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High floc strength with aged polyelectrolytes

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Table 1: Effect of polyelectrolyte solution age on jar test performance.

Sample	PE Dose Used	Age Days	Turb NTU	Age Days	Turb NTU	Age Days	Turb NTU	Age Days	Turb NTU
Z32DI	5.0	14	28	49	36	97	27	221	45
Z32T	5.0	18	12	48	19	96	17	220	25
Z32TP	5.0	17	40	47	50	95	44	219	48
Z32DI Control	5.0	-	28	-	16	-	24	1	16
E10DI	2.5	7	91	42	75	89	99	220	130
E10T	2.5	11	94	42	73	89	60	220	115
E10TP	2.5	11	147	42	181	89	271	219	550
E10DI Control	2.5	-	91	-	79	-	96	1	140
LT20DI	2.5	14	30	48	34	96	30	213	45
LT20T	2.5	18	45	48	68	96	79	213	60
LT20TP	2.5	17	33	47	43	95	77	213	200
LT20DI Control	2.5	-	32	-	46	-	137	1	170

Table 2: Jar Test Results on Sewage using Aged Polyelectrolyte Solutions.
 (aged solutions = 204-212 days old)

Polyelectrolyte Sample	Al (mg/l)	PE (mg/l)	Turbidity (NTU)		
			1 min	2 min	5 min
Alum only (control)	15	0	202	120	12
Z32 DI	15	1	8	3	3
Z32 T	15	1	12	3	2
Z32 TP	15	1	34	7	3
Z32 Control DI	15	1	4	4	2
E10 DI	15	1	24	4	2
E10 T	15	1	14	4	2
E10 TP	15	1	18	4	2
E10 Control DI	15	1	14	4	2
LT20 DI	15	1	40	8	2
LT20 T	15	1	41	10	2
LT20 TP	15	1	4	6	2
LT20 Control DI	15	1	120	10	4

**Table 3: Critical Mixing Speed of Aged Polyelectrolyte Solutions
(PE concentration = 10 mg/l, 15 mg/l Al³⁺)**

Polyelectrolyte	Age (Days)	Critical mixing speed (RPM)
Zetag 32 DI	222	650
	2	650
E10	221	400
	2	400
LT20	214	200
	2	200