Table 2. Water flow (cfs) by station and run for the lower transect

STATION	1	2	3	4	5&7	6	8
0	1538	74	554	787	1415	320	74
25	1386	98	525	730	951	271	123
50	1534	197	517	1157	1214	221	189
75	3092	533	1747	2198	3002	1075	607
100	4675	1534	2715	3716	4388	2330	1476
125	2051	205	796	1723	1723	681	377
150	984	221	459	837	746	320	172
175	1050	213	673	1001	1263	574	230
200	1567	164	705	919	1239	468	246
225	1345	246	886	1230	1321	492	213
250	1599	230	689	1066	1206	492	246
275	1378	180	566	919	976	394	197
300	1255	98	591	984	902	345	148
325	812	180	607	722	935	443	213
350	853	49	238	213	394	180	16
375	1181	172	418	689	878	312	98
400	943	221	500	607	1083	279	98
425	1206	172	361	705	845	295	221
450	1124	172	394	771	1124	312	246
475	1165	197	509	861	492	328	221
500	1255	98	345	509	935	172	123
525	746	66	213	443	443	25	33
550	664	115	394	492	607	172	115
575	468	123	632	591	697	197	82
600	312	115	246	427	410	197	66
625	246	98	98	213	410	180	82
650	189	82	115	90	262	131	0
675	254	66	180	123	74	25	98
700	148	33	98	148	230	66	0
725	336	16	131	262	345	49	49
750	49	0	98	74	82	33	0
775	554	0	221	148	517	74	0

Table 3. Summary of dye injections made at Conowingo Dam, October 1988

Run	Operating Scenario[a]	Time of Dye Injection	Time of Sampling Lower Transect	Dye Injection Rate (g soln/min)	
				Mean	Range
1	2, 3, (5), 8, 11	14:20 - 15:31	14:47 - 15:43	876	771 - 1134
2	(5)	08:07 - 10:05[b]	08:33 - 10:52	495	151 - 534
3	2, 3, (5)	10:40 - 15:30[c]	12:47 - 13:33	484	454 - 544
4	(5), 8, 11		14:31 - 15:24		
5	2, 5, 8,(11)	15:53 - 17:49[d]	17:18 - 17:52	472	41 - 907
6	(11)	06:30 - 09:17	08:04 - 08:58	481	439 - 544
7	(2), 5, 8, 11	12:03 - 14:44[e]	13:07 - 15:02	465	412 - 567
8	(2)	05:25 - 07:20	08:06 - 09:29	469	412 - 504

(a) Dye was released from unit in parentheses
(b) No dye release from 08:15 to 08:18
(c) No dye release from 11:00 to 11:05
(d) No dye release from 16:53 to 17:03
(e) No dye release from 13:22 to 13:23 and 13:35 - 13:40

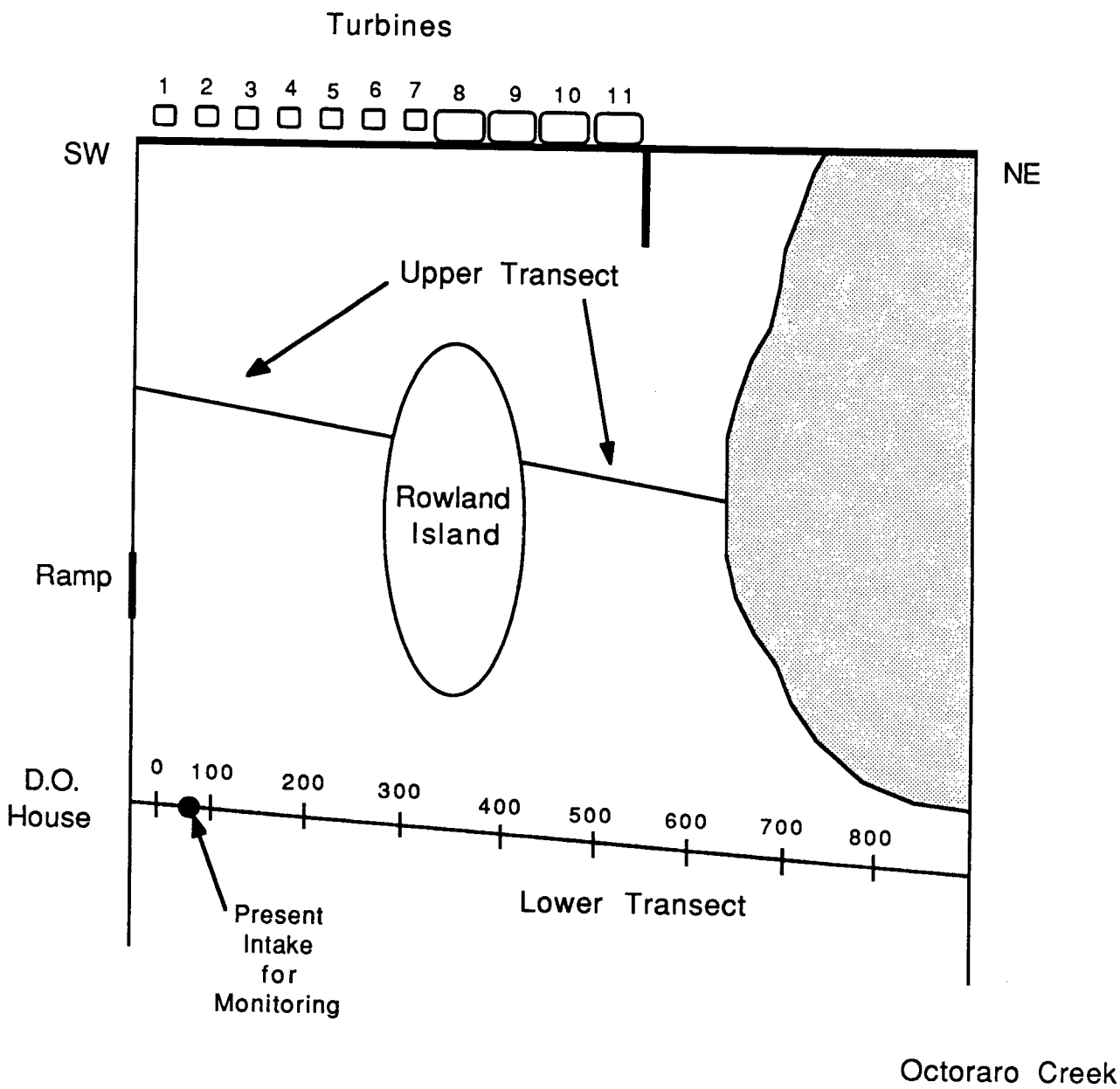


Figure 1. Schematic of sampling sites at Conowingo Dam

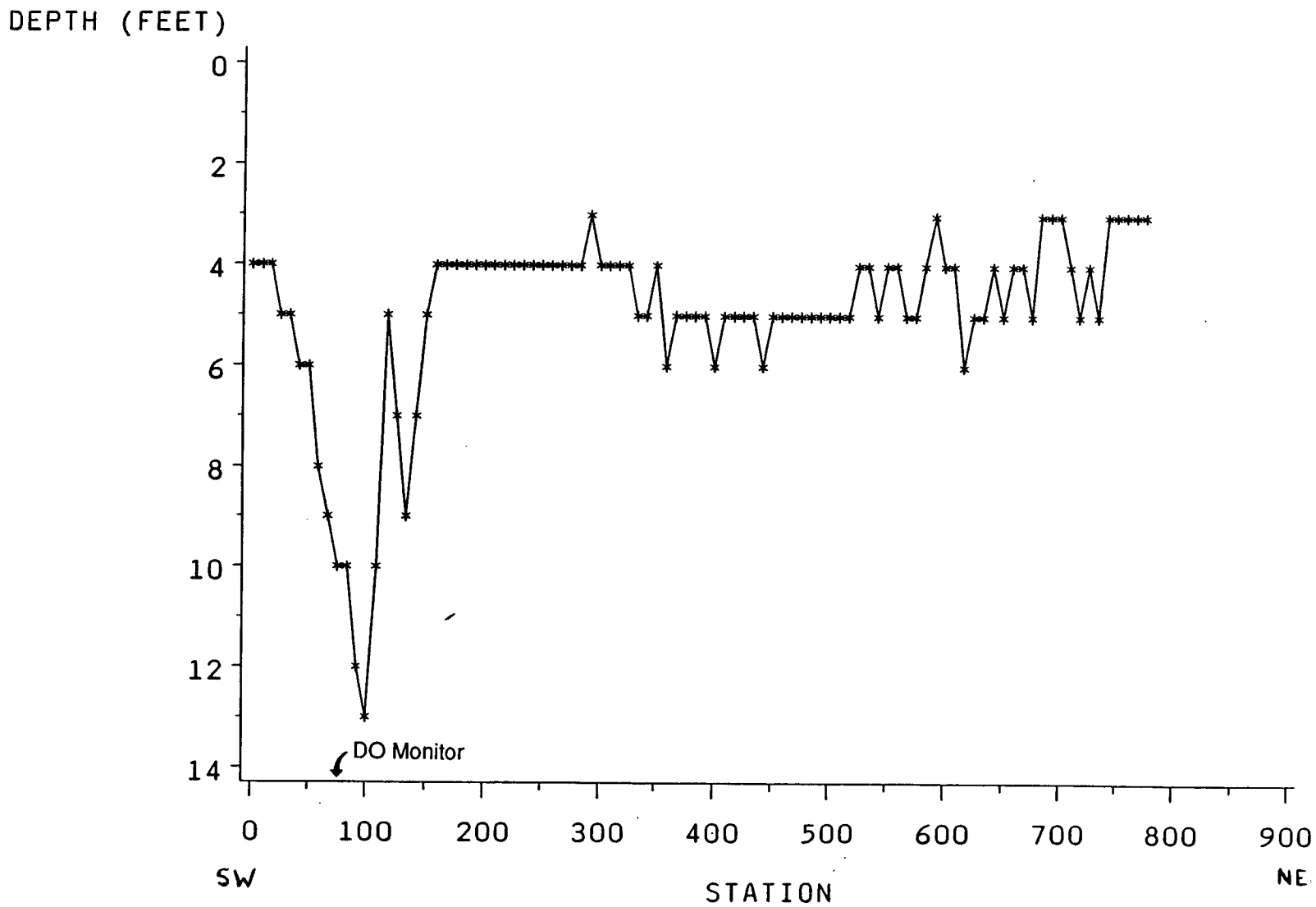


Figure 2. Depth profile along the lower transect at 20,000 cfs (Units 1, 2, 5, and 7 operating). Station is distance from west shore in meters.

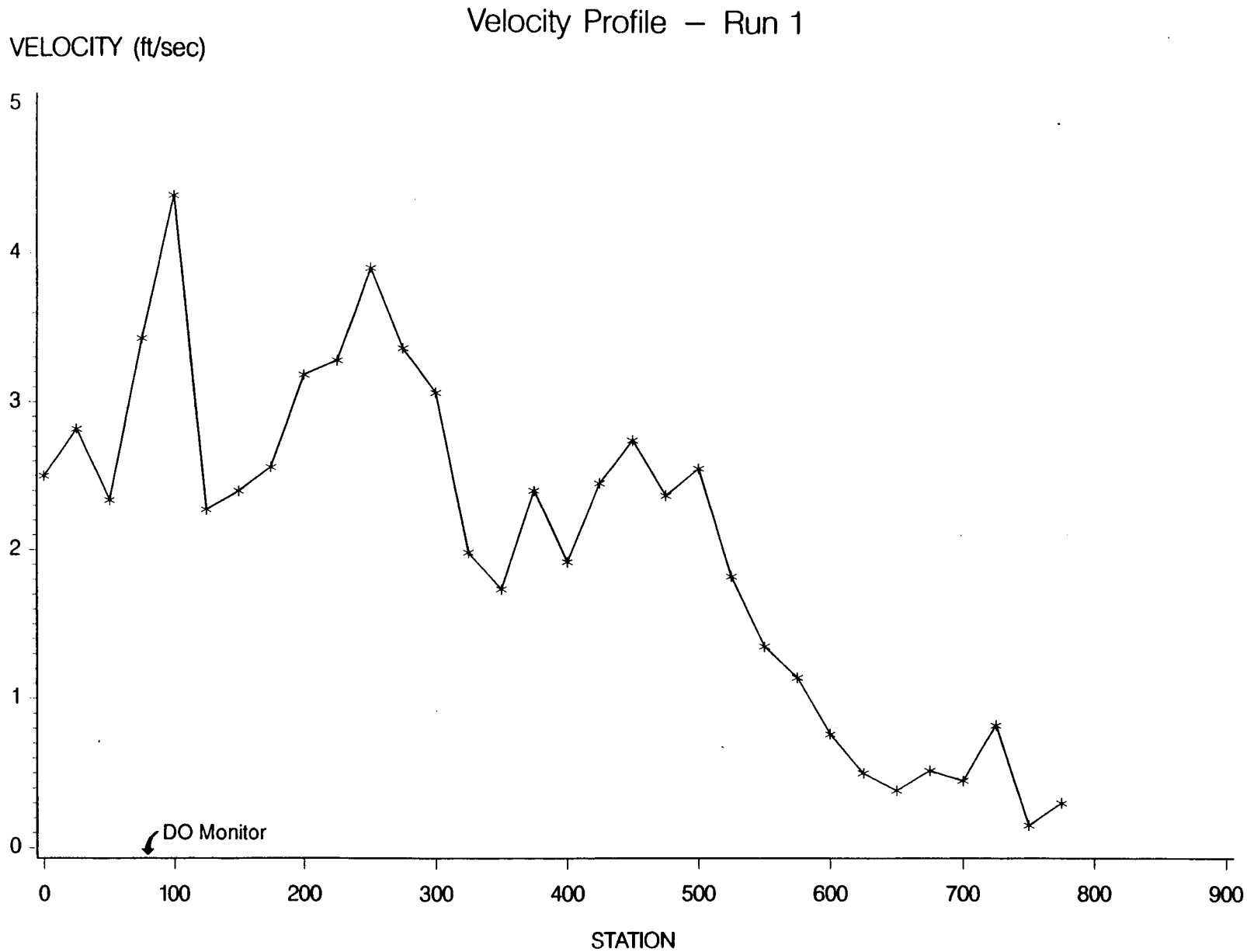


Figure 3. Velocity profile along the lower transect during run 1 (Units 2, 3, 5, 8, and 11 operating). Station is distance from west shore in meters.

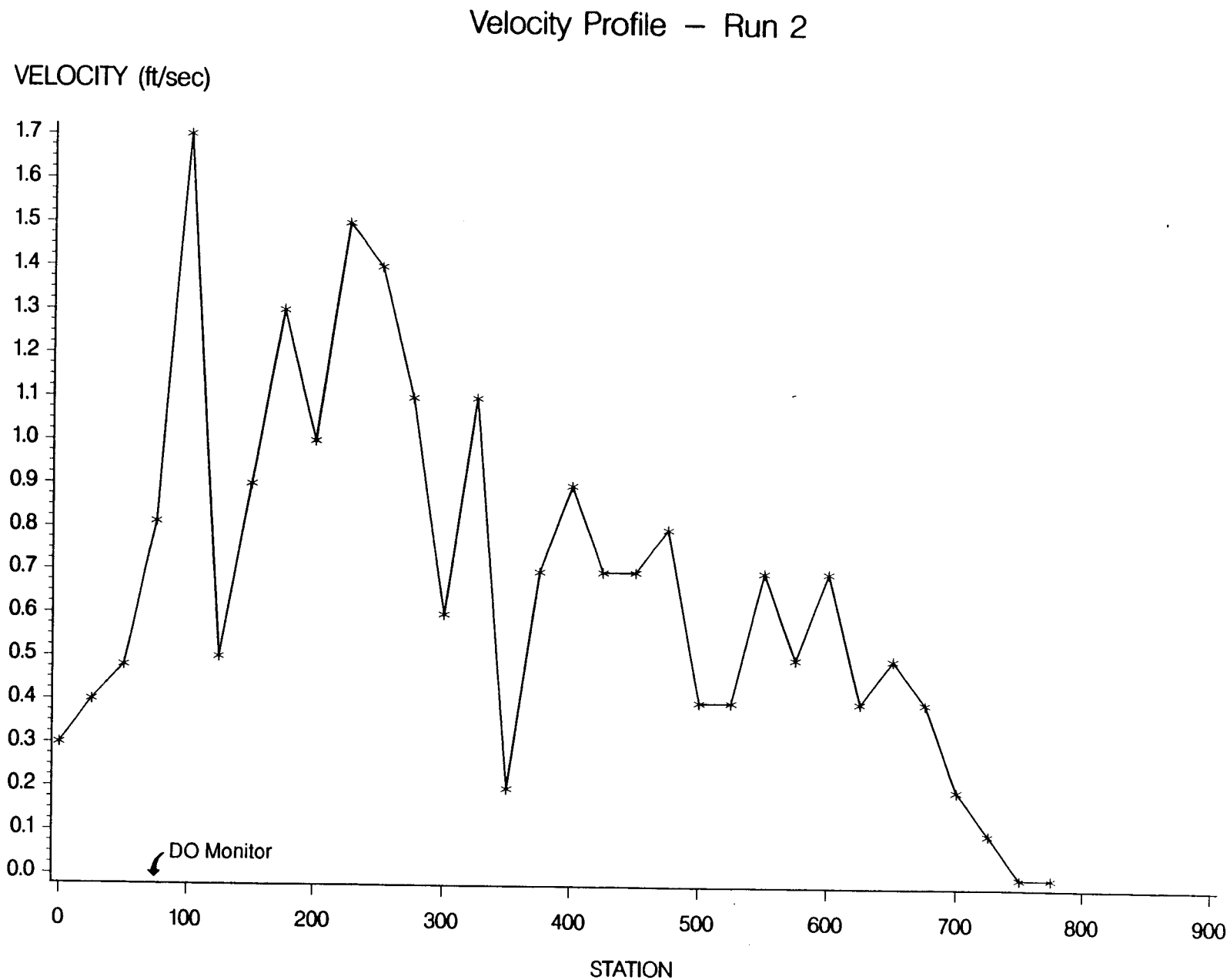


Figure 4. Velocity profile along the lower transect during run 2 (Unit 5 operating). Station is distance from west shore in meters.

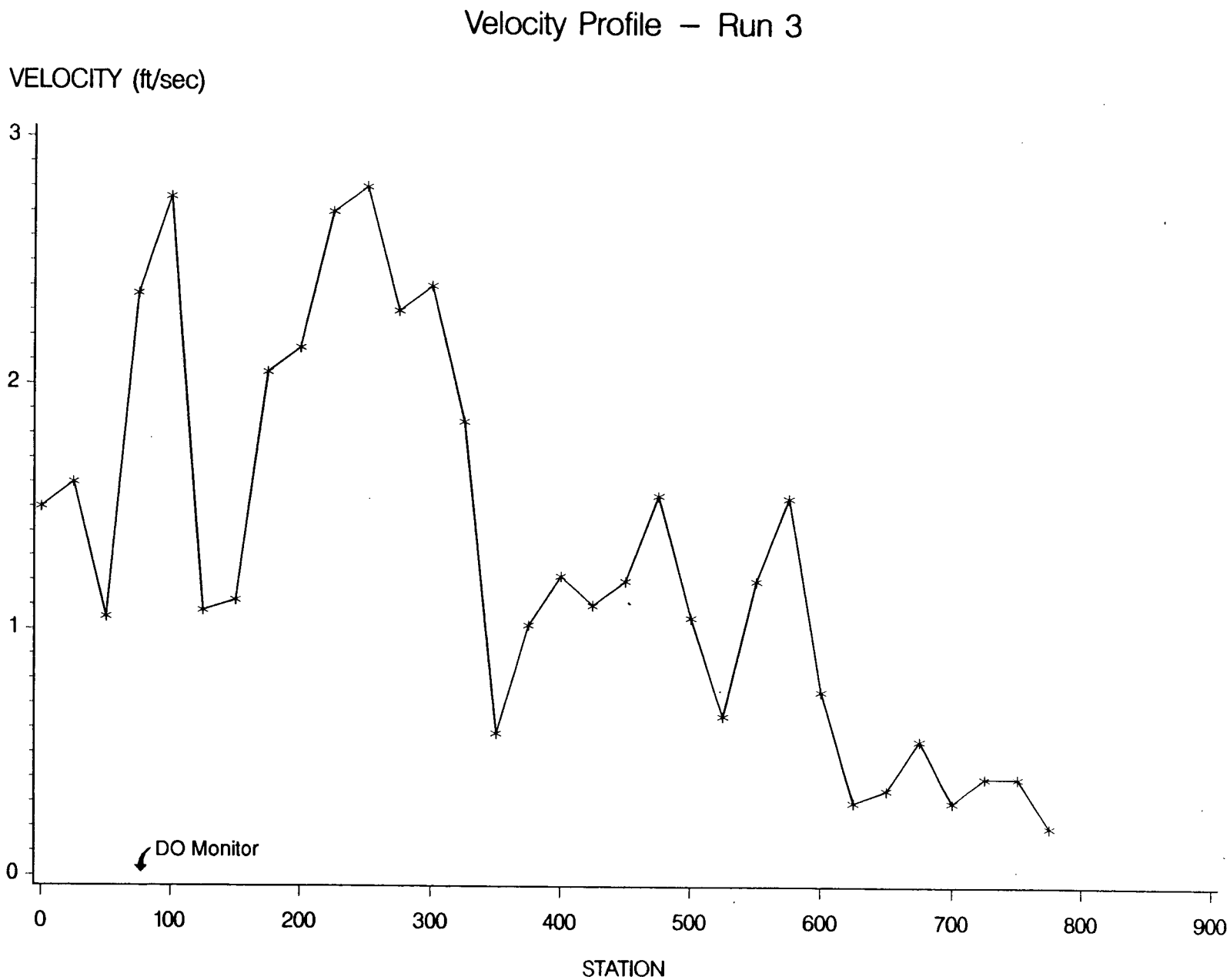


Figure 5. Velocity profile along the lower transect during run 3 (Units 2, 3, and 5 operating). Station is distance from west shore in meters.

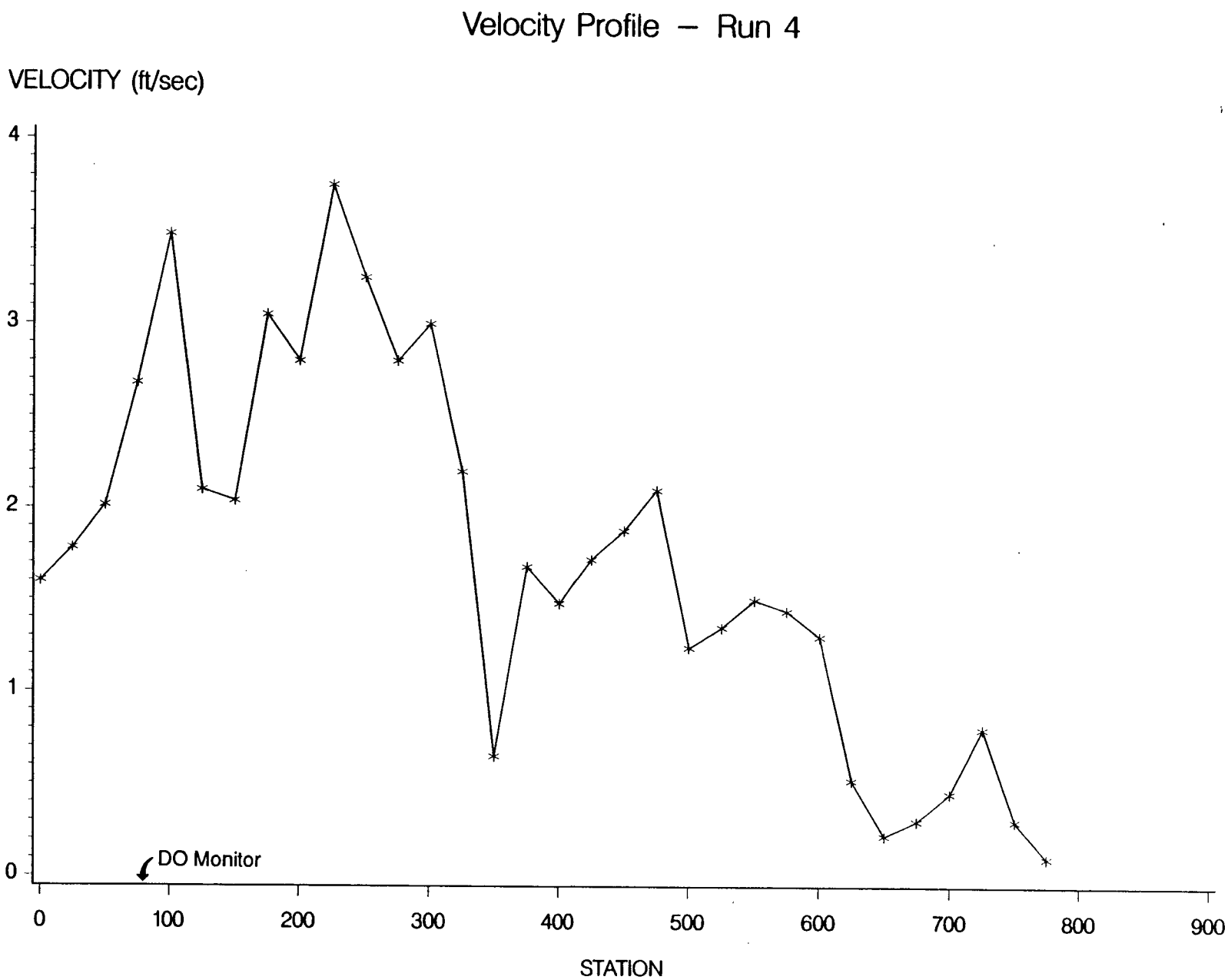


Figure 6. Velocity profile along the lower transect during run 4 (Units 5, 8, and 11 operating). Station is distance from west shore in meters.

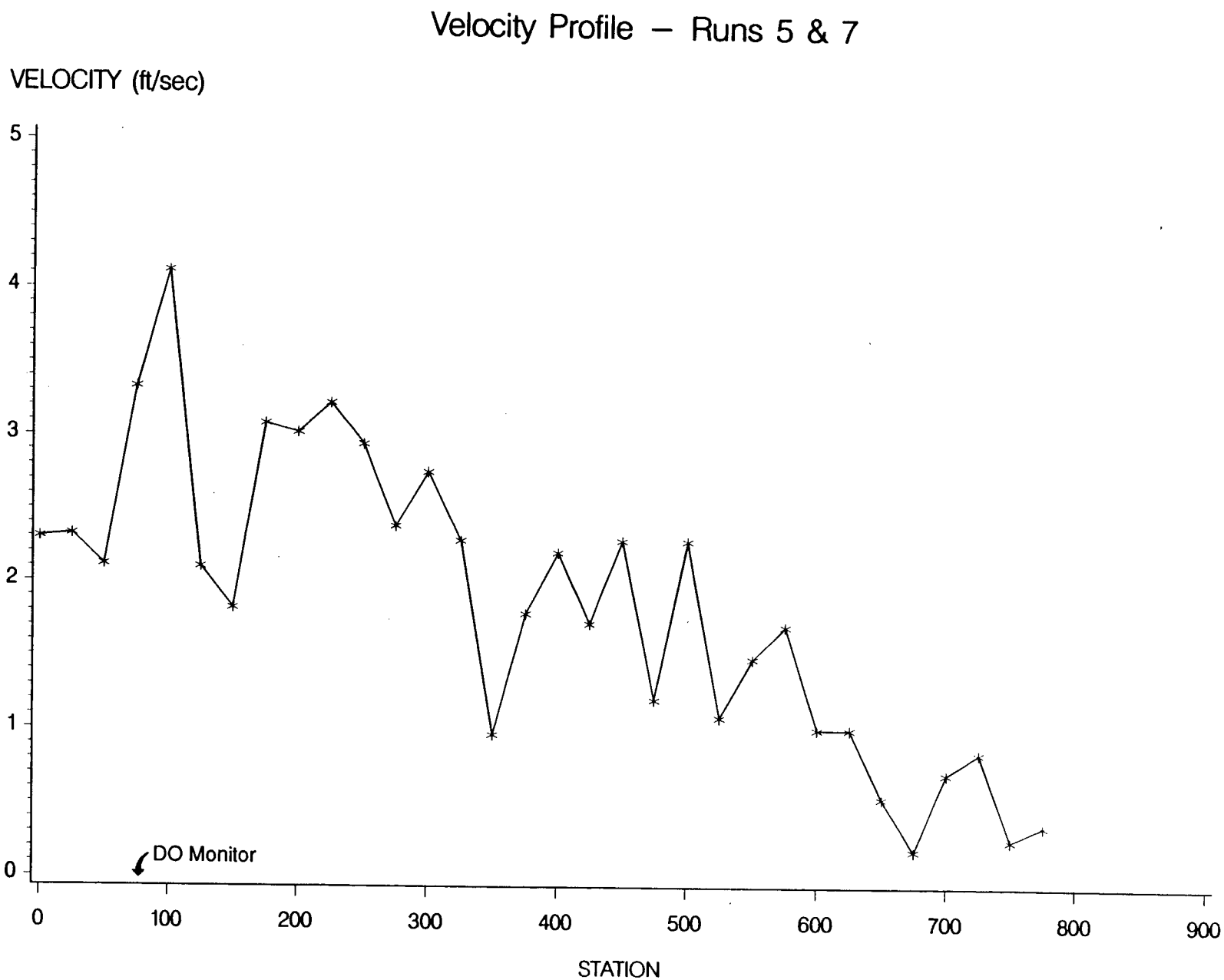


Figure 7. Velocity profile along the lower transect during runs 5 and 7 (Units 2, 5, 8, and 11 operating). Station is distance from west shore in meters.

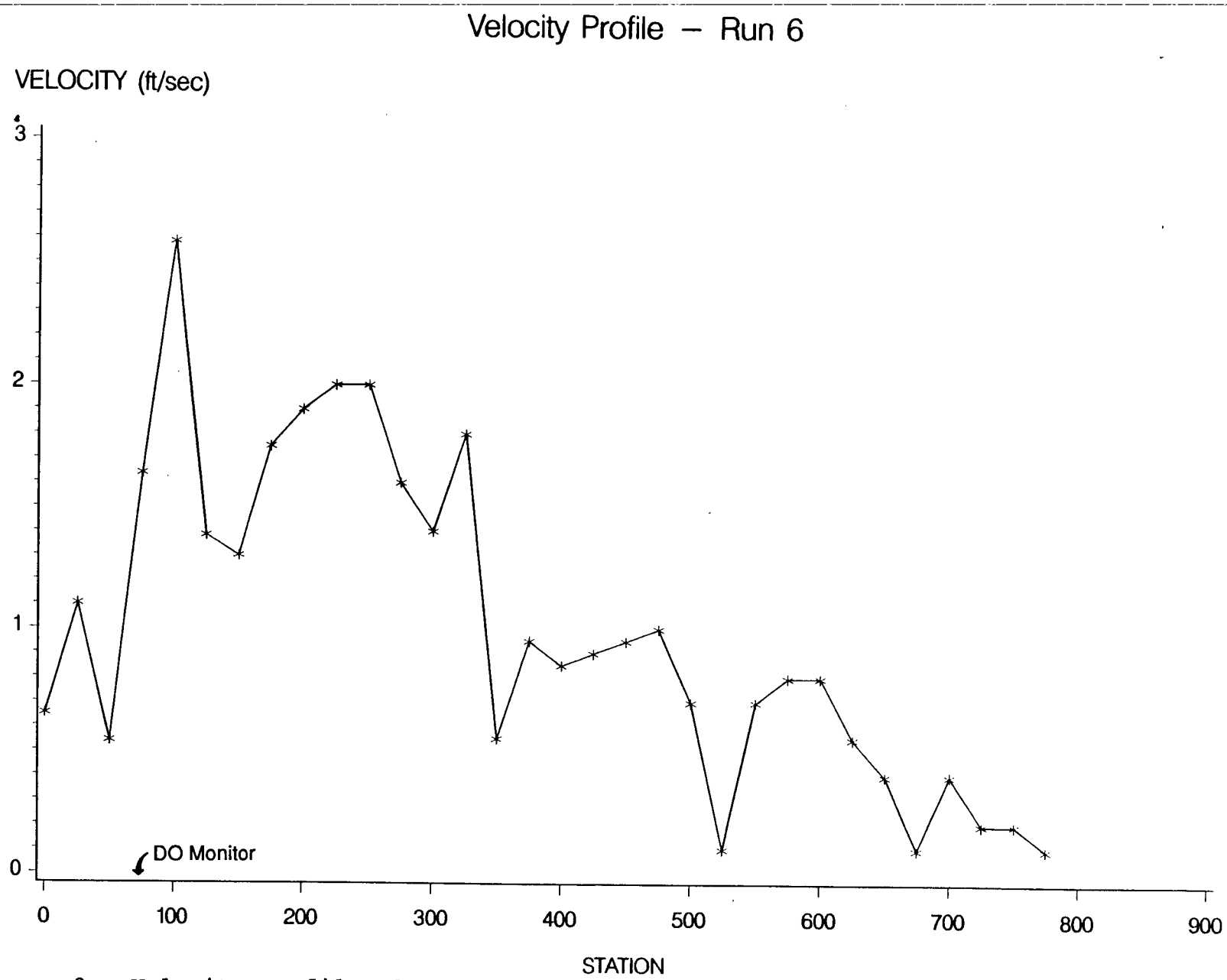


Figure 8. Velocity profile along the lower transect during run 6 (Unit 11 operating). Station is distance from west shore in meters.

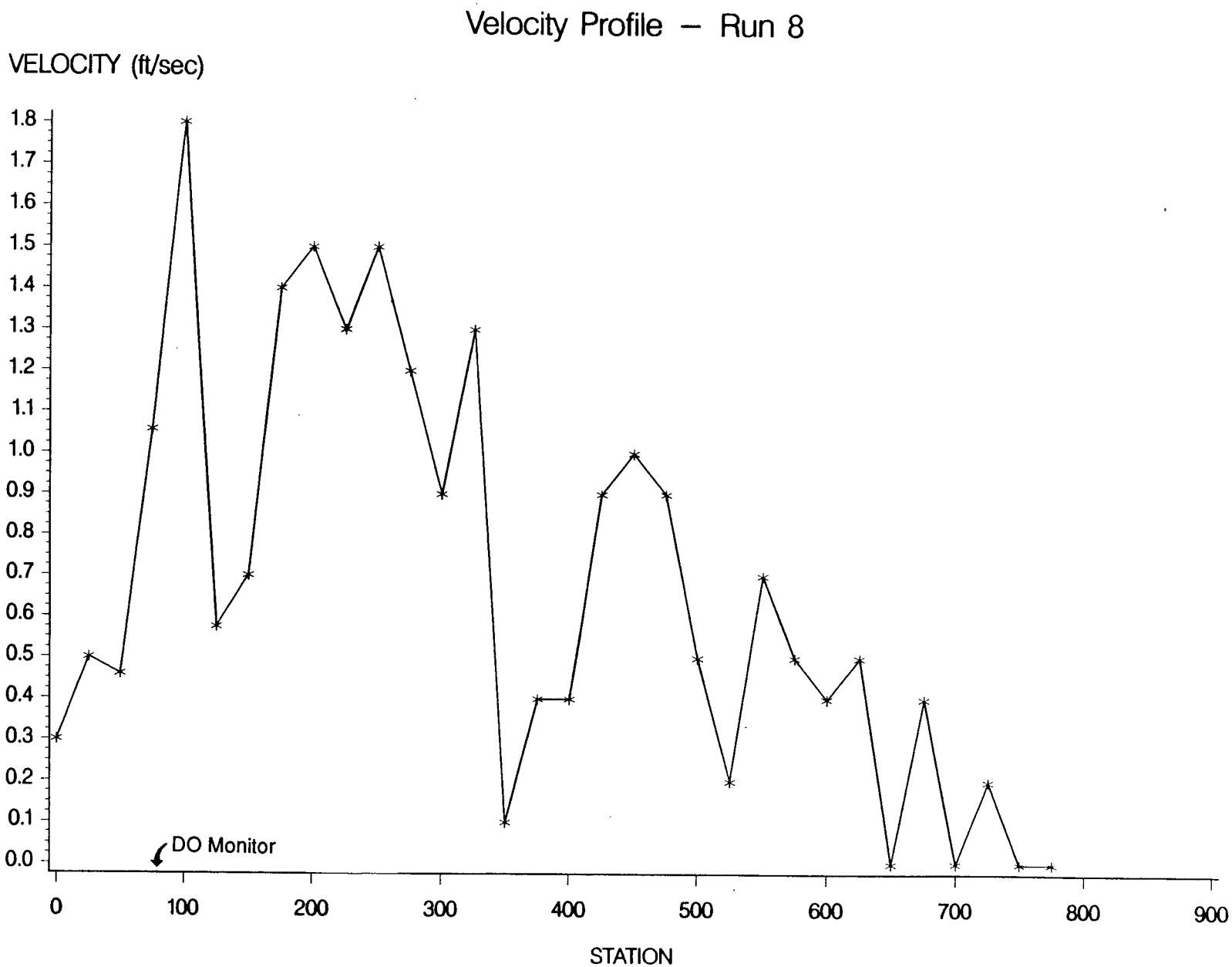


Figure 9. Velocity profile along the lower transect during run 8 (Unit 2 operating). Station is distance from west shore in meters.

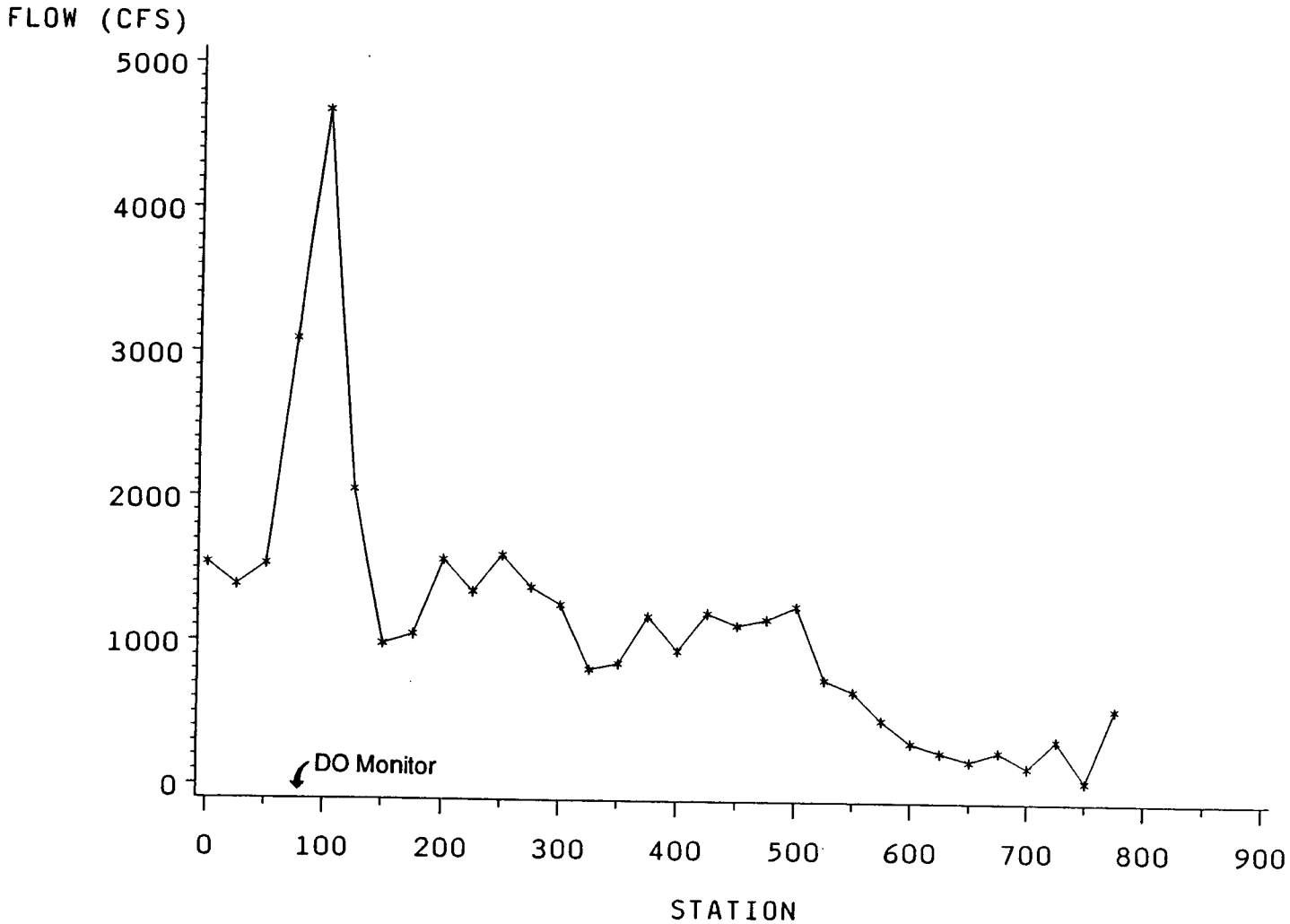


Figure 10. Total water flux along the lower transect during run 8 (Units 2, 3, 5, 8, and 11 operating). Station is distance from west shore in meters.

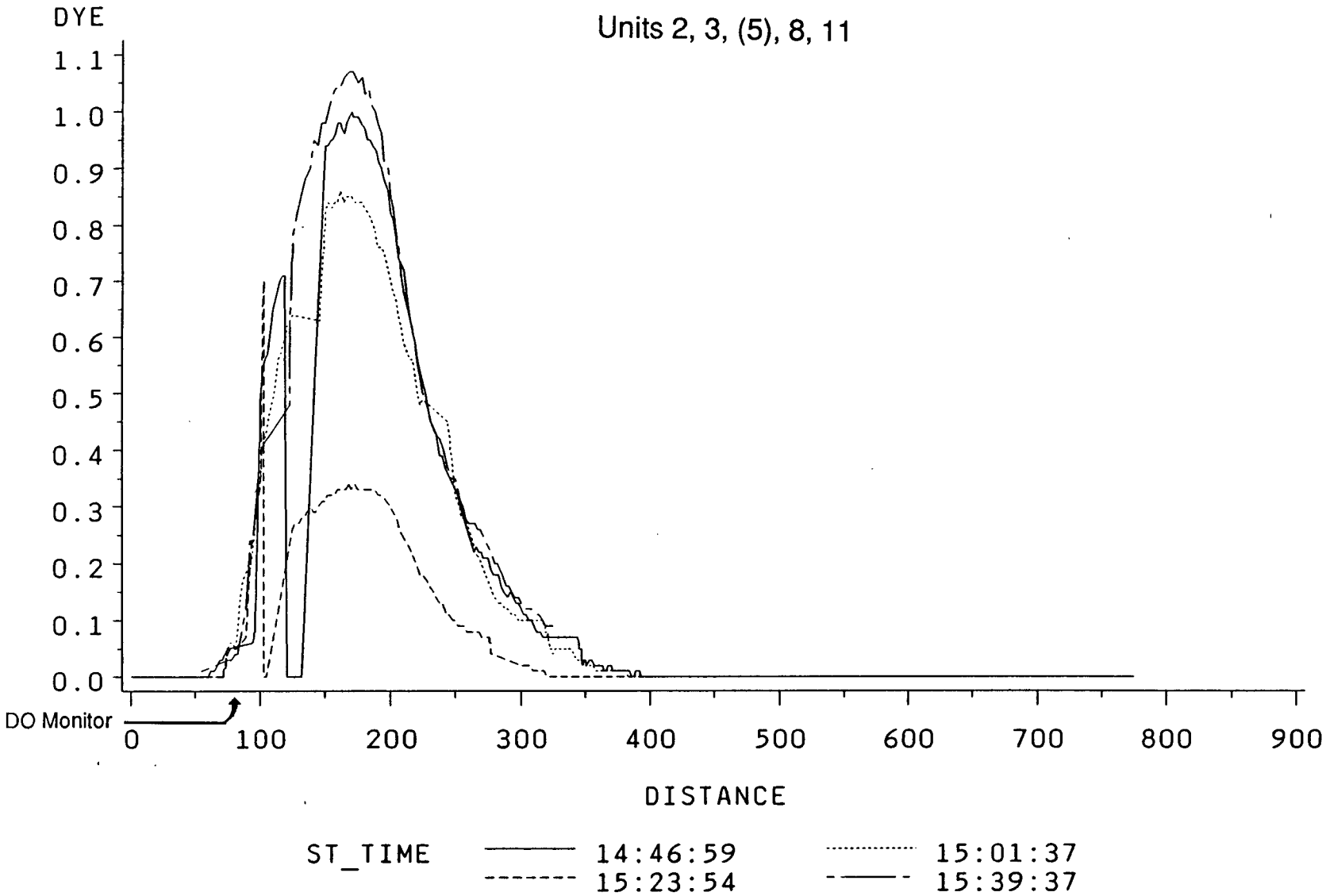


Figure 11. Dye concentration (ppb) along the lower transect during run 1 (Units 2, 3, 5, 8, and 11 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

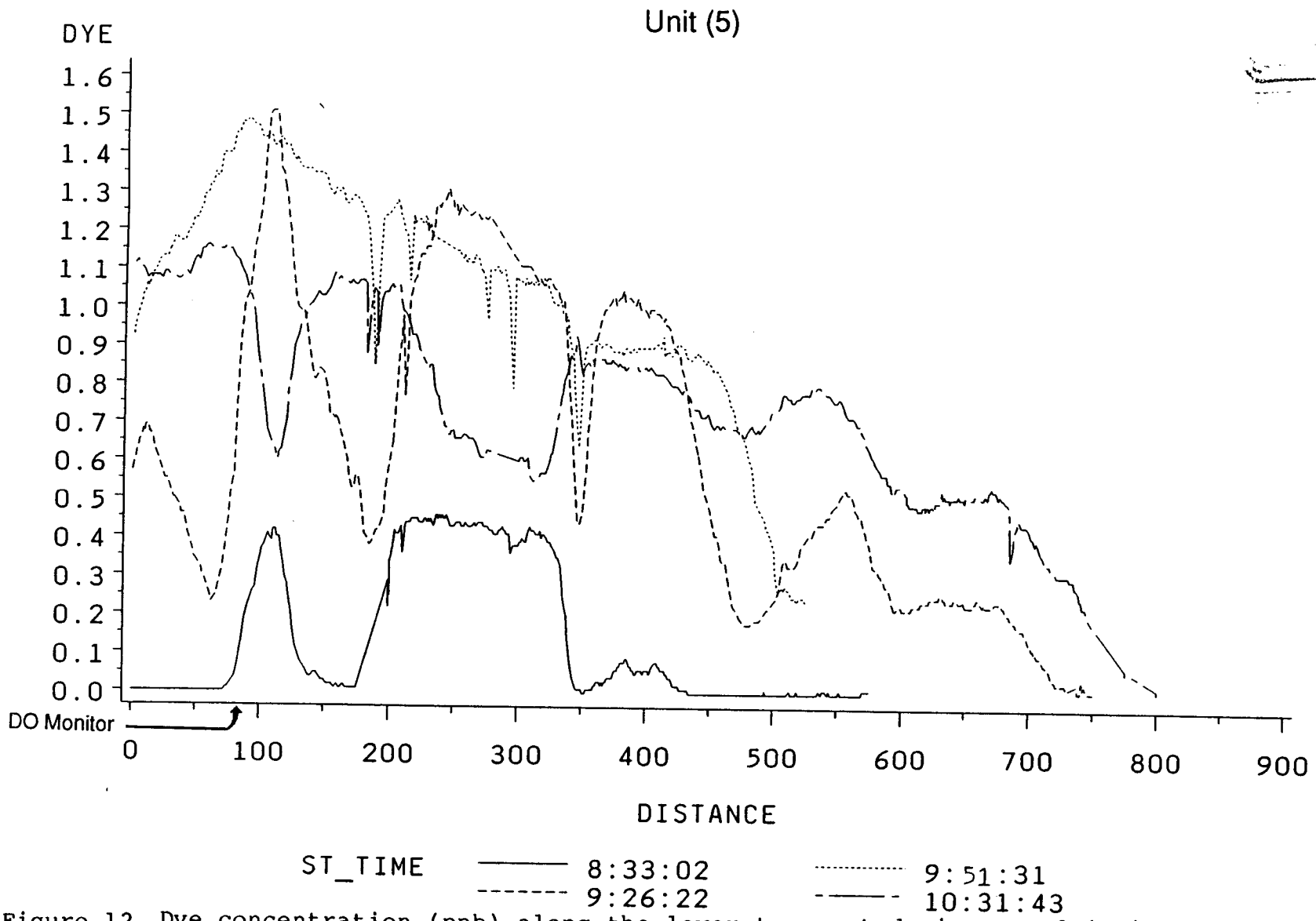


Figure 12. Dye concentration (ppb) along the lower transect during run 2 (Unit 5 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

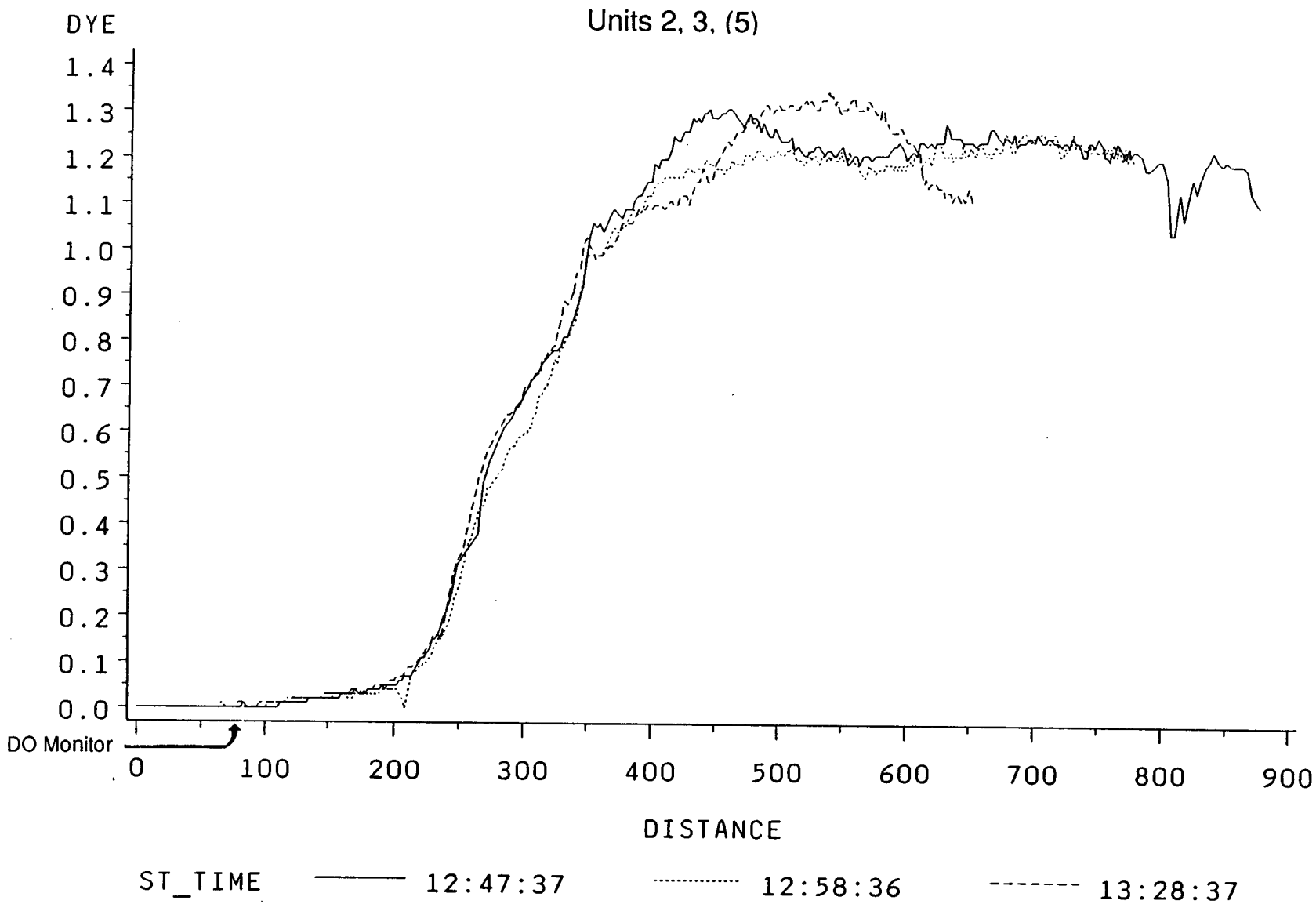


Figure 13. Dye concentration (ppb) along the lower transect during run 3 (Units 2, 3, and 5 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

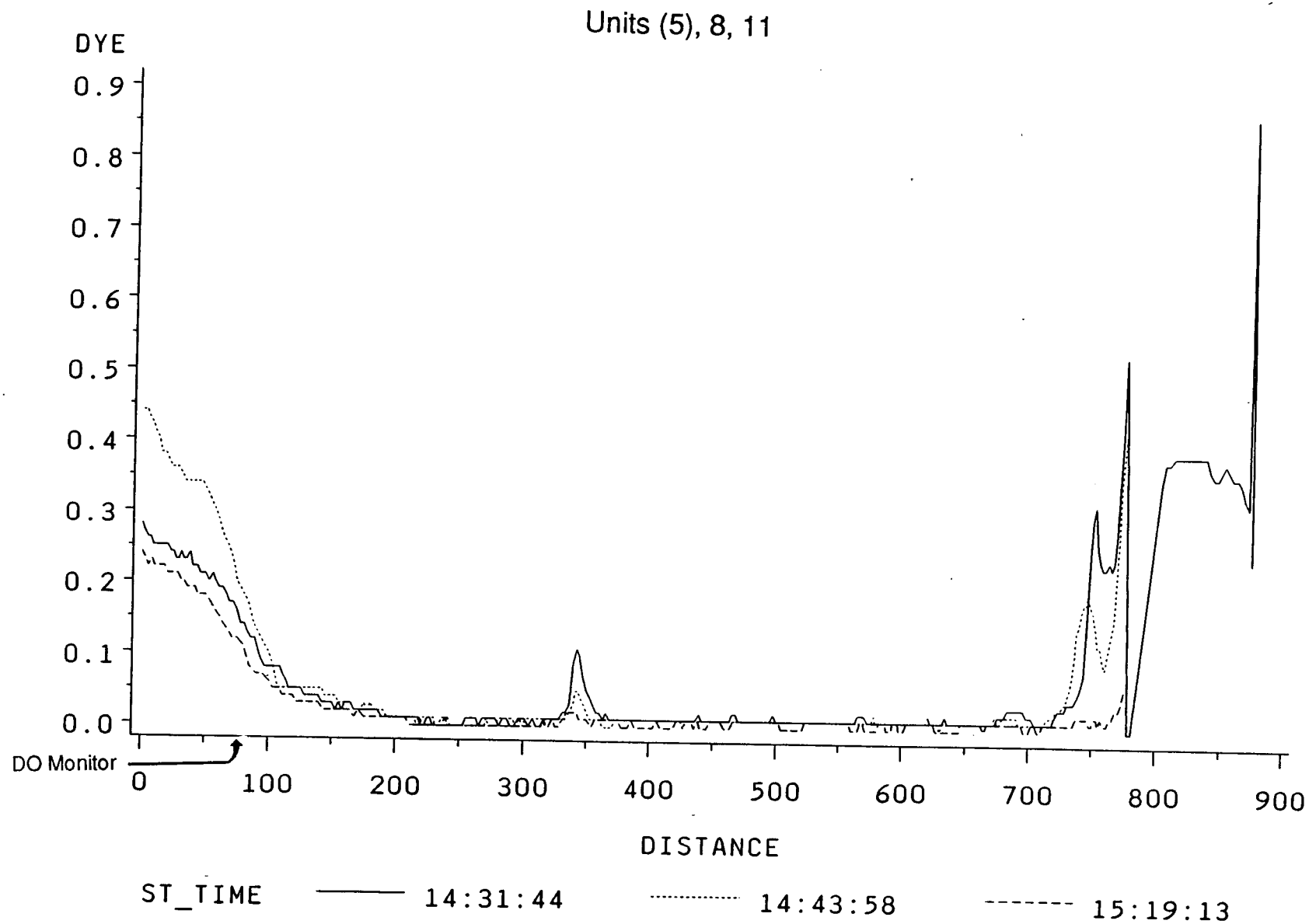


Figure 14. Dye concentration (ppb) along the lower transect during run 4 (Units 5, 8, and 11 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

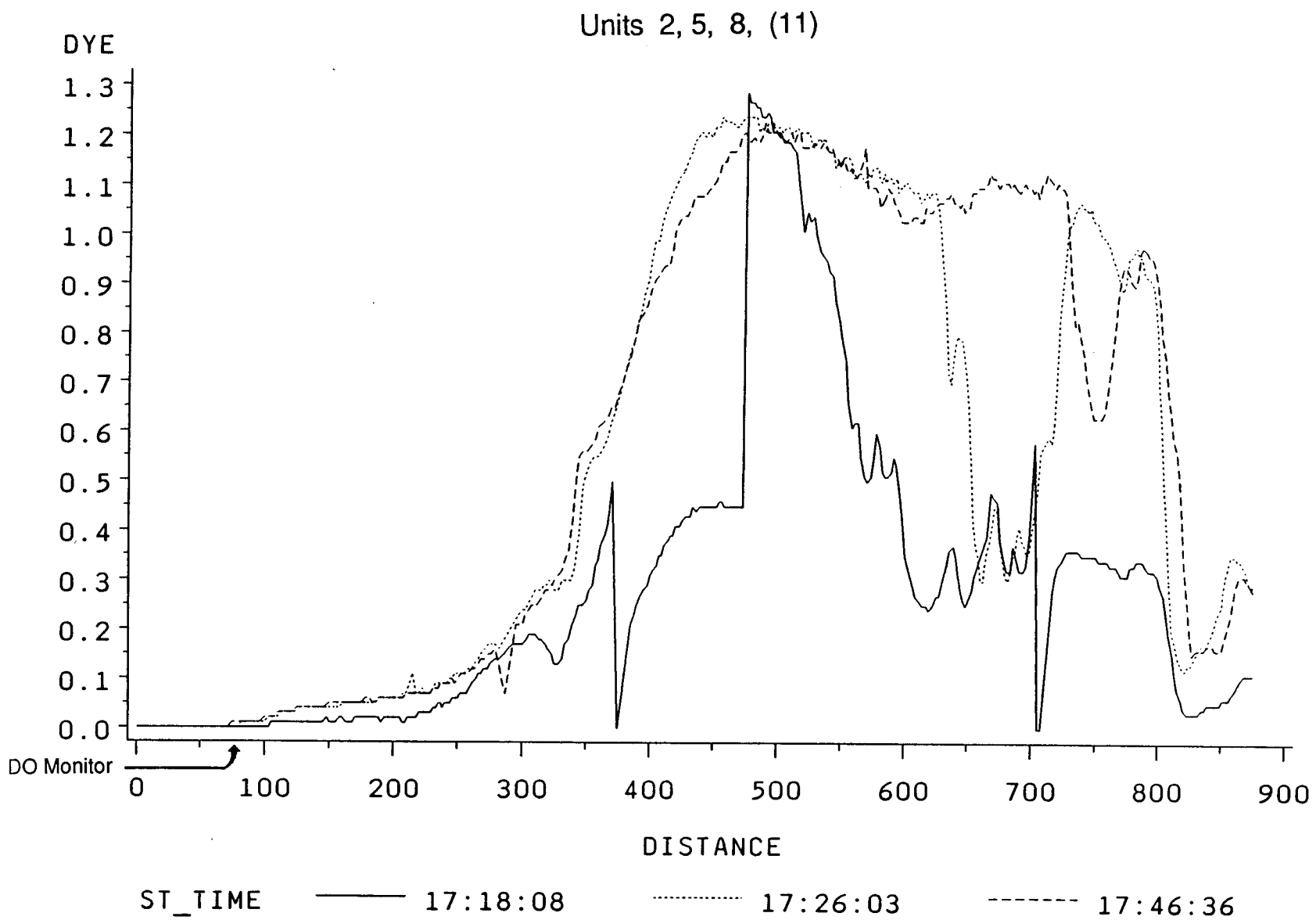


Figure 15. Dye concentration (ppb) along the lower transect during run 5 (Units 2, 5, 8, and 11 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

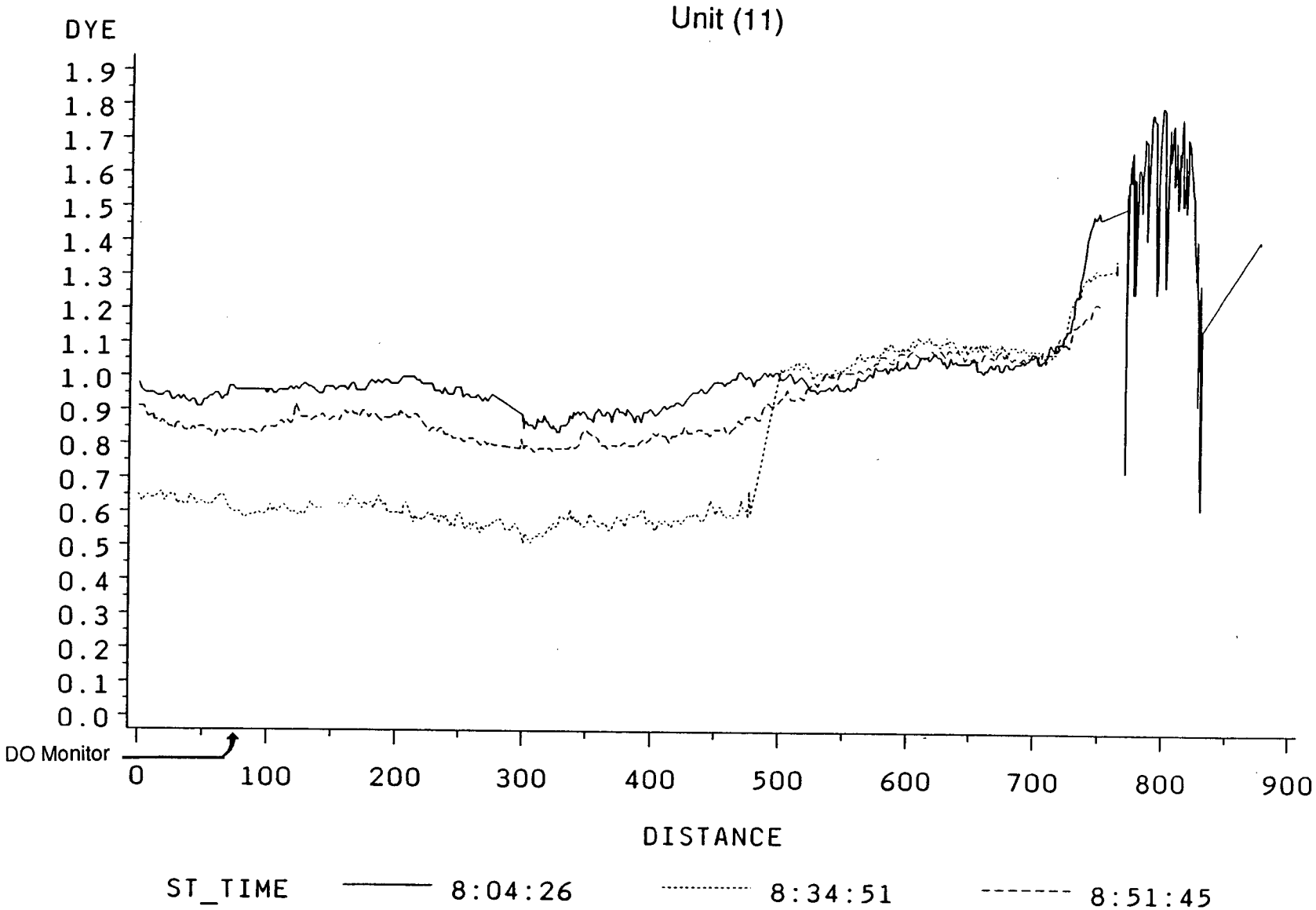


Figure 16. Dye concentration (ppb) along the lower transect during run 6 (Unit 11 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

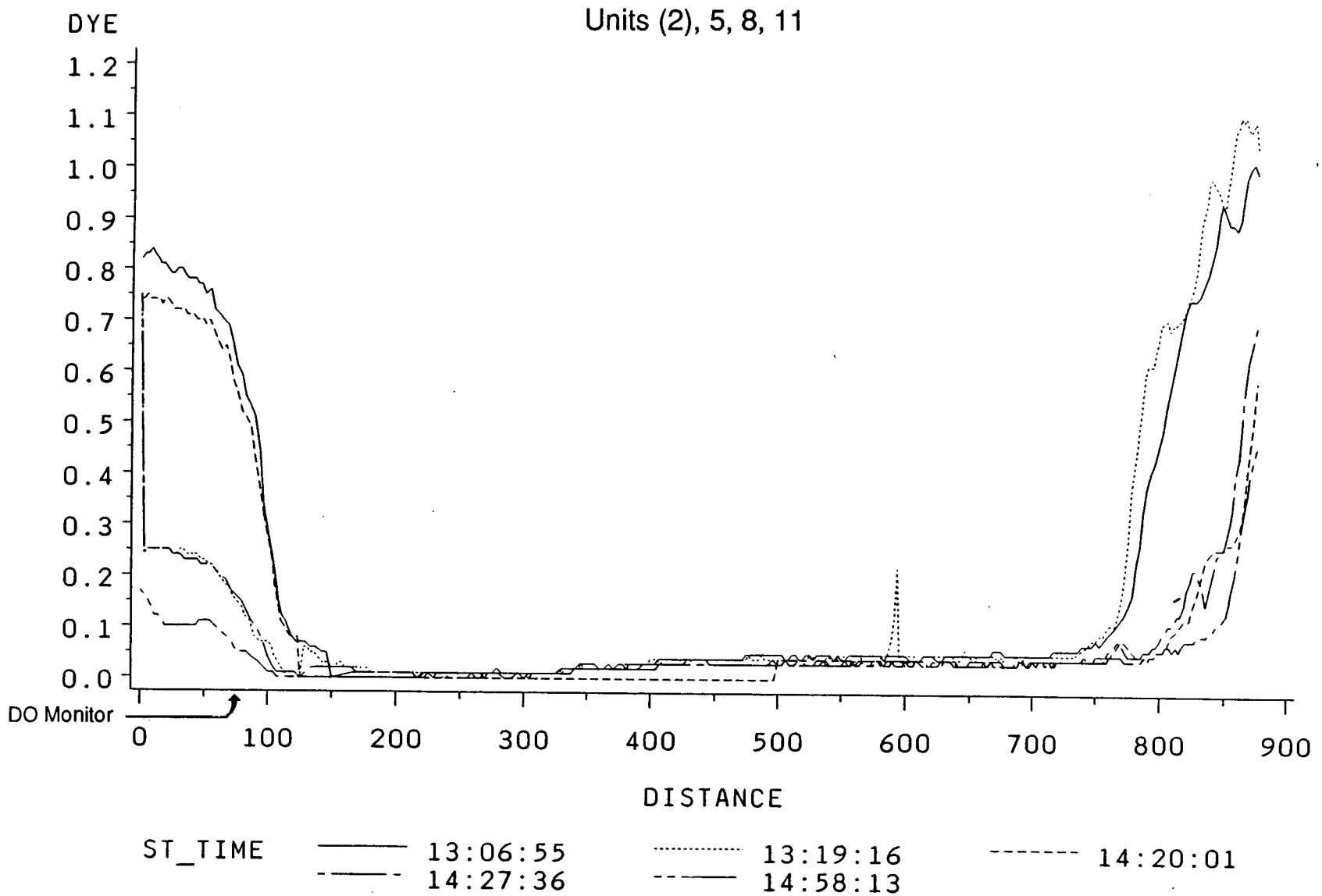


Figure 17. Dye concentration (ppb) along the lower transect during run 7 (Units 2, 5, 8, and 11 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

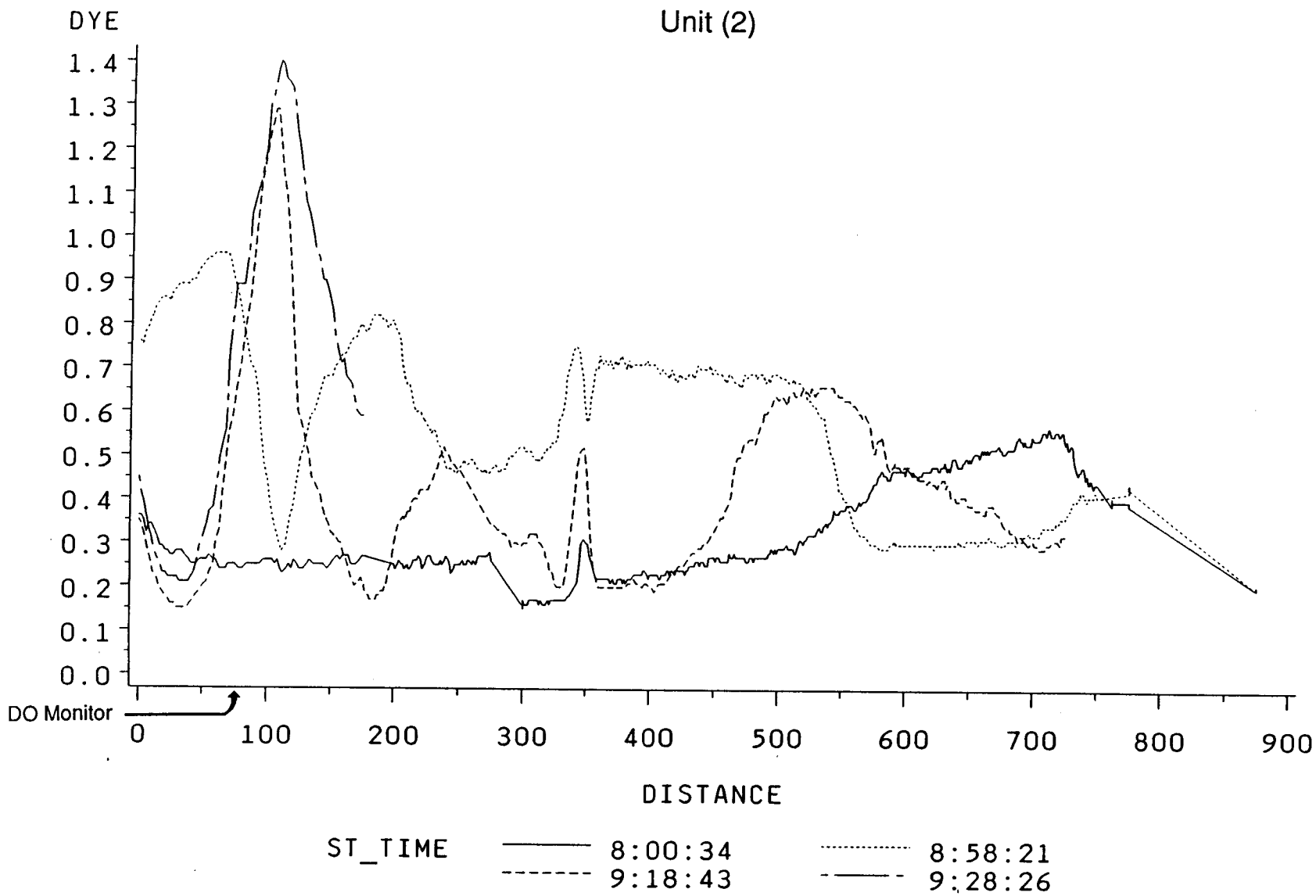


Figure 18. Dye concentration (ppb) along the lower transect during run 8 (Unit 2 operating). Distance is the distance in meters from the west shore. St_time is the start time for each replicate.

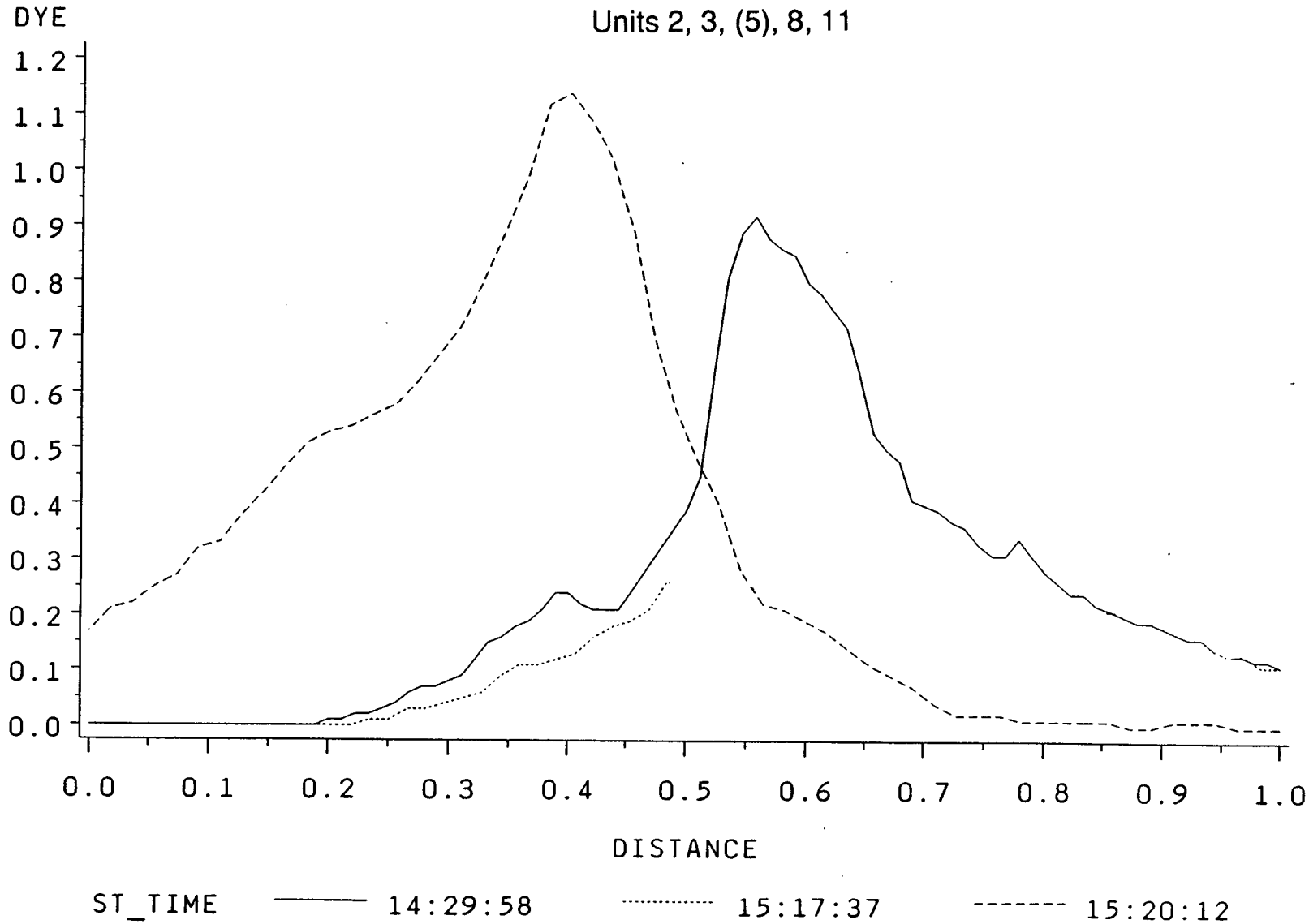


Figure 19. Dye concentration (ppb) along the upper transect during run 1 (Units 2, 3, 5, 8, and 11 operating). Distance is the proportional distance from the west shore. St_time is the start time for each replicate.

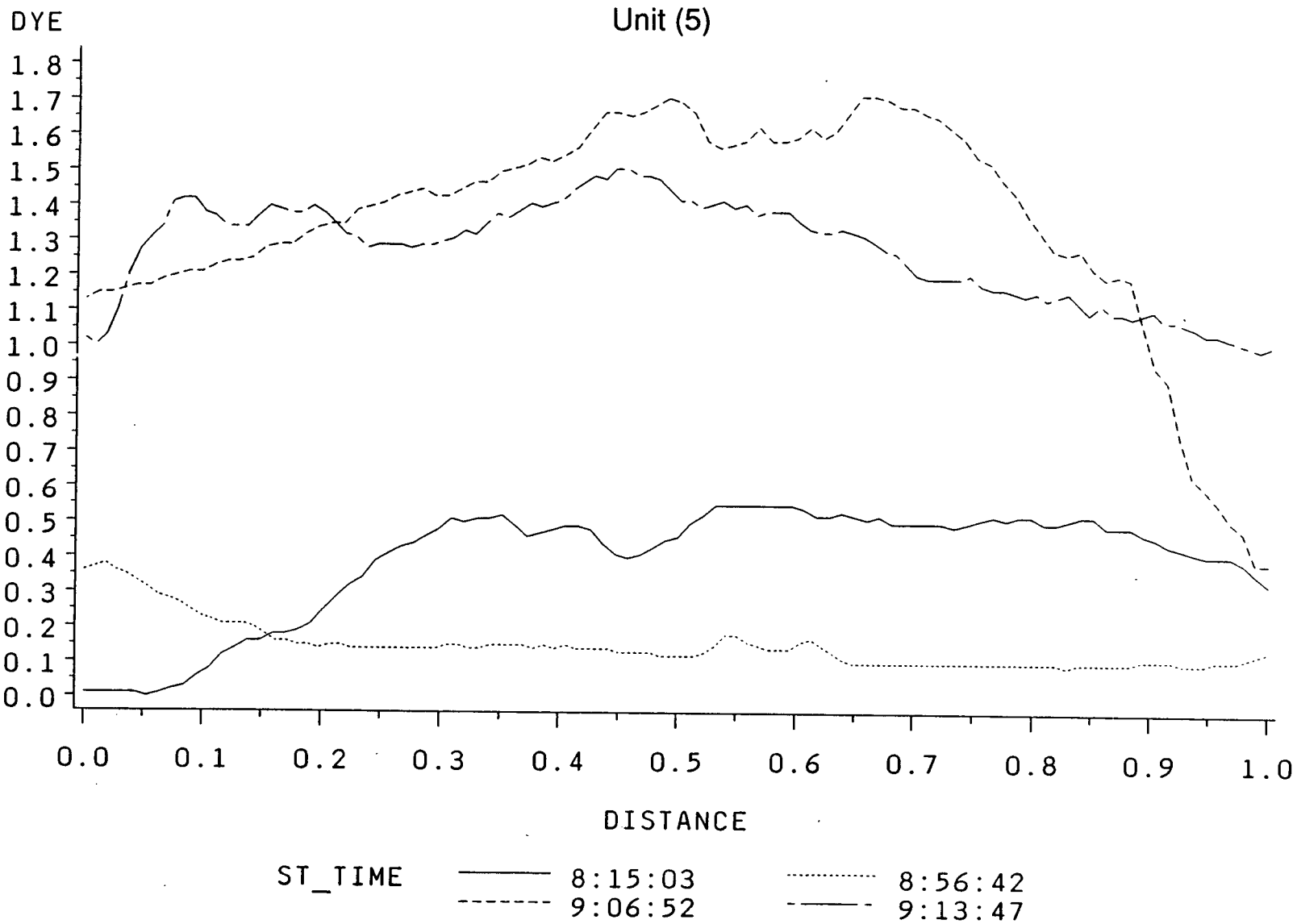
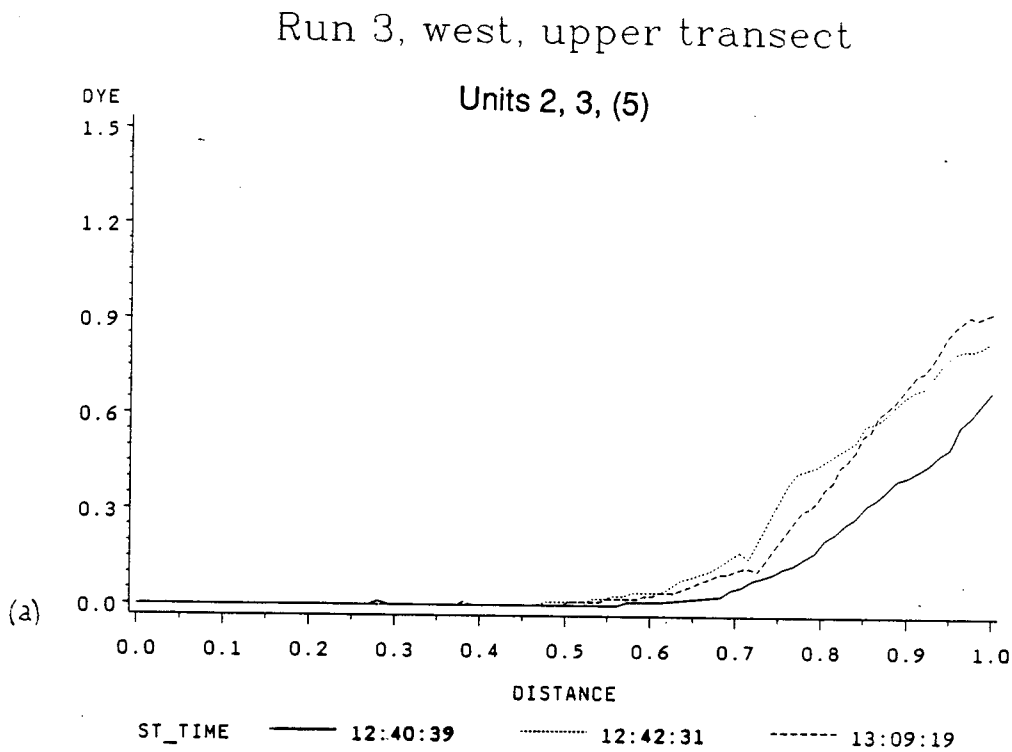


Figure 20. Dye concentration (ppb) along the upper transect during run 2 (Unit 5 operating). Distance is the proportional distance from the west shore. St_time is the start time for each replicate.



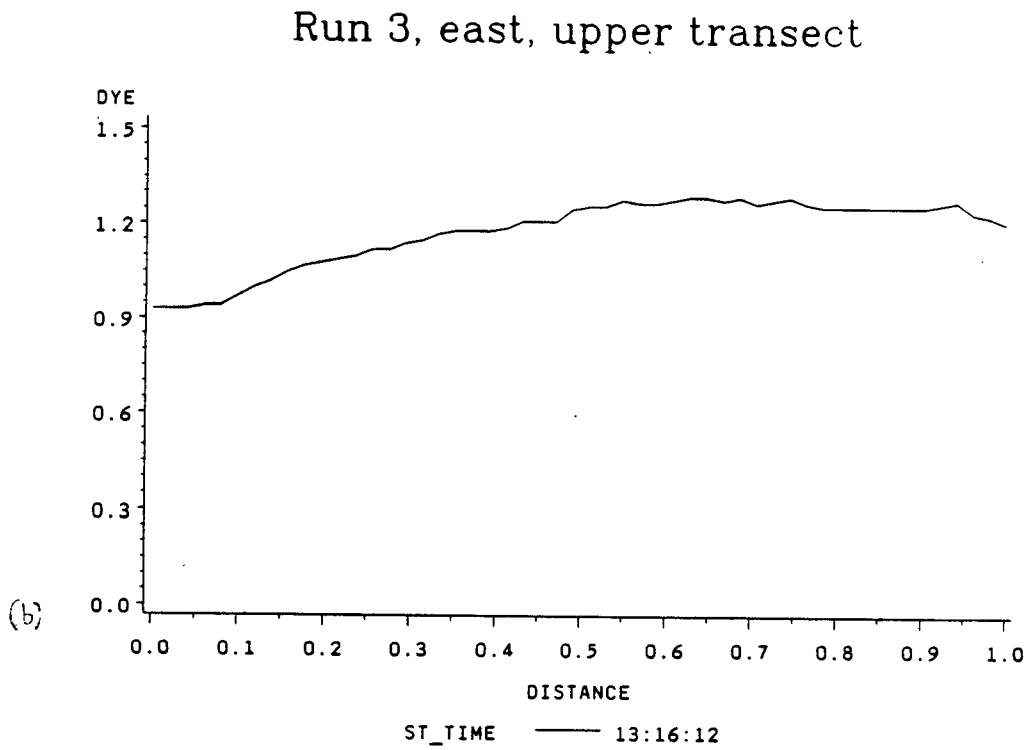
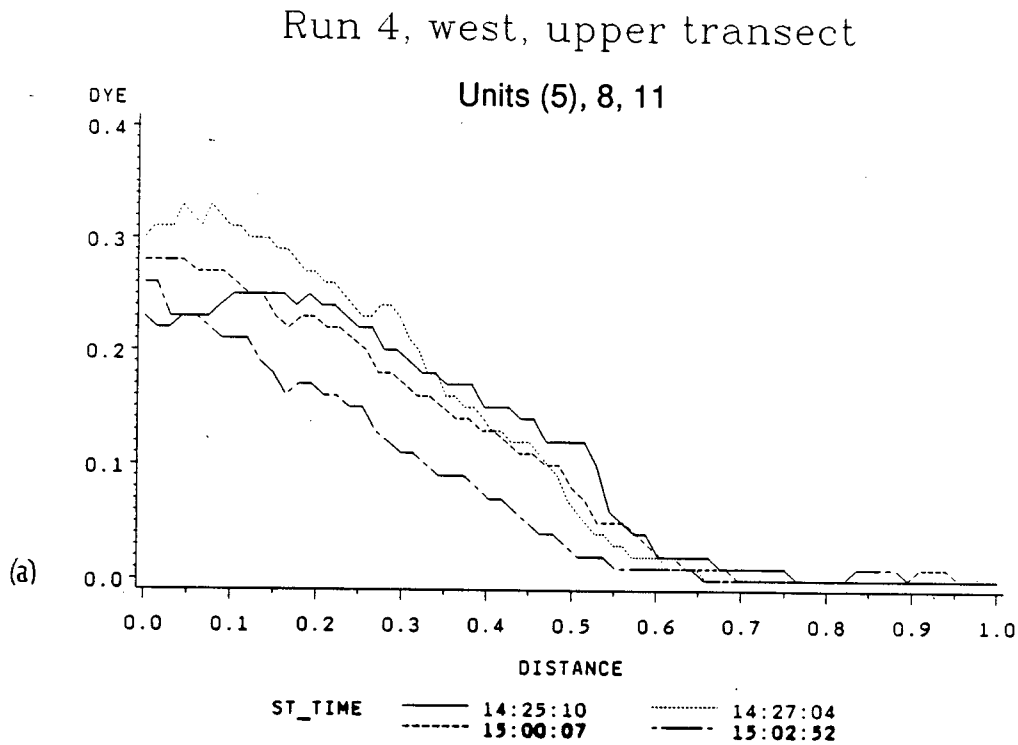


Figure 21. Dye concentration (ppb) along the upper transect during run 3 (Units 2, 3, and 5 operating). Distance is the proportional distance from the west shore (a) or from Rowland Island (b). St_time is the start time for each replicate.



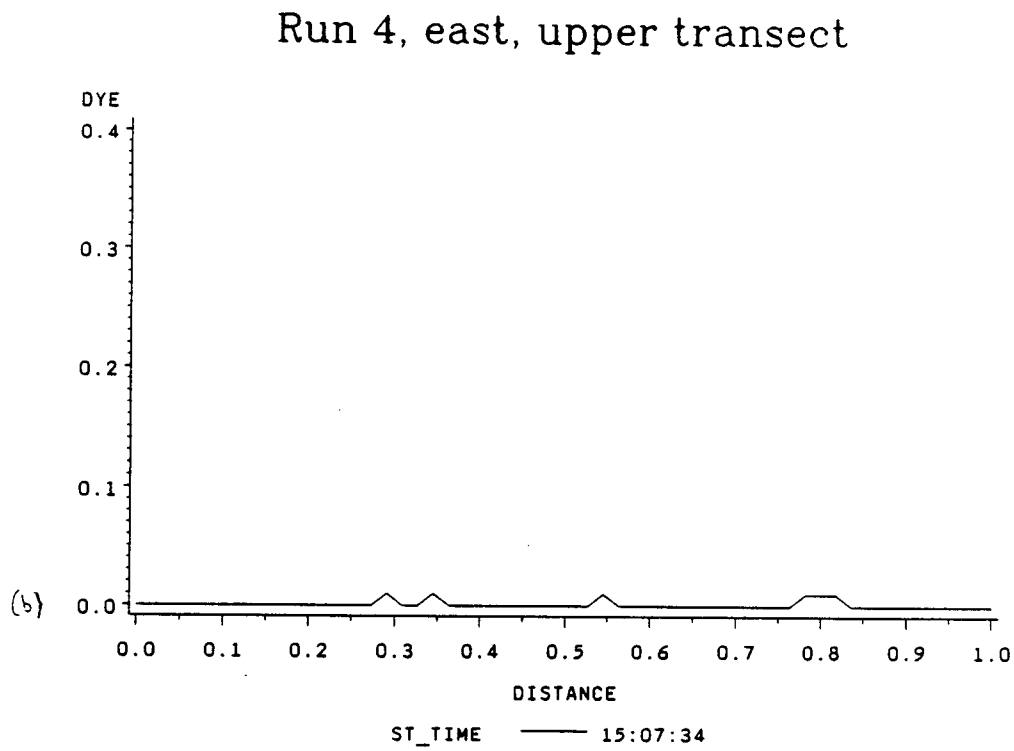


Figure 22. Dye concentration (ppb) along the upper transect during run 4 (Units 5, 8, and 11 operating). Distance is the proportional distance from the west shore (a) or from Rowland Island (b). St_time is the start time for each replicate.

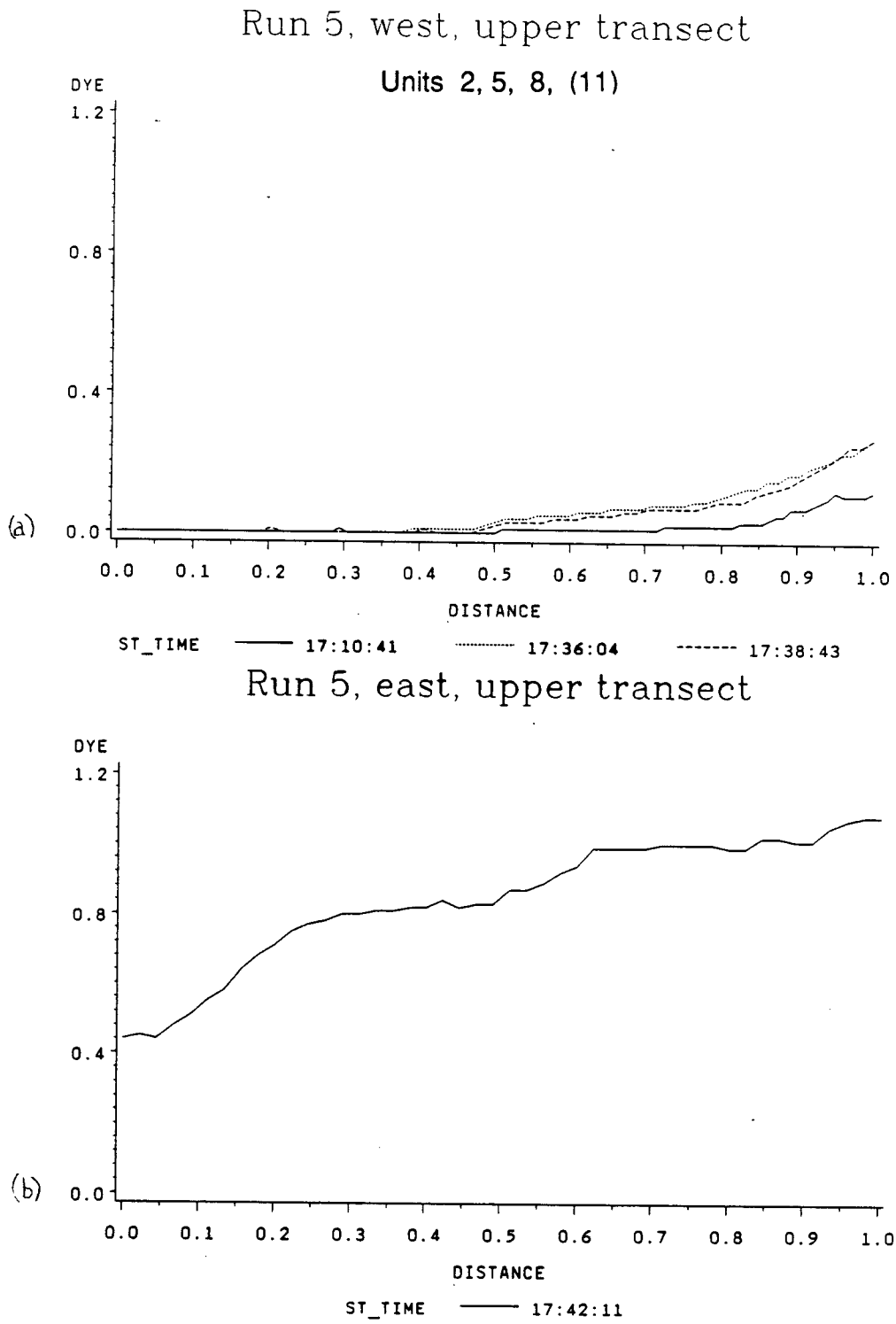


Figure 23. Dye concentration (ppb) along the upper transect during run 5 (Units 2, 5, 8, and 11 operating). Distance is the proportional distance from the west shore (a) or from Rowland Island (b). St_time is the start time for each replicate.

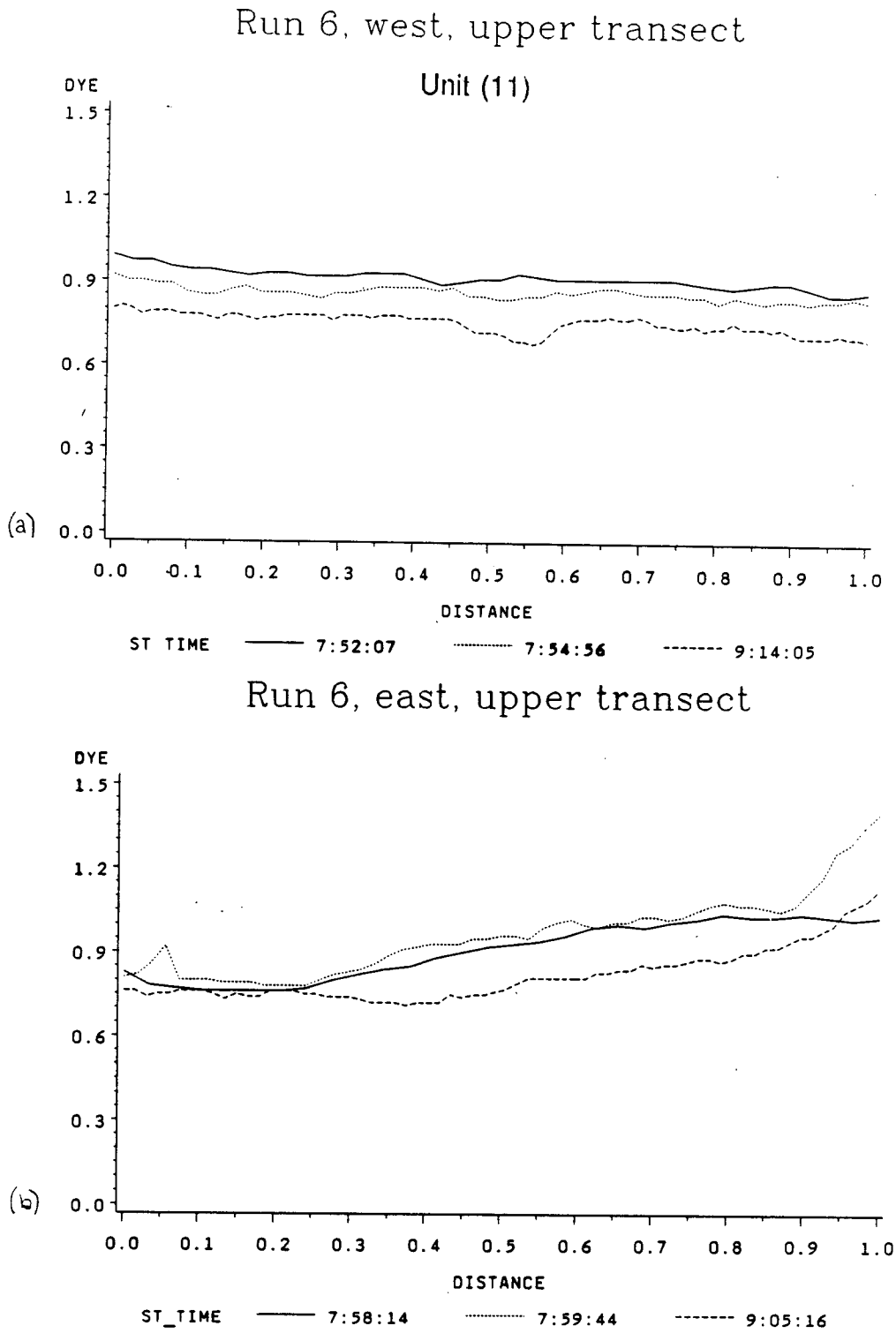


Figure 24. Dye concentration (ppb) along the upper transect during run 6 (Unit 11 operating). Distance is the proportional distance from the west shore (a) or from Rowland Island (b). St_time is the start time for each replicate.

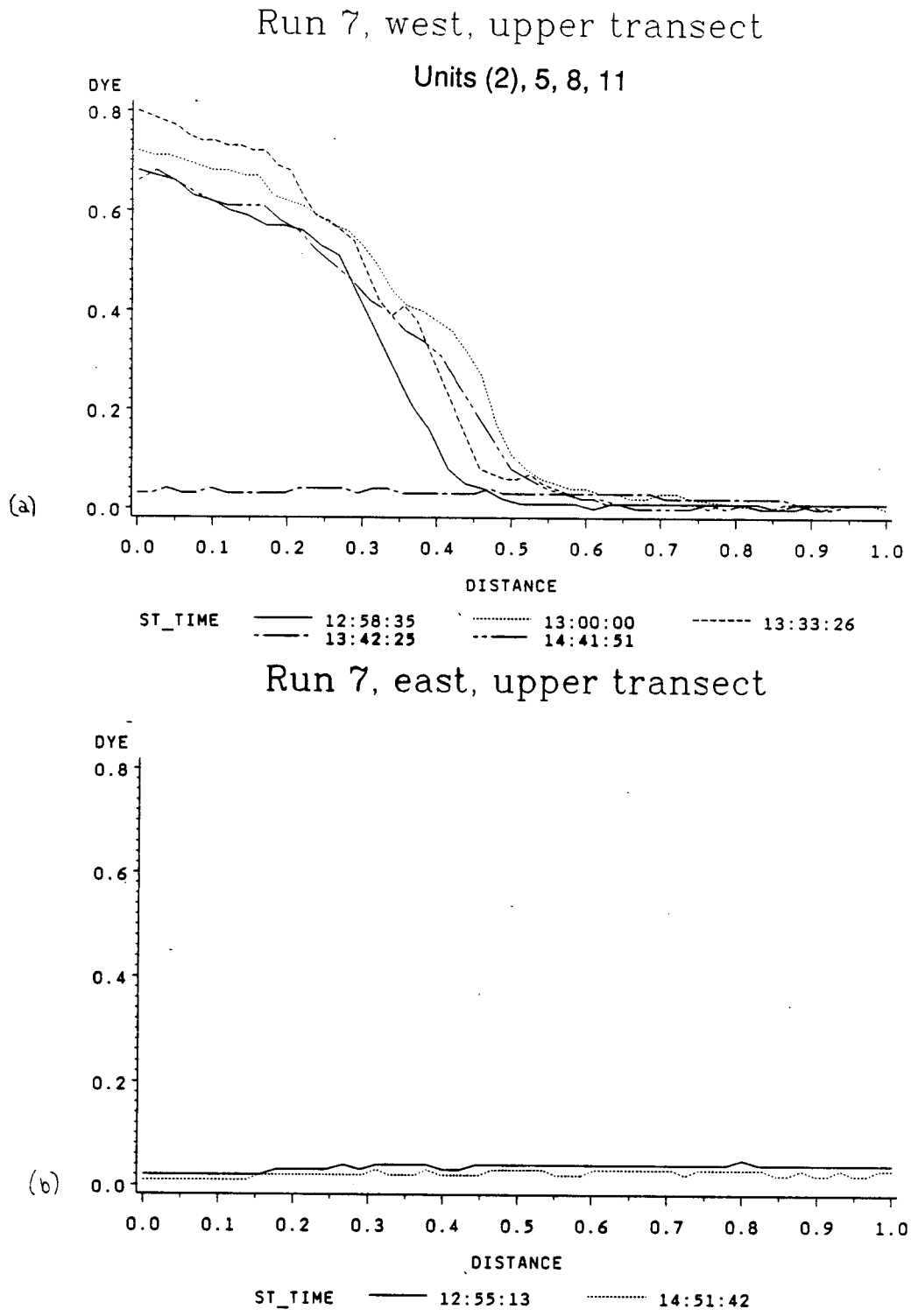


Figure 25. Dye concentration (ppb) along the upper transect during run 7 (Units 2, 5, 8, and 11 operating). Distance is the proportional distance from the west shore (a) or from Rowland Island (b). St_time is the start time for each replicate.

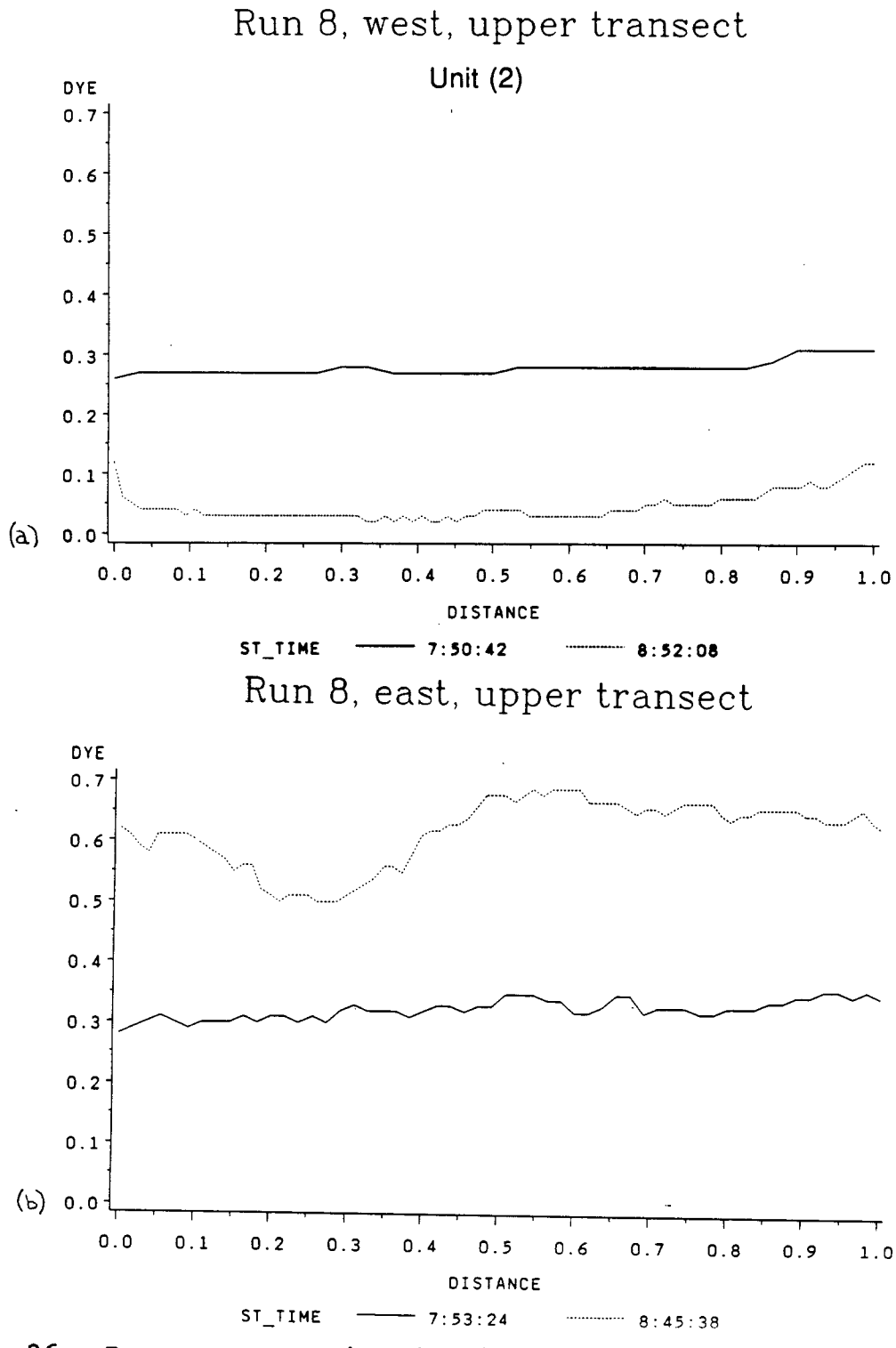


Figure 26. Dye concentration (ppb) along the upper transect during run 8 (Unit 2 operating). Distance is the proportional distance from the west shore (a) or from Rowland Island (b). St_time is the start time for each replicate.

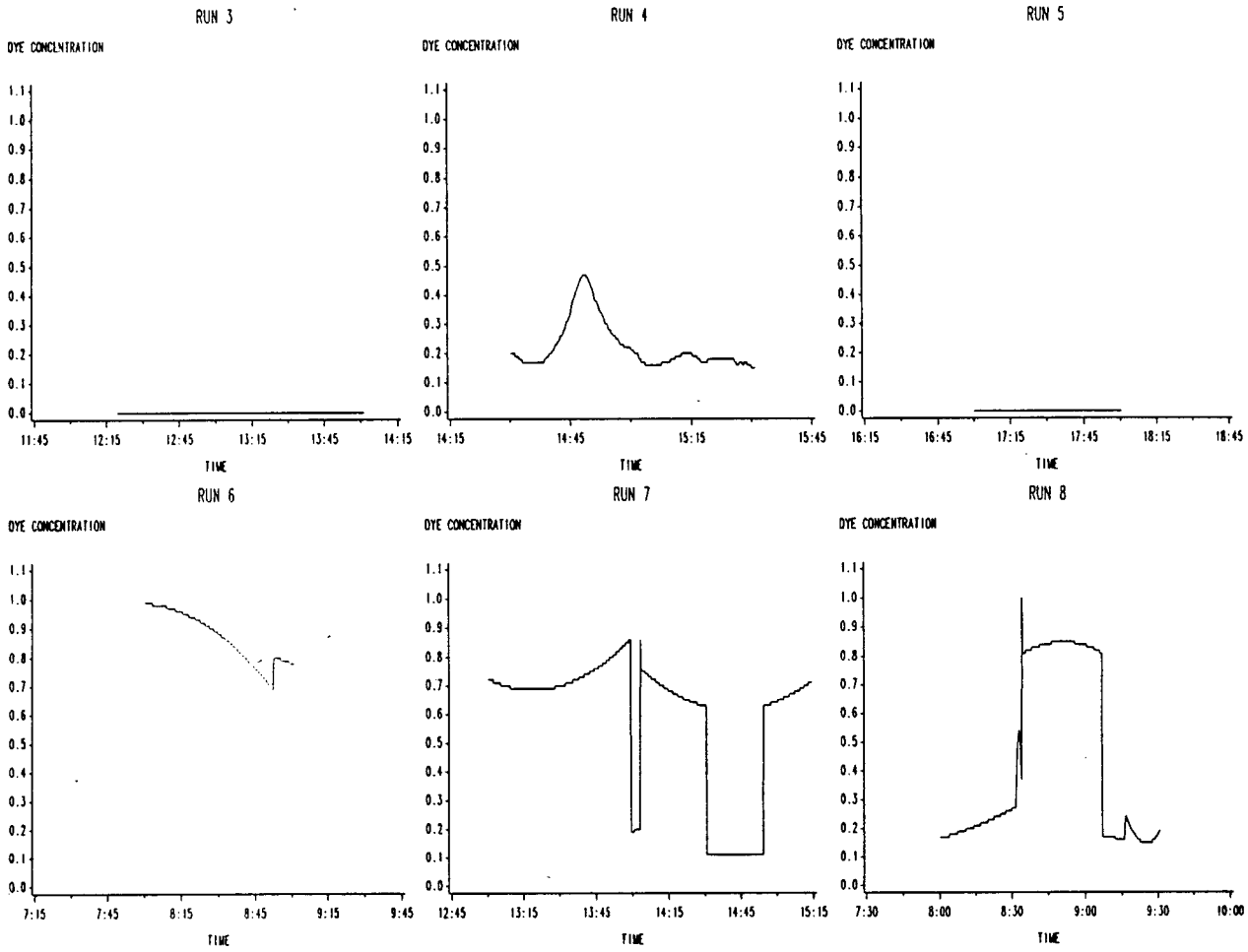


Figure 27. Dye concentrations (ppb) at PECO's present monitoring location

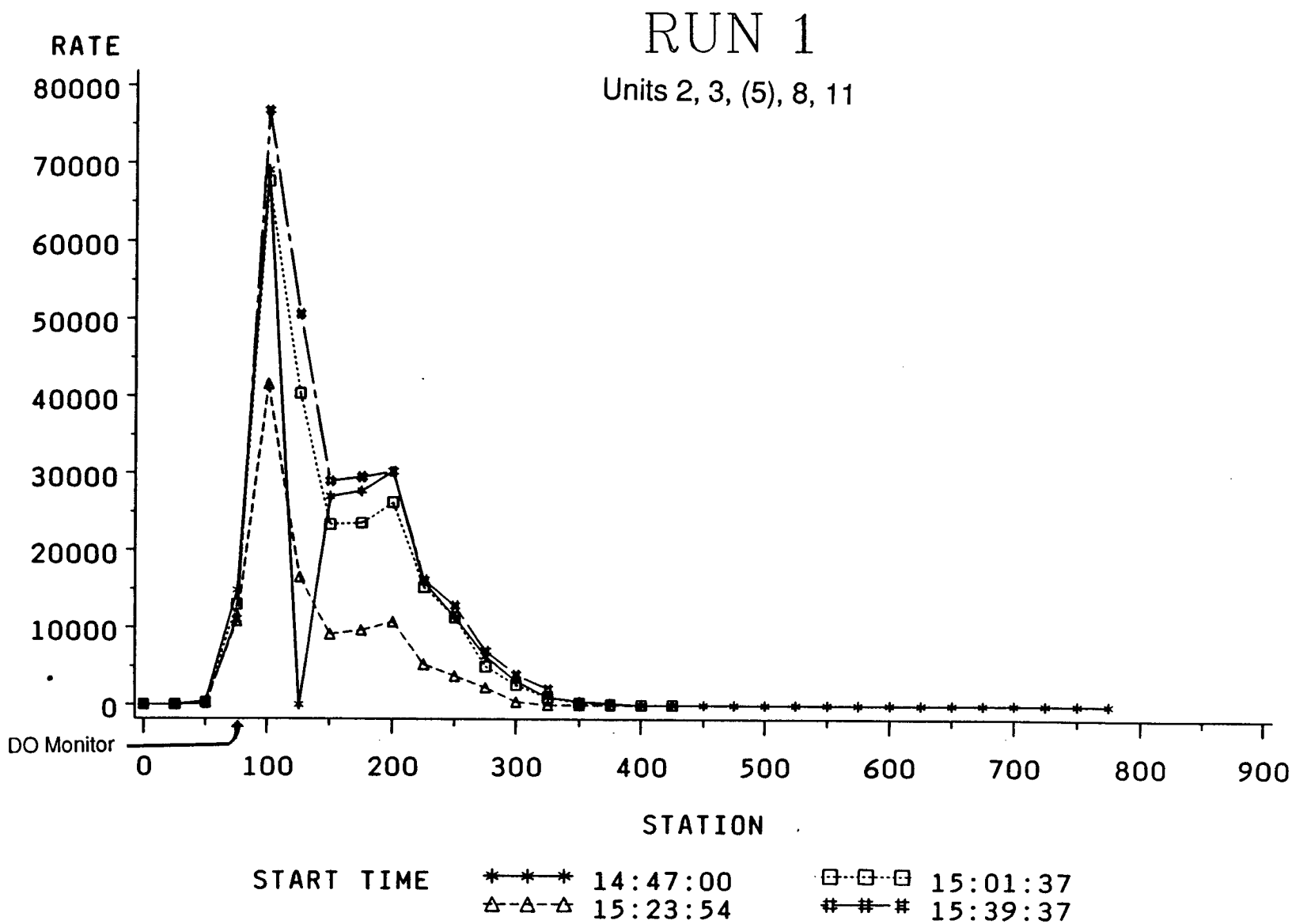


Figure 28. Dye flux (g soln./min) along the lower transect during run 1 (Units 2, 3, 5, 8, and 11 operating). Distance is the distance in meters from the west shore.

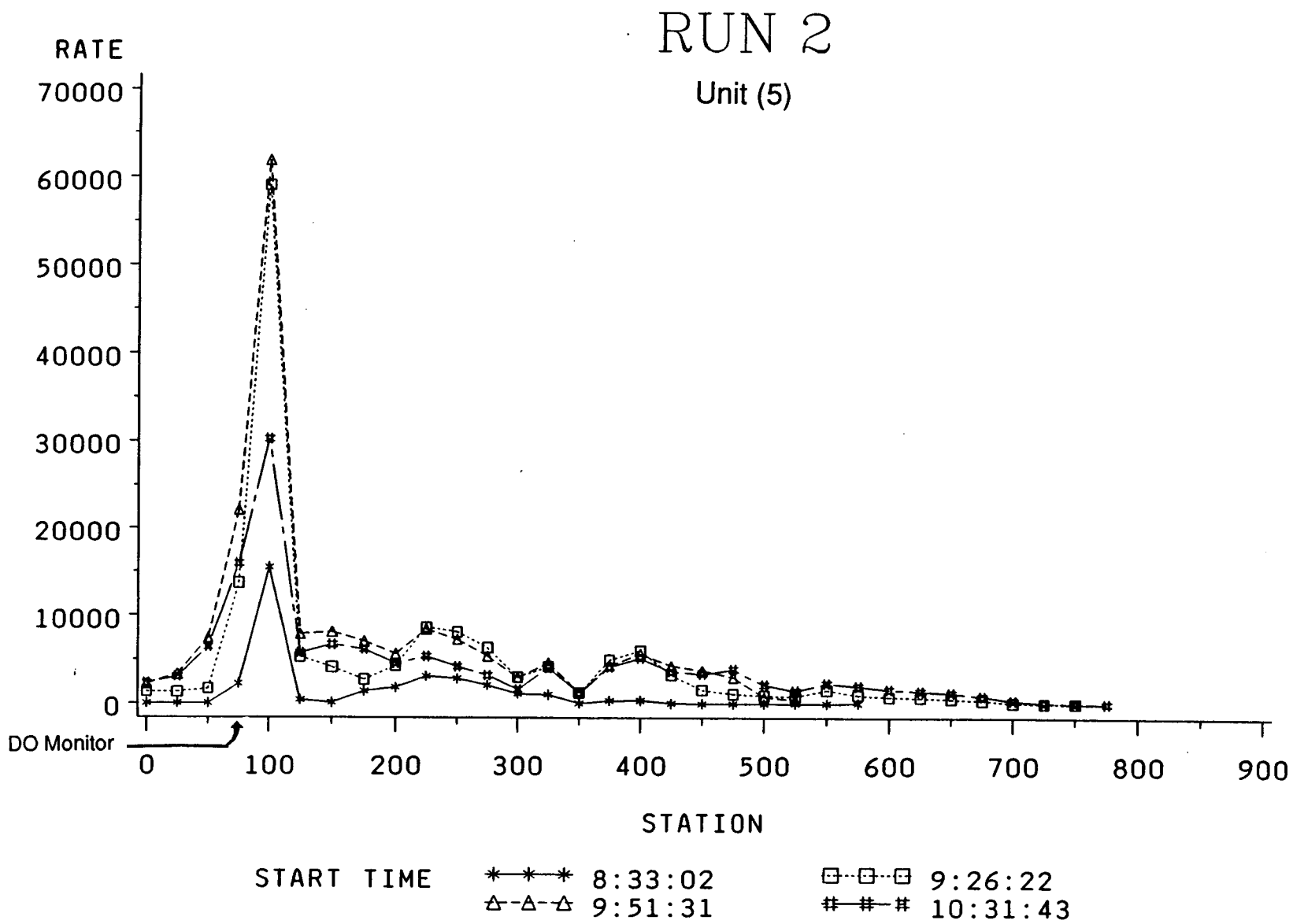


Figure 29. Dye flux (g soln./min) along the lower transect during run 2 (Unit 5 operating). Distance is the distance in meters from the west shore.

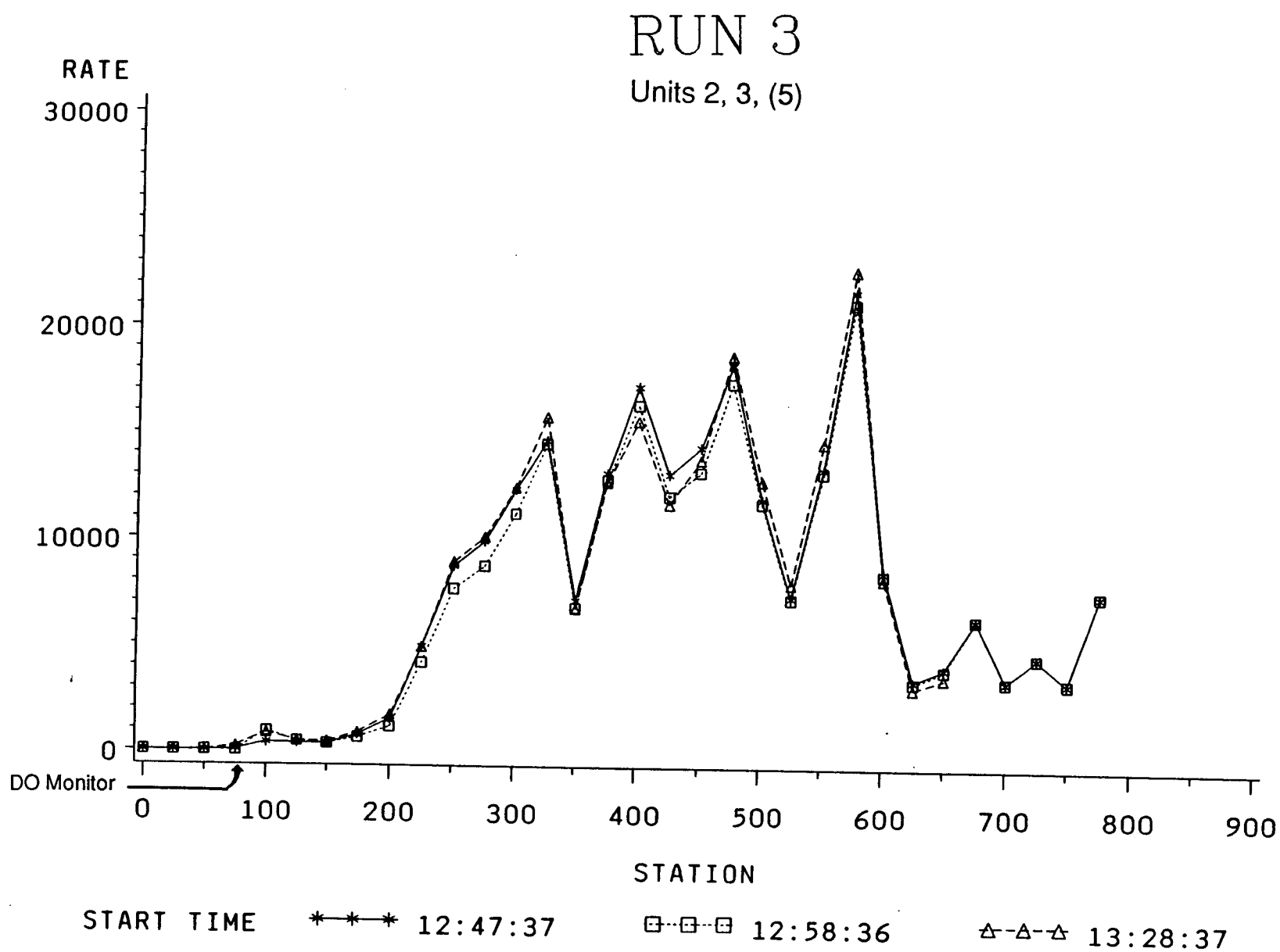


Figure 30. Dye flux (g soln./min) along the lower transect during run 3 (Units 2, 3, and 5 operating). Distance is the distance in meters from the west shore.

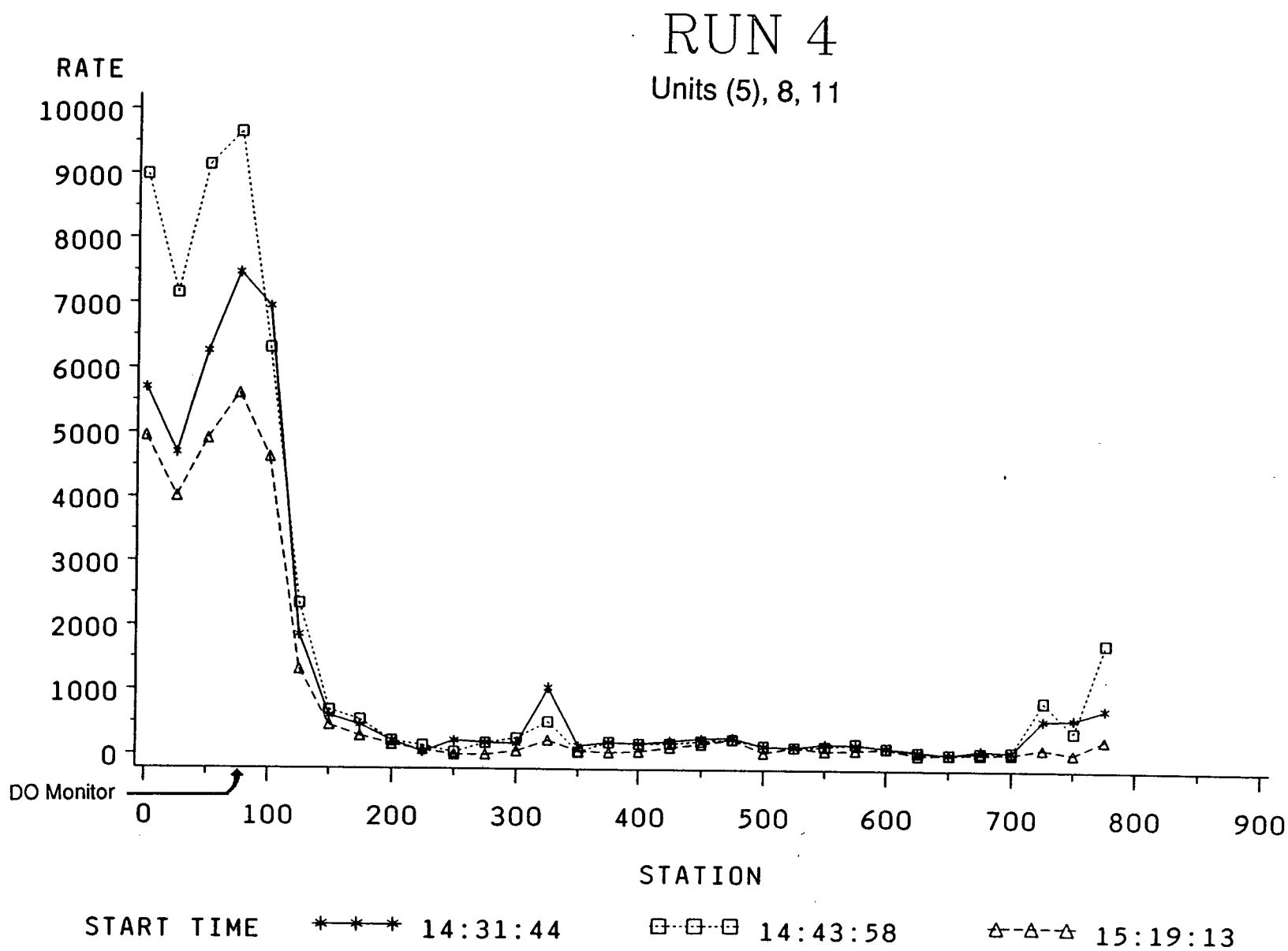


Figure 31. Dye flux (g soln./min) along the lower transect during run 4 (Units 5, 8, and 11 operating). Distance is the distance in meters from the west shore.

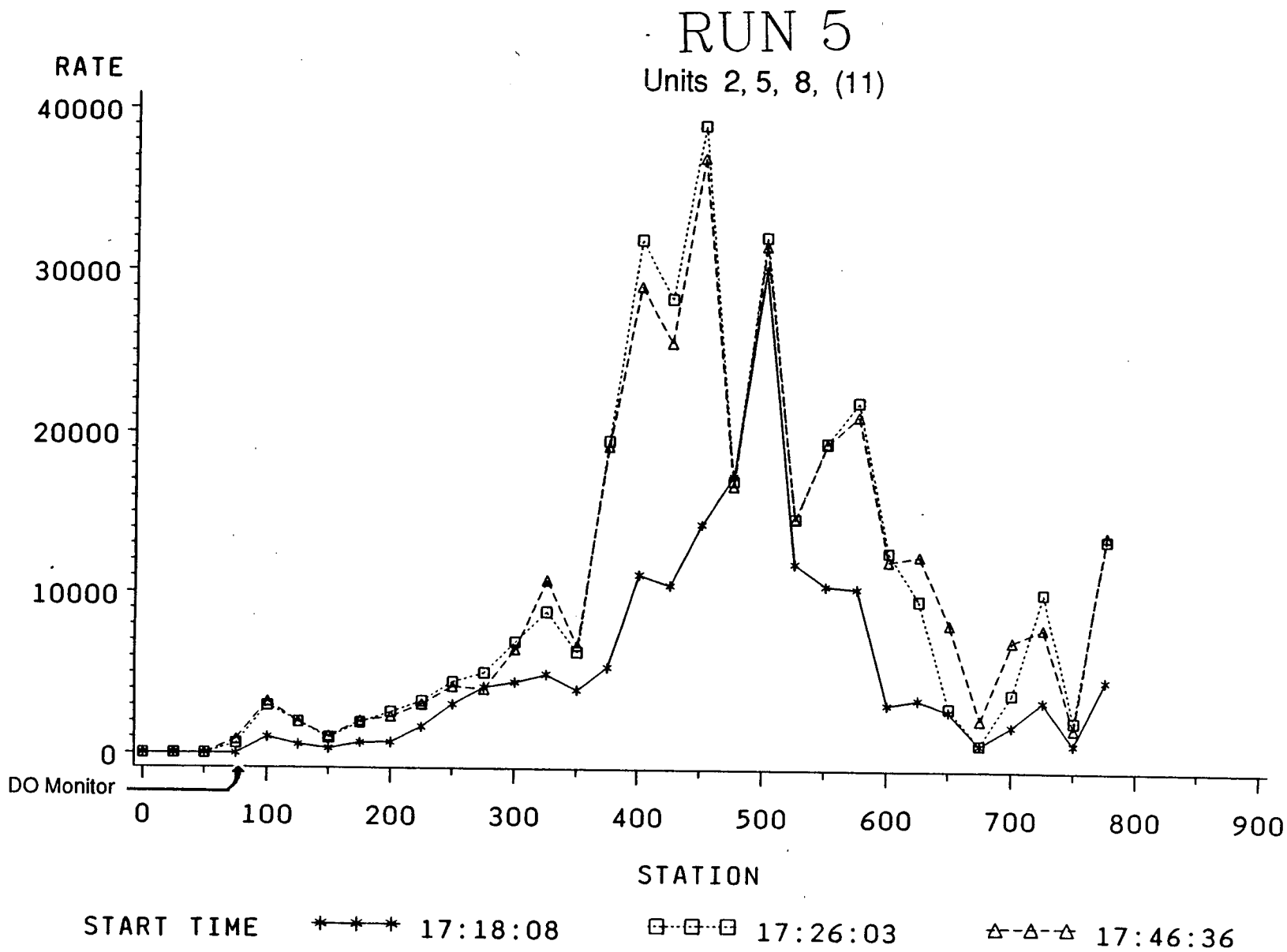


Figure 32. Dye flux (g soln./min) along the lower transect during run 5 (Units 2, 5, 8, and 11 operating). Distance is the distance in meters from the west shore.

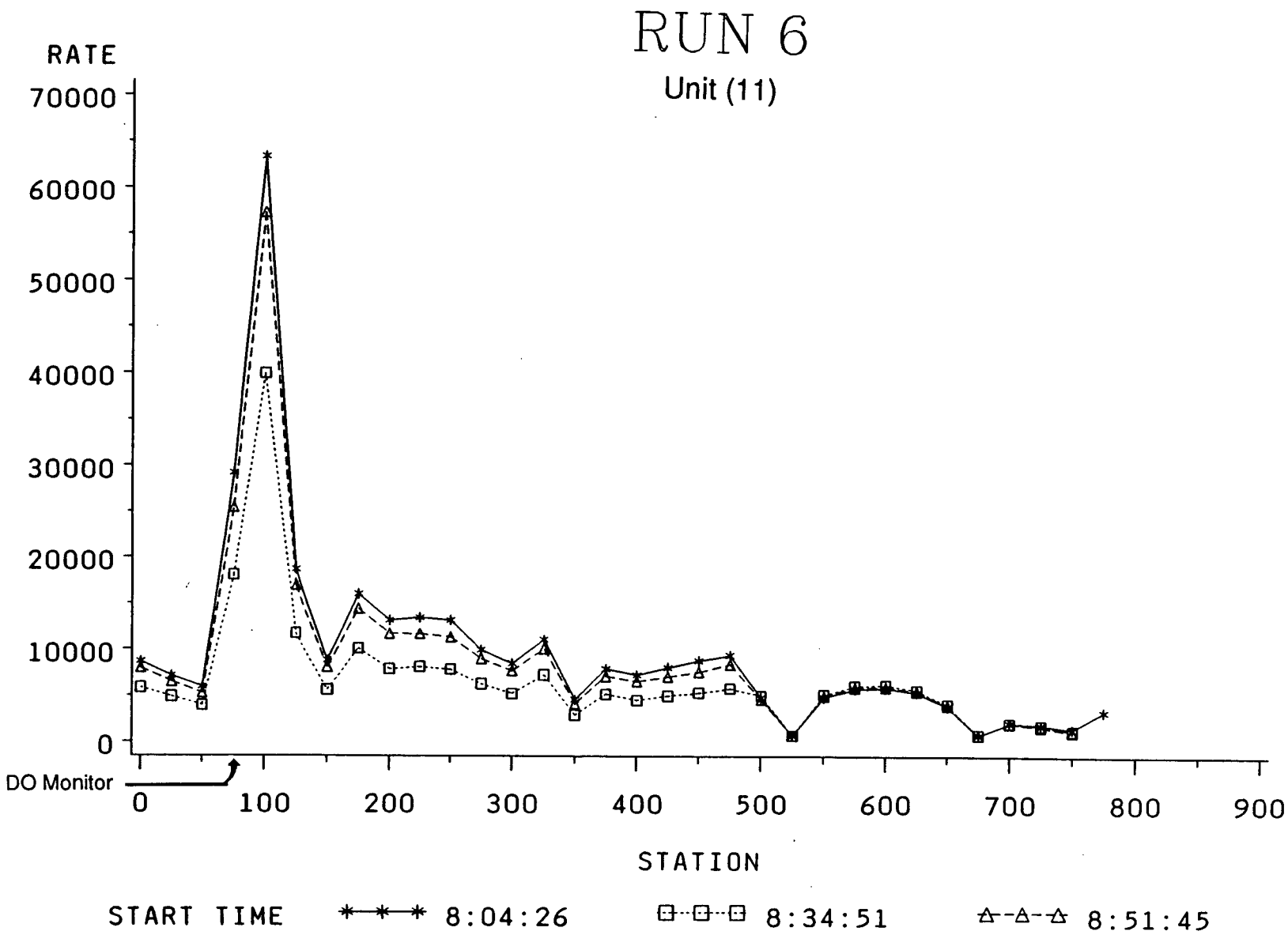


Figure 33. Dye flux (g soln./min) along the lower transect during run 6 (Unit 11 operating). Distance is the distance in meters from the west shore.

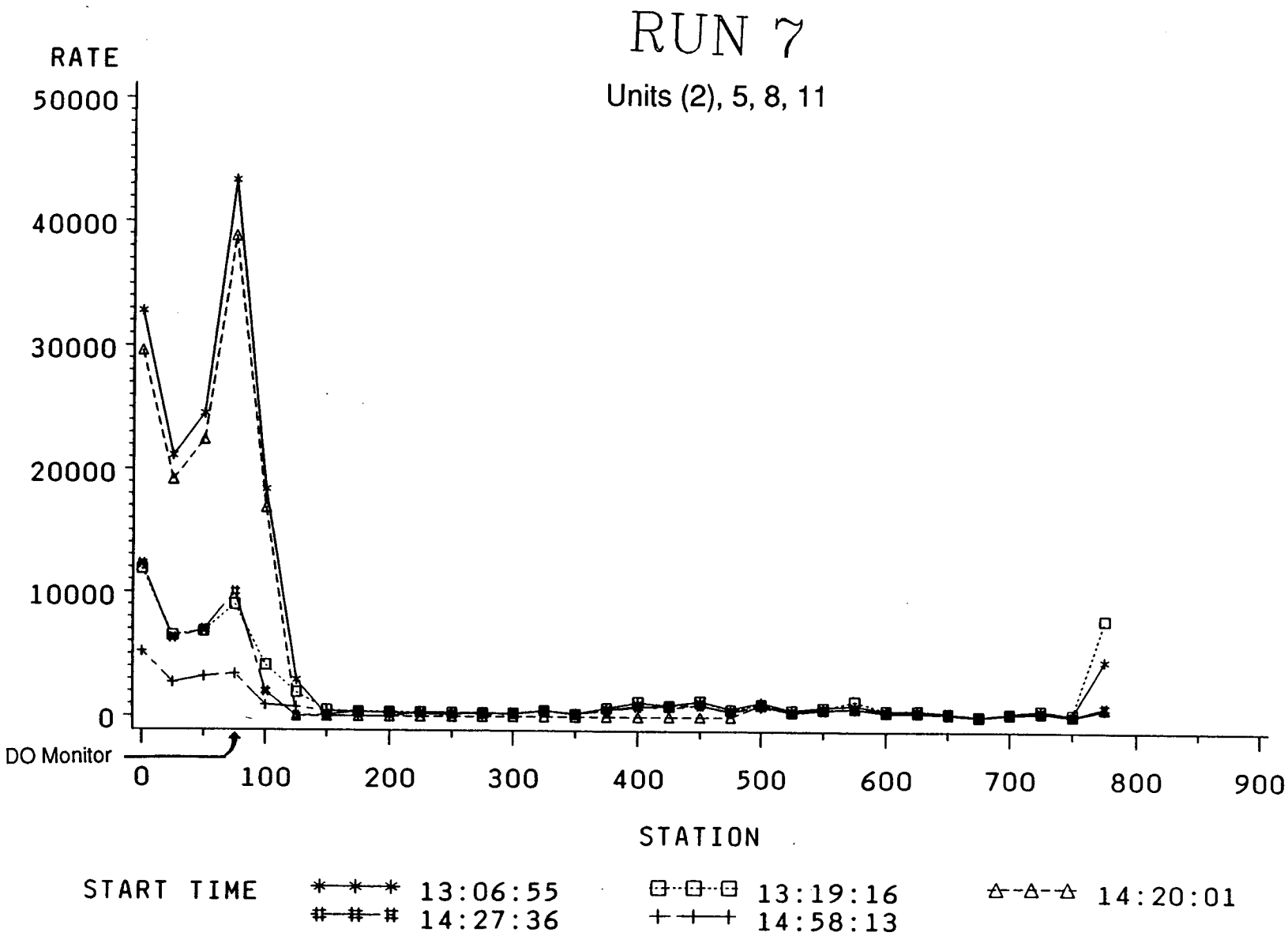


Figure 34. Dye flux (g soln./min) along the lower transect during run 7 (Units 2, 5, 8, and 11 operating). Distance is the distance in meters from the west shore.

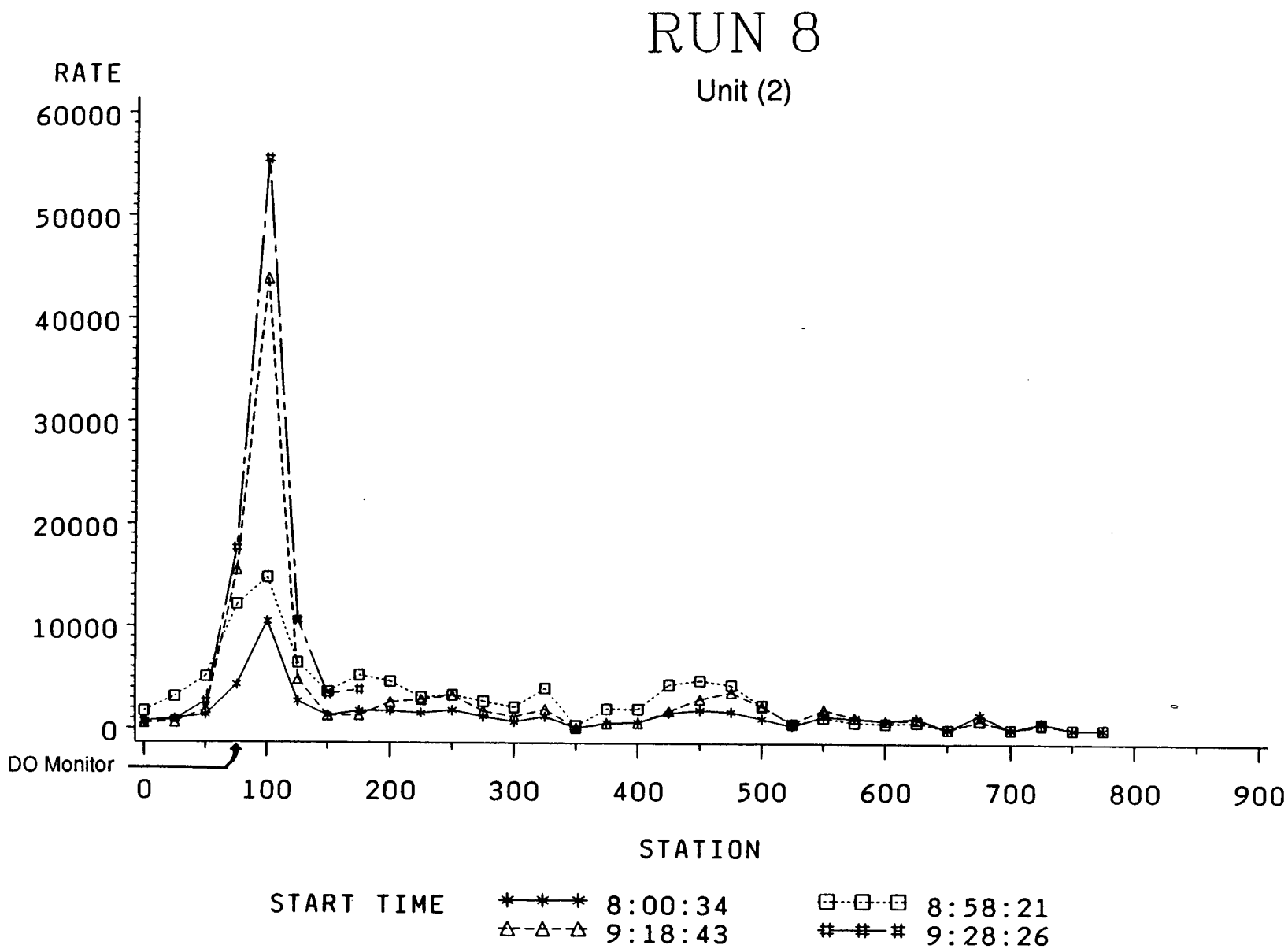


Figure 35. Dye flux (g soln./min) along the lower transect during run 8 (Unit 2 operating). Distance is the distance in meters from the west shore.