.34	0.39×10^{-1}	n.c.
	D312	53~74	0.05	540	57	1.1	<0.10	0.5	33.0	1.2	28000	5.0	1.7	0.0069	84	0.93×10^{-1}	0.30	0.63×10^{-1}	n.c.
	D313	25~53	0.05	820	90	1.5	0.18	0.5	33.0	1.3	26000	10.0	3.7	0.0107	220	0.12	0.41	0.73×10^{-1}	0.41
	D314	5~25	0.05	1100	190	3.0	0.11	0.5	33.5	1.5	18000	28.0	7.4	0.0178	120	0.26	0.39	0.59×10^{-1}	0.36
Fixed Point E	E311	74, +	0.05	570	68	3.1	<0.10	0.5	33.0	1.2	28000	6.0	3.02	0.0222	20	0.11	0.44	0.72×10^{-1}	n.c.
	E312	53~74	0.05	720	140	6.2	<0.10	0.5	33.0	1.2	28000	8.0	6.4	0.0236	30	0.11	0.46	0.38×10^{-1}	n.c.
	E313	25~53	0.05	1200	130	6.1	<0.10	0.5	33.0	1.3	25000	11.0	6.4	0.0295	73	0.92×10^{-1}	0.49	0.48×10^{-1}	n.c.
	E314	5~25	0.05	1500	170	7.1	0.11	0.5	33.5	1.5	18000	31.0	5.5	0.1260	65	0.21	0.32	0.18	0.20
Philex Mill Tailings	PM310	5 +	0.05	430	55	(0.9) <1.0	0.19	0.5	28.5	1.4	23000	10.0	1.12	0.0139	604	0.23	0.20	0.15	n.c
	PM311	74 +	0.05	1200	50	1.1	<0.10	0.5	28.0	1.2	30000	2.1	1.82	0.0051	76	0.18×10^{-1}	0.36	0.46×10^{-1}	
	PM312	53~74	0.05	430	89	(0.7) <1.0	<0.10	0.5	28.0	1.3	29000	4.0	3.6	0.0050	128	0.93×10^{-1}	0.40	0.71×10^{-1}	n.c.
	PM313	25~53	0.05	320	130	(0.8) <1.0	<0.10	0.5	29.0	1.6	29000	4.8	7.5	0.0067	95	0.15	0.58	0.84×10^{-1}	n.c.
	PM314	5~25	0.05	590	120	1.0	<0.10	0.5	29.0	1.6	19000	14.5	6.3	0.0143	76	0.25	0.53	0.14	n.c.
Benguet Mill Tailings	BM310	5 +	0.05	230	580	78	2.86	0.5	28.5	4.6	9400	0.14	4.8	0.0140	22	0.61×10^{-2}	0.83×10^{-1}	0.82×10^{-3}	0.26×10^{-2}
	BM311	74 +	0.05	70	210	28	0.63	0.5	28.0	2.2	11000	0.060	1.84	0.0268	57	0.86×10^{-2}	0.88×10^{-1}	0.96×10^{-2}	0.30×10^{-1}
	BM312	53~74	0.05	260	720	90	3.18	0.5	31.0	5.2	9900	0.14	4.2	0.0070	88	0.54×10^{-2}	0.58×10^{-1}	0.78×10^{-2}	0.92×10^{-2}
	BM313	25~53	0.05	360	840	140	5.35	0.5	30.5	5.0	10000	0.080	2.3	0.0073	101	0.22×10^{-2}	0.27×10^{-1}	0.52×10^{-2}	0.63×10^{-2}
	BM314	5~25	0.05	240	840	100	2.73	0.5	31.0	5.9	9900	0.015	4.1	0.0080	154	0.63×10^{-2}	0.49×10^{-1}	0.80×10^{-2}	0.19×10^{-1}
Itogon Mill Tailings	IM310	5 +	0.05	120	410	150	1.13	0.5	28.5	2.3	11000	0.16	3.2	0.0212	23	0.13×10^{-1}	0.78×10^{-1}	0.14×10^{-1}	0.68×10^{-1}
	IM311	74 +	0.05	73	190	73	0.72	0.5	30.0	1.8	15000	0.036	1.21	0.0136	5	0.49×10^{-2}	0.64×10^{-1}	0.19×10^{-2}	0.23×10^{-1}
	IM312	53~74	0.05	140	340	190	2.64	0.5	30.0	4.6	10000	0.030	1.9	0.0330	9	0.21×10^{-2}	0.56×10^{-1}	0.17×10^{-1}	0.11×10^{-1}
	IM313	25~53	0.05	170	440	260	3.55	0.5	31.0	5.4	9900	0.020	3.1	0.0825	11	0.12×10^{-2}	0.71×10^{-1}	0.32×10^{-1}	0.10×10^{-1}
	IM314	5~25	0.05	140	520	170	1.31	0.5	31.0	6.8	9900	<0.005	2.8	0.0326	27	0.18×10^{-2}	0.56×10^{-1}	0.19×10^{-1}	0.69×10^{-2}

n.c.: Elution ratio cannot be calculated.

Table D-15 SIEVE ANALYSIS OF SEDIMENTS IN THE BINGA RESERVOIR

Sample No.	Percent Particle Size Distribution										
	38.1 mm	25.4 mm	19.1 mm	9.52 mm	4.76mm	2.00 mm	0.84 mm	0.42 mm	0.25 mm	0.105 mm	0.074 mm
BD 101	0.89	4.58	5.45	22.50	18.99	19.33	11.01	8.38	5.10	3.11	0.33	0.33
BD 102	–	1.85	3.49	10.73	12.13	10.20	8.27	13.66	20.63	15.88	1.58	1.58
BD 103	0.89	11.35	9.23	19.85	14.32	13.11	12.40	10.46	4.35	2.91	0.49	0.64
BD 104	1.29	6.66	4.19	16.09	17.19	16.83	11.56	9.48	7.83	5.77	1.24	1.87

Table D-16 PRECIPITATION TEST OF SEDIMENTS IN THE AMBUKLAO RESERVOIR AND BINGA RESERVOIR

Sample No.	Time Passed After Mixing								
	10 s (mℓ)	30 s (mℓ)	1 min (mℓ)	2 min (mℓ)	5 min (mℓ)	15 min (mℓ)	30 min (mℓ)	60 min (mℓ)	90 min (mℓ)
AD 201	45	70	70	70	76	76	76	78	83
AD 202	60	70	70	72	88	85	84	83	81
AD 203	50	60	67	72	99	95	92	91	90
AD 204	45	70	72	72	72	72	70	70	66
AD 205	20	30	40	75	165	128	110	102	100
AD 206	50	70	80	82	89	84	82	82	81
AD 207	75	77	78	80	77	72	72	65	65
BD 201	70	70	71	72	72	72	72	72	62
BD 202	60	70	70	71	70	70	69	69	
BD 203	80	81	81	82	82	81	80	82	73

AD : Sediments in the Ambuklao reservoir
BD : Sediments in the Binga reservoir
Volume of one tested sample is one liter.
Figures show the volume of precipitates.

Table D-17 GRAIN SIZE ANALYSIS (1)

Sample No.	Description	Percent particle size distribution							Textural Guide
		Total sand	Very Coarse sand	Coarse sand	Medium sand	Fine sand	Very fine sand	Silt	Clay	
		2 mm	1 mm	0.5 mm	0.25 mm	0.1 mm	0.05 mm	0.002 mm		
PM 11	Philex mill tailings	72.4	0.6	7.0	17.6	26.8	20.4	19.6	8.0	SL (Sand Loam)
BM 11	Benguet mill tailings	39.4	0.2	0.2	0.6	10.4	28.0	52.6	8.0	SiL (Silt Loam)
IM 11	Itogon mill tailings	62.4	0.2	0.6	8.4	32.4	20.8	25.6	12.0	SL (Sand Loam)
PM215	Philex mill tailings	72.8	1.0	7.2	21.8	27.4	15.4	17.2	10.0	SL (Sand Loam)
BM215	Benguet mill tailings	30.2	0.2	0.2	0.4	4.6	24.8	53.8	16.0	Sil (Silt Loam)
IM 215	Itogon mill tailings	58.8	0.2	1.8	15.0	25.2	16.6	23.2	18.0	SL (Sand Loam)
PM225	Philex mill tailings	50.4	0.2	0.2	7.0	22.0	21.0	34.6	15.0	L (Loam)
BM225	Benguet mill tailings	30.6	0	0.2	0.2	4.6	25.6	46.4	23.0	L (Loam)
IM 225	Itogon mill tailings	72.8	0.2	0.8	11.2	37.4	23.2	11.2	16.0	SL (Sand Loam)
PM219	Philex mill tailings (Coarse part)	95.2	1.4	11.6	43.0	35.4	3.8	0	4.8	S (Sand)
AD201	Sediments, Ambuklao dam	88.4	4.6	5.2	7.2	48.6	22.8	3.2	8.4	LS (Loamy Sand)
AD202	Sediments, Ambuklao dam	91.0	0.4	1.4	11.2	62.0	16.0	1.6	7.4	S (Sand)
AD203	Sediments, Ambuklao dam	89.4	0.8	0.8	2.4	59.0	26.4	2.2	8.4	LS (Loamy Sand)
AD204	Sediments, Ambuklao dam	96.8	9.4	15.0	34.2	34.0	4.2	0	3.2	S (Sand)
AD205	Sediments, Ambuklao dam	35.6	0.2	0.2	1.8	8.0	25.4	50.0	14.4	Sil (Silt Loam)
AD206	Sediments, Ambuklao dam	89.2	1.6	8.4	28.2	34.8	16.2	2.4	8.4	LS (Loamy Sand)
AD207	Sediments, Ambuklao dam	96.2	25.0	36.4	23.2	9.4	2.2	0	3.8	S (Sand)
BD201	Sediments, Binga dam	96.8	24.6	43.4	24.4	3.6	0.8	0	3.2	S (Sand)
BD202	Sediments, Binga dam	96.0	3.8	14.4	40.4	31.2	6.2	0	4.0	S (Sand)
BD203	Sediments, Binga dam	95.6	2.0	14.0	63.2	15.4	1.0	0	4.4	S (Sand)
G21	Sediments, Irrigat. canal	97.4	0.2	1.8	79.6	14.2	1.6	0	2.6	S (Sand)
G22	Sediments, Irrigat. canal	66.2	0.2	0.8	18.2	8.8	38.2	25.4	8.4	SL (Sand Loam)

Table D-18 GRAIN SIZE ANALYSIS (2)

Diameter (mm)	PM31	BM31	IM31
	Cumulative Distribution (%)	Cumulative Distribution (%)	Cumulative Distribution (%)
2.00			
0.84	100.0	100.0	
0.42	99.7	99.7	100.0
0.25	98.3	98.5	99.5
0.105	75.6	78.7	94.1
0.074	68.0	64.7	92.7
0.0474	48.2	57.9	76.6
0.0345	35.7	45.3	64.0
0.0221	29.4	26.4	54.6
0.0128	26.3	17.8	42.0
0.0091	23.1	12.2	32.6
0.0065	20.0	9.1	26.3
0.0033	13.7	5.9	16.9
0.0027	12.2	4.4	15.3
0.0014	9.0	1.2	10.6

Table D-19

PRECIPITATION TESTS FOR A LONG PERIOD ON SAMPLES AT FIXED POINT "A" AND "E"

Time Elapsed	Fixed Point (Sampling Date)					
	E (March)	E (March)	E (Aug. 10)	E (Aug. 15)	E (Aug. 29)	A (Sep. 3)
1 hour	400 ppm	340 ppm	380 ppm	480 ppm	800 ppm	178 ppm
2					390	149
4	90	120	138	142	194	103
6					146	89
1 day	22	32	40	27	59	50
2	13	18	29	6.5	37	47
3	8.5	9.5	17	6.0	23	29
4	60	60	11	4.5	18	22
5	4.5	3.0	6.5	3.5	13	16
6	3.0	2.0	4.0	2.5	11	15
7	2.8	1.8	2.0	3.5	8.5	12
8			1.3	2.0	6.5	10
9					5.5	9
10					4.5	8
11					4.0	7
12					3.5	6

The figures show the turbidities of the samples at the time elapsed after shaking.

Table D-20 CHEMICAL ANALYSES OF ACCESSORY ELEMENTS IN SOLIDS

Description	Date of sampling	Ba (ppm)	Cr (ppm)	F (ppm)	Se (ppm)	Ag (ppm)	Cl (ppm)	Be (ppm)	B (ppm)	Co (ppm)	Li (ppm)	Mo (ppm)	Ni (ppm)	V (ppm)
Mill tailings Philex	Nov. 30, '83	92	29	172	10	<1	380	0.3	12	16	8	4	11	172
Mill tailings Benguet	Dec. 1, '83	232	34	266	7	1	11	0.4	28	13	29	11	14	146
Mill tailings* Benguet	Dec. 1, '83	244	24	375	6	1	160	0.4	15	13	30	10	10	150
Mill tailings Itogon	Dec. 2, '83	237	158	554	13	<1	18	0.7	12	25	32	9	68	218
Sediments Binga dam	Dec. 5, '83	138	260	468	4	<1	6	0.4	8	20	11	7	103	202
Suspended solids Fixed point C	Dec. 6, '83	102	20	890	11	<1	450	0.3	5	18	8	7	7	174
Suspended solids Fixed point D	Dec. 13, '83	234	7	320	10	<1	160	0.6	5	13	14	11	2	111
Suspended solids Fixed Point E	Dec. 2–7, '83	119	16	1,023	9	<1	420	0.2	9	20	11	5	8	143
Suspended solids Fixed point E	Dec. 8–14, '83	114	16	554	10	<1	390	0.2	4	21	10	7	8	146

* : Stored in tailings dam

Table D-21 CHEMICAL ANALYSES OF MINOR CONSTITUENTS IN THE FILTRATE AT FIXED POINT A TO E

Sample No.	Pb (mg/ℓ)	Cd (mg/ℓ)	Hg (mg/ℓ)	Mn (mg/ℓ)	Fe (mg/ℓ)	K (mg/ℓ)	Na (mg/ℓ)	Cl (mg/ℓ)
E11302	<0.01	<0.01	<0.0005	<0.02	<0.05	5.0	10.0	15.6
E12012	<0.01	<0.01	0.0007	0.02	<0.05	6.9	10.5	11.3
E12022	<0.01	<0.01	<0.0005	<0.02	<0.05	7.9	10.5	31.0
E12032	<0.01	<0.01		<0.02	<0.05	6.9	9.5	40.0
E12042	<0.01	<0.01	0.0007	<0.02	<0.05	6.1	9.5	82.0
E12052	<0.01	<0.01	<0.0005	0.02	0.05	6.3	11.5	52.5
E12062	<0.01	<0.01	<0.0005	<0.02	0.05	5.0	9.0	
E12072	<0.01	<0.01	0.0008	<0.02	<0.05	7.3	13.5	
E12082	<0.01	<0.01	0.0008	0.02	<0.05	7.7	14.5	
E12092	<0.01	<0.01		<0.02	0.09	6.2	9.5	
E12102	<0.01	<0.01		<0.02	<0.05	6.2	9.5	
E12112	<0.01	<0.01		<0.02	0.08	5.9	10.0	
E12121	<0.01	<0.01		0.02	0.15	5.7	16.0	22.5
E12122	<0.01	<0.01		<0.02	<0.05	5.7	10.0	19.9
E12131	<0.01	<0.01		<0.02	0.27	7.0	10.5	31.9
E12132	<0.01	<0.01		<0.02	<0.05	7.0	11.0	29.8
E12141	<0.01	<0.01		<0.02	0.20	4.4	9.5	25.5
E12142	<0.01	<0.01		<0.02	<0.05	4.5	9.5	32.6

Sample No.	Pb (mg/ℓ)	Cd (mg/ℓ)	Hg (mg/ℓ)	Mn (mg/ℓ)	Fe (mg/ℓ)	K (mg/ℓ)	Na (mg/ℓ)	Cl (mg/ℓ)
A12051	<0.01	<0.01	0.0006	<0.02	<0.05	0.9	7.5	58.1
B12051	<0.01	<0.01	0.0007	1.06	<0.05	4.2	33.0	53.9
C12061	<0.01	<0.01	<0.0005	0.08	0.05	13.5	15.0	31.2
D12031	<0.01	<0.01		0.80	<0.05	6.9	15.0	44.0
A12141	<0.01	<0.01		<0.02	<0.05	1.1	8.0	29.8
A12142	<0.01	<0.01		<0.02	<0.05	1.1	8.0	38.2
B12141	<0.01	<0.01		1.40	0.14	4.9	42.0	32.6
B12142	<0.01	<0.01		1.38	<0.05	4.9	42.5	28.2
C12121	<0.01	<0.01		0.10	0.37	13.1	13.5	24.1
C12122	<0.01	<0.01		0.10	0.06	12.4	14.0	19.9
D12131	<0.01	<0.01		1.02	0.13	8.2	17.3	34.0
D12132	<0.01	<0.01		1.02	<0.05	8.7	18.5	

– : No data

Table D-22 CHEMICAL ANALYSES OF MINAR CONSTITUENTS IN THE FILTRATE FOR MINE DRAINAGES AND MILL TAILINGS

Sample No.	Pb (mg/ℓ)	Cd (mg/ℓ)	Hg (mg/ℓ)	Mn (mg/ℓ)	Fe (mg/ℓ)	K (mg/ℓ)	Na (mg/ℓ)	Cl (mg/ℓ)
PT11	<0.01	<0.01	0.0005	0.02	0.18	0.4	5.5	23.0
PT12	<0.01	<0.01		0.05	0.94	4.8	9.0	20.0
BT11	<0.01	<0.01	<0.0005	5.20	6.70	1.8	13.0	51.0
BT12	<0.01	<0.01		0.88	1.32	12.8	98.0	100
IT11	<0.01	<0.01	<0.0005	0.52	0.26	3.5	12.0	72.0
PM11	<0.01	<0.01	<0.0005	0.03	0.74	87.2	70.0	48.2
BM11	<0.01	<0.01	<0.0005	0.13	0.76	35.2	172	30.6
IM11	<0.01	<0.01		<0.02	0.50	12.8	32.0	116

P : Philex
B : Benguet
I : Itogon
T : Mine drainage
M : Mill tailings

Table D-23 CROSS CHECKING ANALYSES (1)

Sample No.	Description	Laboratory	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	Ca (mg/ℓ)	Mg (mg/ℓ)	SO_4 (mg/ℓ)
A1214	Filtrate, Point A	P	<0.02	<0.01	0.003	25	5.6	22
		J	<0.02	<0.02	<0.01	22	4.8	22
B1214	Filtrate, Point B	P	0.07	<0.01	–	300	22.0	566
		J	0.09	<0.02	0.04	230	21.0	620
C1206	Filtrate, Point C	P	<0.02	<0.01	0.001	207	6.7	–
		J	0.02	<0.02	<0.01	160	6.0	410
D1213	Filtrate, Point D	P	<0.02	<0.01	<0.0005	203	7.6	464
		J	<0.02	<0.02	<0.01	190	6.8	490
E1207	Filtrate, Point E	P	<0.02	<0.01	0.007	104	8.5	124
		J	0.02	<0.02	0.01	78	7.2	170
BM11	Benguet mill tailings	P	22	10.7	0.007	840	0.4	1,458
		J	22	8.1	0.01	630	0.44	1,500
WBM112	Eluate of Extraction test	P	<0.02	0.01	0.018			47
		J	<0.02	0.02	0.02			72
WPM112	– ditto –	P	<0.02	0.02	0.001			47
		J	<0.02	<0.02	<0.01			66
WIM112	– ditto –	P	<0.02	0.04	0.019			12
		J	<0.02	0.05	0.01			27
WBD1034	– ditto –	P	<0.02	<0.01	0.0005			27
		J	0.03	0.02	<0.01			26

P : Chemical analyses in the Philippines
J : Chemical analyses in Japan

Table D-24 CROSS CHECKING ANALYSES (2)

Sample No.	Description	Laboratory	Cu (mg/ℓ)	Zn (mg/ℓ)	As (mg/ℓ)	Ca (mg/ℓ)	Mg (mg/ℓ)	SO_4 (mg/ℓ)
A02262	Filtrate, Point A	P	<0.02	<0.02	0.0036	24	5.8	24
		J	<0.02	<0.02	<0.01	28	5.8	27
B02262	Filtrate, Point B	P	1.0	<0.02	0.0405	320	24	760
		J	1.2	<0.02	0.03	310	22	820
C02272	Filtrate, Point C	P	0.01	<0.02	0.0007	340	8.0	856
		J	<0.02	<0.02	<0.01	330	8.2	820
D02271	Filtrate, Point D	P	<0.01	<0.02	0.001	260	7.6	662
		J	<0.02	<0.02	<0.01	270	8.0	660
E02291	Filtrate. Point E	P	0.01	<0.02	0.0045	62	6.4	91
		J	<0.02	<0.02	<0.01	53	6.1	96
E02292	– ditto –	P	0.01	0.02	0.0044	64	6.5	90
		J	<0.02	<0.02	0.01	56	6.4	98
E03061	– ditto –	P	0.01	<0.02	0.0056	142	9.2	308
		J	<0.02	<0.02	<0.01	140	9.8	340
E03062	– ditto –	P	0.01	<0.02	0.0043	143	9.4	321
		J	<0.02	<0.02	<0.01	140	9.8	340
BW22	Mill tailings in Benguet Phase 2 dam	P	14	0.75	0.26	590	18	1,596
		J	15	0.40	0.09	510	16	1,600
PW21	Mill tailings in Philex No. 1 dam	P	<0.01	<0.02	0.0007	620	17	1,186
		J	<0.02	0.02	<0.01	500	16	1,200
PM22	Philex mill tailings	P	0.01	<0.02	0.001	720	12	1,533
		J	0.03	0.02	<0.01	600	11	1,600
IM22	Itogon mill tailings	P	16	6.0	0.072	122	0.2	212
		J	14	5.8	0.06	100	0.24	240
BM22	Benguet mill tailings	P	29	25	0.0078	720	0.7	1,587
		J	24	25	0.01	690	0.64	1,600

P : Chemical analyses in the Philippines
J : Chemical analyses in Japan

Table D-25 X-RAY DIFFRACTION ANALYSES

Sample	Minerals					
	Quartz	Chlorite	Mica (Biotite, Illite)	Plagioclase	Calcite	Pyrite
Philex mill tailings	◎	○	◎	◎	–	–
Benguet mill tailings	◎	○ △	○	–	○	○
Itogon mill tailings	◎	○ △	○	□	○	○
SS of the fixed point B	○	○	○	○	–	–
SS of the fixed point C	◎	○	○	○	–	–
SS of the fixed point D	○	○	○	○	–	–
SS of the fixed point E (between No. 3 and GS-25 Filters)	○	○	○	○	–	–
SS of the fixed point E (Dec. 2 – Dec. 7)	○	○	○	○	–	–
SS of the fixed point E (Dec. 8 – Dec. 14)	○	○	○	○	–	–

◎ : Abundant
○ : Common
– : Not detected
□ : The feldspar shows an X-ray pattern similar to orthoclase
△ : The chlorite peak may superimpose the kaolinite peak

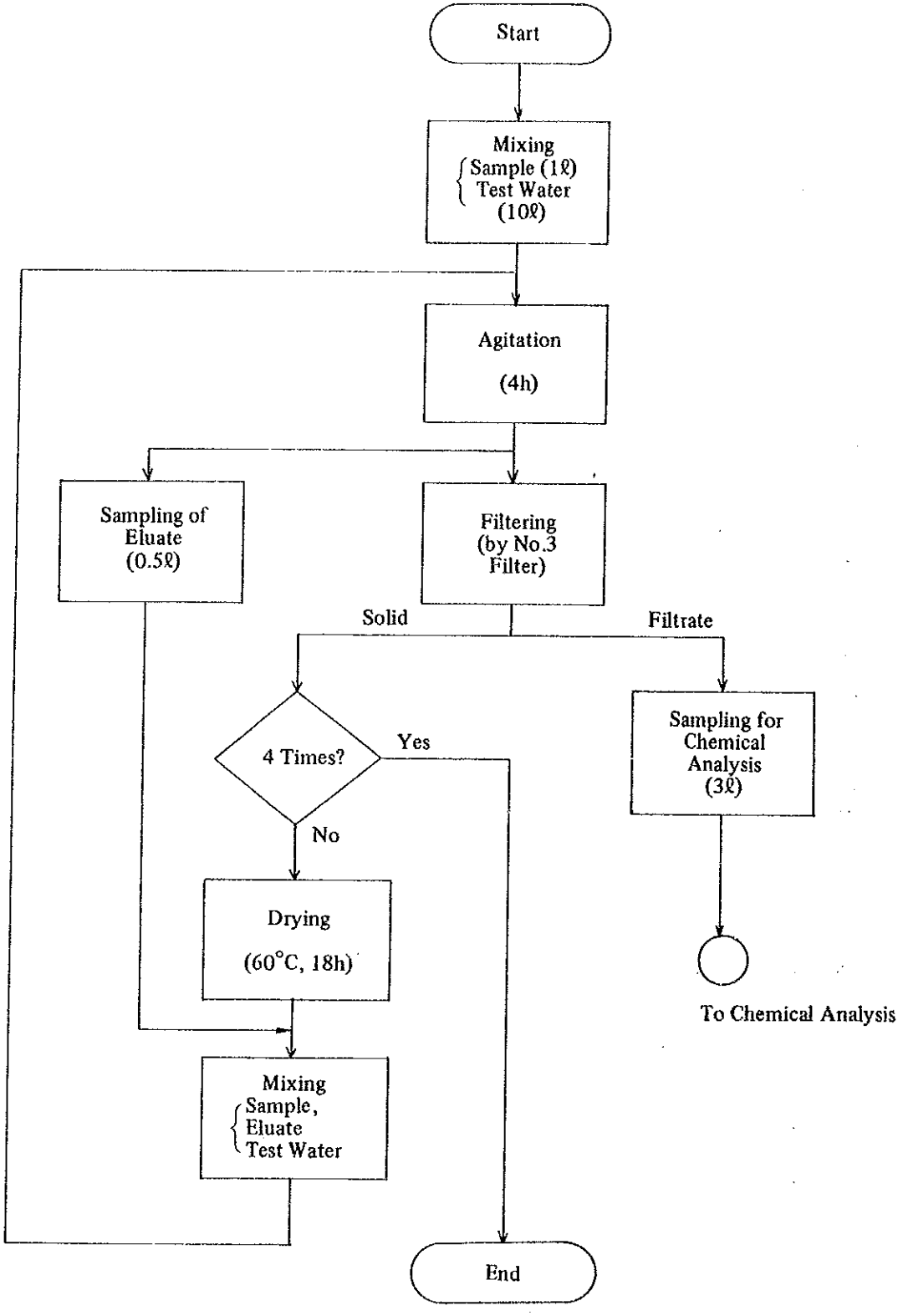


Fig. D-1 Flow Chart of Extraction Test by Wet and Dry Repetition Method (First Stage Survey)

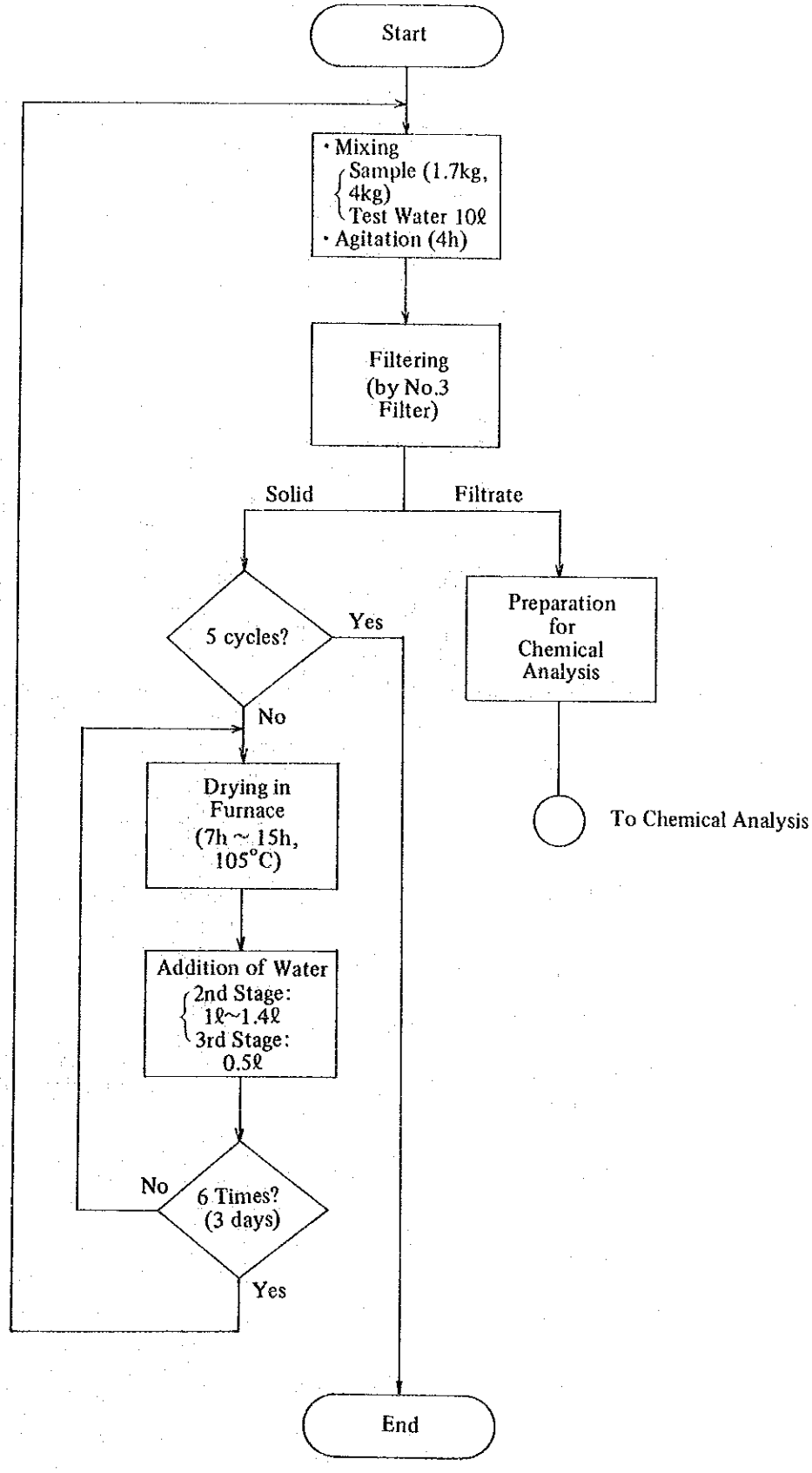


Fig. D-2 Flow Chart of Extraction Test by Wet and Dry Repetition Method (Second and Third Stage Surveys)

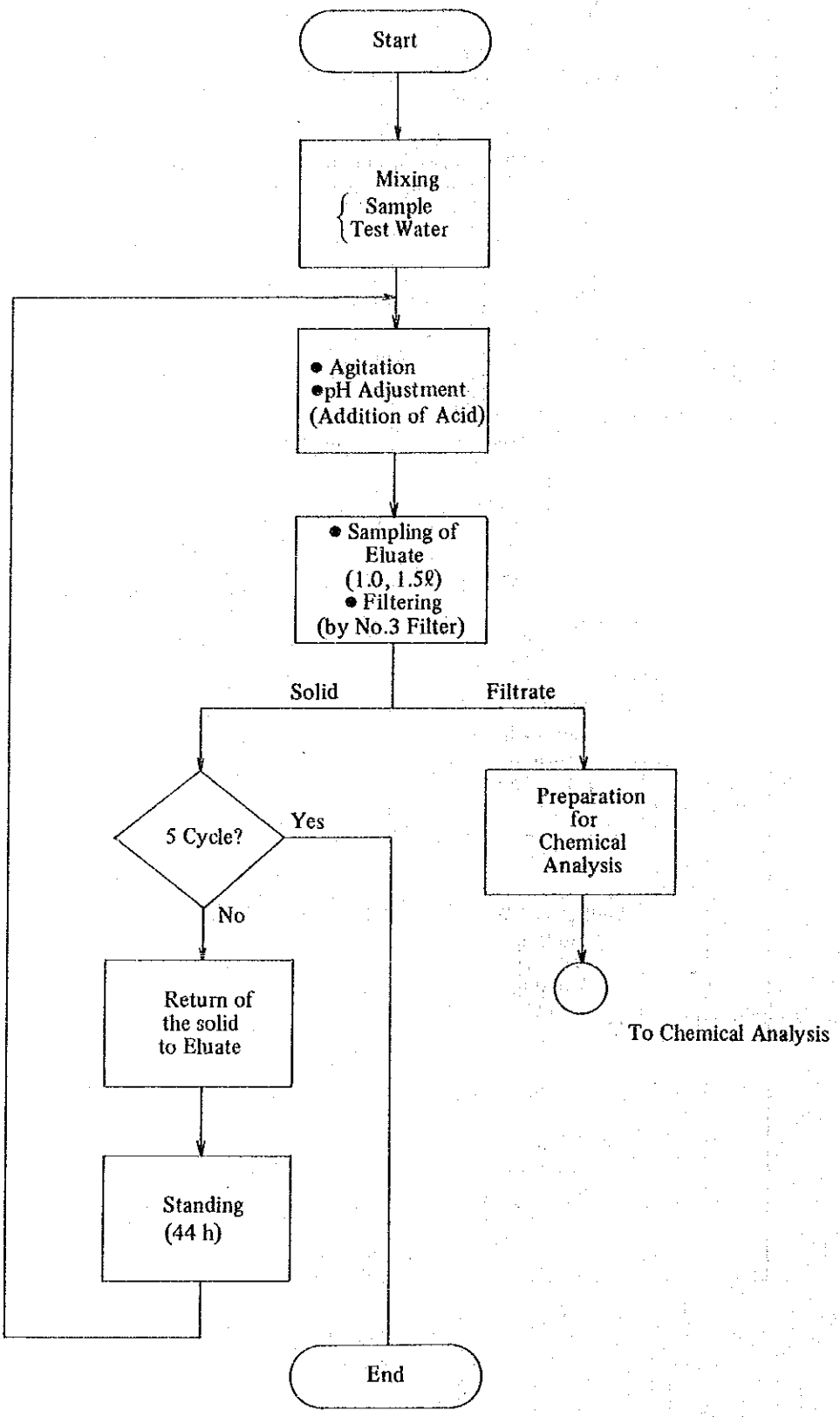


Fig. D-3 Flow Chart of Extraction Test by a Bacteria Addition Method

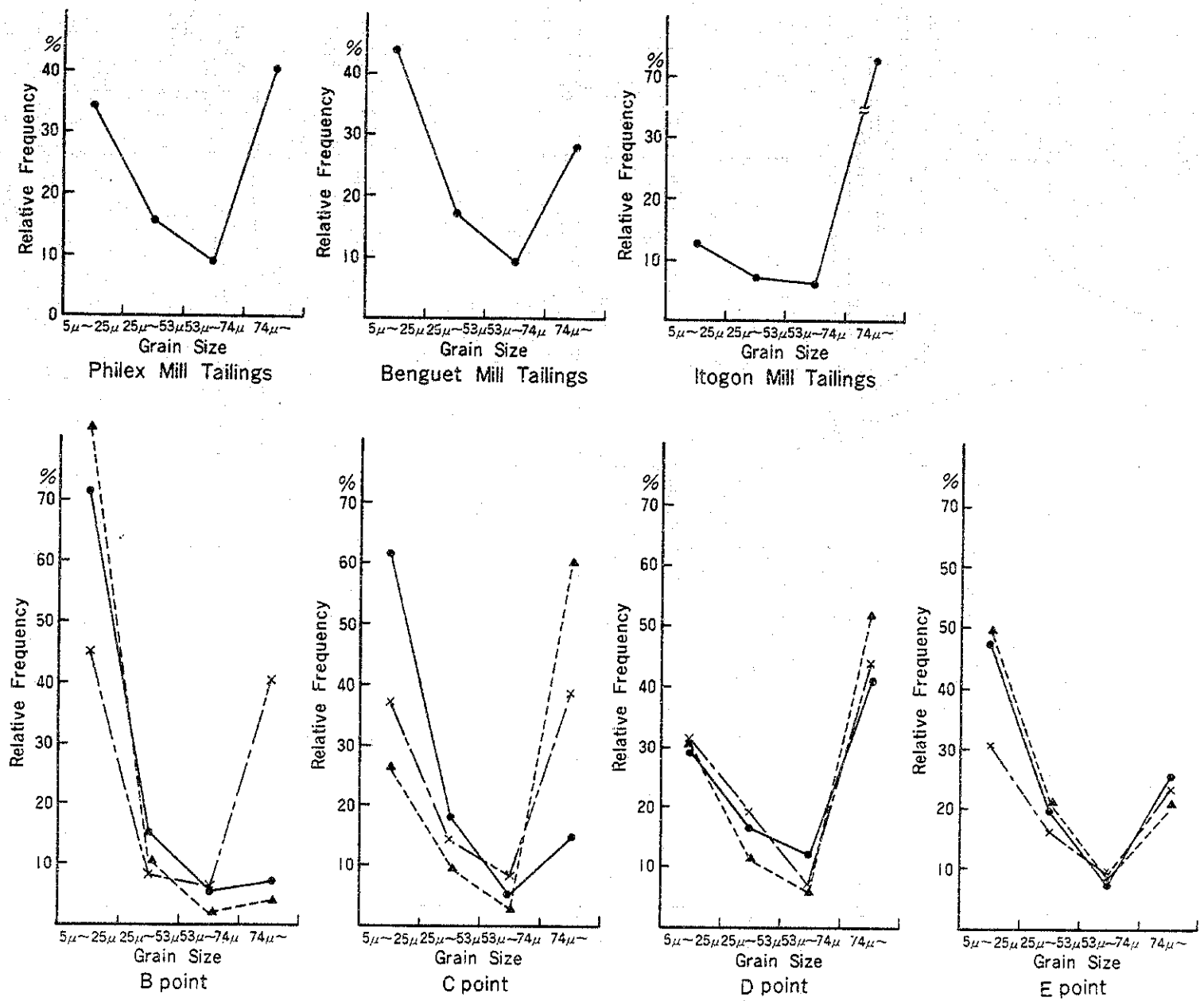


Fig. D-4 Grain Size Distribution by Sieving for SS at Fixed Points and Mill Tailings

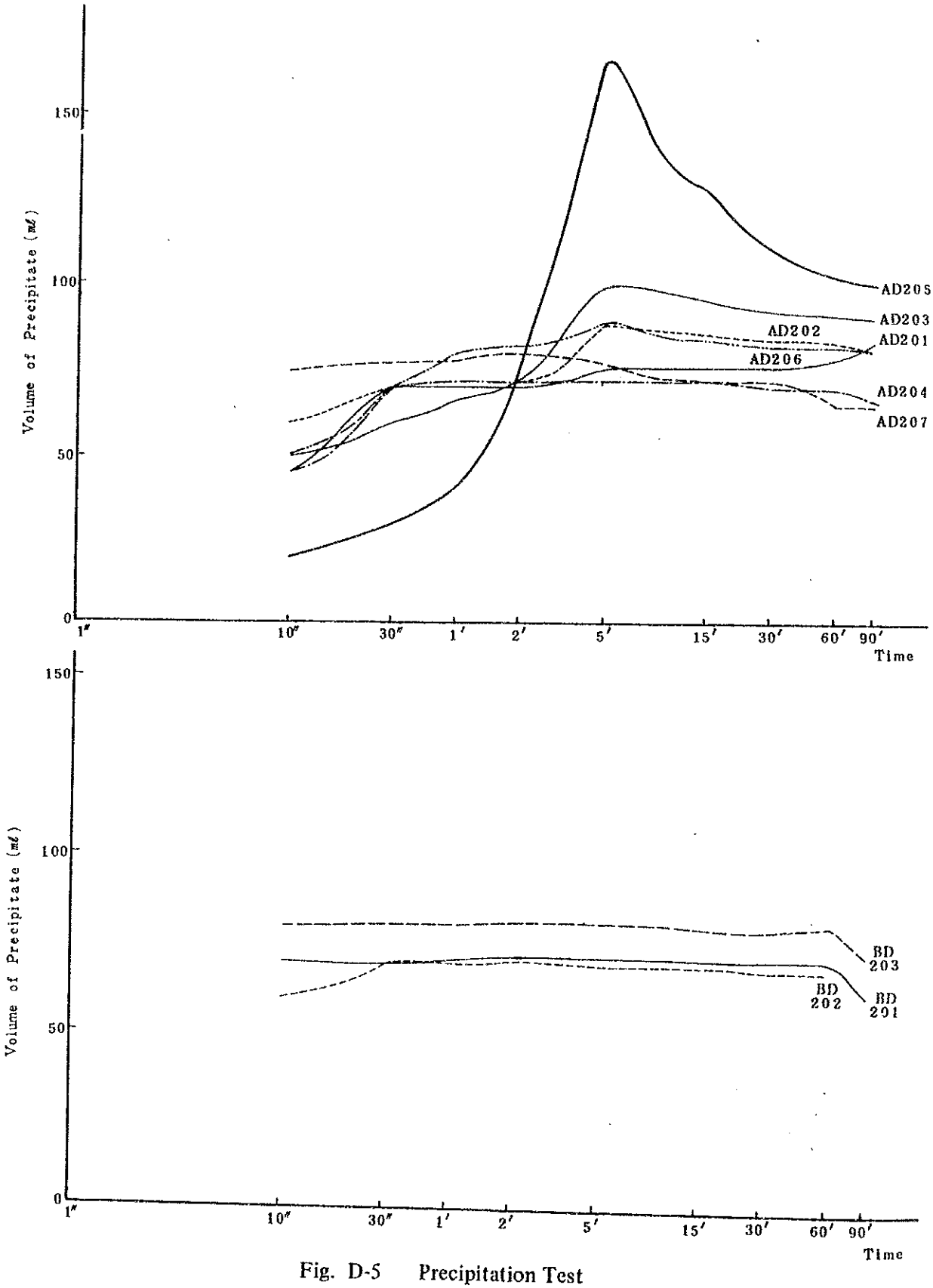
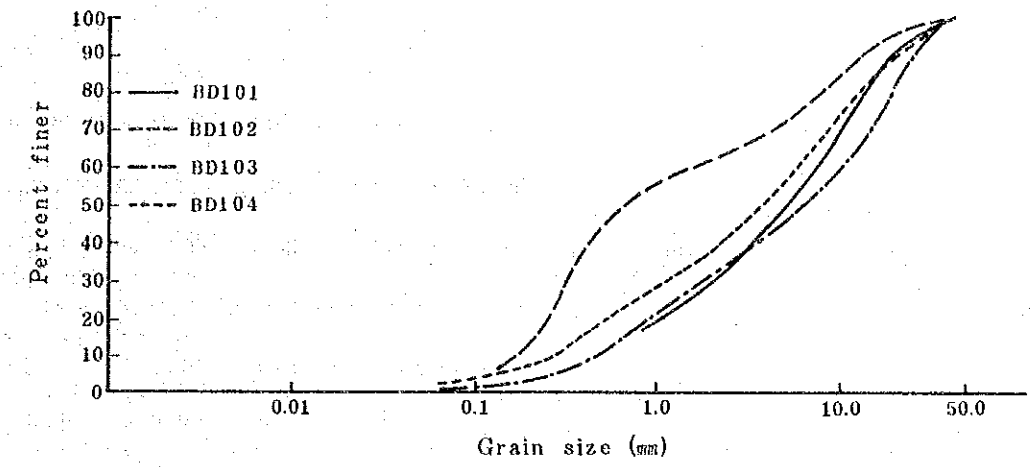
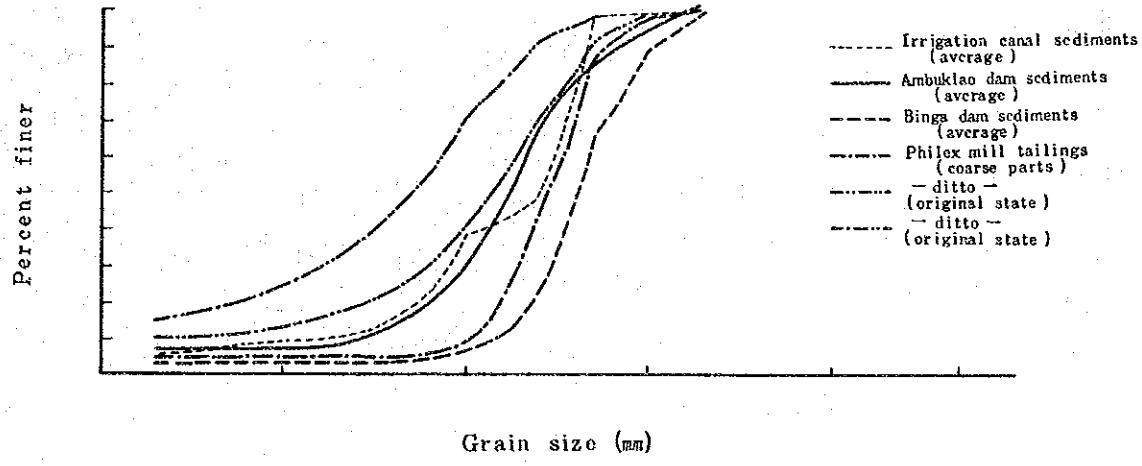


Fig. D-5 Precipitation Test





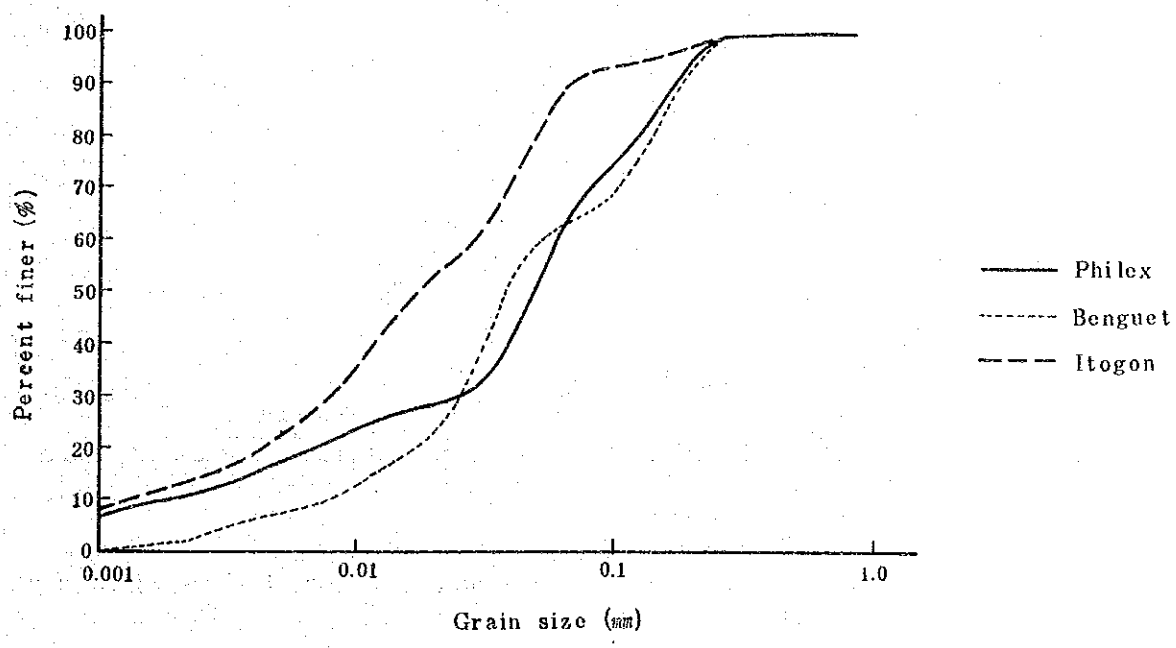


Fig. D-6 Grain Size Accumulation Curve

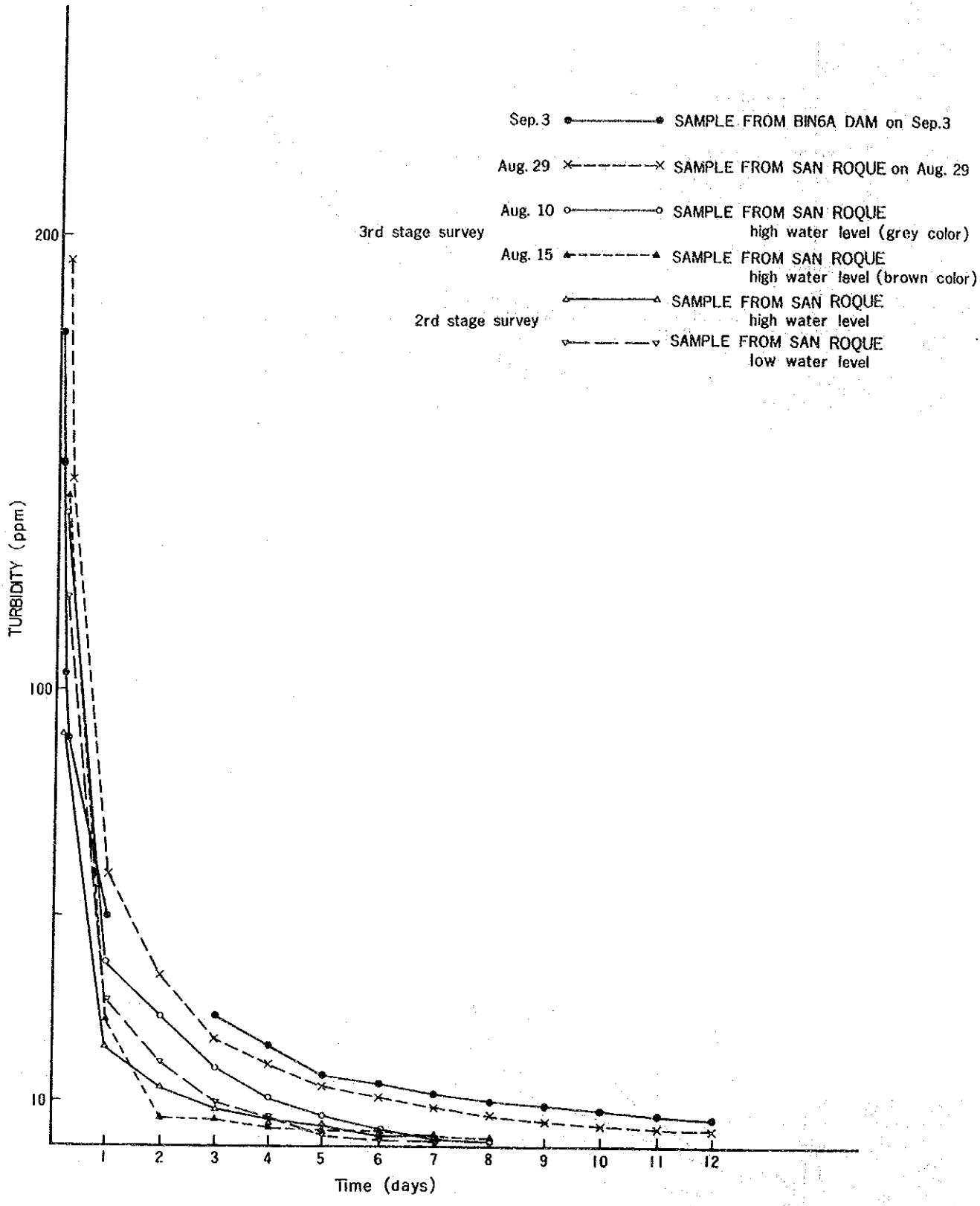


Fig. D-7 Precipitation Test for a Long Period on Samples Taken at Fixed Point "A" and "E"

資料Ｅ　水質予測値の出力データ

資料 E　水質予測値計算のデータ

資料E　水質予測値計算のデータ

1. 計算法，変数組合せ一覧表

		流　量 A：平　均 E：実　測	溶解度積 ○：適　値 ●：最悪値	反応速度 ○：適　値 ●：最悪値	残存率 ○：適　値 ●：最悪値	鉱山寿命（年） Benguet Itogon	 Philex
溶存成分	Run－1	A	○	○	○	30	30
	Run－2	A	●	●	●	30	30
	Run－3	E	○	○	○	30	30
	Run－4	E	●	●	●	30	30
	Case 1	A	●	○	○	30	30
	Case 2	A	○	○	○	20	30
	Case 3	A	○	○	○	30	20
懸濁物質	Run－1	A	○	○	○	30	30
	Run－3	E	○	○	○	30	30
	Case 2	A	○	○	○	20	30
	Case 3	A	○	○	○	30	20

2. 略語一覧表

Y　：　年

M　：　月

Q00：　流入量（m^3/s）

R1　：　一次発電用水量（m^3/s）

R2　：　二次発電用水量（m^3/s）

R3　：　オーバーフロー（m^3/s）

W1　：　一次発電量（Gwh）

W2　：　二次発電量（Gwh）

H1　：　貯水位（m）

E1　：　蒸発量（$\times 10^6\ m^3$）

WST ： 堆砂量 （$\times 10^6\ m^3$）

VW ： 貯水量 （$\times 10^6\ m^3$）

TR ： 滞留時間 （h）

DO ： 流出最大径 （μ）

SS ： 懸濁物質濃度 （mg/ℓ）

Cu ： 溶存Cu濃度 （mg/ℓ），懸濁物質中のCu濃度 （ppm）

Zn ： 溶存Zn濃度 （mg/ℓ），懸濁物質中のZn濃度 （ppm）

As ： 溶存As濃度 （mg/ℓ），懸濁物質中のAs濃度 （ppm）

(1) Rate of Inflow and Outflow Run-1, Run-2 (1/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
1	7	120.4	0.0	0.0	0.0	0.0	0.0	225.3	.55	.58	321.34
1	8	226.9	0.0	0.0	0.0	0.0	0.0	288.0	1.40	1.17	927.09
1	9	216.2	0.0	0.0	191.7	0.0	0.0	290.0	1.83	1.73	988.27
1	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	2.32	987.68
1	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	2.88	987.12
1	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	3.19	925.57
2	1	30.3	93.3	0.0	0.0	103.0	0.0	272.7	3.39	3.29	753.05
2	2	23.1	114.2	0.0	0.0	103.0	0.0	250.5	2.91	3.13	527.38
2	3	19.8	97.1	0.0	0.0	82.0	0.0	225.1	2.34	2.86	317.55
2	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	3.21	316.30
2	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	3.57	316.43
2	6	62.7	57.5	0.0	0.0	43.2	0.0	226.6	1.20	4.17	328.00
2	7	120.4	50.8	0.0	0.0	43.2	0.0	249.1	1.32	5.32	512.58
2	8	226.9	41.2	9.1	0.0	43.2	3.5	290.0	1.62	6.74	983.26
2	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	7.31	982.69
2	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	7.39	982.11
2	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	8.46	981.54
2	12	39.2	60.8	0.0	0.0	70.8	0.0	286.0	3.54	8.70	919.99
3	1	30.3	93.3	0.0	0.0	103.0	0.0	272.7	3.39	8.53	747.45
3	2	23.1	114.3	0.0	0.0	103.0	0.0	250.4	2.91	7.89	521.65
3	3	19.8	96.5	0.0	0.0	81.5	0.0	225.1	2.34	6.81	313.59
3	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	7.16	312.84
3	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	7.52	312.43
3	6	62.7	57.5	0.0	0.0	43.2	0.0	226.6	1.20	8.19	321.05
3	7	120.4	50.7	0.0	0.0	43.2	0.0	249.2	1.33	10.05	508.69
3	8	226.9	41.2	9.7	0.0	43.2	10.2	290.0	1.62	12.32	977.63
3	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	12.83	977.12
3	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	13.47	976.53
3	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	14.03	975.97
3	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	14.20	914.42
4	1	30.3	93.3	0.0	0.0	103.0	0.0	272.6	3.39	13.76	741.85
4	2	23.1	114.3	0.0	0.0	103.0	0.0	250.3	2.91	12.63	515.93
4	3	19.8	95.8	0.0	0.0	80.9	0.0	225.1	2.33	10.77	309.64
4	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	11.11	308.89
4	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	11.47	308.53
4	6	62.7	57.5	0.0	0.0	43.2	0.0	226.6	1.20	12.21	320.10
4	7	120.4	50.7	0.0	0.0	43.2	0.0	249.3	1.33	14.78	504.79
4	8	226.9	41.2	10.4	0.0	43.2	10.9	290.0	1.62	17.80	972.11
4	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	18.48	971.54
4	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	19.04	970.96
4	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	19.61	970.39
4	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	19.71	908.34
5	1	30.3	93.4	0.0	0.0	103.0	0.0	272.6	3.39	19.00	736.24
5	2	23.1	114.4	0.0	0.0	103.0	0.0	250.2	2.91	17.38	510.20
5	3	19.8	95.1	0.0	0.0	80.3	0.0	225.1	2.83	14.72	305.68
5	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	15.08	304.94
5	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	15.43	304.57
5	6	62.7	57.5	0.0	0.0	43.2	0.0	226.6	1.20	16.23	316.15

(1) Rate of Inflow and Outflow Run-1, Run-2 (2/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
5	7	120.4	50.7	0.0	0.0	43.2	0.0	249.4	1.33	19.52	500.89
5	8	226.9	41.2	11.0	0.0	43.2	11.5	290.0	1.62	23.47	966.53
5	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	24.03	965.97
5	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	24.62	965.38
5	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	25.18	964.82
5	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	25.21	903.26
6	1	30.3	93.4	0.0	0.0	103.0	0.0	272.6	3.39	24.24	730.64
6	2	23.1	114.4	0.0	0.0	103.0	0.0	250.1	2.90	22.11	504.48
6	3	19.8	94.5	0.0	0.0	79.7	0.0	225.1	2.33	18.68	301.73
6	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	19.02	300.98
6	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	19.38	300.62
6	6	62.7	57.5	0.0	0.0	43.2	0.0	226.6	1.20	20.25	312.21
6	7	120.4	50.7	0.0	0.0	43.2	0.0	249.5	1.33	24.26	496.99
6	8	226.9	41.2	11.6	0.0	43.2	12.2	290.0	1.62	29.05	960.95
6	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	29.61	960.39
6	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	30.19	959.81
6	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	30.76	959.24
6	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	30.72	897.68
7	1	30.3	93.4	0.0	0.0	103.0	0.0	272.5	3.39	29.47	725.04
7	2	23.1	114.5	0.0	0.0	103.0	0.0	250.0	2.90	26.85	498.75
7	3	19.8	93.8	0.0	0.0	79.2	0.0	225.1	2.33	22.63	297.77
7	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	22.97	297.03
7	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	23.33	296.67
7	6	62.7	57.5	0.0	0.0	43.2	0.0	226.6	1.20	24.27	308.26
7	7	120.4	50.7	0.0	0.0	43.2	0.0	249.6	1.33	29.01	493.09
7	8	226.9	41.2	12.3	0.0	43.2	12.9	290.0	1.62	34.62	955.38
7	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	35.19	954.81
7	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	35.77	954.23
7	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	36.33	953.67
7	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	36.22	892.11
8	1	30.3	93.4	0.0	0.0	103.0	0.0	272.5	3.39	34.70	719.43
8	2	23.1	114.6	0.0	0.0	103.0	0.0	249.9	2.90	31.58	493.02
8	3	19.8	93.2	0.0	0.0	78.6	0.0	225.1	2.33	26.59	293.82
8	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	26.92	293.08
8	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	27.29	292.71
8	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	28.29	304.31
8	7	120.4	50.6	0.0	0.0	43.2	0.0	249.7	1.33	33.77	489.20
8	8	226.9	41.2	12.9	0.0	43.2	13.6	290.0	1.62	40.20	949.80
8	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	40.76	949.24
8	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	41.35	948.65
8	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	41.91	948.09
8	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	41.72	886.53
9	1	30.3	93.4	0.0	0.0	103.0	0.0	272.5	3.39	39.93	713.83
9	2	23.1	114.6	0.0	0.0	103.0	0.0	249.8	2.90	36.30	487.29
9	3	19.8	92.5	0.0	0.0	78.0	0.0	225.1	2.32	30.54	289.86
9	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	30.88	289.13
9	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	31.24	288.76
9	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	32.31	300.36

(1) Rate of Inflow and Outflow Run-1, Run-2 (3/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
9	7	120.4	50.6	0.0	0.0	43.2	0.0	249.8	1.33	38.53	485.30
9	8	226.9	41.2	13.6	0.0	43.2	14.2	290.0	1.62	45.77	944.23
9	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	46.34	943.66
9	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	46.92	943.08
9	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	47.49	942.51
9	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	47.23	880.95
10	1	30.3	93.4	0.0	0.0	103.0	0.0	272.4	3.39	45.16	708.23
10	2	23.1	114.7	0.0	0.0	103.0	0.0	249.6	2.89	41.01	481.56
10	3	19.3	91.8	0.0	0.0	77.4	0.0	225.1	2.32	34.50	285.91
10	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	34.83	285.17
10	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	35.19	284.81
10	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	36.33	296.42
10	7	120.4	50.6	0.0	0.0	43.2	0.0	249.9	1.33	43.29	481.40
10	8	226.9	41.2	14.2	0.0	43.2	14.9	290.0	1.62	51.35	938.65
10	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	51.91	938.09
10	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	52.50	937.50
10	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	53.06	936.94
10	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	52.73	875.37
11	1	30.3	93.4	0.0	0.0	103.0	0.0	272.4	3.39	50.39	702.62
11	2	23.1	114.7	0.0	0.0	103.0	0.0	249.5	2.89	45.72	475.83
11	3	19.8	91.2	0.0	0.0	76.8	0.0	225.1	2.32	33.45	281.96
11	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	33.78	281.22
11	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	39.14	280.86
11	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	40.35	292.47
11	7	120.4	50.6	0.0	0.0	43.2	0.0	250.0	1.33	48.06	477.51
11	8	226.9	41.2	14.8	0.0	43.2	15.6	290.0	1.62	56.92	933.08
11	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	57.49	932.51
11	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	58.07	931.93
11	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	58.64	931.38
11	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	58.23	869.80
12	1	30.3	93.4	0.0	0.0	103.0	0.0	272.4	3.39	55.62	697.02
12	2	23.1	114.8	0.0	0.0	103.0	0.0	249.4	2.89	50.42	470.09
12	3	19.8	90.5	0.0	0.0	76.3	0.0	225.1	2.32	42.41	278.00
12	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	42.73	277.27
12	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	43.09	276.91
12	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	44.38	288.52
12	7	120.4	50.6	0.0	0.0	43.2	0.0	250.1	1.33	52.83	473.61
12	8	226.9	41.2	15.5	0.0	43.2	16.2	290.0	1.62	62.50	927.50
12	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	63.06	926.94
12	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	63.65	926.35
12	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	64.21	925.79
12	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	63.74	864.22
13	1	30.3	93.4	0.0	0.0	103.0	0.0	272.3	3.39	60.84	691.42
13	2	23.1	114.8	0.0	0.0	103.0	0.0	249.3	2.89	55.11	464.36
13	3	19.8	89.8	0.0	0.0	75.7	0.0	225.1	2.32	46.36	274.05
13	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	46.68	273.32
13	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	47.05	272.95
13	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	48.40	284.58

(1) Rate of Inflow and Outflow Run-1, Run-2 (4/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
13	7	120.4	50.5	0.0	0.0	43.2	0.0	250.2	1.34	57.61	469.72
13	8	226.9	41.1	16.1	0.0	43.2	16.9	290.0	1.62	68.07	921.93
13	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	68.64	921.36
13	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	69.22	920.78
13	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	69.79	920.21
13	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	69.24	858.64
14	1	30.3	93.4	0.0	0.0	103.0	0.0	272.3	3.39	66.07	685.81
14	2	23.1	114.9	0.0	0.0	103.0	0.0	249.2	2.89	59.79	458.62
14	3	19.8	89.2	0.0	0.0	75.1	0.0	225.1	2.32	50.32	270.10
14	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	50.64	269.37
14	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	51.00	269.00
14	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	52.42	280.63
14	7	120.4	50.5	0.0	0.0	43.2	0.0	250.3	1.34	62.39	465.83
14	8	226.9	41.1	16.7	0.0	43.2	17.6	290.0	1.63	73.65	916.35
14	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	74.21	915.79
14	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	74.80	915.20
14	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	75.36	914.64
14	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	74.74	853.06
15	1	30.3	93.5	0.0	0.0	103.0	0.0	272.3	3.39	71.29	680.21
15	2	23.1	114.9	0.0	0.0	103.0	0.0	2491	2.88	64.47	452.88
15	3	19.8	88.5	0.0	0.0	74.5	0.0	225.1	2.31	54.27	266.14
15	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	54.59	265.41
15	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	54.95	265.05
15	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	56.45	276.68
15	7	120.4	50.5	0.0	0.0	43.2	0.0	250.4	1.34	67.17	461.93
15	8	226.9	41.1	17.4	0.0	43.2	18.3	290.0	1.63	79.22	910.78
15	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	79.79	910.21
15	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	80.37	909.63
15	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	80.94	909.06
15	12	39.2	60.8	0.0	0.0	70.6	0.0	286.0	3.54	80.25	847.49
16	1	30.3	93.5	0.0	0.0	103.0	0.0	272.3	3.39	76.51	674.61
16	2	23.1	115.0	0.0	0.0	103.0	0.0	248.9	2.88	69.13	447.14
16	3	19.8	87.8	0.0	0.0	73.9	0.0	225.1	2.31	58.22	262.19
16	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	58.54	261.46
16	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	53.90	261.10
16	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	60.47	272.74
16	7	120.4	50.5	0.0	0.0	43.2	0.0	250.5	1.34	71.96	458.04
16	8	226.9	41.1	18.0	0.0	43.2	18.9	290.0	1.63	84.80	905.20
16	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	85.37	904.63
16	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	85.95	904.05
16	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	86.51	903.49
16	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.54	85.75	841.91
17	1	30.3	93.5	0.0	0.0	103.0	0.0	272.2	3.39	81.73	669.00
17	2	23.1	115.1	0.0	0.0	103.0	0.0	248.8	2.88	73.78	441.40
17	3	19.8	87.2	0.0	0.0	73.3	0.0	225.1	2.31	62.18	258.24
17	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	62.49	257.51
17	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	62.85	257.15
17	6	62.7	57.5	0.0	0.0	43.2	0.0	226.7	1.20	64.50	268.79

(1) Rate of Inflow and Outflow Run-1, Run-2 (5/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
17	7	120.4	50.5	0.0	0.0	43.2	0.0	250.6	1.34	76.75	454.14
17	8	226.9	41.1	18.6	0.0	43.2	19.6	290.0	1.63	90.38	899.62
17	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	90.94	899.06
17	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	91.52	898.48
17	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	92.09	897.91
17	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.54	91.25	836.33
18	1	30.3	93.5	0.0	0.0	103.0	0.0	272.2	3.39	86.95	663.40
18	2	23.1	115.1	0.0	0.0	103.0	0.0	248.7	2.88	78.43	435.65
18	3	19.8	86.5	0.0	0.0	72.8	0.0	225.1	2.31	66.13	254.28
18	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	66.44	253.56
18	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	66.80	253.20
18	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.20	68.52	264.85
18	7	120.4	50.4	0.0	0.0	43.2	0.0	250.7	1.34	81.55	450.25
18	8	226.9	41.1	19.3	0.0	43.2	20.3	290.0	1.63	95.95	894.05
18	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	96.52	893.48
18	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	97.10	892.90
18	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	97.67	892.33
18	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	96.75	830.75
19	1	30.3	93.5	0.0	0.0	103.0	0.0	272.2	3.38	92.17	657.79
19	2	23.1	115.2	0.0	0.0	103.0	0.0	248.6	2.87	83.07	429.91
19	3	19.8	85.8	0.0	0.0	72.2	0.0	225.1	2.31	70.08	250.33
19	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	70.39	249.61
19	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	70.75	249.25
19	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.20	72.55	260.90
19	7	120.4	50.4	0.0	0.0	43.2	0.0	250.8	1.34	86.35	446.36
19	8	226.9	41.1	19.9	0.0	43.2	21.0	290.0	1.63	101.53	888.47
19	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	102.09	887.91
19	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	102.68	887.32
19	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	103.24	886.76
19	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	102.25	825.18
20	1	30.3	93.5	0.0	0.0	103.0	0.0	272.1	3.38	97.39	652.19
20	2	23.1	115.2	0.0	0.0	103.0	0.0	248.4	2.87	87.70	424.16
20	3	19.8	85.2	0.0	0.0	71.6	0.0	225.1	2.30	74.04	246.38
20	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	74.34	245.66
20	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	74.70	245.30
20	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	76.58	256.96
20	7	120.4	50.4	0.0	0.0	43.2	0.0	250.9	1.34	91.15	442.47
20	8	226.9	41.1	20.6	0.0	43.2	21.6	290.0	1.63	107.10	882.90
20	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	107.67	882.33
20	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	108.25	881.75
20	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	108.82	881.18
20	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	107.75	819.60
21	1	30.3	93.5	0.0	0.0	103.0	0.0	272.1	3.38	102.60	646.58
21	2	23.1	115.3	0.0	0.0	103.0	0.0	248.3	2.87	92.32	418.42
21	3	19.8	84.5	0.0	0.0	71.0	0.0	225.1	2.30	77.99	242.42
21	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	78.29	241.71
21	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	78.66	241.34
21	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	80.73	252.89

(1) Rate of Inflow and Outflow Run-1, Run-2 (6/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
21	7	120.4	50.4	0.0	0.0	43.2	0.0	251.0	1.34	96.21	438.33
21	8	226.9	41.1	21.2	0.0	43.2	22.3	290.0	1.63	113.05	876.95
21	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	113.74	876.26
21	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	114.45	875.55
21	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	115.14	874.86
21	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	113.99	813.27
22	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	108.50	640.22
22	2	23.1	115.4	0.0	0.0	103.0	0.0	248.2	2.87	97.54	411.89
22	3	19.8	83.7	0.0	0.0	70.3	0.0	225.1	2.30	82.46	237.96
22	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	82.76	237.24
22	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	83.12	236.88
22	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	85.23	243.43
22	7	120.4	50.4	0.0	0.0	43.2	0.0	251.1	1.34	101.66	433.93
22	8	226.9	41.1	21.9	0.0	43.2	23.1	290.0	1.63	119.38	870.62
22	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	120.07	869.93
22	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	120.78	869.22
22	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	121.47	868.53
22	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	120.23	806.94
23	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	114.40	633.86
23	2	23.1	115.4	0.0	0.0	103.0	0.0	248.0	2.86	102.74	405.36
23	3	19.8	83.0	0.0	0.0	69.6	0.0	225.1	2.30	86.92	233.49
23	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	87.22	232.78
23	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	87.53	232.42
23	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	89.84	243.98
23	7	120.4	50.3	0.0	0.0	43.2	0.0	251.2	1.35	107.12	429.54
23	8	226.9	41.0	22.7	0.0	43.2	23.9	290.0	1.63	125.71	864.29
23	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	126.39	863.61
23	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	127.10	862.90
23	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	127.79	862.21
23	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	126.47	800.62
24	1	30.3	93.6	0.0	0.0	103.0	0.0	272.0	3.38	120.30	627.50
24	2	23.1	115.5	0.0	0.0	103.0	0.0	247.9	2.86	107.93	398.83
24	3	19.8	82.2	0.0	0.0	69.0	0.0	225.1	2.29	91.39	229.03
24	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	91.68	228.32
24	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	92.05	227.95
24	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	94.39	239.52
24	7	120.4	50.3	0.0	0.0	43.2	0.0	251.3	1.35	112.58	425.14
24	8	226.9	41.0	23.4	0.0	43.2	24.6	290.0	1.63	132.03	857.97
24	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	132.72	857.28
24	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	133.43	856.57
24	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	134.12	855.88
24	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	132.70	794.29
25	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	126.20	621.14
25	2	23.1	115.6	0.0	0.0	103.0	0.0	247.7	2.86	113.11	392.30
25	3	19.8	81.4	0.0	0.0	68.3	0.0	225.1	2.29	95.85	224.56
25	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	96.15	223.86
25	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	96.51	223.49

(1) Rate of Inflow and Outflow Run-1, Run-2 (7/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
25	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	98.95	235.06
25	7	120.4	50.3	0.0	0.0	43.2	0.0	251.4	1.35	118.05	420.75
25	8	226.9	41.0	24.1	0.0	43.2	25.4	290.0	1.63	138.36	851.64
25	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	139.04	850.96
25	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	139.76	850.24
25	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	140.44	849.56
25	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	138.94	787.96
26	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	132.09	614.78
26	2	23.1	115.6	0.0	0.0	103.0	0.0	247.6	2.85	118.28	385.76
26	3	19.8	80.6	0.0	0.0	67.6	0.0	225.1	2.29	100.32	220.10
26	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	100.61	219.39
26	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	100.97	219.03
26	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	103.51	230.61
26	7	120.4	50.3	0.0	0.0	43.2	0.0	251.5	1.35	123.53	416.36
26	8	226.9	41.0	24.9	0.0	43.2	26.2	290.0	1.64	144.68	845.32
26	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	145.37	844.63
26	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	146.03	843.92
26	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	146.77	843.23
26	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	145.17	781.63
27	1	30.3	93.6	0.0	0.0	103.0	0.0	271.8	3.38	137.98	608.42
27	2	23.1	115.7	0.0	0.0	103.0	0.0	247.4	2.85	123.43	379.22
27	3	19.8	79.9	0.0	0.0	66.9	0.0	225.1	2.29	104.78	215.63
27	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	105.07	214.93
27	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	105.43	214.57
27	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	108.07	226.15
27	7	120.4	50.2	0.0	0.0	43.2	0.0	251.7	1.35	129.01	411.97
27	8	226.9	41.0	25.6	0.0	43.2	27.0	290.0	1.64	151.01	838.99
27	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	151.70	838.30
27	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	152.41	837.59
27	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	153.09	836.91
27	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	151.41	775.30
28	1	30.3	93.6	0.0	0.0	103.0	0.0	271.8	3.38	143.87	602.06
28	2	23.1	115.8	0.0	0.0	103.0	0.0	247.3	2.85	128.57	372.68
28	3	19.8	79.1	0.0	0.0	66.3	0.0	225.1	2.28	109.25	211.17
28	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	109.53	210.47
28	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	109.89	210.11
28	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	112.63	221.70
28	7	120.4	50.2	0.0	0.0	43.2	0.0	251.8	1.35	134.50	407.57
28	8	226.9	41.0	26.3	0.0	43.2	27.8	290.0	1.64	157.33	832.67
28	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	158.02	831.98
28	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	158.73	831.27
28	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	159.42	830.58
28	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	157.64	768.98
29	1	30.3	93.6	0.0	0.0	103.0	0.0	271.8	3.38	149.76	595.70
29	2	23.1	115.9	0.0	0.0	103.0	0.0	247.1	2.85	133.70	366.14
29	3	19.8	78.3	0.0	0.0	65.6	0.0	225.1	2.28	113.71	206.70
29	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	113.99	206.01
29	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	114.36	205.64
29	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	117.19	217.24

(1) Rate of Inflow and Outflow Run-1, Run-2 (8/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
29	7	120.4	50.2	0.0	0.0	43.2	0.0	251.9	1.35	139.99	403.18
29	8	226.9	41.0	27.0	0.0	43.2	28.5	290.0	1.64	163.66	826.34
29	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	164.35	825.65
29	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	165.06	824.94
29	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	165.75	824.25
29	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	163.88	762.65
30	1	30.3	93.6	0.0	0.0	103.0	0.0	271.7	3.38	155.65	589.34
30	2	23.1	115.9	0.0	0.0	103.0	0.0	246.9	2.84	138.81	359.59
30	3	19.8	77.5	0.0	0.0	64.9	0.0	225.1	2.28	118.18	202.24
30	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	118.46	201.54
30	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	118.82	201.18
30	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	121.75	212.79
30	7	120.4	50.2	0.0	0.0	43.2	0.0	252.0	1.35	145.49	398.79
30	8	226.9	41.0	27.8	0.0	43.2	29.3	290.0	1.64	169.98	820.02
30	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	170.67	819.33
30	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	171.38	818.62
30	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	172.07	817.93
30	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	170.11	756.32
31	1	30.3	93.6	0.0	0.0	103.0	0.0	271.7	3.38	161.53	582.98
31	2	23.1	116.0	0.0	0.0	103.0	0.0	246.8	2.84	143.91	353.05
31	3	19.8	76.8	0.0	0.0	64.2	0.0	225.1	2.28	122.64	197.78
31	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	122.92	197.08
31	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	123.28	196.72
31	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	126.32	208.34
31	7	120.4	50.1	0.0	0.0	43.2	0.0	252.1	1.36	151.00	394.40
31	8	226.9	41.0	28.5	0.0	43.2	30.1	290.0	1.64	176.31	813.69
31	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	177.00	813.00
31	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	177.71	812.29
31	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	178.40	811.60
31	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	176.35	749.99

(2) Rate of Inflow and Outflow Run-3, Run-4 (1/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
1	7	97.6	0.0	0.0	0.0	0.0	0.0	217.0	.48	.53	260.35
1	8	126.5	0.0	0.0	0.0	0.0	0.0	257.8	1.11	1.17	597.47
1	9	181.3	0.0	0.0	29.7	0.0	0.0	290.0	1.68	1.73	988.27
1	10	165.5	61.3	103.1	0.0	70.6	118.7	290.0	3.04	2.32	987.68
1	11	64.0	62.1	.5	0.0	70.6	.6	290.0	3.49	2.88	987.12
1	12	51.1	60.4	0.0	0.0	70.6	0.0	288.2	3.57	3.22	958.32
2	1	45.7	91.1	0.0	0.0	103.0	0.0	279.3	3.53	3.44	832.97
2	2	23.4	108.5	0.0	0.0	103.0	0.0	260.5	3.17	3.45	621.95
2	3	18.5	115.9	0.0	0.0	103.0	0.0	230.4	2.58	3.04	358.25
2	4	18.5	33.7	0.0	0.0	25.8	0.0	225.0	1.69	3.23	316.84
2	5	43.7	43.2	0.0	0.0	33.4	0.0	225.0	1.34	3.59	316.41
2	6	49.6	49.1	0.0	0.0	36.7	0.0	225.0	1.19	4.16	315.84
2	7	180.8	48.2	0.0	0.0	43.2	0.0	265.3	1.46	5.75	668.95
2	8	357.9	41.4	198.3	0.0	43.2	207.3	290.0	1.74	6.74	983.26
2	9	121.9	38.4	82.7	0.0	43.2	93.2	290.0	1.95	7.31	982.69
2	10	289.6	64.3	224.1	0.0	70.6	245.9	290.0	3.04	7.89	982.11
2	11	56.7	62.3	0.0	0.0	70.6	0.0	288.9	3.47	8.43	963.56
2	12	31.3	61.4	0.0	0.0	70.6	0.0	283.1	3.47	8.60	879.18
3	1	22.9	95.8	0.0	0.0	103.0	0.0	266.6	3.25	8.36	630.45
3	2	16.1	121.2	0.0	0.0	103.0	0.0	238.7	2.64	7.27	420.95
3	3	10.6	49.8	0.0	0.0	40.6	0.0	225.0	2.15	6.84	313.38
3	4	12.5	12.0	0.0	0.0	9.0	0.0	225.0	1.62	7.18	312.82
3	5	54.6	54.1	0.0	0.0	41.8	0.0	225.0	1.34	7.55	312.45
3	6	68.0	57.1	0.0	0.0	43.2	0.0	228.6	1.22	8.33	338.81
3	7	105.3	50.9	0.0	0.0	43.2	0.0	246.2	1.32	9.89	482.51
3	8	327.3	42.3	99.3	0.0	43.2	101.6	290.0	1.59	12.32	977.68
3	9	212.0	39.4	171.9	0.0	43.2	188.7	290.0	1.95	12.88	977.12
3	10	70.9	60.2	9.6	0.0	70.6	11.3	290.0	3.04	13.47	976.53
3	11	53.9	62.4	0.0	0.0	70.6	0.0	288.4	3.46	13.96	950.53
3	12	35.1	61.5	0.0	0.0	70.6	0.0	283.3	3.47	14.07	876.19
4	1	21.1	95.8	0.0	0.0	103.0	0.0	266.4	3.25	13.47	672.59
4	2	18.0	121.3	0.0	0.0	103.0	0.0	238.8	2.64	11.76	417.61
4	3	13.0	52.5	0.0	0.0	42.8	0.0	225.0	2.15	10.84	309.38
4	4	18.7	18.2	0.0	0.0	13.6	0.0	225.0	1.62	11.19	308.81
4	5	37.1	36.6	0.0	0.0	28.3	0.0	225.0	1.34	11.55	308.45
4	6	56.3	55.8	0.0	0.0	41.7	0.0	225.0	1.19	12.12	307.88
4	7	49.5	49.1	0.0	0.0	37.9	0.0	225.0	1.10	12.70	307.30
4	8	180.6	48.2	0.0	0.0	43.2	0.0	265.5	1.23	16.56	660.18
4	9	154.2	40.8	0.0	0.0	43.2	0.0	288.8	1.73	18.41	951.76
4	10	139.1	61.0	69.6	0.0	70.6	80.5	290.0	3.03	19.04	970.96
4	11	58.2	62.3	0.0	0.0	70.6	0.0	289.1	3.48	19.57	956.39
4	12	31.8	61.3	0.0	0.0	70.6	0.0	283.5	3.48	19.58	873.63
5	1	24.5	95.4	0.0	0.0	103.0	0.0	267.6	3.28	18.80	680.16
5	2	16.6	120.2	0.0	0.0	103.0	0.0	240.2	2.68	16.52	424.31
5	3	13.7	57.2	0.0	0.0	46.9	0.0	225.0	2.17	15.09	305.15
5	4	13.4	12.9	0.0	0.0	9.6	0.0	225.0	1.62	15.43	304.57
5	5	15.2	14.7	0.0	0.0	11.4	0.0	225.0	1.34	15.80	304.20
5	6	148.0	51.7	0.0	0.0	43.2	0.0	254.9	1.43	19.63	551.82

(2) Rate of Inflow and Outflow Run-3, Run-4 (2/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
5	7	219.2	40.6	22.6	0.0	43.2	24.1	290.0	1.97	22.89	967.11
5	8	358.2	39.8	266.2	51.5	43.2	289.4	290.0	1.95	23.47	966.53
5	9	184.7	39.0	144.9	0.0	43.2	160.6	290.0	1.95	24.03	965.97
5	10	121.8	60.7	60.0	0.0	70.6	69.8	290.0	3.04	24.62	965.38
5	11	116.2	62.6	52.2	0.0	70.6	58.9	290.0	3.49	25.18	964.82
5	12	56.2	60.3	0.0	0.0	70.6	0.0	289.1	3.59	25.48	950.04
6	1	31.3	91.4	0.0	0.0	103.0	0.0	277.2	3.52	24.75	785.33
6	2	19.6	110.7	0.0	0.0	103.0	0.0	256.1	3.07	22.81	559.88
6	3	17.0	112.5	0.0	0.0	96.6	0.0	225.0	2.43	18.70	301.33
6	4	18.8	18.2	0.0	0.0	13.6	0.0	225.0	1.62	19.05	300.95
6	5	19.9	19.4	0.0	0.0	15.0	0.0	225.0	1.34	19.42	300.58
6	6	24.1	23.6	0.0	0.0	17.7	0.0	225.0	1.19	19.98	300.02
6	7	37.1	36.7	0.0	0.0	28.4	0.0	225.0	1.10	20.56	299.44
6	8	148.8	49.7	0.0	0.0	43.2	0.0	256.8	1.16	25.70	563.18
6	9	182.9	41.9	0.0	0.0	43.2	0.0	287.8	1.66	29.44	926.16
6	10	121.0	60.9	46.2	0.0	70.6	53.6	290.0	3.01	30.19	959.81
6	11	143.0	63.0	78.7	0.0	70.6	88.2	290.0	3.49	30.76	959.24
6	12	65.4	60.1	3.9	0.0	70.6	4.6	290.0	3.60	31.12	958.88
7	1	26.1	91.1	0.0	0.0	103.0	0.0	277.3	3.53	30.14	780.90
7	2	18.6	110.7	0.0	0.0	103.0	0.0	255.9	3.07	27.79	552.90
7	3	13.1	107.6	0.0	0.0	92.4	0.0	225.0	2.42	22.91	297.10
7	4	11.3	10.7	0.0	0.0	8.0	0.0	225.0	1.62	23.26	296.74
7	5	15.8	15.3	0.0	0.0	11.8	0.0	225.0	1.34	23.62	296.38
7	6	21.5	21.0	0.0	0.0	15.8	0.0	225.0	1.19	24.18	295.82
7	7	46.7	46.3	0.0	0.0	35.8	0.0	225.0	1.10	24.77	295.23
7	8	84.3	53.7	0.0	0.0	43.2	0.0	235.6	1.00	27.26	375.48
7	9	107.4	50.1	0.0	0.0	43.2	0.0	253.0	1.21	30.70	522.18
7	10	81.4	74.4	0.0	0.0	70.6	0.0	254.8	2.13	31.57	538.12
7	11	42.0	79.4	0.0	0.0	70.6	0.0	243.5	2.31	30.19	438.30
7	12	17.2	70.4	0.0	0.0	58.3	0.0	225.0	1.97	26.93	293.34
8	1	21.9	21.3	0.0	0.0	16.5	0.0	225.0	1.78	27.28	292.72
8	2	14.3	13.6	0.0	0.0	9.6	0.0	225.0	1.82	27.61	292.39
8	3	12.4	11.7	0.0	0.0	9.0	0.0	225.0	1.93	27.97	292.03
8	4	18.1	17.5	0.0	0.0	13.1	0.0	225.0	1.62	28.32	291.68
8	5	26.9	26.4	0.0	0.0	20.4	0.0	225.0	1.34	28.68	291.32
8	6	24.0	23.5	0.0	0.0	17.6	0.0	225.0	1.19	29.25	290.75
8	7	40.9	40.5	0.0	0.0	31.3	0.0	225.0	1.10	29.83	290.17
8	8	82.6	53.9	0.0	0.0	43.2	0.0	235.0	1.00	32.46	365.54
8	9	170.0	47.5	0.0	0.0	43.2	0.0	269.5	1.34	38.51	681.22
8	10	84.2	66.7	0.0	0.0	70.6	0.0	273.4	2.56	39.55	724.91
8	11	74.7	67.9	0.0	0.0	70.6	0.0	274.7	3.01	40.26	739.09
8	12	54.7	66.0	0.0	0.0	70.6	0.0	271.8	3.08	40.27	705.51
9	1	37.8	102.9	0.0	0.0	103.0	0.0	254.4	2.89	38.07	528.03
9	2	27.5	124.9	0.0	0.0	96.8	0.0	225.0	2.25	32.23	287.80
9	3	27.0	26.3	0.0	0.0	20.3	0.0	225.0	1.93	32.59	287.41
9	4	32.9	32.3	0.0	0.0	24.2	0.0	225.0	1.62	32.94	287.06
9	5	29.7	29.2	0.0	0.0	22.6	0.0	225.0	1.34	33.30	286.70
9	6	49.3	48.8	0.0	0.0	36.5	0.0	225.0	1.19	33.87	286.13

(2) Rate of Inflow and Outflow Run-3, Run-4 (3/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
9	7	73.5	54.6	0.0	0.0	43.2	0.0	231.6	1.15	35.99	334.82
9	8	106.9	49.7	0.0	0.0	43.2	0.0	250.1	1.16	40.39	486.33
9	9	207.2	42.7	0.0	0.0	43.2	0.0	287.9	1.61	46.15	910.44
9	10	119.6	60.8	45.2	0.0	70.6	52.5	290.0	3.02	46.92	943.08
9	11	74.4	62.2	10.9	0.0	70.6	12.3	290.0	3.49	47.49	942.51
9	12	60.9	60.1	0.0	0.0	70.6	0.0	289.9	3.60	47.84	940.65
10	1	42.9	90.2	0.0	0.0	103.0	0.0	280.9	3.59	47.14	809.95
10	2	28.0	106.9	0.0	0.0	103.0	0.0	263.8	3.25	45.02	613.94
10	3	25.5	111.6	0.0	0.0	103.0	0.0	237.7	2.75	40.03	380.21
10	4	23.2	54.7	0.0	0.0	43.2	0.0	226.8	1.81	37.55	296.45
10	5	25.2	29.7	0.0	0.0	23.2	0.0	225.0	1.36	37.39	282.63
10	6	42.8	42.3	0.0	0.0	31.7	0.0	225.0	1.19	37.95	282.05
10	7	69.9	54.9	0.0	0.0	43.2	0.0	230.3	1.14	39.99	320.39
10	8	61.1	53.2	0.0	0.0	43.2	0.0	232.9	1.02	41.26	339.86
10	9	66.4	53.6	0.0	0.0	43.2	0.0	237.0	1.07	42.86	371.27
10	10	44.6	77.8	0.0	0.0	62.7	0.0	225.0	1.59	40.08	280.07
10	11	23.5	22.9	0.0	0.0	17.2	0.0	225.0	1.66	40.64	279.36
10	12	21.5	20.9	0.0	0.0	16.2	0.0	225.0	1.71	41.00	279.00
11	1	30.4	29.7	0.0	0.0	23.0	0.0	225.0	1.78	41.36	278.64
11	2	20.9	20.2	0.0	0.0	14.2	0.0	225.0	1.82	41.69	278.31
11	3	15.5	14.8	0.0	0.0	11.4	0.0	225.0	1.93	42.06	277.94
11	4	19.9	19.3	0.0	0.0	14.4	0.0	225.0	1.62	42.41	277.59
11	5	29.3	28.8	0.0	0.0	22.3	0.0	225.0	1.34	42.77	277.23
11	6	74.8	56.5	0.0	0.0	43.2	0.0	231.2	1.25	45.18	322.62
11	7	84.8	51.1	0.0	0.0	43.2	0.0	242.4	1.31	48.55	410.84
11	8	444.8	44.6	204.4	0.0	43.2	198.3	290.0	1.57	56.92	933.08
11	9	112.9	38.3	73.8	0.0	43.2	83.2	290.0	1.95	57.49	932.51
11	10	80.9	60.2	19.5	0.0	70.6	22.9	290.0	3.04	58.07	931.93
11	11	27.4	63.2	0.0	0.0	70.6	0.0	283.5	3.39	57.81	835.26
11	12	14.8	64.2	0.0	0.0	70.6	0.0	272.7	3.23	56.56	699.72
12	1	25.0	103.6	0.0	0.0	103.0	0.0	251.5	2.86	52.87	486.29
12	2	25.2	110.9	0.0	0.0	85.4	0.0	225.1	2.21	45.84	274.57
12	3	23.2	22.6	0.0	0.0	17.5	0.0	225.0	1.93	46.18	273.82
12	4	22.2	21.6	0.0	0.0	16.2	0.0	225.0	1.62	46.53	273.47
12	5	29.3	28.8	0.0	0.0	22.3	0.0	225.0	1.34	46.89	273.11
12	6	47.2	46.7	0.0	0.0	34.9	0.0	225.0	1.19	47.46	272.54
12	7	164.7	48.8	0.0	0.0	43.2	0.0	261.8	1.43	57.56	580.96
12	8	135.4	40.5	0.0	0.0	43.2	0.0	283.6	1.66	61.68	832.84
12	9	157.1	39.1	80.8	0.0	43.2	89.4	290.0	1.89	63.06	926.94
12	10	106.3	60.5	44.7	0.0	70.6	52.1	290.0	3.04	63.65	926.35
12	11	46.2	62.6	0.0	0.0	70.6	0.0	287.0	3.44	63.82	879.84
12	12	40.1	61.8	0.0	0.0	70.6	0.0	282.7	3.44	63.54	818.02
13	1	27.2	95.8	0.0	0.0	103.0	0.0	266.9	3.25	61.13	630.69
13	2	20.4	120.6	0.0	0.0	103.0	0.0	239.9	2.66	54.80	383.12
13	3	29.1	70.4	0.0	0.0	57.4	0.0	225.0	2.17	50.18	270.07
13	4	31.5	31.0	0.0	0.0	23.2	0.0	225.0	1.62	50.51	269.49
13	5	43.5	43.0	0.0	0.0	33.2	0.0	225.0	1.34	50.88	269.12
13	6	36.4	35.9	0.0	0.0	26.9	0.0	225.0	1.19	51.44	268.56

(2) Rate of Inflow and Outflow Run-3, Run-4 (4/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
13	7	180.2	48.0	0.0	0.0	43.2	0.0	266.2	1.47	63.54	620.44
13	8	175.0	39.3	22.3	0.0	43.2	24.5	290.0	1.75	68.07	921.93
13	9	243.8	39.9	203.2	0.0	43.2	220.3	290.0	1.95	68.64	921.36
13	10	104.8	60.5	43.2	0.0	70.6	50.4	290.0	3.04	69.22	920.78
13	11	45.1	62.7	0.0	0.0	70.6	0.0	286.8	3.44	69.32	871.34
13	12	44.9	61.7	0.0	0.0	70.6	0.0	283.4	3.44	69.12	822.59
14	1	48.9	93.8	0.0	0.0	103.0	0.0	273.6	3.37	67.63	698.65
14	2	39.5	111.9	0.0	0.0	103.0	0.0	256.1	3.01	63.97	518.74
14	3	35.2	118.5	0.0	0.0	103.0	0.0	228.7	2.48	55.56	293.05
14	4	28.1	37.9	0.0	0.0	28.8	0.0	225.0	1.67	54.39	265.66
14	5	22.3	21.8	0.0	0.0	16.9	0.0	225.0	1.34	54.75	265.25
14	6	153.6	51.2	0.0	0.0	43.2	0.0	257.3	1.50	65.92	523.51
14	7	112.3	42.0	0.0	0.0	43.2	0.0	275.1	1.84	70.48	714.07
14	8	131.9	38.3	17.2	0.0	43.2	19.4	190.0	1.82	73.65	916.35
14	9	347.6	41.1	264.9	40.8	43.2	278.7	290.0	1.95	74.21	915.79
14	10	92.0	60.3	30.5	0.0	70.6	35.7	290.0	3.04	74.80	915.20
14	11	36.7	62.9	0.0	0.0	70.6	0.0	285.3	3.42	74.57	843.36
14	12	18.6	63.3	0.0	0.0	70.6	0.0	275.8	3.30	73.05	720.21
15	1	17.2	101.9	0.0	0.0	103.0	0.0	253.5	2.94	67.69	490.28
15	2	18.8	110.9	0.0	0.0	86.0	0.0	225.1	2.24	57.54	262.91
15	3	10.0	9.4	0.0	0.0	7.3	0.0	225.0	1.93	57.87	262.13
15	4	24.1	23.5	0.0	0.0	17.6	0.0	225.0	1.62	58.22	261.78
15	5	17.1	16.6	0.0	0.0	12.9	0.0	225.0	1.34	58.59	261.41
15	6	21.4	20.9	0.0	0.0	15.7	0.0	225.0	1.19	59.15	260.85
15	7	55.7	55.3	0.0	0.0	42.7	0.0	225.0	1.10	59.74	260.26
15	8	502.1	47.4	211.0	0.0	43.2	192.4	290.0	1.44	79.22	910.78
15	9	255.3	40.1	214.5	0.0	43.2	231.4	290.0	1.95	79.79	910.21
15	10	282.2	64.1	217.0	0.0	70.6	238.9	290.0	3.04	80.37	909.63
15	11	99.5	62.4	35.7	0.0	70.6	40.4	290.0	3.49	80.94	909.06
15	12	57.0	60.2	0.0	0.0	70.6	0.0	289.2	3.59	81.17	896.48
16	1	14.0	92.4	0.0	0.0	103.0	0.0	273.1	3.45	78.06	682.78
16	2	9.2	115.8	0.0	0.0	103.0	0.0	245.9	2.85	70.19	419.44
16	3	13.6	72.8	0.0	0.0	60.7	0.0	225.0	2.26	62.03	258.32
16	4	10.4	9.9	0.0	0.0	7.4	0.0	225.0	1.62	62.36	257.64
16	5	6.3	5.8	0.0	0.0	4.5	0.0	225.0	1.34	62.72	257.28
16	6	33.4	32.9	0.0	0.0	24.7	0.0	225.0	1.19	63.29	256.71
16	7	193.6	47.4	0.0	0.0	43.2	0.0	270.0	1.50	79.84	646.14
16	8	167.2	38.9	30.7	0.0	43.2	34.1	290.0	1.78	84.80	905.20
16	9	129.7	38.5	90.5	0.0	43.2	101.7	290.0	1.95	85.37	904.63
16	10	116.4	60.6	54.7	0.0	70.6	63.7	290.0	3.04	85.95	904.05
16	11	29.9	63.1	0.0	0.0	70.6	0.0	284.0	3.40	85.28	814.05
16	12	16.0	63.9	0.0	0.0	70.6	0.0	273.5	3.25	83.10	682.28
17	1	7.9	105.0	0.0	0.0	103.0	0.0	246.4	2.80	74.68	419.09
17	2	8.0	74.4	0.0	0.0	56.6	0.0	225.0	2.13	65.74	254.60
17	3	8.1	7.5	0.0	0.0	5.8	0.0	225.0	1.93	66.08	253.92
17	4	8.6	8.0	0.0	0.0	6.0	0.0	225.0	1.62	66.43	253.57
17	5	229.4	46.1	0.0	0.0	43.2	0.0	278.7	1.94	86.14	742.31
17	6	175.9	39.5	74.1	0.0	43.2	81.0	290.0	2.38	89.21	900.79

(2) Rate of Inflow and Outflow Run-3, Run-4 (5/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
17	7	156.8	37.5	118.5	0.0	43.2	136.7	290.0	2.31	89.79	900.21
17	8	178.6	37.7	140.2	0.0	43.2	160.8	290.0	1.95	90.38	899.62
17	9	244.6	39.9	204.0	0.0	43.2	221.1	290.0	1.95	90.94	899.06
17	10	60.0	60.1	0.0	0.0	70.6	0.0	289.8	3.04	91.48	895.07
17	11	54.3	62.5	0.0	0.0	70.6	0.0	288.2	3.46	91.71	869.94
17	12	58.5	60.8	0.0	0.0	70.6	0.0	287.6	3.53	91.93	859.94
18	1	27.1	92.6	0.0	0.0	103.0	0.0	273.8	3.44	88.63	680.68
18	2	14.5	114.5	0.0	0.0	103.0	0.0	248.6	2.90	80.03	433.32
18	3	10.3	77.4	0.0	0.0	65.2	0.0	225.1	2.31	69.39	251.01
18	4	14.9	14.4	0.0	0.0	10.8	0.0	225.0	1.62	69.71	250.29
18	5	18.5	18.0	0.0	0.0	13.9	0.0	225.0	1.34	70.08	249.92
18	6	15.7	15.2	0.0	0.0	11.4	0.0	225.0	1.19	70.64	249.36
18	7	108.0	51.9	0.0	0.0	43.2	0.0	244.6	1.27	80.58	397.67
18	8	561.1	45.7	260.3	69.0	43.2	246.4	290.0	1.58	95.95	394.05
18	9	726.0	41.1	264.9	419.2	43.2	278.7	290.0	1.95	96.52	893.48
18	10	275.0	63.9	210.0	0.0	70.6	232.1	290.0	3.04	97.10	892.90
18	11	60.1	62.2	0.0	0.0	70.6	0.0	289.4	3.48	97.54	883.39
18	12	24.9	61.4	0.0	0.0	70.6	0.0	282.4	3.47	96.08	781.82
19	1	21.7	96.5	0.0	0.0	103.0	0.0	264.7	3.21	90.85	577.96
19	2	20.4	123.4	0.0	0.0	103.0	0.0	235.6	2.56	78.74	323.88
19	3	24.0	51.9	0.0	0.0	41.8	0.0	225.0	2.10	73.44	246.74
19	4	10.0	9.4	0.0	0.0	7.1	0.0	225.0	1.62	73.78	246.23
19	5	43.0	42.5	0.0	0.0	32.9	0.0	225.0	1.34	74.14	245.86
19	6	64.3	57.4	0.0	0.0	43.2	0.0	227.4	1.21	76.04	261.99
19	7	213.7	46.0	0.0	0.0	43.2	0.0	276.9	1.59	97.39	709.05
19	8	244.8	39.1	137.8	0.0	43.2	152.5	290.0	1.84	101.53	888.47
19	9	350.2	41.1	264.9	43.4	43.2	278.7	290.0	1.95	102.09	887.91
19	10	188.3	61.7	125.5	0.0	70.6	143.5	290.0	3.04	102.68	887.32
19	11	58.2	62.3	0.0	0.0	70.6	0.0	289.1	3.47	103.03	872.76
19	12	18.2	61.8	0.0	0.0	70.6	0.0	280.6	3.44	100.97	752.34
20	1	72.2	94.0	0.0	0.0	103.0	0.0	275.5	3.35	99.74	690.19
20	2	70.4	107.6	0.0	0.0	103.0	0.0	267.0	3.21	97.06	596.01
20	3	54.9	105.1	0.0	0.0	103.0	0.0	252.6	3.04	91.51	458.42
20	4	41.3	47.7	0.0	0.0	43.2	0.0	250.5	2.32	90.86	439.26
20	5	47.8	46.4	0.0	0.0	43.2	0.0	250.7	1.90	91.33	440.84
20	6	84.3	46.3	0.0	0.0	43.2	0.0	261.3	1.79	96.43	536.78
20	7	200.5	39.9	30.2	0.0	43.2	32.7	290.0	2.03	106.52	883.48
20	8	270.9	39.1	231.1	0.0	43.2	255.8	290.0	1.95	107.10	882.90
20	9	240.6	39.8	200.0	0.0	43.2	217.2	290.0	1.95	107.67	882.33
20	10	259.6	63.4	195.1	0.0	70.6	217.1	290.0	3.04	108.25	881.75
20	11	71.2	62.2	7.7	0.0	70.6	8.7	290.0	3.49	108.82	881.18
20	12	23.1	61.3	0.0	0.0	70.6	0.0	282.7	3.48	107.04	775.18
21	1	36.5	95.2	0.0	0.0	103.0	0.0	269.2	3.29	102.62	614.47
21	2	32.0	117.0	0.0	0.0	103.0	0.0	246.7	2.80	92.77	403.99
21	3	24.9	85.2	0.0	0.0	71.2	0.0	225.0	2.28	80.55	239.82
21	4	28.7	28.2	0.0	0.0	21.1	0.0	225.0	1.62	80.87	239.13
21	5	77.5	54.2	0.0	0.0	43.2	0.0	233.6	1.43	86.56	299.82
21	6	95.4	51.4	0.0	0.0	43.2	0.0	247.9	1.49	95.11	411.70

(2) Rate of Inflow and Outflow Run-3, Run-4 (6/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
21	7	124.1	43.9	0.0	0.0	43.2	0.0	270.4	1.71	105.86	624.00
21	8	95.0	39.6	0.0	0.0	43.2	0.0	282.6	1.72	110.88	769.91
21	9	123.6	38.9	42.7	0.0	43.2	47.4	290.0	1.88	113.74	876.26
21	10	109.7	60.5	48.0	0.0	70.6	56.0	290.0	3.04	114.45	875.55
21	11	350.3	67.1	238.9	43.0	70.6	251.3	290.0	3.49	115.14	874.86
21	12	79.3	60.2	17.7	0.0	70.6	20.8	290.0	3.60	115.50	874.50
22	1	31.9	90.8	0.0	0.0	103.0	0.0	278.4	3.55	112.04	712.78
22	2	21.1	109.8	0.0	0.0	103.0	0.0	257.6	3.11	103.53	493.12
22	3	16.2	111.4	0.0	0.0	96.2	0.0	225.0	2.45	84.63	235.41
22	4	13.8	13.2	0.0	0.0	9.9	0.0	225.0	1.62	84.97	235.03
22	5	11.9	11.4	0.0	0.0	8.8	0.0	225.0	1.34	85.34	234.66
22	6	25.0	24.5	0.0	0.0	18.4	0.0	225.0	1.19	86.02	233.98
22	7	97.6	52.6	0.0	0.0	43.2	0.0	241.3	1.24	97.20	352.58
22	8	126.5	45.6	0.0	0.0	43.2	0.0	265.6	1.36	110.41	567.27
22	9	181.3	40.7	22.9	0.0	43.2	24.3	290.0	1.74	120.07	869.93
22	10	165.5	61.3	103.1	0.0	70.6	118.7	290.0	3.04	120.78	869.22
22	11	64.0	62.1	0.5	0.0	70.6	0.6	290.0	3.49	121.47	868.53
22	12	51.1	60.4	0.0	0.0	70.6	0.0	288.2	3.57	121.28	839.72
23	1	45.7	91.1	0.0	0.0	103.0	0.0	279.0	3.53	118.39	714.15
23	2	23.4	109.0	0.0	0.0	103.0	0.0	259.1	3.14	109.96	501.83
23	3	18.5	118.6	0.0	0.0	102.8	0.0	225.0	2.48	89.21	230.79
23	4	18.5	17.9	0.0	0.0	13.4	0.0	225.0	1.62	89.56	230.44
23	5	43.7	43.2	0.0	0.0	33.4	0.0	225.0	1.34	89.92	230.08
23	6	49.6	49.1	0.0	0.0	36.7	0.0	225.0	1.19	90.61	229.39
23	7	180.8	47.8	0.0	0.0	43.2	0.0	267.7	1.48	116.52	583.39
23	8	357.9	41.3	210.8	0.0	43.2	220.7	290.0	1.76	125.71	864.29
23	9	121.9	38.4	82.7	0.0	43.2	93.2	290.0	1.95	126.39	863.61
23	10	289.6	64.3	224.1	0.0	70.6	245.9	290.0	3.04	127.10	862.90
23	11	56.7	62.3	0.0	0.0	70.6	0.0	288.8	3.47	127.43	844.21
23	12	31.3	61.4	0.0	0.0	70.6	0.0	283.0	3.47	125.70	759.76
24	1	22.9	96.1	0.0	0.0	103.0	0.0	265.7	3.24	118.60	560.23
24	2	16.1	123.3	0.0	0.0	103.0	0.0	234.8	2.57	100.57	295.85
24	3	10.6	35.6	0.0	0.0	28.6	0.0	225.0	2.09	93.69	226.48
24	4	12.5	11.9	0.0	0.0	8.9	0.0	225.0	1.62	94.02	225.98
24	5	54.6	54.1	0.0	0.0	41.8	0.0	225.0	1.34	94.39	225.61
24	6	68.0	57.0	0.0	0.0	43.2	0.0	228.9	1.23	98.09	252.05
24	7	105.3	50.5	0.0	0.0	43.2	0.0	248.1	1.34	111.67	396.68
24	8	327.3	42.2	112.0	0.0	43.2	114.8	290.0	1.61	132.03	857.97
24	9	212.0	39.4	171.9	0.0	43.2	188.7	290.0	1.95	132.72	857.28
24	10	70.9	60.2	9.6	0.0	70.6	11.3	290.0	3.04	133.43	856.57
24	11	53.9	62.4	0.0	0.0	70.6	0.0	288.4	3.46	133.57	830.43
24	12	35.1	61.5	0.0	0.0	70.6	0.0	283.2	3.46	131.96	756.01
25	1	21.1	96.1	0.0	0.0	103.0	0.0	265.4	3.24	124.24	551.59
25	2	18.0	123.4	0.0	0.0	103.0	0.0	234.9	2.57	105.57	291.66
25	3	13.0	38.1	0.0	0.0	30.6	0.0	225.0	2.09	98.22	221.96
25	4	18.7	18.1	0.0	0.0	13.6	0.0	225.0	1.62	98.55	221.45
25	5	37.1	36.6	0.0	0.0	28.3	0.0	225.0	1.34	98.91	221.09
25	6	56.3	55.8	0.0	0.0	41.7	0.0	225.0	1.19	99.60	220.40

(2) Rate of Inflow and Outflow Run-3, Run-4 (7/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
25	7	49.5	49.1	0.0	0.0	37.9	0.0	225.0	1.10	100.31	219.69
25	8	180.6	47.8	0.0	0.0	43.2	0.0	267.9	1.25	129.01	573.49
25	9	154.2	40.4	5.8	0.0	43.2	6.3	290.0	1.76	139.04	850.96
25	10	139.1	60.9	77.1	0.0	70.6	89.3	290.0	3.04	139.76	850.24
25	11	58.2	62.3	0.0	0.0	70.6	0.0	289.1	3.47	140.14	835.55
25	12	31.8	61.3	0.0	0.0	70.6	0.0	283.4	3.48	138.27	752.71
26	1	24.5	95.7	0.0	0.0	103.0	0.0	266.7	3.26	130.82	558.49
26	2	16.6	122.1	0.0	0.0	103.0	0.0	236.5	2.61	111.85	298.04
26	3	13.7	43.0	0.0	0.0	34.7	0.0	225.0	2.11	103.03	217.17
26	4	13.4	12.8	0.0	0.0	9.6	0.0	225.0	1.62	103.36	216.64
26	5	15.2	14.7	0.0	0.0	11.4	0.0	225.0	1.34	103.72	216.28
26	6	148.0	51.3	0.0	0.0	43.2	0.0	257.1	1.50	127.48	464.79
26	7	219.2	40.4	35.4	0.0	43.2	37.9	290.0	1.99	143.97	846.03
26	8	358.2	39.8	266.2	51.5	43.2	289.4	290.0	1.95	144.68	845.32
26	9	184.7	39.0	144.9	0.0	43.2	160.6	290.0	1.95	145.37	844.63
26	10	121.8	60.7	60.0	0.0	70.6	69.8	290.0	3.04	146.08	843.92
26	11	116.2	62.6	52.2	0.0	70.6	58.9	290.0	3.49	146.77	843.23
26	12	56.2	60.3	0.0	0.0	70.6	0.0	289.1	3.59	146.79	828.45
27	1	31.3	91.5	0.0	0.0	103.0	0.0	276.8	3.51	141.68	663.47
27	2	19.6	111.4	0.0	0.0	103.0	0.0	254.3	3.03	129.24	436.22
27	3	17.0	99.1	0.0	0.0	84.9	0.0	225.1	2.40	107.13	213.39
27	4	18.8	18.4	0.0	0.0	13.8	0.0	225.0	1.62	107.42	212.53
27	5	19.9	19.4	0.0	0.0	15.0	0.0	225.0	1.34	107.78	212.22
27	6	24.1	23.6	0.0	0.0	17.7	0.0	225.0	1.19	108.47	211.53
27	7	37.1	36.7	0.0	0.0	28.4	0.0	225.0	1.10	109.18	210.82
27	8	148.8	49.3	0.0	0.0	43.2	0.0	259.0	1.18	135.41	475.48
27	9	182.9	41.4	0.6	0.0	43.2	0.6	290.0	1.69	151.70	838.30
27	10	121.0	60.6	59.2	0.0	70.6	68.9	290.0	3.04	152.41	837.59
27	11	143.0	63.0	78.7	0.0	70.6	88.2	290.0	3.49	153.09	836.91
27	12	65.4	60.1	3.9	0.0	70.6	4.6	290.0	3.60	153.46	836.54
28	1	26.1	91.2	0.0	0.0	103.0	0.0	276.9	3.53	147.82	658.30
28	2	18.6	111.5	0.0	0.0	103.0	0.0	254.0	3.03	134.67	428.24
28	3	13.1	94.0	0.0	0.0	80.5	0.0	225.1	2.39	111.90	208.62
28	4	11.3	10.9	0.0	0.0	8.1	0.0	225.0	1.62	112.19	207.81
28	5	15.8	15.3	0.0	0.0	11.8	0.0	225.0	1.34	112.55	207.45
28	6	21.5	21.0	0.0	0.0	15.8	0.0	225.0	1.19	113.24	206.76
28	7	46.7	46.3	0.0	0.0	35.8	0.0	225.0	1.10	113.95	206.05
28	8	84.3	53.5	0.0	0.0	43.2	0.0	236.7	1.01	124.81	286.76
28	9	107.4	49.5	0.0	0.0	43.2	0.0	255.2	1.24	139.36	434.82
28	10	81.4	73.2	0.0	0.0	70.6	0.0	257.4	2.19	141.54	453.78
28	11	42.0	78.0	0.0	0.0	70.6	0.0	246.2	2.38	134.12	357.46
28	12	17.2	73.7	0.0	0.0	61.5	0.0	225.0	2.00	116.50	203.83
29	1	21.9	21.3	0.0	0.0	16.5	0.0	225.0	1.78	116.82	203.18
29	2	14.3	13.6	0.0	0.0	9.6	0.0	225.0	1.82	117.15	202.85
29	3	12.4	11.7	0.0	0.0	9.0	0.0	225.0	1.93	117.51	202.49
29	4	18.1	17.5	0.0	0.0	13.1	0.0	225.0	1.62	117.86	202.14
29	5	26.9	26.4	0.0	0.0	20.4	0.0	225.0	1.34	118.23	201.77
29	6	24.0	23.5	0.0	0.0	17.6	0.0	225.0	1.19	118.91	201.09

(2) Rate of Inflow and Outflow Run-3, Run-4 (8/8)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
29	7	40.9	40.5	0.0	0.0	31.3	0.0	225.0	1.10	119.63	200.37
29	8	82.6	53.6	0.0	0.0	43.2	0.0	236.0	1.01	130.29	276.19
29	9	170.0	46.9	0.0	0.0	43.2	0.0	272.1	1.37	155.85	593.18
29	10	84.2	65.6	0.0	0.0	70.6	0.0	276.2	2.63	158.73	639.49
29	11	74.7	66.8	0.0	0.0	70.6	0.0	277.7	3.09	160.16	656.29
29	12	54.7	64.8	0.0	0.0	70.6	0.0	275.1	3.18	159.21	625.83
30	1	37.8	100.6	0.0	0.0	103.0	0.0	258.3	3.00	149.53	454.43
30	2	27.5	131.1	0.0	0.0	103.0	0.0	225.2	2.31	122.56	199.06
30	3	27.0	26.8	0.0	0.0	20.8	0.0	225.0	1.94	122.71	197.30
30	4	32.9	32.3	0.0	0.0	24.2	0.0	225.0	1.62	123.06	196.94
30	5	29.7	29.2	0.0	0.0	22.6	0.0	225.0	1.34	123.42	196.58
30	6	49.3	48.8	0.0	0.0	36.5	0.0	225.0	1.19	124.11	195.89
30	7	73.5	54.4	0.0	0.0	43.2	0.0	232.4	1.16	131.81	245.11
30	8	106.9	49.2	0.0	0.0	43.2	0.0	252.3	1.18	148.78	397.85
30	9	207.2	42.2	1.4	0.0	43.2	1.4	290.0	1.64	170.67	819.33
30	10	119.6	60.6	57.8	0.0	70.6	67.3	290.0	3.04	171.38	818.62
30	11	74.4	62.2	10.9	0.0	70.6	12.3	290.0	3.49	172.07	817.93
30	12	60.9	60.1	0.0	0.0	70.6	0.0	289.9	3.60	172.40	816.06
31	1	42.9	90.3	0.0	0.0	103.0	0.0	280.6	3.58	168.46	685.20
31	2	28.0	107.4	0.0	0.0	103.0	0.0	262.6	3.22	158.41	483.07
31	3	25.5	113.9	0.0	0.0	103.0	0.0	233.3	2.66	135.52	248.49
31	4	23.2	44.0	0.0	0.0	34.0	0.0	225.0	1.72	127.73	192.39
31	5	25.2	24.7	0.0	0.0	19.2	0.0	225.0	1.34	128.08	191.92
31	6	42.8	42.3	0.0	0.0	31.7	0.0	225.0	1.19	128.77	191.23
31	7	69.9	54.7	0.0	0.0	43.2	0.0	230.9	1.15	135.35	229.74
31	8	61.1	52.9	0.0	0.0	43.2	0.0	233.9	1.03	138.90	249.91
31	9	66.4	53.1	0.0	0.0	43.2	0.0	238.4	1.09	143.70	282.41
31	10	44.6	78.7	0.0	0.0	63.8	0.0	225.0	1.60	131.35	188.83
31	11	23.5	22.9	0.0	0.0	17.2	0.0	225.0	1.66	132.02	187.98
31	12	21.5	20.9	0.0	0.0	16.2	0.0	225.0	1.71	132.38	187.62

(3) Rate of Inflow and Outflow Case 2 (1/3)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
21	7	120.4	50.4	0.0	0.0	43.2	0.0	251.0	1.34	96.21	438.33
21	8	226.9	41.1	21.2	0.0	43.2	22.3	290.0	1.63	113.05	876.95
21	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	113.74	876.26
21	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	114.45	875.55
21	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	115.14	874.86
21	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	113.99	813.27
22	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	108.48	640.25
22	2	23.1	115.4	0.0	0.0	103.0	0.0	248.2	2.87	97.50	411.94
22	3	19.8	83.7	0.0	0.0	70.3	0.0	225.1	2.30	82.41	238.01
22	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	82.68	237.32
22	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	83.02	236.98
22	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	85.16	248.56
22	7	120.4	50.4	0.0	0.0	43.2	0.0	251.1	1.34	101.49	434.08
22	8	226.9	41.1	21.9	0.0	43.2	23.1	290.0	1.63	119.17	870.83
22	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	119.83	870.17
22	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	120.52	869.48
22	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	121.18	868.82
22	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	119.92	807.26
23	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	114.08	634.21
23	2	23.1	115.4	0.0	0.0	103.0	0.0	248.0	2.86	102.44	405.74
23	3	19.8	83.0	0.0	0.0	69.7	0.0	225.1	2.30	86.65	233.77
23	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	86.92	233.08
23	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	87.25	232.75
23	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	89.48	244.33
23	7	120.4	50.3	0.0	0.0	43.2	0.0	251.2	1.35	106.67	429.91
23	8	226.9	41.1	22.6	0.0	43.2	23.8	290.0	1.63	125.18	864.82
23	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	125.84	864.16
23	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	126.53	863.47
23	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	127.19	862.81
23	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	125.84	801.24
24	1	30.3	93.6	0.0	0.0	103.0	0.0	272.0	3.38	119.69	628.16
24	2	23.1	115.5	0.0	0.0	103.0	0.0	247.9	2.86	107.37	399.53
24	3	19.8	82.3	0.0	0.0	69.0	0.0	225.1	2.29	90.89	229.53
24	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	91.16	228.85
24	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	91.49	228.51
24	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	93.80	240.10
24	7	120.4	50.3	0.0	0.0	43.2	0.0	251.3	1.35	111.86	425.74
24	8	226.9	41.0	23.3	0.0	43.2	24.6	290.0	1.63	131.19	858.81
24	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	131.85	858.15
24	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	132.54	857.46
24	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	133.20	856.80
24	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	131.77	795.23
25	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	125.29	622.12
25	2	23.1	115.6	0.0	0.0	103.0	0.0	247.7	2.86	112.29	393.32
25	3	19.8	81.5	0.0	0.0	68.4	0.0	225.1	2.29	95.13	225.29
25	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	95.39	224.61
25	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	95.73	224.27
25	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	98.13	235.87

(3) Rate of Inflow and Outflow Case 2 (2/3)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
25	7	120.4	50.3	0.0	0.0	43.2	0.0	251.4	1.35	117.06	421.57
25	8	226.9	41.0	24.0	0.0	43.2	25.3	290.0	1.63	137.20	852.80
25	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	137.87	852.13
25	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	138.55	851.45
25	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	139.21	850.79
25	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	137.69	789.22
26	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	130.89	616.08
26	2	23.1	115.6	0.0	0.0	103.0	0.0	247.6	2.86	117.20	387.11
26	3	19.8	80.8	0.0	0.0	67.8	0.0	225.1	2.29	99.36	221.05
26	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	99.63	220.37
26	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	99.96	220.04
26	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	102.46	231.64
26	7	120.4	50.3	0.0	0.0	43.2	0.0	251.5	1.35	122.25	417.40
26	8	226.9	41.0	24.7	0.0	43.2	26.0	290.0	1.63	143.21	846.79
26	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	143.88	846.12
26	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	144.56	845.44
26	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	145.22	844.78
26	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	143.62	783.21
27	1	30.3	93.6	0.0	0.0	103.0	0.0	271.8	3.38	136.48	610.03
27	2	23.1	115.7	0.0	0.0	103.0	0.0	247.4	2.85	122.10	380.90
27	3	19.8	80.1	0.0	0.0	67.1	0.0	225.1	2.29	103.60	216.81
27	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	103.86	216.14
27	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	104.20	215.80
27	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	106.79	227.41
27	7	120.4	50.2	0.0	0.0	43.2	0.0	251.6	1.35	127.46	413.23
27	8	226.9	41.0	25.4	0.0	43.2	26.8	290.0	1.64	149.23	840.77
27	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	149.89	840.11
27	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	150.57	839.43
27	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	151.23	838.77
27	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	149.54	777.19
28	1	30.3	93.6	0.0	0.0	103.0	0.0	271.8	3.38	142.08	603.99
28	2	23.1	115.8	0.0	0.0	103.0	0.0	247.3	2.85	126.98	374.68
28	3	19.8	79.3	0.0	0.0	66.5	0.0	225.1	2.29	107.84	212.58
28	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	108.10	211.90
28	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	108.43	211.57
28	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	111.12	223.18
28	7	120.4	50.2	0.0	0.0	43.2	0.0	251.7	1.35	132.67	409.07
28	8	226.9	41.0	26.1	0.0	43.2	27.5	290.0	1.64	155.24	834.76
28	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	155.90	834.10
28	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	156.58	833.42
28	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	157.24	832.76
28	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	155.47	771.18
29	1	30.3	93.6	0.0	0.0	103.0	0.0	271.8	3.38	147.67	597.94
29	2	23.1	115.8	0.0	0.0	103.0	0.0	247.1	2.85	131.85	368.46
29	3	19.8	78.6	0.0	0.0	65.8	0.0	225.1	2.28	112.08	208.34
29	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	112.33	207.67
29	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	112.67	207.33
29	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	115.45	218.95

(3) Rate of Inflow and Outflow Case 2 (3/3)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
29	7	120.4	50.2	0.0	0.0	43.2	0.0	251.9	1.35	137.89	404.90
29	8	226.9	41.0	26.8	0.0	43.2	28.3	290.0	1.64	161.25	828.75
29	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	161.91	828.09
29	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	162.59	827.41
29	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	163.26	826.74
29	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	161.39	765.17
30	1	30.3	93.6	0.0	0.0	103.0	0.0	271.7	3.38	153.27	591.90
30	2	23.1	115.9	0.0	0.0	103.0	0.0	247.0	2.84	136.71	362.24
30	3	19.8	77.9	0.0	0.0	65.2	0.0	225.1	2.28	116.31	204.10
30	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	116.57	203.43
30	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	116.90	203.10
30	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	119.78	214.73
30	7	120.4	50.2	0.0	0.0	43.2	0.0	252.0	1.35	143.11	400.73
30	8	226.9	41.0	27.5	0.0	43.2	29.0	290.0	1.64	167.26	822.74
30	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	167.92	822.08
30	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	168.60	821.40
30	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	169.27	820.73
30	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	167.32	759.15
31	1	30.3	93.6	0.0	0.0	103.0	0.0	271.7	3.38	158.86	585.85
31	2	23.1	116.0	0.0	0.0	103.0	0.0	246.8	2.84	141.56	356.02
31	3	19.8	77.1	0.0	0.0	64.5	0.0	225.1	2.28	120.55	199.86
31	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	120.80	199.20
31	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	121.14	198.86
31	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	124.11	210.50
31	7	120.4	50.2	0.0	0.0	43.2	0.0	252.1	1.35	148.33	396.56
31	8	226.9	41.0	28.2	0.0	43.2	29.8	290.0	1.64	173.27	816.73
31	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	173.93	816.07
31	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	174.62	815.38
31	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	175.28	814.72
31	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	173.24	753.14

(4) Rate of Inflow and Outflow Case 3 (1/3)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
21	7	120.4	50.4	0.0	0.0	43.2	0.0	251.0	1.34	96.21	438.33
21	8	226.9	41.1	21.2	0.0	43.2	22.3	290.0	1.63	113.05	876.95
21	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	113.74	876.26
21	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	114.45	875.55
21	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	115.14	874.86
21	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	113.99	813.27
22	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	108.21	640.56
22	2	23.1	115.3	0.0	0.0	103.0	0.0	248.2	2.87	97.08	412.56
22	3	19.8	83.9	0.0	0.0	70.5	0.0	225.1	2.30	81.85	238.56
22	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	81.83	238.17
22	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	81.85	238.15
22	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	83.68	250.02
22	7	120.4	50.4	0.0	0.0	43.2	0.0	251.1	1.34	99.51	435.84
22	8	226.9	41.1	21.8	0.0	43.2	22.9	290.0	1.63	116.75	873.25
22	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	117.11	872.89
22	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	117.49	872.51
22	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	117.85	872.15
22	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	116.32	810.90
23	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	110.40	638.17
23	2	23.1	115.4	0.0	0.0	103.0	0.0	248.1	2.87	99.00	410.10
23	3	19.8	83.6	0.0	0.0	70.2	0.0	225.1	2.30	83.49	236.93
23	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	83.46	236.54
23	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	83.49	236.51
23	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	85.35	248.39
23	7	120.4	50.4	0.0	0.0	43.2	0.0	251.1	1.34	101.53	434.23
23	8	226.9	41.1	22.1	0.0	43.2	23.2	290.0	1.63	119.12	870.88
23	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	119.48	870.52
23	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	119.86	870.14
23	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	120.22	869.78
23	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	118.65	808.52
24	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	112.58	635.79
24	2	23.1	115.4	0.0	0.0	103.0	0.0	248.1	2.86	100.91	407.64
24	3	19.8	83.3	0.0	0.0	69.9	0.0	225.1	2.30	85.12	235.30
24	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	85.09	234.91
24	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	85.12	234.88
24	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	87.02	246.76
24	7	120.4	50.3	0.0	0.0	43.2	0.0	251.1	1.35	103.55	432.63
24	8	226.9	41.1	22.4	0.0	43.2	23.5	290.0	1.63	121.49	868.51
24	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	121.86	868.14
24	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	122.23	867.77
24	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	122.60	867.40
24	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	120.99	806.15
25	1	30.3	93.5	0.0	0.0	103.0	0.0	272.0	3.38	114.77	633.40
25	2	23.1	115.4	0.0	0.0	103.0	0.0	248.0	2.86	102.83	405.18
25	3	19.8	83.0	0.0	0.0	69.6	0.0	225.1	2.30	86.75	233.66
25	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	86.73	233.27
25	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	86.75	233.25
25	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	88.69	245.13

(4) Rate of Inflow and Outflow Case 3 (2/3)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
25	7	120.4	50.3	0.0	0.0	43.2	0.0	251.2	1.35	105.57	431.02
25	8	226.9	41.1	22.6	0.0	43.2	23.9	290.0	1.63	123.87	866.13
25	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	124.23	865.77
25	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	124.61	865.39
25	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	124.97	865.03
25	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	123.32	803.77
26	1	30.3	93.6	0.0	0.0	103.0	0.0	272.0	3.38	116.96	631.01
26	2	23.1	115.5	0.0	0.0	103.0	0.0	248.0	2.86	104.74	402.72
26	3	19.8	82.6	0.0	0.0	69.4	0.0	225.1	2.30	88.39	232.03
26	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	88.36	231.64
26	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	88.39	231.61
26	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	90.36	243.50
26	7	120.4	50.3	0.0	0.0	43.2	0.0	251.2	1.35	107.59	429.42
26	8	226.9	41.0	22.9	0.0	43.2	24.2	290.0	1.63	126.24	863.76
26	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	126.60	863.40
26	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	126.98	863.02
26	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	127.34	862.66
26	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	125.65	801.40
27	1	30.3	93.6	0.0	0.0	103.0	0.0	272.0	3.38	119.15	628.62
27	2	23.1	115.5	0.0	0.0	103.0	0.0	247.9	2.86	106.65	400.26
27	3	19.8	82.3	0.0	0.0	69.1	0.0	225.1	2.29	90.02	230.39
27	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	89.99	230.01
27	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	90.02	229.98
27	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	92.04	241.87
27	7	120.4	50.3	0.0	0.0	43.2	0.0	251.3	1.35	109.61	427.81
27	8	226.9	41.0	23.2	0.0	43.2	24.5	290.0	1.63	128.61	861.39
27	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	128.98	861.02
27	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	129.35	860.65
27	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	129.72	860.28
27	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	127.98	799.03
28	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	121.34	626.23
28	2	23.1	115.5	0.0	0.0	103.0	0.0	247.8	2.86	108.56	397.80
28	3	19.8	82.0	0.0	0.0	68.8	0.0	225.1	2.29	91.66	228.76
28	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	91.63	228.37
28	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	91.65	228.35
28	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	93.71	240.24
28	7	120.4	50.3	0.0	0.0	43.2	0.0	251.3	1.35	111.64	426.21
28	8	226.9	41.0	23.5	0.0	43.2	24.8	290.0	1.63	130.99	859.01
28	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	131.35	858.65
28	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	131.73	858.27
28	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	132.09	857.91
28	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	130.31	796.65
29	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	123.52	623.84
29	2	23.1	115.6	0.0	0.0	103.0	0.0	247.8	2.86	110.47	395.34
29	3	19.8	81.7	0.0	0.0	68.6	0.0	225.1	2.29	93.29	227.13
29	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	93.26	226.74
29	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	93.29	226.71
29	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	95.38	238.61

(4) Rate of Inflow and Outflow Case 3 (3/3)

Y	M	Q00	R1	R2	R3	W1	W2	H1	E1	WST	VW
29	7	120.4	50.3	0.0	0.0	43.2	0.0	251.4	1.35	113.66	424.60
29	8	226.9	41.0	23.8	0.0	43.2	25.1	290.0	1.63	133.36	856.64
29	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	133.72	856.28
29	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	134.10	855.90
29	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	134.46	855.54
29	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	132.64	794.28
30	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	125.71	621.45
30	2	23.1	115.6	0.0	0.0	103.0	0.0	247.7	2.86	112.38	392.88
30	3	19.8	81.4	0.0	0.0	68.3	0.0	225.1	2.29	94.92	225.49
30	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	94.89	225.11
30	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	94.92	225.08
30	6	62.7	57.5	0.0	0.0	43.2	0.0	226.8	1.21	97.05	236.98
30	7	120.4	50.3	0.0	0.0	43.2	0.0	251.4	1.35	115.69	423.00
30	8	226.9	41.0	24.1	0.0	43.2	25.4	290.0	1.63	135.73	854.27
30	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	136.10	853.90
30	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	136.47	853.53
30	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	136.84	853.16
30	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	134.97	791.90
31	1	30.3	93.6	0.0	0.0	103.0	0.0	271.9	3.38	127.90	619.07
31	2	23.1	115.6	0.0	0.0	103.0	0.0	247.6	2.86	114.28	390.42
31	3	19.8	81.1	0.0	0.0	68.0	0.0	225.1	2.29	96.56	223.86
31	4	20.1	19.6	0.0	0.0	14.7	0.0	225.0	1.62	96.52	223.48
31	5	40.4	39.9	0.0	0.0	30.8	0.0	225.0	1.34	96.55	223.45
31	6	62.7	57.5	0.0	0.0	43.2	0.0	226.9	1.21	98.72	235.35
31	7	120.4	50.3	0.0	0.0	43.2	0.0	251.5	1.35	117.71	421.39
31	8	226.9	41.0	24.4	0.0	43.2	25.7	290.0	1.63	138.11	851.89
31	9	216.2	39.4	176.0	0.0	43.2	192.9	290.0	1.95	138.47	851.53
31	10	139.3	60.9	77.3	0.0	70.6	89.6	290.0	3.04	138.85	851.15
31	11	75.8	62.2	12.2	0.0	70.6	13.9	290.0	3.49	139.21	850.79
31	12	39.2	60.8	0.0	0.0	70.6	0.0	285.9	3.53	137.30	789.53

(5) Dissolved Matters Run-1, Run-2 (1/8)

Y	M	Cu	Zn	As	Cu	Zn	As
1	7	0.0125	0.0062	0.0031	0.0197	0.0095	0.0031
1	8	0.0081	0.0102	0.0029	0.0144	0.0124	0.0029
1	9	0.0054	0.0112	0.0028	0.0135	0.0125	0.0028
1	10	0.0044	0.0117	0.0029	0.0146	0.0126	0.0029
1	11	0.0033	0.0131	0.0030	0.0169	0.0137	0.0030
1	12	0.0026	0.0154	0.0032	0.0182	0.0157	0.0032
2	1	0.0025	0.0179	0.0033	0.0192	0.0182	0.0033
2	2	0.0024	0.0208	0.0035	0.0201	0.0210	0.0035
2	3	0.0028	0.0235	0.0038	0.0213	0.0238	0.0038
2	4	0.0035	0.0270	0.0042	0.0229	0.0275	0.0042
2	5	0.0046	0.0293	0.0043	0.0246	0.0302	0.0043
2	6	0.0054	0.0275	0.0041	0.0260	0.0287	0.0041
2	7	0.0069	0.0209	0.0036	0.0229	0.0226	0.0036
2	8	0.0069	0.0156	0.0032	0.0168	0.0174	0.0032
2	9	0.0053	0.0144	0.0030	0.0151	0.0156	0.0030
2	10	0.0044	0.0139	0.0030	0.0158	0.0148	0.0030
2	11	0.0033	0.0150	0.0031	0.0179	0.0156	0.0031
2	12	0.0026	0.0171	0.0033	0.0191	0.0174	0.0033
3	1	0.0025	0.0195	0.0034	0.0200	0.0198	0.0034
3	2	0.0024	0.0223	0.0036	0.0209	0.0225	0.0036
3	3	0.0028	0.0249	0.0039	0.0220	0.0252	0.0039
3	4	0.0035	0.0282	0.0043	0.0235	0.0287	0.0043
3	5	0.0047	0.0302	0.0043	0.0251	0.0311	0.0043
3	6	0.0054	0.0281	0.0041	0.0264	0.0292	0.0041
3	7	0.0069	0.0211	0.0036	0.0231	0.0228	0.0036
3	8	0.0070	0.0157	0.0032	0.0169	0.0176	0.0032
3	9	0.0053	0.0145	0.0030	0.0151	0.0157	0.0030
3	10	0.0044	0.0139	0.0030	0.0158	0.0149	0.0030
3	11	0.0033	0.0151	0.0031	0.0179	0.0156	0.0031
3	12	0.0026	0.0171	0.0033	0.0191	0.0174	0.0033
4	1	0.0025	0.0196	0.0034	0.0201	0.0199	0.0034
4	2	0.0024	0.0223	0.0036	0.0209	0.0226	0.0036
4	3	0.0028	0.0250	0.0039	0.0221	0.0253	0.0039
4	4	0.0036	0.0283	0.0043	0.0236	0.0287	0.0043
4	5	0.0047	0.0303	0.0044	0.0252	0.0312	0.0044
4	6	0.0055	0.0281	0.0041	0.0264	0.0293	0.0041
4	7	0.0070	0.0211	0.0036	0.0231	0.0228	0.0036
4	8	0.0070	0.0157	0.0032	0.0169	0.0176	0.0032
4	9	0.0053	0.0145	0.0030	0.0151	0.0157	0.0030
4	10	0.0045	0.0140	0.0030	0.0158	0.0149	0.0030
4	11	0.0034	0.0151	0.0031	0.0179	0.0156	0.0031
4	12	0.0026	0.0171	0.0033	0.0191	0.0175	0.0033
5	1	0.0025	0.0196	0.0034	0.0201	0.0199	0.0034
5	2	0.0024	0.0224	0.0036	0.0210	0.0226	0.0036
5	3	0.0028	0.0250	0.0039	0.0221	0.0253	0.0039
5	4	0.0036	0.0283	0.0043	0.0236	0.0288	0.0043
5	5	0.0047	0.0304	0.0044	0.0252	0.0312	0.0044
5	6	0.0055	0.0281	0.0041	0.0265	0.0293	0.0041

(5) Dissolved Matters Run-1, Run-2 (2/8)

Y	M	Cu	Zn	As	Cu	Zn	As
5	7	0.0070	0.0210	0.0036	0.0231	0.0227	0.0036
5	8	0.0070	0.0157	0.0032	0.0168	0.0176	0.0032
5	9	0.0053	0.0145	0.0030	0.0151	0.0158	0.0030
5	10	0.0045	0.0140	0.0030	0.0158	0.0149	0.0030.
5	11	0.0034	0.0151	0.0031	0.0179	0.0156	0.0031
5	12	0.0027	0.0172	0.0033	0.0191	0.0175	0.0033
6	1	0.0025	0.0196	0.0034	0.0201	0.0199	0.0034
6	2	0.0024	0.0224	0.0036	0.0210	0.0226	0.0036
6	3	0.0028	0.0251	0.0039	0.0221	0.0254	0.0039
6	4	0.0036	0.0284	0.0043	0.0236	0.0289	0.0043
6	5	0.0048	0.0304	0.0044	0.0253	0.0313	0.0044
6	6	0.0056	0.0281	0.0041	0.0265	0.0293	0.0041
6	7	0.0071	0.0210	0.0036	0.0231	0.0227	0.0036
6	8	0.0071	0.0157	0.0032	0.0168	0.0176	0.0032
6	9	0.0054	0.0145	0.0030	0.0151	0.0158	0.0030
6	10	0.0045	0.0140	0.0030	0.0158	0.0149	0.0030
6	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
6	12	0.0027	0.0172	0.0033	0.0192	0.0175	0.0033
7	1	0.0025	0.0197	0.0034	0.0201	0.0199	0.0034
7	2	0.0024	0.0224	0.0036	0.0210	0.0227	0.0036
7	3	0.0029	0.0251	0.0039	0.0221	0.0254	0.0039
7	4	0.0036	0.0284	0.0043	0.0237	0.0289	0.0043
7	5	0.0048	0.0304	0.0044	0.0253	0.0313	0.0044
7	6	0.0056	0.0281	0.0042	0.0265	0.0293	0.0042
7	7	0.0071	0.0209	0.0036	0.0231	0.0226	0.0036
7	8	0.0071	0.0157	0.0032	0.0168	0.0176	0.0032
7	9	0.0054	0.0146	0.0030	0.0151	0.0158	0.0030
7	10	0.0045	0.0140	0.0030	0.0158	0.0149	0.0030
7	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
7	12	0.0027	0.0172	0.0033	0.0192	0.0175	0.0033
8	1	0.0025	0.0197	0.0034	0.0202	0.0200	0.0034
8	2	0.0025	0.0225	0.0036	0.0210	0.0227	0.0036
8	3	0.0029	0.0251	0.0039	0.0222	0.0255	0.0039
8	4	0.0037	0.0285	0.0043	0.0237	0.0290	0.0043
8	5	0.0048	0.0305	0.0044	0.0254	0.0314	0.0044
8	6	0.0056	0.0281	0.0042	0.0266	0.0293	0.0042
8	7	0.0071	0.0208	0.0036	0.0231	0.0226	0.0036
8	8	0.0071	0.0157	0.0031	0.0168	0.0175	0.0031
8	9	0.0054	0.0146	0.0030	0.0151	0.0158	0.0030
8	10	0.0045	0.0140	0.0030	0.0158	0.0149	0.0030
8	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
8	12	0.0027	0.0172	0.0033	0.0192	0.0175	0.0033
9	1	0.0025	0.0197	0.0034	0.0202	0.0200	0.0034
9	2	0.0025	0.0225	0.0036	0.0211	0.0228	0.0036
9	3	0.0029	0.0252	0.0039	0.0222	0.0255	0.0039
9	4	0.0037	0.0286	0.0043	0.0238	0.0291	0.0043
9	5	0.0049	0.0305	0.0044	0.0254	0.0315	0.0044
9	6	0.0057	0.0281	0.0042	0.0266	0.0293	0.0042

(5) Dissolved Matters Run-1, Run-2 (3/8)

Y	M	Cu	Zn	As	Cu	Zn	As
9	7	0.0072	0.0208	0.0036	0.0231	0.0225	0.0036
9	8	0.0071	0.0157	0.0031	0.0168	0.0175	0.0031
9	9	0.0054	0.0146	0.0030	0.0151	0.0158	0.0030
9	10	0.0045	0.0140	0.0030	0.0157	0.0149	0.0030
9	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
9	12	0.0027	0.0172	0.0033	0.0192	0.0175	0.0033
10	1	0.0025	0.0197	0.0034	0.0202	0.0200	0.0034
10	2	0.0025	0.0225	0.0036	0.0211	0.0228	0.0036
10	3	0.0029	0.0252	0.0039	0.0222	0.0256	0.0039
10	4	0.0037	0.0286	0.0044	0.0238	0.0291	0.0044
10	5	0.0049	0.0306	0.0044	0.0255	0.0315	0.0044
10	6	0.0057	0.0280	0.0042	0.0267	0.0293	0.0042
10	7	0.0072	0.0207	0.0036	0.0231	0.0225	0.0036
10	8	0.0072	0.0157	0.0031	0.0168	0.0175	0.0031
10	9	0.0054	0.0146	0.0030	0.0151	0.0159	0.0030
10	10	0.0045	0.0140	0.0030	0.0157	0.0149	0.0030
10	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
10	12	0.0027	0.0172	0.0033	0.0192	0.0176	0.0033
11	1	0.0025	0.0198	0.0034	0.0202	0.0200	0.0034
11	2	0.0025	0.0226	0.0036	0.0211	0.0228	0.0036
11	3	0.0029	0.0253	0.0039	0.0223	0.0256	0.0039
11	4	0.0038	0.0287	0.0044	0.0239	0.0292	0.0044
11	5	0.0049	0.0306	0.0044	0.0255	0.0316	0.0044
11	6	0.0057	0.0280	0.0042	0.0267	0.0293	0.0042
11	7	0.0072	0.0206	0.0036	0.0231	0.0224	0.0036
11	8	0.0072	0.0157	0.0031	0.0167	0.0175	0.0031
11	9	0.0055	0.0146	0.0030	0.0150	0.0159	0.0030
11	10	0.0045	0.0140	0.0030	0.0157	0.0149	0.0030
11	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
11	12	0.0027	0.0172	0.0033	0.0192	0.0176	0.0033
12	1	0.0026	0.0198	0.0034	0.0202	0.0201	0.0034
12	2	0.0025	0.0226	0.0036	0.0211	0.0229	0.0036
12	3	0.0029	0.0253	0.0039	0.0223	0.0256	0.0039
12	4	0.0038	0.0287	0.0044	0.0239	0.0292	0.0044
12	5	0.0050	0.0307	0.0044	0.0256	0.0316	0.0044
12	6	0.0058	0.0280	0.0042	0.0268	0.0292	0.0042
12	7	0.0073	0.0206	0.0036	0.0231	0.0223	0.0036
12	8	0.0072	0.0156	0.0031	0.0167	0.0175	0.0031
12	9	0.0055	0.0146	0.0030	0.0150	0.0159	0.0030
12	10	0.0046	0.0140	0.0030	0.0157	0.0149	0.0030
12	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
12	12	0.0027	0.0172	0.0033	0.0192	0.0176	0.0033
13	1	0.0026	0.0198	0.0034	0.0202	0.0201	0.0034
13	2	0.0025	0.0226	0.0036	0.0211	0.0229	0.0036
13	3	0.0030	0.0253	0.0040	0.0223	0.0257	0.0040
13	4	0.0038	0.0288	0.0044	0.0240	0.0293	0.0044
13	5	0.0050	0.0307	0.0044	0.0256	0.0317	0.0044
13	6	0.0058	0.0280	0.0042	0.0268	0.0292	0.0042

(5) Dissolved Matters Run-1, Run-2 (4/8)

Y	M	Cu	Zn	As	Cu	Zn	As
13	7	0.0073	0.0205	0.0036	0.0231	0.0223	0.0036
13	8	0.0072	0.0156	0.0031	0.0167	0.0175	0.0031
13	9	0.0055	0.0146	0.0030	0.0150	0.0159	0.0030
13	10	0.0046	0.0140	0.0030	0.0157	0.0150	0.0030
13	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
13	12	0.0027	0.0173	0.0033	0.0192	0.0176	0.0033
14	1	0.0026	0.0198	0.0034	0.0203	0.0201	0.0034
14	2	0.0025	0.0227	0.0036	0.0212	0.0229	0.0036
14	3	0.0030	0.0254	0.0040	0.0224	0.0257	0.0040
14	4	0.0038	0.0288	0.0044	0.0240	0.0294	0.0044
14	5	0.0050	0.0307	0.0044	0.0257	0.0317	0.0044
14	6	0.0059	0.0280	0.0042	0.0268	0.0292	0.0042
14	7	0.0074	0.0204	0.0036	0.0231	0.0222	0.0036
14	8	0.0073	0.0156	0.0031	0.0167	0.0175	0.0031
14	9	0.0055	0.0146	0.0030	0.0150	0.0159	0.0030
14	10	0.0046	0.0140	0.0030	0.0157	0.0150	0.0030
14	11	0.0034	0.0151	0.0031	0.0180	0.0157	0.0031
14	12	0.0027	0.0173	0.0033	0.0192	0.0176	0.0033
15	1	0.0026	0.0198	0.0034	0.0203	0.0201	0.0034
15	2	0.0025	0.0227	0.0036	0.0212	0.0230	0.0036
15	3	0.0030	0.0254	0.0040	0.0224	0.0258	0.0040
15	4	0.0039	0.0289	0.0044	0.0241	0.0294	0.0044
15	5	0.0051	0.0308	0.0044	0.0257	0.0318	0.0044
15	6	0.0059	0.0279	0.0042	0.0269	0.0292	0.0042
15	7	0.0074	0.0203	0.0036	0.0231	0.0222	0.0036
15	8	0.0073	0.0156	0.0031	0.0167	0.0175	0.0031
15	9	0.0055	0.0146	0.0030	0.0150	0.0159	0.0030
15	10	0.0046	0.0140	0.0030	0.0157	0.0150	0.0030
15	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
15	12	0.0027	0.0173	0.0033	0.0193	0.0176	0.0033
16	1	0.0026	0.0198	0.0034	0.0203	0.0201	0.0034
16	2	0.0025	0.0227	0.0036	0.0212	0.0230	0.0036
16	3	0.0030	0.0254	0.0040	0.0224	0.0258	0.0040
16	4	0.0039	0.0289	0.0044	0.0241	0.0295	0.0044
16	5	0.0051	0.0308	0.0044	0.0258	0.0318	0.0044
16	6	0.0059	0.0279	0.0042	0.0269	0.0292	0.0042
16	7	0.0074	0.0203	0.0036	0.0231	0.0221	0.0036
16	8	0.0073	0.0156	0.0031	0.0166	0.0175	0.0031
16	9	0.0055	0.0146	0.0030	0.0150	0.0159	0.0030
16	10	0.0046	0.0140	0.0030	0.0157	0.0149	0.0030
16	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
16	12	0.0027	0.0173	0.0033	0.0193	0.0176	0.0033
17	1	0.0026	0.0199	0.0034	0.0203	0.0202	0.0034
17	2	0.0025	0.0228	0.0036	0.0212	0.0230	0.0036
17	3	0.0030	0.0255	0.0040	0.0225	0.0258	0.0040
17	4	0.0039	0.0290	0.0044	0.0242	0.0295	0.0044
17	5	0.0052	0.0309	0.0044	0.0258	0.0319	0.0044
17	6	0.0060	0.0279	0.0042	0.0270	0.0292	0.0042

(5) Dissolved Matters Run-1, Run-2 (5/8)

Y	M	Cu	Zn	As	Cu	Zn	As
17	7	0.0075	0.0202	0.0036	0.0230	0.0220	0.0036
17	8	0.0073	0.0155	0.0031	0.0166	0.0174	0.0031
17	9	0.0056	0.0146	0.0030	0.0149	0.0159	0.0030
17	10	0.0046	0.0140	0.0030	0.0157	0.0149	0.0030
17	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
17	12	0.0027	0.0173	0.0033	0.0193	0.0176	0.0033
18	1	0.0026	0.0199	0.0034	0.0203	0.0202	0.0034
18	2	0.0025	0.0288	0.0036	0.0212	0.0231	0.0036
18	3	0.0030	0.0255	0.0040	0.0225	0.0259	0.0040
18	4	0.0040	0.0290	0.0044	0.0242	0.0296	0.0044
18	5	0.0052	0.0309	0.0045	0.0259	0.0319	0.0045
18	6	0.0060	0.0278	0.0042	0.0270	0.0291	0.0042
18	7	0.0075	0.0201	0.0036	0.0230	0.0219	0.0036
18	8	0.0074	0.0155	0.0031	0.0166	0.0174	0.0031
18	9	0.0056	0.0146	0.0030	0.0149	0.0159	0.0030
18	10	0.0046	0.0140	0.0030	0.0157	0.0149	0.0030
18	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
18	12	0.0027	0.0173	0.0033	0.0193	0.0176	0.0033
19	1	0.0026	0.0199	0.0034	0.0203	0.0202	0.0034
19	2	0.0025	0.0228	0.0037	0.0213	0.0231	0.0037
19	3	0.0031	0.0256	0.0040	0.0225	0.0259	0.0040
19	4	0.0040	0.0291	0.0044	0.0243	0.0297	0.0044
19	5	0.0052	0.0309	0.0045	0.0259	0.0319	0.0045
19	6	0.0061	0.0278	0.0042	0.0271	0.0291	0.0042
19	7	0.0076	0.0200	0.0036	0.0230	0.0219	0.0036
19	8	0.0074	0.0155	0.0031	0.0166	0.0174	0.0031
19	9	0.0056	0.0146	0.0030	0.0149	0.0159	0.0030
19	10	0.0047	0.0139	0.0030	0.0157	0.0149	0.0030
19	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
19	12	0.0028	0.0173	0.0033	0.0193	0.0176	0.0033
20	1	0.0026	0.0199	0.0034	0.0203	0.0202	0.0034
20	2	0.0026	0.0228	0.0037	0.0213	0.0231	0.0037
20	3	0.0031	0.0256	0.0040	0.0226	0.0260	0.0040
20	4	0.0040	0.0291	0.0045	0.0243	0.0297	0.0045
20	5	0.0053	0.0310	0.0045	0.0260	0.0320	0.0045
20	6	0.0061	0.0277	0.0042	0.0271	0.0291	0.0042
20	7	0.0076	0.0199	0.0036	0.0230	0.0218	0.0036
20	8	0.0074	0.0155	0.0031	0.0165	0.0174	0.0031
20	9	0.0056	0.0146	0.0030	0.0149	0.0159	0.0030
20	10	0.0047	0.0139	0.0030	0.0157	0.0149	0.0030
20	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
20	12	0.0028	0.0173	0.0033	0.0193	0.0176	0.0033
21	1	0.0026	0.0199	0.0034	0.0204	0.0202	0.0034
21	2	0.0026	0.0229	0.0037	0.0213	0.0231	0.0037
21	3	0.0031	0.0256	0.0040	0.0226	0.0260	0.0040
21	4	0.0041	0.0292	0.0045	0.0244	0.0298	0.0045
21	5	0.0053	0.0310	0.0045	0.0260	0.0320	0.0045
21	6	0.0062	0.0277	0.0042	0.0271	0.0290	0.0042

(5) Dissolved Matters Run-1, Run-2 (6/8)

Y	M	Cu	Zn	As	Cu	Zn	As
21	7	0.0076	0.0198	0.0036	0.0230	0.0217	0.0036
21	8	0.0074	0.0154	0.0031	0.0165	0.0174	0.0031
21	9	0.0056	0.0146	0.0030	0.0149	0.0159	0.0030
21	10	0.0047	0.0139	0.0030	0.0156	0.0149	0.0030
21	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
21	12	0.0028	0.0173	0.0033	0.0193	0.0176	0.0033
22	1	0.0026	0.0199	0.0034	0.0204	0.0202	0.0034
22	2	0.0026	0.0229	0.0037	0.0213	0.0232	0.0037
22	3	0.0031	0.0257	0.0040	0.0227	0.0260	0.0040
22	4	0.0041	0.0292	0.0045	0.0244	0.0298	0.0045
22	5	0.0054	0.0310	0.0045	0.0261	0.0321	0.0045
22	6	0.0062	0.0276	0.0042	0.0272	0.0290	0.0042
22	7	0.0077	0.0197	0.0036	0.0230	0.0216	0.0036
22	8	0.0075	0.0154	0.0031	0.0165	0.0173	0.0031
22	9	0.0057	0.0146	0.0030	0.0149	0.0159	0.0030
22	10	0.0047	0.0139	0.0030	0.0156	0.0149	0.0030
22	11	0.0035	0.0151	0.0031	0.0180	0.0157	0.0031
22	12	0.0028	0.0173	0.0033	0.0193	0.0177	0.0033
23	1	0.0026	0.0200	0.0034	0.0204	0.0203	0.0034
23	2	0.0026	0.0229	0.0037	0.0214	0.0232	0.0037
23	3	0.0032	0.0257	0.0040	0.0227	0.0261	0.0040
23	4	0.0042	0.0293	0.0045	0.0245	0.0299	0.0045
23	5	0.0054	0.0311	0.0045	0.0262	0.0321	0.0045
23	6	0.0063	0.0276	0.0042	0.0272	0.0290	0.0042
23	7	0.0077	0.0196	0.0036	0.0230	0.0215	0.0036
23	8	0.0075	0.0153	0.0031	0.0165	0.0173	0.0031
23	9	0.0057	0.0146	0.0030	0.0148	0.0159	0.0030
23	10	0.0047	0.0139	0.0030	0.0156	0.0149	0.0030
23	11	0.0035	0.0150	0.0031	0.0180	0.0157	0.0031
23	12	0.0028	0.0173	0.0033	0.0193	0.0177	0.0033
24	1	0.0026	0.0200	0.0034	0.0204	0.0203	0.0034
24	2	0.0026	0.0230	0.0037	0.0214	0.0232	0.0037
24	3	0.0032	0.0257	0.0040	0.0227	0.0261	0.0040
24	4	0.0042	0.0293	0.0045	0.0246	0.0300	0.0045
24	5	0.0055	0.0311	0.0045	0.0262	0.0322	0.0045
24	6	0.0063	0.0275	0.0042	0.0273	0.0289	0.0042
24	7	0.0078	0.0195	0.0036	0.0230	0.0214	0.0036
24	8	0.0075	0.0153	0.0031	0.0164	0.0173	0.0031
24	9	0.0057	0.0146	0.0030	0.0148	0.0159	0.0030
24	10	0.0047	0.0139	0.0030	0.0156	0.0149	0.0030
24	11	0.0036	0.0150	0.0031	0.0180	0.0157	0.0031
24	12	0.0028	0.0173	0.0033	0.0194	0.0177	0.0033
25	1	0.0027	0.0200	0.0034	0.0204	0.0203	0.0034
25	2	0.0026	0.0230	0.0037	0.0214	0.0233	0.0037
25	3	0.0032	0.0258	0.0040	0.0228	0.0262	0.0040
25	4	0.0042	0.0294	0.0045	0.0246	0.0300	0.0045
25	5	0.0055	0.0311	0.0045	0.0263	0.0322	0.0045
25	6	0.0064	0.0274	0.0042	0.0273	0.0289	0.0042

(5) Dissolved Matters Run-1, Run-2 (7/8)

Y	M	Cu	Zn	As	Cu	Zn	As
25	7	0.0078	0.0194	0.0036	0.0230	0.0213	0.0036
25	8	0.0075	0.0153	0.0031	0.0164	0.0172	0.0031
25	9	0.0057	0.0146	0.0030	0.0148	0.0159	0.0030
25	10	0.0048	0.0138	0.0030	0.0156	0.0149	0.0030
25	11	0.0036	0.0150	0.0031	0.0180	0.0156	0.0031
25	12	0.0028	0.0173	0.0033	0.0194	0.0176	0.0033
26	1	0.0027	0.0200	0.0034	0.0205	0.0203	0.0034
26	2	0.0026	0.0230	0.0037	0.0214	0.0233	0.0037
26	3	0.0032	0.0258	0.0040	0.0228	0.0262	0.0040
26	4	0.0043	0.0294	0.0045	0.0247	0.0301	0.0045
26	5	0.0056	0.0311	0.0045	0.0264	0.0322	0.0045
26	6	0.0064	0.0274	0.0042	0.0274	0.0288	0.0042
26	7	0.0079	0.0193	0.0036	0.0230	0.0212	0.0036
26	8	0.0076	0.0152	0.0031	0.0164	0.0172	0.0031
26	9	0.0057	0.0145	0.0030	0.0148	0.0159	0.0030
26	10	0.0048	0.0138	0.0030	0.0156	0.0149	0.0030
26	11	0.0036	0.0150	0.0031	0.0180	0.0156	0.0031
26	12	0.0028	0.0173	0.0033	0.0194	0.0176	0.0033
27	1	0.0027	0.0200	0.0035	0.0205	0.0203	0.0035
27	2	0.0026	0.0230	0.0037	0.0215	0.0233	0.0037
27	3	0.0033	0.0258	0.0041	0.0229	0.0262	0.0041
27	4	0.0043	0.0295	0.0046	0.0248	0.0301	0.0046
27	5	0.0057	0.0311	0.0045	0.0264	0.0323	0.0045
27	6	0.0065	0.0273	0.0042	0.0275	0.0287	0.0042
27	7	0.0080	0.0191	0.0036	0.0230	0.0211	0.0036
27	8	0.0076	0.0152	0.0031	0.0163	0.0172	0.0031
27	9	0.0058	0.0145	0.0030	0.0147	0.0159	0.0030
27	10	0.0048	0.0138	0.0030	0.0156	0.0148	0.0030
27	11	0.0036	0.0150	0.0031	0.0180	0.0156	0.0031
27	12	0.0028	0.0173	0.0033	0.0194	0.0176	0.0033
28	1	0.0027	0.0200	0.0035	0.0205	0.0203	0.0035
28	2	0.0026	0.0231	0.0037	0.0215	0.0234	0.0037
28	3	0.0033	0.0259	0.0041	0.0229	0.0263	0.0041
28	4	0.0044	0.0295	0.0046	0.0248	0.0302	0.0046
28	5	0.0057	0.0312	0.0046	0.0265	0.0323	0.0046
28	6	0.0066	0.0272	0.0042	0.0275	0.0287	0.0042
28	7	0.0080	0.0190	0.0036	0.0229	0.0210	0.0036
28	8	0.0076	0.0151	0.0031	0.0163	0.0171	0.0031
28	9	0.0058	0.0145	0.0030	0.0147	0.0159	0.0030
28	10	0.0048	0.0138	0.0030	0.0156	0.0148	0.0030
28	11	0.0036	0.0150	0.0031	0.0181	0.0156	0.0031
28	12	0.0028	0.0173	0.0033	0.0194	0.0176	0.0033
29	1	0.0027	0.0200	0.0035	0.0205	0.0203	0.0035
29	2	0.0027	0.0231	0.0037	0.0215	0.0234	0.0037
29	3	0.0033	0.0259	0.0041	0.0230	0.0263	0.0041
29	4	0.0044	0.0296	0.0046	0.0249	0.0303	0.0046
29	5	0.0058	0.0312	0.0046	0.0266	0.0323	0.0046
29	6	0.0066	0.0271	0.0042	0.0276	0.0286	0.0042

(5) Dissolved Matters Run-1, Run-2 (8/8)

Y	M	Cu	Zn	As	Cu	Zn	As
29	7	0.0081	0.0189	0.0035	0.0229	0.0209	0.0035
29	8	0.0077	0.0151	0.0031	0.0163	0.0171	0.0031
29	9	0.0058	0.0145	0.0030	0.0147	0.0158	0.0030
29	10	0.0048	0.0138	0.0030	0.0155	0.0148	0.0030
29	11	0.0036	0.0149	0.0031	0.0181	0.0156	0.0031
29	12	0.0028	0.0173	0.0033	0.0194	0.0176	0.0033
30	1	0.0027	0.0200	0.0035	0.0205	0.0204	0.0035
30	2	0.0027	0.0231	0.0037	0.0216	0.0234	0.0037
30	3	0.0034	0.0259	0.0041	0.0230	0.0263	0.0041
30	4	0.0045	0.0296	0.0046	0.0250	0.0303	0.0046
30	5	0.0058	0.0312	0.0046	0.0266	0.0324	0.0046
30	6	0.0067	0.0270	0.0042	0.0276	0.0285	0.0042
30	7	0.0081	0.0187	0.0035	0.0229	0.0208	0.0035
30	8	0.0077	0.0150	0.0031	0.0162	0.0171	0.0031
30	9	0.0058	0.0145	0.0030	0.0146	0.0158	0.0030
30	10	0.0048	0.0137	0.0030	0.0155	0.0148	0.0030
30	11	0.0036	0.0149	0.0031	0.0181	0.0156	0.0031
30	12	0.0029	0.0173	0.0033	0.0194	0.0176	0.0033
31	1	0.0027	0.0200	0.0035	0.0206	0.0204	0.0035
31	2	0.0027	0.0232	0.0037	0.0216	0.0234	0.0037
31	3	0.0034	0.0259	0.0041	0.0231	0.0264	0.0041
31	4	0.0046	0.0297	0.0046	0.0250	0.0304	0.0046
31	5	0.0059	0.0312	0.0046	0.0267	0.0324	0.0046
31	6	0.0068	0.0269	0.0042	0.0277	0.0284	0.0042
31	7	0.0082	0.0186	0.0035	0.0229	0.0206	0.0035
31	8	0.0077	0.0150	0.0031	0.0162	0.0170	0.0031
31	9	0.0058	0.0144	0.0030	0.0146	0.0158	0.0030
31	10	0.0049	0.0137	0.0030	0.0155	0.0148	0.0030
31	11	0.0037	0.0149	0.0031	0.0181	0.0155	0.0031
31	12	0.0029	0.0172	0.0033	0.0194	0.0176	0.0033

(6) Dissolved Matters Run-3, Run-4 (1/8)

Y	M	Cu	Zn	As	Cu	Zn	As
1	7	0.0127	0.0062	0.0033	0.0237	0.0096	0.0033
1	8	0.0077	0.0126	0.0031	0.0210	0.0144	0.0031
1	9	0.0062	0.0133	0.0030	0.0179	0.0148	0.0030
1	10	0.0048	0.0135	0.0030	0.0170	0.0145	0.0030
1	11	0.0031	0.0148	0.0031	0.0187	0.0153	0.0031
1	12	0.0029	0.0166	0.0032	0.0200	0.0170	0.0032
2	1	0.0028	0.0185	0.0033	0.0211	0.0189	0.0033
2	2	0.0023	0.0212	0.0035	0.0219	0.0214	0.0035
2	3	0.0025	0.0239	0.0038	0.0227	0.0241	0.0038
2	4	0.0032	0.0270	0.0042	0.0239	0.0274	0.0042
2	5	0.0048	0.0282	0.0042	0.0254	0.0291	0.0042
2	6	0.0049	0.0283	0.0042	0.0265	0.0292	0.0042
2	7	0.0080	0.0182	0.0034	0.0189	0.0202	0.0034
2	8	0.0055	0.0131	0.0029	0.0127	0.0150	0.0029
2	9	0.0041	0.0132	0.0030	0.0153	0.0140	0.0030
2	10	0.0050	0.0117	0.0029	0.0128	0.0131	0.0029
2	11	0.0030	0.0129	0.0030	0.0157	0.0133	0.0030
2	12	0.0025	0.0155	0.0032	0.0169	0.0157	0.0032
3	1	0.0023	0.0184	0.0034	0.0179	0.0186	0.0034
3	2	0.0023	0.0217	0.0036	0.0187	0.0219	0.0036
3	3	0.0026	0.0255	0.0040	0.0199	0.0257	0.0040
3	4	0.0031	0.0317	0.0045	0.0214	0.0320	0.0045
3	5	0.0052	0.0310	0.0043	0.0238	0.0321	0.0043
3	6	0.0056	0.0275	0.0041	0.0256	0.0287	0.0041
3	7	0.0065	0.0220	0.0037	0.0241	0.0235	0.0037
3	8	0.0062	0.0140	0.0030	0.0142	0.0161	0.0030
3	9	0.0053	0.0130	0.0029	0.0136	0.0142	0.0029
3	10	0.0033	0.0140	0.0031	0.0164	0.0145	0.0031
3	11	0.0029	0.0159	0.0032	0.0180	0.0164	0.0032
3	12	0.0026	0.0182	0.0033	0.0191	0.0185	0.0033
4	1	0.0023	0.0210	0.0035	0.0199	0.0212	0.0035
4	2	0.0024	0.0241	0.0037	0.0208	0.0243	0.0037
4	3	0.0028	0.0274	0.0042	0.0219	0.0277	0.0042
4	4	0.0035	0.0321	0.0045	0.0234	0.0326	0.0045
4	5	0.0045	0.0339	0.0046	0.0250	0.0347	0.0046
4	6	0.0053	0.0315	0.0044	0.0263	0.0326	0.0044
4	7	0.0051	0.0297	0.0043	0.0272	0.0307	0.0043
4	8	0.0080	0.0187	0.0034	0.0191	0.0207	0.0034
4	9	0.0056	0.0172	0.0032	0.0180	0.0185	0.0032
4	10	0.0045	0.0167	0.0032	0.0178	0.0176	0.0032
4	11	0.0030	0.0178	0.0033	0.0194	0.0183	0.0033
4	12	0.0025	0.0200	0.0034	0.0203	0.0203	0.0034
5	1	0.0024	0.0226	0.0036	0.0211	0.0228	0.0036
5	2	0.0023	0.0257	0.0038	0.0219	0.0258	0.0038
5	3	0.0028	0.0288	0.0042	0.0229	0.0291	0.0042
5	4	0.0032	0.0343	0.0047	0.0242	0.0346	0.0047
5	5	0.0034	0.0409	0.0051	0.0254	0.0413	0.0051
5	6	0.0075	0.0265	0.0039	0.0204	0.0283	0.0039

(6) Dissolved Matters Run-3, Run-4 (2/8)

Y	M	Cu	Zn	As	Cu	Zn	As
5	7	0.0069	0.0188	0.0033	0.0161	0.0205	0.0033
5	8	0.0048	0.0142	0.0030	0.0122	0.0159	0.0030
5	9	0.0050	0.0129	0.0029	0.0139	0.0140	0.0029
5	10	0.0042	0.0131	0.0030	0.0154	0.0140	0.0030
5	11	0.0041	0.0138	0.0030	0.0166	0.0146	0.0030
5	12	0.0030	0.0153	0.0031	0.0183	0.0158	0.0031
6	1	0.0025	0.0178	0.0033	0.0193	0.0181	0.0033
6	2	0.0023	0.0208	0.0035	0.0201	0.0210	0.0035
6	3	0.0026	0.0237	0.0038	0.0211	0.0240	0.0038
6	4	0.0035	0.0270	0.0042	0.0228	0.0274	0.0042
6	5	0.0037	0.0331	0.0046	0.0242	0.0336	0.0046
6	6	0.0038	0.0377	0.0048	0.0255	0.0382	0.0048
6	7	0.0046	0.0377	0.0048	0.0266	0.0385	0.0048
6	8	0.0077	0.0238	0.0038	0.0208	0.0257	0.0038
6	9	0.0064	0.0190	0.0033	0.0177	0.0205	0.0033
6	10	0.0043	0.0185	0.0033	0.0182	0.0194	0.0033
6	11	0.0045	0.0173	0.0032	0.0179	0.0183	0.0032
6	12	0.0032	0.0180	0.0033	0.0196	0.0186	0.0033
7	1	0.0024	0.0205	0.0035	0.0204	0.0207	0.0035
7	2	0.0023	0.0233	0.0037	0.0212	0.0235	0.0037
7	3	0.0025	0.0265	0.0040	0.0220	0.0267	0.0040
7	4	0.0031	0.0309	0.0045	0.0234	0.0312	0.0045
7	5	0.0034	0.0380	0.0049	0.0247	0.0384	0.0049
7	6	0.0037	0.0428	0.0051	0.0258	0.0433	0.0051
7	7	0.0051	0.0395	0.0049	0.0269	0.0405	0.0049
7	8	0.0064	0.0303	0.0042	0.0270	0.0318	0.0042
7	9	0.0062	0.0245	0.0038	0.0248	0.0259	0.0038
7	10	0.0048	0.0234	0.0037	0.0258	0.0244	0.0037
7	11	0.0035	0.0250	0.0038	0.0265	0.0256	0.0038
7	12	0.0029	0.0286	0.0042	0.0272	0.0289	0.0042
8	1	0.0038	0.0317	0.0045	0.0281	0.0323	0.0045
8	2	0.0032	0.0391	0.0049	0.0288	0.0394	0.0049
8	3	0.0032	0.0457	0.0054	0.0296	0.0461	0.0054
8	4	0.0036	0.0508	0.0056	0.0301	0.0513	0.0056
8	5	0.0041	0.0511	0.0056	0.0303	0.0517	0.0056
8	6	0.0039	0.0522	0.0057	0.0306	0.0528	0.0057
8	7	0.0049	0.0474	0.0054	0.0303	0.0484	0.0054
8	8	0.0064	0.0351	0.0045	0.0292	0.0366	0.0045
8	9	0.0074	0.0229	0.0036	0.0213	0.0247	0.0036
8	10	0.0043	0.0226	0.0036	0.0229	0.0234	0.0036
8	11	0.0039	0.0226	0.0036	0.0241	0.0233	0.0036
8	12	0.0034	0.0234	0.0036	0.0250	0.0239	0.0036
9	1	0.0030	0.0251	0.0038	0.0256	0.0255	0.0038
9	2	0.0030	0.0274	0.0040	0.0263	0.0277	0.0040
9	3	0.0042	0.0281	0.0043	0.0273	0.0287	0.0043
9	4	0.0044	0.0315	0.0045	0.0280	0.0323	0.0045
9	5	0.0043	0.0340	0.0046	0.0286	0.0347	0.0046
9	6	0.0052	0.0328	0.0045	0.0288	0.0339	0.0045

(6) Dissolved Matters Run-3, Run-4 (3/8)

Y	M	Cu	Zn	As	Cu	Zn	As
9	7	0.0061	0.0274	0.0041	0.0287	0.0287	0.0041
9	8	0.0066	0.0221	0.0037	0.0256	0.0236	0.0037
9	9	0.0071	0.0169	0.0032	0.0188	0.0186	0.0032
9	10	0.0043	0.0170	0.0032	0.0191	0.0179	0.0032
9	11	0.0034	0.0179	0.0033	0.0208	0.0184	0.0033
9	12	0.0032	0.0190	0.0033	0.0220	0.0195	0.0033
10	1	0.0028	0.0208	0.0035	0.0229	0.0211	0.0035
10	2	0.0025	0.0231	0.0036	0.0235	0.0234	0.0036
10	3	0.0028	0.0251	0.0038	0.0244	0.0255	0.0038
10	4	0.0034	0.0276	0.0041	0.0254	0.0281	0.0041
10	5	0.0040	0.0307	0.0044	0.0265	0.0313	0.0044
10	6	0.0049	0.0315	0.0044	0.0274	0.0325	0.0044
10	7	0.0061	0.0272	0.0041	0.0279	0.0285	0.0041
10	8	0.0054	0.0258	0.0040	0.0282	0.0269	0.0040
10	9	0.0054	0.0246	0.0039	0.0284	0.0257	0.0039
10	10	0.0045	0.0259	0.0040	0.0287	0.0267	0.0040
10	11	0.0040	0.0290	0.0044	0.0293	0.0296	0.0044
10	12	0.0039	0.0345	0.0047	0.0298	0.0350	0.0047
11	1	0.0044	0.0372	0.0048	0.0301	0.0379	0.0048
11	2	0.0037	0.0417	0.0051	0.0305	0.0422	0.0051
11	3	0.0035	0.0468	0.0055	0.0310	0.0472	0.0055
11	4	0.0038	0.0509	0.0057	0.0313	0.0515	0.0057
11	5	0.0044	0.0502	0.0056	0.0312	0.0509	0.0056
11	6	0.0062	0.0386	0.0047	0.0301	0.0399	0.0047
11	7	0.0062	0.0301	0.0042	0.0289	0.0315	0.0042
11	8	0.0057	0.0141	0.0030	0.0127	0.0165	0.0030
11	9	0.0041	0.0144	0.0030	0.0157	0.0152	0.0030
11	10	0.0036	0.0154	0.0031	0.0181	0.0160	0.0031
11	11	0.0024	0.0179	0.0033	0.0190	0.0181	0.0033
11	12	0.0022	0.0210	0.0035	0.0197	0.0212	0.0035
12	1	0.0026	0.0239	0.0037	0.0208	0.0241	0.0037
12	2	0.0030	0.0265	0.0040	0.0220	0.0269	0.0040
12	3	0.0041	0.0282	0.0044	0.0238	0.0288	0.0044
12	4	0.0039	0.0341	0.0047	0.0253	0.0347	0.0047
12	5	0.0044	0.0368	0.0048	0.0265	0.0376	0.0048
12	6	0.0052	0.0351	0.0046	0.0274	0.0361	0.0046
12	7	0.0081	0.0208	0.0036	0.0198	0.0229	0.0036
12	8	0.0057	0.0191	0.0034	0.0191	0.0204	0.0034
12	9	0.0050	0.0177	0.0032	0.0180	0.0188	0.0032
12	10	0.0040	0.0174	0.0032	0.0190	0.0182	0.0032
12	11	0.0028	0.0190	0.0033	0.0202	0.0194	0.0033
12	12	0.0028	0.0208	0.0035	0.0213	0.0212	0.0035
13	1	0.0025	0.0233	0.0036	0.0221	0.0236	0.0036
13	2	0.0025	0.0262	0.0039	0.0229	0.0265	0.0039
13	3	0.0037	0.0273	0.0041	0.0243	0.0279	0.0041
13	4	0.0045	0.0290	0.0043	0.0258	0.0298	0.0043
13	5	0.0052	0.0297	0.0043	0.0269	0.0307	0.0043
13	6	0.0048	0.0311	0.0044	0.0277	0.0320	0.0044

(6) Dissolved Matters Run-3, Run-4 (4/8)

Y	M	Cu	Zn	As	Cu	Zn	As
13	7	0.0084	0.0187	0.0034	0.0189	0.0209	0.0034
13	8	0.0062	0.0168	0.0032	0.0171	0.0183	0.0032
13	9	0.0053	0.0147	0.0030	0.0146	0.0161	0.0030
13	10	0.0040	0.0146	0.0031	0.0164	0.0154	0.0031
13	11	0.0028	0.0165	0.0032	0.0179	0.0169	0.0032
13	12	0.0029	0.0185	0.0033	0.0194	0.0189	0.0033
14	1	0.0031	0.0202	0.0035	0.0208	0.0207	0.0035
14	2	0.0029	0.0222	0.0036	0.0219	0.0226	0.0036
14	3	0.0034	0.0236	0.0038	0.0232	0.0241	0.0038
14	4	0.0041	0.0253	0.0041	0.0248	0.0260	0.0041
14	5	0.0041	0.0304	0.0045	0.0261	0.0310	0.0045
14	6	0.0080	0.0206	0.0036	0.0200	0.0226	0.0036
14	7	0.0056	0.0197	0.0034	0.0205	0.0209	0.0034
14	8	0.0051	0.0185	0.0033	0.0198	0.0197	0.0033
14	9	0.0049	0.0142	0.0030	0.0142	0.0159	0.0030
14	10	0.0038	0.0142	0.0031	0.0165	0.0149	0.0031
14	11	0.0026	0.0165	0.0032	0.0178	0.0168	0.0032
14	12	0.0023	0.0195	0.0034	0.0187	0.0197	0.0034
15	1	0.0024	0.0229	0.0037	0.0196	0.0231	0.0037
15	2	0.0027	0.0262	0.0040	0.0207	0.0265	0.0040
15	3	0.0032	0.0306	0.0046	0.0223	0.0309	0.0046
15	4	0.0042	0.0369	0.0049	0.0241	0.0376	0.0049
15	5	0.0038	0.0424	0.0052	0.0255	0.0429	0.0052
15	6	0.0040	0.0467	0.0054	0.0267	0.0473	0.0054
15	7	0.0058	0.0396	0.0049	0.0275	0.0408	0.0049
15	8	0.0058	0.0130	0.0029	0.0100	0.0154	0.0029
15	9	0.0054	0.0122	0.0029	0.0127	0.0136	0.0029
15	10	0.0052	0.0107	0.0028	0.0120	0.0122	0.0028
15	11	0.0039	0.0115	0.0029	0.0145	0.0123	0.0029
15	12	0.0031	0.0135	0.0030	0.0166	0.0140	0.0030
16	1	0.0021	0.0168	0.0033	0.0174	0.0169	0.0033
16	2	0.0021	0.0206	0.0035	0.0181	0.0207	0.0035
16	3	0.0028	0.0242	0.0039	0.0195	0.0245	0.0039
16	4	0.0032	0.0304	0.0046	0.0211	0.0308	0.0046
16	5	0.0030	0.0416	0.0053	0.0225	0.0418	0.0053
16	6	0.0047	0.0434	0.0052	0.0245	0.0442	0.0052
16	7	0.0086	0.0221	0.0036	0.0169	0.0243	0.0036
16	8	0.0060	0.0193	0.0033	0.0162	0.0207	0.0033
16	9	0.0044	0.0185	0.0033	0.0169	0.0194	0.0033
16	10	0.0043	0.0176	0.0032	0.0178	0.0185	0.0032
16	11	0.0025	0.0197	0.0034	0.0188	0.0200	0.0034
16	12	0.0022	0.0227	0.0036	0.0196	0.0229	0.0036
17	1	0.0021	0.0268	0.0039	0.0203	0.0269	0.0039
17	2	0.0024	0.0313	0.0043	0.0212	0.0314	0.0043
17	3	0.0031	0.0371	0.0050	0.0227	0.0374	0.0050
17	4	0.0031	0.0479	0.0056	0.0241	0.0481	0.0056
17	5	0.0086	0.0223	0.0036	0.0152	0.0246	0.0036
17	6	0.0057	0.0198	0.0033	0.0150	0.0211	0.0033

(6) Dissolved Matters Run-3, Run-4 (5/8)

Y	M	Cu	Zn	As	Cu	Zn	As
17	7	0.0049	0.0177	0.0032	0.0153	0.0187	0.0032
17	8	0.0052	0.0156	0.0031	0.0149	0.0167	0.0031
17	9	0.0053	0.0133	0.0029	0.0133	0.0147	0.0029
17	10	0.0032	0.0143	0.0031	0.0163	0.0148	0.0031
17	11	0.0030	0.0164	0.0032	0.0180	0.0169	0.0032
17	12	0.0032	0.0180	0.0033	0.0197	0.0185	0.0033
18	1	0.0025	0.0206	0.0035	0.0206	0.0208	0.0035
18	2	0.0022	0.0239	0.0037	0.0214	0.0241	0.0037
18	3	0.0026	0.0277	0.0042	0.0224	0.0279	0.0042
18	4	0.0036	0.0324	0.0047	0.0240	0.0328	0.0047
18	5	0.0040	0.0391	0.0051	0.0254	0.0396	0.0051
18	6	0.0037	0.0458	0.0055	0.0266	0.0463	0.0055
18	7	0.0074	0.0305	0.0042	0.0240	0.0323	0.0042
18	8	0.0052	0.0129	0.0029	0.0100	0.0149	0.0029
18	9	0.0041	0.0092	0.0026	0.0082	0.0105	0.0026
18	10	0.0053	0.0085	0.0027	0.0092	0.0100	0.0027
18	11	0.0032	0.0102	0.0028	0.0121	0.0107	0.0028
18	12	0.0024	0.0133	0.0031	0.0146	0.0135	0.0031
19	1	0.0024	0.0167	0.0033	0.0158	0.0169	0.0033
19	2	0.0026	0.0202	0.0036	0.0172	0.0204	0.0036
19	3	0.0038	0.0227	0.0040	0.0196	0.0233	0.0040
19	4	0.0033	0.0304	0.0046	0.0213	0.0303	0.0046
19	5	0.0054	0.0322	0.0045	0.0239	0.0333	0.0045
19	6	0.0062	0.0281	0.0042	0.0259	0.0295	0.0042
19	7	0.0088	0.0160	0.0032	0.0165	0.0183	0.0032
19	8	0.0061	0.0144	0.0030	0.0140	0.0161	0.0030
19	9	0.0050	0.0117	0.0028	0.0112	0.0134	0.0028
19	10	0.0053	0.0110	0.0028	0.0131	0.0122	0.0028
19	11	0.0031	0.0127	0.0030	0.0154	0.0132	0.0030
19	12	0.0022	0.0158	0.0032	0.0164	0.0160	0.0032
20	1	0.0038	0.0172	0.0033	0.0189	0.0179	0.0033
20	2	0.0037	0.0184	0.0034	0.0209	0.0190	0.0034
20	3	0.0038	0.0193	0.0035	0.0225	0.0200	0.0035
20	4	0.0038	0.0211	0.0037	0.0239	0.0218	0.0037
20	5	0.0042	0.0230	0.0038	0.0252	0.0237	0.0038
20	6	0.0052	0.0220	0.0037	0.0259	0.0231	0.0037
20	7	0.0068	0.0171	0.0032	0.0194	0.0188	0.0032
20	8	0.0054	0.0144	0.0030	0.0153	0.0159	0.0030
20	9	0.0054	0.0124	0.0029	0.0136	0.0138	0.0029
20	10	0.0054	0.0110	0.0028	0.0125	0.0125	0.0028
20	11	0.0034	0.0122	0.0030	0.0156	0.0128	0.0030
20	12	0.0024	0.0152	0.0032	0.0167	0.0154	0.0032
21	1	0.0029	0.0179	0.0034	0.0182	0.0182	0.0034
21	2	0.0029	0.0206	0.0035	0.0196	0.0209	0.0035
21	3	0.0034	0.0230	0.0039	0.0213	0.0235	0.0039
21	4	0.0046	0.0255	0.0042	0.0236	0.0263	0.0042
21	5	0.0068	0.0230	0.0039	0.0259	0.0245	0.0039
21	6	0.0066	0.0207	0.0036	0.0252	0.0222	0.0036

(6) Dissolved Matters Run-3, Run-4 (6/8)

Y	M	Cu	Zn	As	Cu	Zn	As
21	7	0.0064	0.0186	0.0034	0.0227	0.0201	0.0034
21	8	0.0048	0.0193	0.0034	0.0233	0.0203	0.0034
21	9	0.0047	0.0187	0.0033	0.0221	0.0197	0.0033
21	10	0.0042	0.0183	0.0033	0.0220	0.0191	0.0033
21	11	0.0050	0.0137	0.0029	0.0151	0.0154	0.0029
21	12	0.0037	0.0139	0.0031	0.0177	0.0146	0.0031
22	1	0.0026	0.0165	0.0032	0.0189	0.0168	0.0032
22	2	0.0024	0.0197	0.0035	0.0198	0.0199	0.0035
22	3	0.0027	0.0230	0.0038	0.0210	0.0233	0.0038
22	4	0.0037	0.0273	0.0044	0.0228	0.0277	0.0044
22	5	0.0036	0.0372	0.0050	0.0244	0.0376	0.0050
22	6	0.0045	0.0421	0.0052	0.0259	0.0428	0.0052
22	7	0.0074	0.0291	0.0042	0.0248	0.0309	0.0042
22	8	0.0069	0.0227	0.0036	0.0220	0.0243	0.0036
22	9	0.0064	0.0189	0.0033	0.0185	0.0204	0.0033
22	10	0.0051	0.0173	0.0032	0.0174	0.0184	0.0032
22	11	0.0033	0.0180	0.0033	0.0192	0.0186	0.0033
22	12	0.0031	0.0196	0.0034	0.0206	0.0201	0.0034
23	1	0.0030	0.0213	0.0035	0.0218	0.0218	0.0035
23	2	0.0025	0.0240	0.0037	0.0226	0.0243	0.0037
23	3	0.0028	0.0267	0.0040	0.0235	0.0270	0.0040
23	4	0.0041	0.0293	0.0045	0.0252	0.0299	0.0045
23	5	0.0056	0.0306	0.0045	0.0266	0.0317	0.0045
23	6	0.0058	0.0291	0.0043	0.0276	0.0303	0.0043
23	7	0.0088	0.0169	0.0033	0.0184	0.0191	0.0033
23	8	0.0058	0.0130	0.0029	0.0122	0.0151	0.0029
23	9	0.0044	0.0134	0.0030	0.0155	0.0143	0.0030
23	10	0.0053	0.0116	0.0028	0.0128	0.0132	0.0028
23	11	0.0031	0.0129	0.0030	0.0154	0.0134	0.0030
23	12	0.0026	0.0157	0.0032	0.0168	0.0160	0.0032
24	1	0.0025	0.0189	0.0034	0.0180	0.0192	0.0034
24	2	0.0025	0.0226	0.0037	0.0190	0.0228	0.0037
24	3	0.0031	0.0268	0.0043	0.0206	0.0271	0.0043
24	4	0.0036	0.0350	0.0049	0.0225	0.0354	0.0049
24	5	0.0061	0.0326	0.0045	0.0251	0.0339	0.0045
24	6	0.0065	0.0269	0.0041	0.0267	0.0284	0.0041
24	7	0.0074	0.0207	0.0036	0.0244	0.0224	0.0036
24	8	0.0066	0.0134	0.0030	0.0137	0.0157	0.0030
24	9	0.0057	0.0131	0.0029	0.0134	0.0144	0.0029
24	10	0.0035	0.0140	0.0030	0.0167	0.0146	0.0030
24	11	0.0031	0.0162	0.0032	0.0184	0.0166	0.0032
24	12	0.0027	0.0186	0.0033	0.0197	0.0189	0.0033
25	1	0.0024	0.0217	0.0036	0.0206	0.0219	0.0036
25	2	0.0026	0.0251	0.0038	0.0215	0.0253	0.0038
25	3	0.0033	0.0287	0.0044	0.0230	0.0290	0.0044
25	4	0.0042	0.0346	0.0049	0.0248	0.0352	0.0049
25	5	0.0054	0.0356	0.0048	0.0264	0.0366	0.0048
25	6	0.0062	0.0313	0.0044	0.0274	0.0326	0.0044

(6) Dissolved Matters Run-3, Run-4 (7/8)

Y	M	Cu	Zn	As	Cu	Zn	As
25	7	0.0060	0.0284	0.0043	0.0281	0.0296	0.0043
25	8	0.0089	0.0165	0.0033	0.0184	0.0188	0.0033
25	9	0.0061	0.0169	0.0032	0.0176	0.0183	0.0032
25	10	0.0048	0.0167	0.0031	0.0176	0.0177	0.0031
25	11	0.0032	0.0178	0.0032	0.0193	0.0183	0.0032
25	12	0.0026	0.0202	0.0034	0.0204	0.0205	0.0034
26	1	0.0025	0.0231	0.0036	0.0213	0.0233	0.0036
26	2	0.0025	0.0265	0.0039	0.0222	0.0267	0.0039
26	3	0.0033	0.0298	0.0044	0.0236	0.0301	0.0044
26	4	0.0038	0.0368	0.0050	0.0253	0.0373	0.0050
26	5	0.0040	0.0448	0.0055	0.0267	0.0454	0.0055
26	6	0.0084	0.0255	0.0039	0.0202	0.0277	0.0039
26	7	0.0074	0.0185	0.0033	0.0157	0.0204	0.0033
26	8	0.0051	0.0140	0.0029	0.0118	0.0158	0.0029
26	9	0.0053	0.0125	0.0029	0.0139	0.0138	0.0029
26	10	0.0045	0.0128	0.0030	0.0156	0.0137	0.0030
26	11	0.0043	0.0135	0.0030	0.0169	0.0144	0.0030
26	12	0.0032	0.0152	0.0032	0.0187	0.0157	0.0032
27	1	0.0026	0.0180	0.0033	0.0198	0.0183	0.0033
27	2	0.0024	0.0212	0.0036	0.0207	0.0215	0.0036
27	3	0.0029	0.0245	0.0039	0.0220	0.0248	0.0039
27	4	0.0043	0.0279	0.0045	0.0240	0.0285	0.0045
27	5	0.0044	0.0352	0.0049	0.0257	0.0359	0.0049
27	6	0.0046	0.0401	0.0052	0.0270	0.0409	0.0052
27	7	0.0055	0.0388	0.0050	0.0280	0.0398	0.0050
27	8	0.0086	0.0217	0.0037	0.0204	0.0239	0.0037
27	9	0.0070	0.0184	0.0033	0.0173	0.0201	0.0033
27	10	0.0046	0.0185	0.0032	0.0181	0.0194	0.0032
27	11	0.0048	0.0170	0.0032	0.0178	0.0181	0.0032
27	12	0.0034	0.0178	0.0033	0.0197	0.0183	0.0033
28	1	0.0025	0.0205	0.0035	0.0206	0.0207	0.0035
28	2	0.0024	0.0237	0.0037	0.0215	0.0239	0.0037
28	3	0.0027	0.0272	0.0041	0.0226	0.0274	0.0041
28	4	0.0037	0.0323	0.0048	0.0243	0.0327	0.0048
28	5	0.0042	0.0413	0.0053	0.0259	0.0418	0.0053
28	6	0.0045	0.0464	0.0055	0.0272	0.0471	0.0055
28	7	0.0061	0.0403	0.0050	0.0280	0.0415	0.0050
28	8	0.0074	0.0281	0.0042	0.0276	0.0298	0.0042
28	9	0.0070	0.0227	0.0037	0.0249	0.0244	0.0037
28	10	0.0054	0.0227	0.0036	0.0261	0.0238	0.0036
28	11	0.0039	0.0245	0.0038	0.0269	0.0252	0.0038
28	12	0.0032	0.0285	0.0042	0.0276	0.0289	0.0042
29	1	0.0047	0.0313	0.0047	0.0287	0.0320	0.0047
29	2	0.0039	0.0406	0.0052	0.0297	0.0411	0.0052
29	3	0.0039	0.0490	0.0058	0.0306	0.0495	0.0058
29	4	0.0043	0.0547	0.0061	0.0311	0.0554	0.0061
29	5	0.0050	0.0534	0.0059	0.0312	0.0543	0.0059
29	6	0.0048	0.0535	0.0060	0.0313	0.0542	0.0060

(6) Dissolved Matters Run-3, Run-4 (8/8)

Y	M	Cu	Zn	As	Cu	Zn	As
29	7	0.0059	0.0462	0.0054	0.0307	0.0474	0.0054
29	8	0.0074	0.0312	0.0044	0.0291	0.0330	0.0044
29	9	0.0082	0.0200	0.0035	0.0204	0.0220	0.0035
29	10	0.0047	0.0214	0.0035	0.0224	0.0223	0.0035
29	11	0.0041	0.0217	0.0035	0.0239	0.0225	0.0035
29	12	0.0036	0.0227	0.0036	0.0249	0.0233	0.0036
30	1	0.0032	0.0246	0.0037	0.0257	0.0251	0.0037
30	2	0.0032	0.0270	0.0040	0.0264	0.0274	0.0040
30	3	0.0051	0.0267	0.0044	0.0277	0.0276	0.0044
30	4	0.0054	0.0307	0.0046	0.0286	0.0317	0.0046
30	5	0.0053	0.0333	0.0048	0.0292	0.0343	0.0048
30	6	0.0062	0.0313	0.0045	0.0292	0.0326	0.0045
30	7	0.0072	0.0245	0.0040	0.0289	0.0262	0.0040
30	8	0.0075	0.0198	0.0036	0.0252	0.0216	0.0036
30	9	0.0077	0.0158	0.0031	0.0180	0.0177	0.0031
30	10	0.0046	0.0168	0.0031	0.0187	0.0178	0.0031
30	11	0.0036	0.0176	0.0032	0.0206	0.0182	0.0032
30	12	0.0034	0.0188	0.0033	0.0220	0.0194	0.0033
31	1	0.0030	0.0208	0.0035	0.0230	0.0212	0.0035
31	2	0.0026	0.0234	0.0036	0.0238	0.0237	0.0036
31	3	0.0031	0.0255	0.0039	0.0247	0.0259	0.0039
31	4	0.0042	0.0276	0.0043	0.0261	0.0282	0.0043
31	5	0.0051	0.0313	0.0047	0.0275	0.0321	0.0047
31	6	0.0060	0.0317	0.0046	0.0283	0.0329	0.0046
31	7	0.0072	0.0254	0.0041	0.0284	0.0271	0.0041
31	8	0.0064	0.0241	0.0040	0.0287	0.0255	0.0040
31	9	0.0062	0.0230	0.0038	0.0287	0.0244	0.0038
31	10	0.0052	0.0248	0.0040	0.0290	0.0258	0.0040
31	11	0.0049	0.0279	0.0045	0.0298	0.0287	0.0045
31	12	0.0049	0.0346	0.0049	0.0304	0.0354	0.0049

(7) Dissolved Matters Case 1 (1/2)

Y	M	Cu	Zn	As
1	7	0.0125	0.0062	0.0031
1	8	0.0124	0.0102	0.0029
1	9	0.0133	0.0112	0.0028
1	10	0.0133	0.0117	0.0029
1	11	0.0139	0.0131	0.0030
1	12	0.0141	0.0154	0.0032
2	1	0.0141	0.0179	0.0033
2	2	0.0142	0.0208	0.0035
2	3	0.0143	0.0235	0.0038
2	4	0.0144	0.0270	0.0042
2	5	0.0141	0.0293	0.0043
2	6	0.0138	0.0275	0.0041
2	7	0.0133	0.0209	0.0036
2	8	0.0127	0.0156	0.0032
2	9	0.0133	0.0144	0.0030
2	10	0.0136	0.0139	0.0030
2	11	0.0139	0.0150	0.0031
2	12	0.0141	0.0171	0.0033
3	1	0.0141	0.0195	0.0034
3	2	0.0142	0.0223	0.0036
3	3	0.0143	0.0249	0.0039
3	4	0.0144	0.0282	0.0043
3	5	0.0141	0.0302	0.0043
3	6	0.0138	0.0281	0.0041
3	7	0.0133	0.0211	0.0036
3	8	0.0127	0.0157	0.0032
3	9	0.0133	0.0145	0.0030
3	10	0.0136	0.0139	0.0030
3	11	0.0139	0.0151	0.0031
3	12	0.0141	0.0171	0.0033
4	1	0.0141	0.0196	0.0034
4	2	0.0142	0.0223	0.0036
4	3	0.0143	0.0250	0.0039
4	4	0.0144	0.0283	0.0043
4	5	0.0141	0.0303	0.0044
4	6	0.0138	0.0281	0.0041
4	7	0.0133	0.0211	0.0036
4	8	0.0127	0.0157	0.0032
4	9	0.0133	0.0145	0.0030
4	10	0.0136	0.0140	0.0030
4	11	0.0139	0.0151	0.0031
4	12	0.0141	0.0171	0.0033
5	1	0.0141	0.0196	0.0034
5	2	0.0142	0.0224	0.0036
5	3	0.0143	0.0250	0.0039
5	4	0.0144	0.0283	0.0043
5	5	0.0141	0.0304	0.0044
5	6	0.0138	0.0281	0.0041

(7) Dissolved Matters Case 1 (2/2)

Y	M	Cu	Zn	As
5	7	0.0133	0.0210	0.0036
5	8	0.0127	0.0157	0.0032
5	9	0.0133	0.0145	0.0030
5	10	0.0136	0.0140	0.0030
5	11	0.0139	0.0151	0.0031
5	12	0.0141	0.0172	0.0033
6	1	0.0141	0.0196	0.0034
6	2	0.0142	0.0224	0.0036
6	3	0.0143	0.0251	0.0039
6	4	0.0144	0.0284	0.0043
6	5	0.0141	0.0304	0.0044
6	6	0.0138	0.0281	0.0041
6	7	0.0133	0.0210	0.0036
6	8	0.0127	0.0157	0.0032
6	9	0.0133	0.0145	0.0030
6	10	0.0136	0.0140	0.0030
6	11	0.0139	0.0151	0.0031
6	12	0.0141	0.0172	0.0033

(8) Dissolved Matters Case 2, Case 3 (1/3)

Y	M	Cu	Zn	As	Cu	Zn	As
21	7	0.0076	0.0198	0.0036	0.0076	0.0198	0.0036
21	8	0.0074	0.0154	0.0031	0.0074	0.0154	0.0031
21	9	0.0056	0.0146	0.0030	0.0056	0.0146	0.0030
21	10	0.0047	0.0139	0.0030	0.0047	0.0139	0.0030
21	11	0.0035	0.0151	0.0031	0.0035	0.0151	0.0031
21	12	0.0028	0.0173	0.0033	0.0028	0.0173	0.0033
22	1	0.0018	0.0200	0.0032	0.0023	0.0199	0.0034
22	2	0.0018	0.0190	0.0032	0.0022	0.0227	0.0037
22	3	0.0021	0.0178	0.0031	0.0026	0.0253	0.0040
22	4	0.0025	0.0160	0.0030	0.0032	0.0287	0.0045
22	5	0.0025	0.0131	0.0028	0.0046	0.0305	0.0045
22	6	0.0025	0.0104	0.0027	0.0056	0.0271	0.0042
22	7	0.0025	0.0082	0.0025	0.0072	0.0194	0.0036
22	8	0.0024	0.0078	0.0025	0.0072	0.0152	0.0031
22	9	0.0021	0.0078	0.0024	0.0055	0.0144	0.0030
22	10	0.0019	0.0073	0.0024	0.0045	0.0137	0.0030
22	11	0.0018	0.0072	0.0024	0.0033	0.0148	0.0031
22	12	0.0018	0.0071	0.0025	0.0025	0.0170	0.0032
23	1	0.0018	0.0071	0.0025	0.0023	0.0196	0.0034
23	2	0.0018	0.0071	0.0025	0.0022	0.0225	0.0036
23	3	0.0021	0.0072	0.0025	0.0026	0.0252	0.0040
23	4	0.0025	0.0072	0.0025	0.0033	0.0286	0.0045
23	5	0.0025	0.0071	0.0025	0.0046	0.0304	0.0045
23	6	0.0025	0.0068	0.0025	0.0056	0.0271	0.0042
23	7	0.0025	0.0066	0.0024	0.0072	0.0193	0.0036
23	8	0.0024	0.0072	0.0024	0.0072	0.0151	0.0031
23	9	0.0021	0.0074	0.0024	0.0055	0.0144	0.0030
23	10	0.0019	0.0070	0.0024	0.0045	0.0137	0.0030
23	11	0.0018	0.0069	0.0024	0.0033	0.0148	0.0031
23	12	0.0018	0.0069	0.0024	0.0025	0.0170	0.0032
24	1	0.0018	0.0069	0.0024	0.0023	0.0196	0.0034
24	2	0.0018	0.0070	0.0025	0.0022	0.0225	0.0036
24	3	0.0021	0.0071	0.0025	0.0026	0.0252	0.0040
24	4	0.0025	0.0071	0.0025	0.0033	0.0286	0.0045
24	5	0.0025	0.0070	0.0025	0.0047	0.0304	0.0045
24	6	0.0025	0.0068	0.0025	0.0056	0.0270	0.0042
24	7	0.0025	0.0066	0.0024	0.0073	0.0193	0.0036
24	8	0.0024	0.0072	0.0024	0.0072	0.0151	0.0031
24	9	0.0021	0.0074	0.0024	0.0055	0.0143	0.0030
24	10	0.0019	0.0071	0.0024	0.0045	0.0137	0.0030
24	11	0.0018	0.0070	0.0024	0.0033	0.0148	0.0031
24	12	0.0018	0.0069	0.0024	0.0025	0.0170	0.0032
25	1	0.0018	0.0070	0.0024	0.0023	0.0196	0.0034
25	2	0.0018	0.0070	0.0025	0.0022	0.0225	0.0036
25	3	0.0021	0.0071	0.0025	0.0026	0.0252	0.0040
25	4	0.0025	0.0071	0.0025	0.0033	0.0286	0.0045
25	5	0.0025	0.0070	0.0025	0.0047	0.0304	0.0045
25	6	0.0025	0.0068	0.0025	0.0056	0.0270	0.0042

(8) Dissolved Matters Case 2, Case 3 (2/3)

Y	M	Cu	Zn	As	Cu	Zn	As
25	7	0.0025	0.0066	0.0024	0.0073	0.0193	0.0036
25	8	0.0024	0.0072	0.0024	0.0072	0.0150	0.0031
25	9	0.0021	0.0075	0.0024	0.0055	0.0143	0.0030
25	10	0.0020	0.0071	0.0024	0.0045	0.0136	0.0030
25	11	0.0019	0.0070	0.0024	0.0033	0.0148	0.0031
25	12	0.0018	0.0070	0.0024	0.0025	0.0170	0.0032
26	1	0.0018	0.0070	0.0024	0.0023	0.0196	0.0034
26	2	0.0019	0.0070	0.0025	0.0022	0.0225	0.0036
26	3	0.0021	0.0071	0.0025	0.0026	0.0251	0.0040
26	4	0.0025	0.0072	0.0025	0.0033	0.0286	0.0045
26	5	0.0026	0.0070	0.0025	0.0047	0.0304	0.0045
26	6	0.0025	0.0068	0.0025	0.0056	0.0270	0.0042
26	7	0.0025	0.0066	0.0024	0.0073	0.0192	0.0036
26	8	0.0024	0.0072	0.0024	0.0072	0.0150	0.0031
26	9	0.0021	0.0075	0.0024	0.0055	0.0143	0.0030
26	10	0.0020	0.0071	0.0024	0.0045	0.0142	0.0030
26	11	0.0019	0.0070	0.0024	0.0033	0.0147	0.0031
26	12	0.0018	0.0070	0.0024	0.0025	0.0169	0.0032
27	1	0.0018	0.0070	0.0024	0.0024	0.0196	0.0034
27	2	0.0019	0.0070	0.0025	0.0023	0.0225	0.0036
27	3	0.0021	0.0071	0.0025	0.0026	0.0251	0.0040
27	4	0.0026	0.0072	0.0025	0.0033	0.0286	0.0045
27	5	0.0026	0.0070	0.0025	0.0047	0.0304	0.0045
27	6	0.0025	0.0068	0.0025	0.0057	0.0269	0.0042
27	7	0.0025	0.0066	0.0024	0.0073	0.0192	0.0036
27	8	0.0024	0.0073	0.0034	0.0072	0.0150	0.0031
27	9	0.0021	0.0075	0.0024	0.0055	0.0142	0.0030
27	10	0.0020	0.0071	0.0024	0.0045	0.0136	0.0030
27	11	0.0019	0.0070	0.0024	0.0033	0.0147	0.0031
27	12	0.0018	0.0070	0.0024	0.0025	0.0169	0.0032
28	1	0.0018	0.0070	0.0024	0.0024	0.0196	0.0034
28	2	0.0019	0.0070	0.0025	0.0023	0.0225	0.0037
28	3	0.0022	0.0071	0.0025	0.0026	0.0251	0.0040
28	4	0.0026	0.0072	0.0025	0.0033	0.0286	0.0045
28	5	0.0026	0.0070	0.0025	0.0047	0.0304	0.0045
28	6	0.0026	0.0068	0.0025	0.0057	0.0269	0.0042
28	7	0.0026	0.0066	0.0024	0.0073	0.0191	0.0036
28	8	0.0024	0.0073	0.0024	0.0072	0.0149	0.0031
28	9	0.0021	0.0076	0.0024	0.0055	0.0142	0.0030
28	10	0.0020	0.0072	0.0024	0.0045	0.0135	0.0030
28	11	0.0019	0.0070	0.0024	0.0033	0.0147	0.0031
28	12	0.0018	0.0070	0.0024	0.0025	0.0169	0.0032
29	1	0.0018	0.0070	0.0024	0.0024	0.0195	0.0034
29	2	0.0019	0.0071	0.0025	0.0023	0.0225	0.0037
29	3	0.0022	0.0071	0.0025	0.0026	0.0251	0.0040
29	4	0.0026	0.0072	0.0025	0.0033	0.0286	0.0045
29	5	0.0026	0.0070	0.0025	0.0047	0.0304	0.0045
29	6	0.0026	0.0068	0.0025	0.0057	0.0269	0.0042

(8) Dissolved Matters Case 2, Case 3 (3/3)

Y	M	Cu	Zn	As	Cu	Zn	As
29	7	0.0026	0.0066	0.0024	0.0073	0.0191	0.0035
29	8	0.0024	0.0073	0.0024	0.0072	0.0149	0.0031
29	9	0.0021	0.0076	0.0024	0.0055	0.0141	0.0030
29	10	0.0020	0.0072	0.0024	0.0045	0.0135	0.0030
29	11	0.0019	0.0070	0.0024	0.0033	0.0147	0.0031
29	12	0.0018	0.0070	0.0024	0.0025	0.0169	0.0032
30	1	0.0018	0.0070	0.0024	0.0024	0.0195	0.0034
30	2	0.0019	0.0071	0.0025	0.0023	0.0225	0.0037
30	3	0.0022	0.0071	0.0025	0.0026	0.0251	0.0040
30	4	0.0026	0.0072	0.0025	0.0033	0.0286	0.0045
30	5	0.0026	0.0070	0.0025	0.0047	0.0304	0.0045
30	6	0.0026	0.0068	0.0025	0.0057	0.0269	0.0042
30	7	0.0026	0.0066	0.0024	0.0074	0.0190	0.0035
30	8	0.0024	0.0074	0.0024	0.0072	0.0148	0.0031
30	9	0.0021	0.0076	0.0024	0.0055	0.0141	0.0030
30	10	0.0020	0.0072	0.0024	0.0045	0.0135	0.0030
30	11	0.0019	0.0070	0.0024	0.0033	0.0146	0.0031
30	12	0.0018	0.0070	0.0024	0.0025	0.0169	0.0032
31	1	0.0018	0.0070	0.0024	0.0024	0.0195	0.0034
31	2	0.0019	0.0071	0.0025	0.0023	0.0225	0.0037
31	3	0.0022	0.0071	0.0025	0.0026	0.0251	0.0040
31	4	0.0026	0.0072	0.0025	0.0033	0.0286	0.0045
31	5	0.0026	0.0070	0.0025	0.0048	0.0304	0.0045
31	6	0.0026	0.0068	0.0025	0.0057	0.0268	0.0042
31	7	0.0026	0.0066	0.0024	0.0074	0.0190	0.0035
31	8	0.0025	0.0074	0.0024	0.0072	0.0148	0.0031
31	9	0.0021	0.0077	0.0024	0.0055	0.0141	0.0030
31	10	0.0020	0.0072	0.0024	0.0045	0.0134	0.0030
31	11	0.0019	0.0071	0.0024	0.0033	0.0146	0.0031
31	12	0.0018	0.0070	0.0024	0.0025	0.0169	0.0032

(9) Suspended Solids Run-1 (Soluble) (1/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
1	9	1099	4.7	303	88	391	7.6	1.6	0.0	3.5	0.5	0.0	123	53	0
1	10	1647	3.9	397	122	519	7.2	1.4	0.0	3.3	0.4	0.0	120	52	0
1	11	3056	2.9	662	226	888	6.5	1.0	0.0	3.0	0.2	0.0	114	49	0
1	12	3743	2.6	787	0	787	6.3	1.1	0.0	2.9	0.2	0.0	155	65	0
2	1	2254	3.3	551	0	551	6.8	2.1	0.0	3.1	0.4	0.0	172	68	0
2	2	1422	3.8	475	0	475	7.1	3.1	0.0	3.3	0.5	0.0	189	70	0
2	3	1028	3.8	558	0	558	7.1	3.3	0.0	3.3	0.6	0.0	193	73	0
2	4	2117	2.0	2245	0	2245	5.8	0.8	0.0	2.7	0.2	0.0	151	65	0
2	5	1038	2.8	1222	0	1222	6.4	1.8	0.0	3.0	0.4	0.0	168	68	0
2	6	719	3.4	899	292	1192	6.8	2.2	0.0	3.1	0.4	0.0	132	52	0
2	7	880	3.1	994	331	1326	6.6	1.3	0.0	3.1	0.3	0.0	118	50	0
2	8	1908	2.8	965	334	1300	6.4	0.7	0.0	3.0	0.2	0.0	109	48	0
2	9	1053	4.9	274	78	352	7.8	2.7	0.0	3.6	0.5	0.0	138	54	0
2	10	1641	4.0	397	122	519	7.2	1.8	0.0	3.3	0.4	0.0	126	52	0
2	11	3044	2.9	663	226	889	6.5	1.2	0.0	3.0	0.2	0.0	117	49	0
2	12	3729	2.6	787	0	787	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
3	1	2244	3.3	552	0	552	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
3	2	1414	3.9	476	0	476	7.1	3.4	0.0	3.3	0.5	0.0	193	70	0
3	3	1025	3.8	562	0	562	7.1	3.5	0.0	3.3	0.6	0.0	196	73	0
3	4	2096	2.0	2249	0	2249	5.8	0.9	0.0	2.7	0.2	0.0	152	65	0
3	5	1028	2.8	1224	0	1224	6.4	1.8	0.0	3.0	0.4	0.0	169	68	0
3	6	712	3.4	901	292	1193	6.8	2.3	0.0	3.2	0.4	0.0	133	52	0
3	7	873	3.1	996	332	1328	6.6	1.3	0.0	3.1	0.3	0.0	118	50	0
3	8	1877	2.8	956	330	1286	6.4	0.7	0.0	3.0	0.2	0.0	109	48	0
3	9	1049	4.9	274	78	352	7.8	2.7	0.0	3.6	0.5	0.0	138	54	0
3	10	1635	4.0	398	122	519	7.2	1.8	0.0	3.3	0.4	0.0	126	52	0
3	11	3033	2.9	663	226	889	6.5	1.2	0.0	3.0	0.2	0.0	117	49	0
3	12	3715	2.6	788	0	788	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
4	1	2235	3.3	552	0	552	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
4	2	1406	3.9	476	0	476	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
4	3	1023	3.8	566	0	566	7.1	3.5	0.0	3.3	0.6	0.0	196	73	0
4	4	2076	2.0	2254	0	2254	5.8	0.9	0.0	2.7	0.2	0.0	152	65	0
4	5	1017	2.8	1226	0	1226	6.4	1.8	0.0	3.0	0.4	0.0	169	68	0
4	6	705	3.4	902	292	1195	6.8	2.3	0.0	3.2	0.5	0.0	133	52	0
4	7	865	3.1	998	332	1330	6.7	1.3	0.0	3.1	0.3	0.0	118	50	0
4	8	1846	2.8	947	326	1273	6.4	0.7	0.0	3.0	0.2	0.0	109	48	0
4	9	1045	5.0	274	78	352	7.8	2.7	0.0	3.6	0.5	0.0	138	54	0
4	10	1629	4.0	398	122	520	7.2	1.8	0.0	3.3	0.4	0.0	126	52	0
4	11	3021	2.9	664	226	890	6.5	1.2	0.0	3.0	0.2	0.0	117	49	0
4	12	3701	2.6	788	0	788	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
5	1	2225	3.3	552	0	552	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
5	2	1397	3.9	476	0	476	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
5	3	1021	3.8	570	0	570	7.1	3.5	0.0	3.3	0.6	0.0	195	73	0
5	4	2055	2.0	2258	0	2258	5.8	0.9	0.0	2.7	0.2	0.0	152	65	0
5	5	1007	2.8	1228	0	1228	6.4	1.8	0.0	3.0	0.4	0.0	169	68	0
5	6	698	3.4	904	292	1196	6.8	2.3	0.0	3.2	0.5	0.0	133	53	0

(9) Suspended Solids Run-I (Soluble) (2/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
5	7	857	3.2	1000	332	1332	6.7	1.3	0.0	3.1	0.3	0.0	118	50	0
5	8	1817	2.8	939	322	1261	6.4	0.7	0.0	3.0	0.2	0.0	109	48	0
5	9	1041	5.0	274	78	352	7.8	2.7	0.0	3.6	0.5	0.0	138	54	0
5	10	1623	4.0	398	122	520	7.2	1.8	0.0	3.3	0.4	0.0	126	52	0
5	11	3010	2.9	664	226	890	6.5	1.2	0.0	3.0	0.2	0.0	117	49	0
5	12	3687	2.6	788	0	788	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
6	1	2216	3.3	553	0	553	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
6	2	1389	3.9	476	0	476	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
6	3	1018	3.8	574	0	574	7.1	3.5	0.0	3.3	0.6	0.0	195	73	0
6	4	2035	2.0	2263	0	2263	5.9	0.9	0.0	2.7	0.2	0.0	152	65	0
6	5	997	2.9	1230	0	1230	6.4	1.8	0.0	3.0	0.4	0.0	169	68	0
6	6	691	3.4	906	292	1198	6.8	2.3	0.0	3.2	0.5	0.0	133	53	0
6	7	850	3.2	1002	332	1334	6.7	1.3	0.0	3.1	0.3	0.0	118	50	0
6	8	1788	2.9	930	318	1248	6.5	0.7	0.0	3.0	0.2	0.0	109	48	0
6	9	1037	5.0	274	78	353	7.8	2.7	0.0	3.6	0.5	0.0	138	54	0
6	10	1617	4.0	398	122	520	7.2	1.8	0.0	3.3	0.4	0.0	126	52	0
6	11	2998	2.9	664	226	890	6.5	1.2	0.0	3.0	0.2	0.0	117	49	0
6	12	3673	2.6	789	0	789	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
7	1	2207	3.3	553	0	553	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
7	2	1381	3.9	477	0	477	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
7	3	1016	3.8	578	0	578	7.1	3.4	0.0	3.3	0.6	0.0	195	73	0
7	4	2014	2.0	2266	0	2266	5.9	0.9	0.0	2.7	0.2	0.0	152	65	0
7	5	987	2.9	1232	0	1232	6.5	1.8	0.0	3.0	0.4	0.0	169	68	0
7	6	684	3.4	907	292	1200	6.9	2.3	0.0	3.2	0.5	0.0	133	53	0
7	7	842	3.2	1004	332	1336	6.7	1.3	0.0	3.1	0.3	0.0	118	50	0
7	8	1760	2.9	922	315	1236	6.5	0.7	0.0	3.0	0.2	0.0	109	48	0
7	9	1033	5.0	275	78	353	7.8	2.7	0.0	3.6	0.5	0.0	137	54	0
7	10	1610	4.0	399	122	520	7.2	1.8	0.0	3.3	0.4	0.0	126	52	0
7	11	2987	2.9	665	226	891	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
7	12	3659	2.6	789	0	789	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
8	1	2197	3.3	553	0	553	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
8	2	1373	3.9	477	0	477	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
8	3	1014	3.8	582	0	582	7.1	3.4	0.0	3.3	0.7	0.0	195	73	0
8	4	1994	2.0	2269	0	2269	5.9	0.9	0.0	2.7	0.2	0.0	152	66	0
8	5	977	2.9	1234	0	1234	6.5	1.8	0.0	3.0	0.4	0.0	169	68	0
8	6	677	3.5	909	292	1201	6.9	2.3	0.0	3.2	0.5	0.0	133	53	0
8	7	835	3.2	1006	332	1338	6.7	1.3	0.0	3.1	0.3	0.0	118	50	0
8	8	1732	2.9	914	311	1225	6.5	0.7	0.0	3.0	0.2	0.0	109	48	0
8	9	1029	5.0	275	78	353	7.8	2.7	0.0	3.6	0.5	0.0	137	54	0
8	10	1604	4.0	399	122	521	7.3	1.8	0.0	3.4	0.4	0.0	126	52	0
8	11	2975	2.9	665	226	891	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
8	12	3644	2.7	790	0	790	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
9	1	2188	3.4	554	0	554	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
9	2	1365	3.9	477	0	477	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
9	3	1011	3.8	586	0	586	7.1	3.4	0.0	3.3	0.7	0.0	194	73	0
9	4	1973	2.0	2272	0	2272	5.9	0.9	0.0	2.7	0.2	0.0	152	66	0
9	5	967	2.9	1236	0	1236	6.5	1.8	0.0	3.0	0.4	0.0	169	69	0
9	6	670	3.5	911	292	1203	6.9	2.3	0.0	3.2	0.5	0.0	133	53	0

(9) Suspended Solids Run-1 (Soluble) (3/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
9	7	827	3.2	1008	332	1340	6.7	1.3	0.0	3.1	0.3	0.0	118	50	0
9	8	1705	2.9	906	307	1213	6.5	0.8	0.0	3.0	0.2	0.0	109	48	0
9	9	1025	5.0	275	78	353	7.8	2.6	0.0	3.6	0.5	0.0	137	54	0
9	10	1598	4.0	399	122	521	7.3	1.8	0.0	3.4	0.4	0.0	126	52	0
9	11	2964	2.9	666	226	892	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
9	12	3630	2.7	790	0	790	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
10	1	2179	3.4	554	0	554	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
10	2	1357	3.9	477	0	477	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
10	3	1009	3.8	590	0	590	7.1	3.4	0.0	3.3	0.7	0.0	194	73	0
10	4	1953	2.0	2275	0	2275	5.9	0.9	0.0	2.7	0.2	0.0	152	66	0
10	5	957	2.9	1238	0	1238	6.5	1.9	0.0	3.0	0.4	0.0	169	69	0
10	6	663	3.5	912	292	1205	6.9	2.3	0.0	3.2	0.5	0.0	133	53	0
10	7	819	3.2	1010	332	1342	6.7	1.3	0.0	3.1	0.3	0.0	118	50	0
10	8	1679	3.0	898	304	1202	6.5	0.8	0.0	3.0	0.2	0.0	110	48	0
10	9	1021	5.0	275	78	353	7.8	2.6	0.0	3.6	0.5	0.0	137	54	0
10	10	1592	4.0	399	122	521	7.3	1.8	0.0	3.4	0.4	0.0	126	52	0
10	11	2952	2.9	666	226	892	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
10	12	3616	2.7	791	0	791	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
11	1	2169	3.4	554	0	554	6.8	2.3	0.0	3.1	0.4	0.0	176	68	0
11	2	1349	3.9	478	0	478	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
11	3	1006	3.8	595	0	595	7.1	3.4	0.0	3.3	0.7	0.0	194	73	0
11	4	1932	2.0	2278	0	2278	5.9	0.9	0.0	2.7	0.2	0.0	152	66	0
11	5	947	2.9	1240	0	1240	6.5	1.9	0.0	3.0	0.4	0.0	169	69	0
11	6	656	3.5	914	292	1206	6.9	2.3	0.0	3.2	0.5	0.0	133	53	0
11	7	812	3.2	1012	333	1344	6.7	1.3	0.0	3.1	0.3	0.0	117	50	0
11	8	1653	3.0	890	300	1191	6.6	0.8	0.0	3.0	0.2	0.0	110	48	0
11	9	1017	5.0	275	78	353	7.8	2.6	0.0	3.6	0.5	0.0	137	54	0
11	10	1586	4.0	400	122	521	7.3	1.8	0.0	3.4	0.4	0.0	126	52	0
11	11	2941	3.0	666	226	892	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
11	12	3602	2.7	791	0	791	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
12	1	2160	3.4	555	0	555	6.8	2.3	0.0	3.2	0.4	0.0	176	68	0
12	2	1340	3.9	478	0	478	7.2	3.4	0.0	3.3	0.5	0.0	194	70	0
12	3	1004	3.8	599	0	599	7.1	3.4	0.0	3.3	0.7	0.0	194	73	0
12	4	1912	2.1	2281	0	2281	5.9	0.9	0.0	2.7	0.2	0.0	152	66	0
12	5	937	2.9	1242	0	1242	6.5	1.9	0.0	3.0	0.4	0.0	169	69	0
12	6	649	3.5	916	292	1208	6.9	2.3	0.0	3.2	0.5	0.0	133	53	0
12	7	804	3.3	1014	333	1346	6.7	1.3	0.0	3.1	0.3	0.0	117	50	0
12	8	1628	3.0	883	297	1180	6.6	0.8	0.0	3.0	0.2	0.0	110	48	0
12	9	1013	5.0	276	78	354	7.8	2.6	0.0	3.6	0.5	0.0	137	54	0
12	10	1579	4.0	400	122	522	7.3	1.8	0.0	3.4	0.4	0.0	126	52	0
12	11	2930	3.0	667	226	893	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
12	12	3588	2.7	792	0	792	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
13	1	2150	3.4	555	0	555	6.8	2.3	0.0	3.2	0.4	0.0	176	68	0
13	2	1332	4.0	478	0	478	7.2	3.4	0.0	3.3	0.5	0.0	194	71	0
13	3	1001	3.8	604	0	604	7.1	3.4	0.0	3.3	0.7	0.0	193	73	0
13	4	1892	2.1	2284	0	2284	5.9	0.9	0.0	2.7	0.2	0.0	152	66	0
13	5	927	3.0	1244	0	1244	6.5	1.9	0.0	3.0	0.4	0.0	169	69	0
13	6	642	3.6	917	292	1210	6.9	2.3	0.0	3.2	0.5	0.0	133	53	0

(9) Suspended Solids Run-1 (Soluble) (4/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
13	7	797	3.3	1016	333	1349	6.7	1.3	0.0	3.1	0.3	0.0	117	50	0
13	8	1604	3.0	876	294	1170	6.6	0.8	0.0	3.0	0.2	0.0	110	49	0
13	9	1009	5.0	276	78	354	7.8	2.6	0.0	3.6	0.5	0.0	136	54	0
13	10	1573	4.0	400	122	522	7.3	1.8	0.0	3.4	0.4	0.0	126	52	0
13	11	2918	3.0	667	226	893	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
13	12	3574	2.7	792	0	792	6.3	1.3	0.0	2.9	0.2	0.0	158	65	0
14	1	2141	3.4	555	0	555	6.8	2.3	0.0	3.2	0.4	0.0	176	68	0
14	2	1324	4.0	479	0	479	7.2	3.5	0.0	3.3	0.5	0.0	194	71	0
14	3	998	3.8	608	0	608	7.1	3.3	0.0	3.3	0.7	0.0	193	73	0
14	4	1871	2.1	2287	0	2287	5.9	0.9	0.0	2.7	0.2	0.0	152	66	0
14	5	917	3.0	1246	0	1246	6.5	1.9	0.0	3.0	0.4	0.0	169	69	0
14	6	635	3.6	919	292	1212	7.0	2.3	0.0	3.2	0.5	0.0	133	53	0
14	7	789	3.3	1018	333	1351	6.8	1.2	0.0	3.1	0.3	0.0	117	50	0
14	8	1580	3.1	869	291	1159	6.6	0.8	0.0	3.1	0.2	0.0	110	49	0
14	9	1005	5.1	276	78	354	7.8	2.6	0.0	3.6	0.5	0.0	136	54	0
14	10	1567	4.0	400	122	522	7.3	1.8	0.0	3.4	0.4	0.0	125	52	0
14	11	2907	3.0	668	226	894	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
14	12	3560	2.7	793	0	793	6.3	1.3	0.0	2.9	0.2	0.0	158	66	0
15	1	2132	3.4	556	0	556	6.8	2.3	0.0	3.2	0.4	0.0	176	68	0
15	2	1316	4.0	479	0	479	7.2	3.5	0.0	3.3	0.5	0.0	194	71	0
15	3	996	3.8	613	0	613	7.1	3.3	0.0	3.3	0.7	0.0	193	73	0
15	4	1851	2.1	2291	0	2291	5.9	0.9	0.0	2.7	0.2	0.0	153	66	0
15	5	907	3.0	1249	0	1249	6.5	1.9	0.0	3.0	0.4	0.0	169	69	0
15	6	628	3.6	921	292	1214	7.0	2.3	0.0	3.2	0.5	0.0	133	53	0
15	7	781	3.3	1020	333	1353	6.8	1.2	0.0	3.1	0.3	0.0	117	51	0
15	8	1556	3.1	862	288	1149	6.6	0.8	0.0	3.1	0.2	0.0	110	49	0
15	9	1001	5.1	276	78	354	7.8	2.6	0.0	3.6	0.5	0.0	136	54	0
15	10	1561	4.1	401	122	522	7.3	1.8	0.0	3.4	0.4	0.0	125	52	0
15	11	2895	3.0	668	226	894	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
15	12	3546	2.7	793	0	793	6.3	1.3	0.0	2.9	0.2	0.0	158	66	0
16	1	2122	3.4	556	0	556	6.8	2.3	0.0	3.2	0.4	0.0	177	68	0
16	2	1308	4.0	479	0	479	7.2	3.5	0.0	3.3	0.5	0.0	195	71	0
16	3	993	3.8	617	0	617	7.1	3.3	0.0	3.3	0.7	0.0	193	73	0
16	4	1830	2.1	2294	0	2294	5.9	0.9	0.0	2.7	0.2	0.0	153	66	0
16	5	896	3.0	1251	0	1251	6.6	1.9	0.0	3.0	0.4	0.0	169	69	0
16	6	621	3.6	923	292	1215	7.0	2.3	0.0	3.2	0.5	0.0	133	53	0
16	7	774	3.3	1022	333	1355	6.8	1.2	0.0	3.1	0.3	0.0	117	51	0
16	8	1533	3.1	855	285	1139	6.6	0.8	0.0	3.1	0.2	0.0	110	49	0
16	9	998	5.1	276	78	355	7.8	2.5	0.0	3.6	0.5	0.0	136	54	0
16	10	1555	4.1	401	122	523	7.3	1.8	0.0	3.4	0.4	0.0	125	52	0
16	11	2884	3.0	669	226	895	6.5	1.2	0.0	3.0	0.2	0.0	116	49	0
16	12	3532	2.7	794	0	794	6.3	1.3	0.0	2.9	0.2	0.0	158	66	0
17	1	2113	3.4	557	0	557	6.8	2.3	0.0	3.2	0.4	0.0	177	68	0
17	2	1300	4.0	479	0	479	7.3	3.5	0.0	3.4	0.6	0.0	195	71	0
17	3	990	3.8	622	0	622	7.1	3.3	0.0	3.3	0.7	0.0	192	73	0
17	4	1810	2.1	2297	0	2297	5.9	0.9	0.0	2.7	0.2	0.0	153	66	0
17	5	886	3.0	1253	0	1253	6.6	1.9	0.0	3.0	0.4	0.0	169	69	0
17	6	614	3.6	925	292	1217	7.0	2.3	0.0	3.2	0.5	0.0	133	53	0

(9) Suspended Solids Run-1 (Soluble) (5/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
17	7	766	3.3	1024	333	1358	6.8	1.2	0.0	3.1	0.3	0.0	117	51	0
17	8	1510	3.2	848	282	1130	6.7	0.8	0.0	3.1	0.2	0.0	110	49	0
17	9	994	5.1	277	78	355	7.8	2.5	0.0	3.6	0.5	0.0	136	55	0
17	10	1549	4.1	401	122	523	7.3	1.8	0.0	3.4	0.4	0.0	125	52	0
17	11	2872	3.0	669	226	895	6.5	1.2	0.0	3.0	0.3	0.0	116	49	0
17	12	3518	2.7	794	0	794	6.3	1.3	0.0	2.9	0.2	0.0	158	66	0
18	1	2104	3.4	557	0	557	6.8	2.3	0.0	3.2	0.4	0.0	177	68	0
18	2	1291	4.0	480	0	480	7.3	3.5	0.0	3.4	0.6	0.0	195	71	0
18	3	988	3.8	627	0	627	7.1	3.3	0.0	3.3	0.7	0.0	192	73	0
18	4	1789	2.1	2301	0	2301	5.9	0.9	0.0	2.7	0.2	0.0	153	66	0
18	5	876	3.0	1255	0	1255	6.6	1.9	0.0	3.0	0.4	0.0	169	69	0
18	6	607	3.7	927	292	1219	7.0	2.3	0.0	3.2	0.5	0.0	133	53	0
18	7	758	3.4	1027	333	1360	6.8	1.2	0.0	3.1	0.3	0.0	117	51	0
18	8	1488	3.2	842	279	1120	6.7	0.8	0.0	3.1	0.2	0.0	110	49	0
18	9	990	5.1	277	78	355	7.8	2.5	0.0	3.6	0.5	0.0	135	55	0
18	10	1542	4.1	401	122	523	7.3	1.7	0.0	3.4	0.4	0.0	125	52	0
18	11	2861	3.0	669	226	895	6.5	1.2	0.0	3.0	0.3	0.0	116	49	0
18	12	3503	2.7	794	0	794	6.3	1.3	0.0	2.9	0.2	0.0	158	66	0
19	1	2094	3.4	557	0	557	6.8	2.3	0.0	3.2	0.4	0.0	177	68	0
19	2	1283	4.0	480	0	480	7.3	3.5	0.0	3.4	0.6	0.0	195	71	0
19	3	985	3.8	632	0	632	7.1	3.3	0.0	3.3	0.7	0.0	192	73	0
19	4	1769	2.1	2304	0	2304	6.0	1.0	0.0	2.7	0.2	0.0	153	66	0
19	5	866	3.1	1258	0	1258	6.6	1.9	0.0	3.0	0.4	0.0	169	69	0
19	6	600	3.7	929	293	1221	7.0	2.3	0.0	3.2	0.5	0.0	133	54	0
19	7	751	3.4	1029	334	1362	6.8	1.2	0.0	3.2	0.3	0.0	117	51	0
19	8	1467	3.2	835	276	1111	6.7	0.8	0.0	3.1	0.2	0.0	110	49	0
19	9	986	5.1	277	78	355	7.8	2.5	0.0	3.6	0.5	0.0	135	55	0
19	10	1536	4.1	402	122	523	7.3	1.7	0.0	3.4	0.4	0.0	125	52	0
19	11	2849	3.0	670	226	896	6.6	1.2	0.0	3.0	0.3	0.0	116	49	0
19	12	3489	2.7	795	0	795	6.4	1.3	0.0	2.9	0.2	0.0	157	66	0
20	1	2085	3.4	558	0	558	6.9	2.4	0.0	3.2	0.4	0.0	177	68	0
20	2	1275	4.0	480	0	480	7.3	3.5	0.0	3.4	0.6	0.0	195	71	0
20	3	982	3.8	637	0	637	7.1	3.3	0.0	3.3	0.7	0.0	192	73	0
20	4	1748	2.2	2308	0	2308	6.0	1.0	0.0	2.8	0.2	0.0	153	66	0
20	5	856	3.1	1260	0	1260	6.6	1.9	0.0	3.1	0.4	0.0	170	69	0
20	6	593	3.7	931	293	1223	7.0	2.3	0.0	3.3	0.5	0.0	133	54	0
20	7	743	3.4	1031	334	1365	6.8	1.2	0.0	3.2	0.3	0.0	117	51	0
20	8	1445	3.2	829	273	1102	6.7	0.8	0.0	3.1	0.2	0.0	110	49	0
20	9	982	5.1	277	78	355	7.9	2.5	0.0	3.6	0.5	0.0	135	55	0
20	10	1530	4.1	402	122	524	7.3	1.7	0.0	3.4	0.4	0.0	125	52	0
20	11	2838	3.0	670	226	896	6.6	1.2	0.0	3.0	0.3	0.0	116	49	0
20	12	3475	2.7	795	0	795	6.4	1.3	0.0	2.9	0.2	0.0	157	66	0
21	1	2076	3.4	558	0	558	6.9	2.4	0.0	3.2	0.4	0.0	177	68	0
21	2	1267	4.1	480	0	480	7.3	3.5	0.0	3.4	0.6	0.0	195	71	0
21	3	979	3.8	642	0	642	7.1	3.3	0.0	3.3	0.7	0.0	191	73	0
21	4	1728	2.2	2311	0	2311	6.0	1.0	0.0	2.8	0.2	0.0	153	66	0
21	5	846	3.1	1262	0	1262	6.6	1.9	0.0	3.1	0.4	0.0	170	69	0
21	6	586	3.7	933	460	1393	7.1	2.3	0.0	3.3	0.5	0.0	117	47	0

(9) Suspended Solids Run-1 (Soluble) (6/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
21	7	735	3.4	1033	525	1559	6.8	1.2	0.0	3.2	0.3	0.0	102	45	0
21	8	1424	3.3	823	425	1248	6.7	0.8	0.0	3.1	0.2	0.0	97	43	0
21	9	977	5.1	278	123	400	7.9	2.5	0.0	3.6	0.6	0.0	120	49	0
21	10	1523	4.1	402	192	594	7.3	1.7	0.0	3.4	0.4	0.0	110	46	0
21	11	2825	3.0	671	355	1026	6.6	1.2	0.0	3.0	0.3	0.0	102	43	0
21	12	3459	2.7	796	0	796	6.4	1.3	0.0	2.9	0.2	0.0	157	66	0
22	1	2065	3.4	558	0	558	6.9	2.4	0.0	3.2	0.4	0.0	177	68	0
22	2	1258	4.1	480	0	480	7.3	3.5	0.0	3.4	0.6	0.0	195	71	0
22	3	976	3.8	648	0	648	7.1	3.2	0.0	3.3	0.7	0.0	191	73	0
22	4	1705	2.2	2316	0	2316	6.0	1.0	0.0	2.8	0.3	0.0	153	66	0
22	5	835	3.1	1265	0	1265	6.6	1.9	0.0	3.1	0.4	0.0	170	70	0
22	6	578	3.7	935	460	1395	7.1	2.3	0.0	3.3	0.5	0.0	117	47	0
22	7	727	3.4	1036	525	1562	6.9	1.2	0.0	3.2	0.3	0.0	102	45	0
22	8	1401	3.3	816	420	1236	6.8	0.8	0.0	3.1	0.2	0.0	97	43	0
22	9	973	5.1	278	123	401	7.9	2.4	0.0	3.6	0.6	0.0	119	49	0
22	10	1516	4.1	402	192	594	7.3	1.7	0.0	3.4	0.4	0.0	110	46	0
22	11	2812	3.0	671	355	1027	6.6	1.2	0.0	3.0	0.3	0.0	101	43	0
22	12	3443	2.7	797	0	797	6.4	1.3	0.0	2.9	0.2	0.0	157	66	0
23	1	2054	3.5	559	0	559	6.9	2.4	0.0	3.2	0.4	0.0	177	68	0
23	2	1248	4.1	481	0	481	7.3	3.5	0.0	3.4	0.6	0.0	195	71	0
23	3	972	3.8	654	0	654	7.1	3.2	0.0	3.3	0.7	0.0	191	74	0
23	4	1681	2.2	2320	0	2320	6.0	1.0	0.0	2.8	0.3	0.0	153	66	0
23	5	823	3.1	1268	0	1268	6.6	1.9	0.0	3.1	0.4	0.0	170	70	0
23	6	571	3.8	938	460	1398	7.1	2.3	0.0	3.3	0.5	0.0	117	47	0
23	7	718	3.5	1039	526	1565	6.9	1.2	0.0	3.2	0.3	0.0	102	45	0
23	8	1378	3.3	809	415	1225	6.8	0.8	0.0	3.1	0.2	0.0	97	43	0
23	9	968	5.1	278	123	401	7.9	2.4	0.0	3.6	0.6	0.0	119	49	0
23	10	1509	4.1	403	192	594	7.3	1.7	0.0	3.4	0.4	0.0	110	46	0
23	11	2799	3.0	672	355	1027	6.6	1.2	0.0	3.0	0.3	0.0	101	43	0
23	12	3427	2.7	797	0	797	6.4	1.3	0.0	2.9	0.2	0.0	157	66	0
24	1	2043	3.5	559	0	559	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
24	2	1239	4.1	481	0	481	7.3	3.6	0.0	3.4	0.6	0.0	195	71	0
24	3	969	3.8	660	0	660	7.1	3.2	0.0	3.3	0.7	0.0	191	74	0
24	4	1658	2.2	2324	0	2324	6.0	1.0	0.0	2.8	0.3	0.0	153	66	0
24	5	812	3.2	1271	0	1271	6.7	1.9	0.0	3.1	0.5	0.0	170	70	0
24	6	563	3.8	940	460	1400	7.1	2.3	0.0	3.3	0.5	0.0	117	48	0
24	7	709	3.5	1042	526	1568	6.9	1.2	0.0	3.2	0.3	0.0	102	45	0
24	8	1356	3.3	803	411	1213	6.8	0.8	0.0	3.1	0.2	0.0	97	43	0
24	9	964	5.2	278	123	401	7.9	2.4	0.0	3.6	0.6	0.0	119	49	0
24	10	1502	4.1	403	192	594	7.3	1.7	0.0	3.4	0.4	0.0	110	46	0
24	11	2786	3.0	672	355	1028	6.6	1.2	0.0	3.0	0.3	0.0	101	43	0
24	12	3411	2.7	798	0	798	6.4	1.3	0.0	2.9	0.2	0.0	157	66	0
25	1	2033	3.5	560	0	560	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
25	2	1230	4.1	481	0	481	7.3	3.6	0.0	3.4	0.6	0.0	196	71	0
25	3	965	3.8	667	0	667	7.1	3.2	0.0	3.3	0.7	0.0	190	74	0
25	4	1635	2.2	2329	0	2329	6.0	1.0	0.0	2.8	0.3	0.0	153	67	0
25	5	800	3.2	1274	0	1274	6.7	2.0	0.0	3.1	0.5	0.0	170	70	0
25	6	555	3.8	943	460	1403	7.1	2.3	0.0	3.3	0.5	0.0	117	48	0

(9) Suspended Solids Run-1 (Soluble) (7/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
25	7	700	3.5	1044	526	1571	6.9	1.2	0.0	3.2	0.3	0.0	102	45	0
25	8	1334	3.4	796	406	1202	6.8	0.8	0.0	3.2	0.2	0.0	97	43	0
25	9	959	5.2	279	123	401	7.9	2.4	0.0	3.6	0.6	0.0	119	49	0
25	10	1495	4.1	403	192	595	7.3	1.7	0.0	3.4	0.4	0.0	110	46	0
25	11	2773	3.0	673	355	1028	6.6	1.2	0.0	3.0	0.3	0.0	101	43	0
25	12	3395	2.7	798	0	798	6.4	1.3	0.0	2.9	0.2	0.0	157	66	0
26	1	2022	3.5	560	0	560	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
26	2	1221	4.1	481	0	481	7.3	3.6	0.0	3.4	0.6	0.0	196	72	0
26	3	962	3.8	673	0	673	7.1	3.2	0.0	3.3	0.7	0.0	190	74	0
26	4	1611	2.2	2333	0	2333	6.0	1.0	0.0	2.8	0.3	0.0	153	67	0
26	5	789	3.2	1277	0	1277	6.7	2.0	0.0	3.1	0.5	0.0	170	70	0
26	6	547	3.8	945	460	1406	7.1	2.3	0.0	3.3	0.6	0.0	117	48	0
26	7	692	3.5	1047	526	1574	6.9	1.2	0.0	3.2	0.3	0.0	102	45	0
26	8	1313	3.4	790	402	1192	6.8	0.8	0.0	3.2	0.2	0.0	97	43	0
26	9	955	5.2	279	123	402	7.9	2.4	0.0	3.7	0.6	0.0	119	49	0
26	10	1488	4.2	404	192	595	7.3	1.7	0.0	3.4	0.4	0.0	110	46	0
26	11	2759	3.0	673	355	1029	6.6	1.2	0.0	3.0	0.3	0.0	101	43	0
26	12	3379	2.8	799	0	799	6.4	1.3	0.0	3.0	0.2	0.0	157	66	0
27	1	2011	3.5	561	0	561	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
27	2	1211	4.1	481	0	481	7.3	3.6	0.0	3.4	0.6	0.0	196	72	0
27	3	958	3.8	680	0	680	7.1	3.2	0.0	3.3	0.7	0.0	190	74	0
27	4	1588	2.3	2338	0	2338	6.0	1.0	0.0	2.8	0.3	0.0	153	67	0
27	5	777	3.2	1280	0	1280	6.7	2.0	0.0	3.1	0.5	0.0	170	70	0
27	6	539	3.9	948	460	1408	7.2	2.3	0.0	3.3	0.6	0.0	117	48	0
27	7	683	3.6	1050	527	1577	6.9	1.2	0.0	3.2	0.3	0.0	102	45	0
27	8	1292	3.4	784	397	1181	6.9	0.8	0.0	3.2	0.2	0.0	97	43	0
27	9	950	5.2	279	123	402	7.9	2.4	0.0	3.7	0.6	0.0	118	49	0
27	10	1481	4.2	404	192	595	7.3	1.7	0.0	3.4	0.4	0.0	110	47	0
27	11	2746	3.1	674	355	1029	6.6	1.2	0.0	3.0	0.3	0.0	101	43	0
27	12	3362	2.8	799	0	799	6.4	1.3	0.0	3.0	0.2	0.0	157	66	0
28	1	2001	3.5	561	0	561	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
28	2	1202	4.2	482	0	482	7.3	3.6	0.0	3.4	0.6	0.0	196	72	0
28	3	955	3.8	687	0	687	7.1	3.1	0.0	3.3	0.7	0.0	189	74	0
28	4	1565	2.3	2343	0	2343	6.0	1.0	0.0	2.8	0.3	0.0	154	67	0
28	5	766	3.3	1283	0	1283	6.7	2.0	0.0	3.1	0.5	0.0	170	70	0
28	6	531	3.9	951	460	1411	7.2	2.3	0.0	3.3	0.6	0.0	117	48	0
28	7	674	3.6	1053	527	1580	7.0	1.1	0.0	3.2	0.4	0.0	102	45	0
28	8	1272	3.5	778	393	1171	6.9	0.8	0.0	3.2	0.3	0.0	97	44	0
28	9	946	5.2	279	123	402	7.9	2.3	0.0	3.7	0.6	0.0	118	49	0
28	10	1474	4.2	404	192	596	7.3	1.7	0.0	3.4	0.4	0.0	109	47	0
28	11	2733	3.1	674	355	1030	6.6	1.2	0.0	3.1	0.3	0.0	101	43	0
28	12	3346	2.8	800	0	800	6.4	1.3	0.0	3.0	0.2	0.0	157	66	0
29	1	1990	3.5	561	0	561	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
29	2	1193	4.2	482	0	482	7.3	3.6	0.0	3.4	0.6	0.0	196	72	0
29	3	951	3.8	694	0	694	7.1	3.1	0.0	3.3	0.7	0.0	189	74	0
29	4	1541	2.3	2348	0	2348	6.1	1.0	0.0	2.8	0.3	0.0	154	67	0
29	5	754	3.3	1287	0	1287	6.7	2.0	0.0	3.1	0.5	0.0	170	70	0
29	6	523	3.9	953	460	1414	7.2	2.3	0.0	3.3	0.6	0.0	117	48	0

(9) Suspended Solids Run-1 (Soluble) (8/8)

Y	M	TR	DO	SS MINE	SS NT	SS TOTAL	Cu MINE	Cu OH	Cu NT	Zn MINE	Zn OH	Zn NT	Cu	Zn	As
29	7	665	3.6	1056	527	1584	7.0	1.1	0.0	3.2	0.4	0.0	102	45	0
29	8	1252	3.5	772	389	1161	6.9	0.8	0.0	3.2	0.3	0.0	98	44	0
29	9	941	5.2	280	123	402	7.9	2.3	0.0	3.7	0.6	0.0	118	49	0
29	10	1467	4.2	404	192	596	7.3	1.7	0.0	3.4	0.4	0.0	109	47	0
29	11	2720	3.1	675	355	1030	6.6	1.2	0.0	3.1	0.3	0.0	101	43	0
29	12	3330	2.8	801	0	801	6.4	1.3	0.0	3.0	0.2	0.0	157	66	0
30	1	1979	3.5	562	0	562	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
30	2	1183	4.2	482	0	482	7.3	3.6	0.0	3.4	0.6	0.0	196	72	0
30	3	947	3.8	701	0	701	7.1	3.1	0.0	3.3	0.7	0.0	189	74	0
30	4	1518	2.3	2353	0	2353	6.1	1.0	0.0	2.8	0.3	0.0	154	67	0
30	5	743	3.3	1290	0	1290	6.8	2.0	0.0	3.1	0.5	0.0	170	70	0
30	6	515	4.0	956	460	1417	7.2	2.3	0.0	3.3	0.6	0.0	117	48	0
30	7	657	3.6	1059	527	1587	7.0	1.1	0.0	3.2	0.4	0.0	102	45	0
30	8	1232	3.5	766	385	1151	6.9	0.8	0.0	3.2	0.3	0.0	98	44	0
30	9	937	5.2	280	123	403	7.9	2.3	0.0	3.7	0.6	0.0	118	49	0
30	10	1460	4.2	405	192	596	7.4	1.6	0.0	3.4	0.4	0.0	109	47	0
30	11	2707	3.1	675	355	1031	6.6	1.2	0.0	3.1	0.3	0.0	101	43	0
30	12	3314	2.8	801	0	801	6.4	1.3	0.0	3.0	0.3	0.0	157	66	0
31	1	1968	3.5	562	0	562	6.9	2.4	0.0	3.2	0.4	0.0	177	69	0
31	2	1174	4.2	482	0	482	7.4	3.6	0.0	3.4	0.6	0.0	196	72	0
31	3	943	3.9	708	0	708	7.1	3.1	0.0	3.3	0.7	0.0	189	74	0
31	4	1495	2.3	2358	0	2358	6.1	1.0	0.0	2.8	0.3	0.0	154	67	0
31	5	731	3.3	1293	0	1293	6.8	2.0	0.0	3.1	0.5	0.0	170	70	0
31	6	507	4.0	959	460	1419	7.2	2.3	0.0	3.4	0.6	0.0	117	48	0
31	7	648	3.6	1063	528	1590	7.0	1.1	0.0	3.2	0.4	0.0	102	45	0
31	8	1213	3.6	761	381	1142	6.9	0.8	0.0	3.2	0.3	0.0	98	44	0
31	9	932	5.2	280	123	403	7.9	2.3	0.0	3.7	0.6	0.0	118	49	0
31	10	1453	4.2	405	192	597	7.4	1.6	0.0	3.4	0.4	0.0	109	47	0
31	11	2694	3.1	676	355	1031	6.6	1.2	0.0	3.1	0.3	0.0	101	43	0
31	12	3298	2.8	802	0	802	6.4	1.3	0.0	3.0	0.3	0.0	157	66	0