

1 Monitoring Data

Note: Due to a suspension of works the monitoring programme has been reduced.

Those parameters still being monitored include:

1. Daily water samples for on-site analysis
2. Daily water sampling, for laboratory analysis, at SP1, SP3
3. Weekly water sampling, for laboratory analysis, at D22 and D62
4. Monthly groundwater sampling, for laboratory analysis of the MP series
5. Downloading the in-situ Sondes, TSS & Orthophosphate analysers and the weather station
6. Monthly air quality monitoring.

Vibration and noise monitoring have been suspended

All monitoring data is presented in tabular form, see attached. The sonde data is presented graphically.

1.1 Rainfall Data

The weather data is generated by the on-site weather station.

Date	Rainfall (mm)		Date	Rainfall (mm)
21/10/2005	8.8		28/10/2005	1.8
22/10/2005	0.4		29/10/2005	8.0
23/10/2005	6.2		30/10/2005	12.2
24/10/2005	5.6		31/10/2005	6.0
25/10/2005	3.6		01/11/2005	1.6
26/10/2005	12.0		02/11/2005	12.2
27/10/2005	10.0		03/11/2005	13.2
Total = 101.6 mm				

1.2 Summary

Environment	Comments
Surface Water	<p>From the data available, on average all parameters were within the limits set.</p> <p>The calibration of the TSS analyser slipped around the 27-10-05. A recalibration sample was taken on the 2-11-05 and the system reset on the 4-11-05. This action is supported by the results from the accredited lab. It is now fully functioning.</p> <p>The Orthophosphate analyser was maintained on the 3-11-05 and is now fully functioning. Lab results for the reporting period show an increase in orthophosphate levels of just above the action limit but not the trigger limit.</p> <p>SP1</p> <ul style="list-style-type: none"> - Conductivity probe is still causing problems so will be switched out on the 8-11-05. - turbidity probe recorded high values (28-10-05 to the 03-11-05) these values are not seen in the site or lab samples and are thought to be due to a build up of material at the sondes base. To ensure that breakaway pieces of peat do not clog the probes a large bore cage will be placed around the sonde(s). <p>All locations continue to experience problems with the in-stream dissolved oxygen probes even after the new calibration protocol was followed.</p>
Groundwater	<p>The sonde data downloaded is shown graphically and is representative of concentrations normally recorded.</p> <p>2 No. blips (21-10-05 & 27-10-05) are seen in the graphs but these coincide to periods when the in-situ monitors were removed to allow sampling.</p> <p>Laboratory samples are currently being analysed.</p>
Weather	<p>There was a total of 101.6 mm of rainfall during the reporting period, with a temperature range of 6.3 to 17.5 °C</p>

2 Environmental Incidents/Near misses/Complaints

There were 2 incidents and a near miss during the reporting period, the details are summarised in the below.

Date and Time	25-10-05	29-10-05
Location	SP1	Compound (adjacent to Lab)
Nature of Incident	Exceedance of PO ₄ Action Limit	A40 Fuel Leak
Actions Taken	1. No action was taken.	1. Machine overfilled and diesel spilt when the machine was moved. 2. Spill was cleaned up and the small area of contaminated soil excavated. 3. The absorbent material bagged for disposal with licensed carrier.
Category	Near Miss	Incident
Status	Open	Closed

Date and Time	29-10-05
Location	Compound (adjacent to Lab)
Nature of Incident	Oil Tanker Fuel Leak
Actions Taken	1. Leak from the tanker hosing 2. Bucket with spill absorbing material placed under the hose line connection 3. Tanker moved from compound area to bunded area. 4. Area of contaminated soil excavated and contained for disposal with licensed carrier
Category	Incident
Status	Closed

Surface Water Monitoring Record Sheet											no... 1 of 1				
Conducted by						Approved by									
Name: Sandra Barber				Signed		Name					Leslie Finnegan		Signed		
Determinant Results															
	Date	Cond. µS/cm	Temp °C	Turbidity NTU	DO % Sat	TSS mg l ⁻¹	pH	Ortho-phosphate as P µg l ⁻¹	Nitrate as N mg l ⁻¹	Total Phosphorus as P (sw) mg l ⁻¹	Ammonia as NH ₃ -N mg l ⁻¹	Ammonium as NH ₄ mg l ⁻¹	Nitrite as N mg l ⁻¹	Comments	
Action Limits		400		150		25	<3.5 or >7.5	40			0.2				
Target Limits		500		200		35	<3 or >8	70			0.5				
Settlement Pond Monitoring															
SP1 - Lab	21-Oct-05	196.0		4.5		4	7.1	26	0.10	0.067	0.020	0.0260	0.005		
SP3 - Lab	21-Oct-05	212.0		12.1		8	7.0	46	0.16	0.094	0.158	0.2030	0.005		
SP1 - Lab	24-Oct-05	191.0		3.9		4	6.7	27	0.13	0.056	0.009	0.0110	0.005		
SP3 - Lab	24-Oct-05	172.0		12.8		8	6.6	53	0.10	0.094	0.044	0.0560	0.005		
SP1 - Lab	25-Oct-05	192.0		4.1		6	7.2	42	0.15	0.086	0.007	0.0100	0.005		
SP3 - Lab	25-Oct-05	201.0		10.9		4	7.2	70	0.14	0.109	0.038	0.0490	0.005		
SP1 - Lab	26-Oct-05	178.0		4.9		4	6.8	43	0.11	0.075	0.011	0.0140	0.005		
SP3 - Lab	26-Oct-05	192.0		18.3		14	6.8	65	0.14	0.112	0.056	0.0720	0.005		
SP1 - Lab	27-Oct-05	161.0		10.8		7	6.8	48	0.15	0.109	0.018	0.0240	0.005		
SP3 - Lab	27-Oct-05	182.0		19.5		8	6.7	69	0.23	0.104	0.077	0.1000	0.008		
SP1 - Lab	28-Oct-05	153.0		14.6		6	6.8	54	0.15	0.200	0.032	0.0410	0.005		
SP3 - Lab	28-Oct-05	173.0		24.6		12	6.7	66	0.26		0.087	0.1120	0.007		
SP1 - Lab	01-Nov-05	146.0		15.4		8	6.4	35	0.10	In Progress	0.035	0.0450	0.005		
SP3 - Lab	01-Nov-05	166.0		31.1		12	6.3	46	0.22	In Progress	0.112	0.1440	0.005		
SP1 - Lab	02-Nov-05	144.0		17.3		9	6.8	47	0.12	In Progress	0.048	0.0610	0.005		
SP3 - Lab	02-Nov-05	166.0		33.8		14	6.6	55	0.18	In Progress	0.142	0.1830	0.005		
SP1 - Lab	03-Nov-05	152.0		17.6		11	6.3	42	0.19	In Progress	0.031	0.0400	0.005		
SP3 - Lab	03-Nov-05	172.0		29.0		15	6.2	64	0.10	In Progress	0.089	0.1150	0.005		
SP1	21-Oct-05	228.0	11.1	13.4	87		6.8								
SP3	21-Oct-05	238.0	9.8	37.8	89		6.8								
SP1	24-Oct-05	210.0	11.4	4.5	88		7.3								
SP3	24-Oct-05	197.9	11.2	14.9	89		6.8								
SP1	25-Oct-05	223.0	11.2	5.7	90		6.8								
SP3	25-Oct-05	233.0	10.8	12.2	89		6.8								
SP1	26-Oct-05	205.0	11.0	7.2	94		6.7								
SP3	26-Oct-05	223.0	11.2	21.5	88		6.7								
SP1	27-Oct-05	180.0	13.1	12.8	87		7.0								
SP3	27-Oct-05	200.0	13.4	16.9	87		6.8								
SP1	28-Oct-05	175.1	12.1	22.7	86		6.7								
SP3	28-Oct-05	195.8	11.8	27.2	89		6.9								
SP1	29-Oct-05	177.9	11.3	16.0	82		6.8								
SP3	29-Oct-05	212.0	9.8	31.7	85		6.8								
SP1	01-Nov-05	164.0	9.6	17.2	87		6.8								
SP3	01-Nov-05	191.2	7.9	34.6	89		6.8								
SP1	02-Nov-05	172.9	9.6	19.7	87		6.9								
SP3	02-Nov-05	197.5	9.4	38.7	90		6.8								
SP1	03-Nov-05	157.2		18.2	18		6.2								
SP3	03-Nov-05	192.0		29.4	29		6.0								
Additional Surface Water Monitoring															
D22 - Lab	21-Oct-05	187.0		1.7		4	6.3	111	0.1	0.153	0.035	0.045	0.005		
D62 - Lab	21-Oct-05	145.0		0.7		4	4.9	46	0.1	0.076	0.018	0.023	0.005		
D22 - Lab	25-Oct-05	176.0		1.4		4	6.5	136	0.1	0.153	0.018	0.023	0.005		
D62 - Lab	25-Oct-05	131.0		0.6		4	5.3	40	0.1	0.067	0.027	0.034	0.005		
D22 - Lab	01-Nov-05	170.0		1.8		4	5.9	107	0.1	In Progress	0.036	0.046	0.005		
D62 - Lab	01-Nov-05	122.0		2.0		4	5.2	53	0.1	In Progress	0.031	0.040	0.005		
D22	21-Oct-05	219.0	10.8	3.8	79.0		6.4								
D62	21-Oct-05	162.4	10.4	4.0	78.0		4.7								
D22	25-Oct-05	209.0	11.0	1.5	73.0		6.2								
D62	25-Oct-05	157.7	11.1	2.3	80.0		4.7								
D22	01-Nov-05	203.0	7.9	1.5	79.0		6.4								
D62	01-Nov-05	138.0	9.3	0.5	82.0		4.7								

Note: LAB - Carried out by CLS Laboratories
 Grey shaded areas denote parameters that cannot be analysed on-site or the lab.
 Results detailed above are from on site grab samples only

Groundwater Monitoring Record Sheet											no...			1	of	1
Conducted by						Approved by										
Name: Sandra Barber			Signed			Name Leslie Finnegan			Signed							
Determinant Results																
Location	Date	DO % Sat	Temp °C	Cond. uS/cm	pH	TDS mg l ⁻¹	BOD mg l ⁻¹	TSS mg l ⁻¹	Phosphate as P ug l ⁻¹	Total Hardness mg/l CaCO3	Nitrite as NO ₂ mg l ⁻¹	Nitrate as NO ₃ mg l ⁻¹	Phosphate as PO ₄ mg l ⁻¹			
MP 1	14/10/2005			299	5.87	222	2	55	0.604	52.2	<0.017	<0.44	1.854			
MP 2	27/10/2005	15	12	544	6.4	338										
MP 3	14/10/2005			390	5.73	268	11	192	0.704	79.6	<0.017	<0.44	2.126			
MP 4	27/10/2005	20	11.6	445	5.97	304										
MP 5	14/10/2005			393	6.05	289	10	55	0.273	151.2	<0.017	<0.44	0.837			
MP 6	27/10/2005	11	11.1	458	6.33	313										
MP 7	27/10/2005	10	12.1	394	6	267										
MP 8	14/10/2005			453	6.16	334	9	276	0.093	109.8	<0.017	<0.44	0.284			
MP 9	14/10/2005						<1	<4	0.172	72.6	<0.017	<0.44	0.528			
MP 10a	14/10/2005			706	6.43	513	10	58529	<0.01	193.5	<0.017	<0.44	<0.03			
MEL BR4a	14/10/2005			324	6.33	240	3	380	0.132	102.6	<0.017	1.961	0.404			

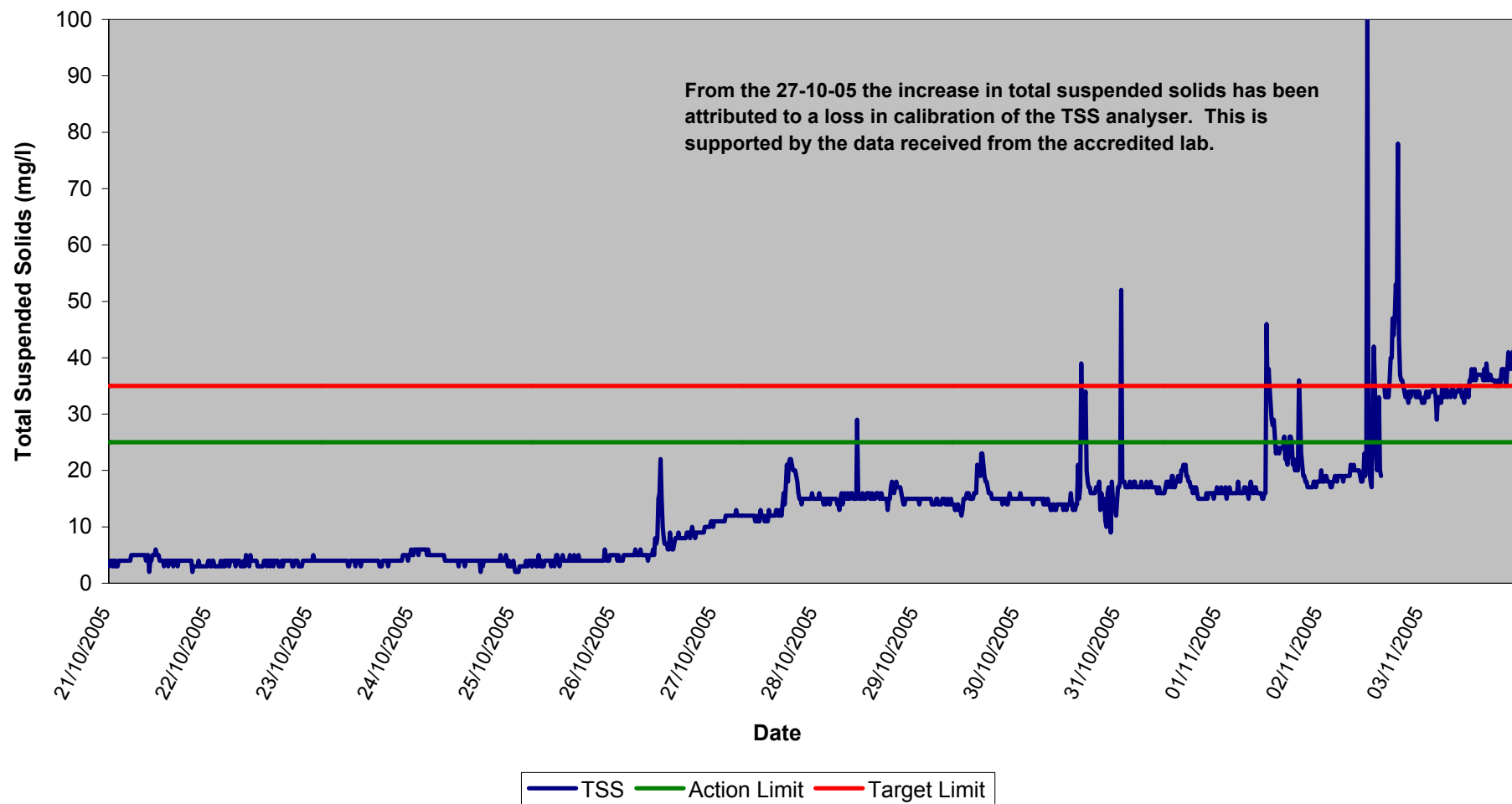
Location	Date	Ammonia mg l ⁻¹	Arsenic ug l ⁻¹	Mercury ug l ⁻¹	Lead ug l ⁻¹	Aluminium ug l ⁻¹	Zinc ug l ⁻¹	Chromium ug l ⁻¹	Copper ug l ⁻¹	Cadmium ug l ⁻¹	Iron ug l ⁻¹	Tin ug l ⁻¹	
MP 1	14/10/2005		<5	<0.05	<5	<3	13	212	<5	<0.4	244	<5	
MP 2	27/10/2005												
MP 3	14/10/2005		<5	<0.05	<5	278	15	206	<5	<0.4	8726	<5	
MP 4	27/10/2005												
MP 5	14/10/2005		<5	<0.05	<5	112	30	212	11	<0.4	2688	<5	
MP 6	27/10/2005												
MP 7	27/10/2005												
MP 8	14/10/2005		<5	<0.05	<5	<3	13	212	<5	<0.4	<1	<5	
MP 9	14/10/2005		<5	<0.05	<5	<3	25	211	<5	<0.4	<1	<5	
MP 10a	14/10/2005		<5	<0.05	<5	8	14	214	<5	0.4	<1	<5	
MEL BR4a	14/10/2005		<5	<0.05	<5	42	11	217	<5	<0.4	54	<5	

Note: Results detailed above are from on site grab samples only. Data recorded continuously is shown on the following graphs
 Graphs provided for MP1, MP2, MP4, MP6 and MP7 for: Temperature, Conductivity, and pH.

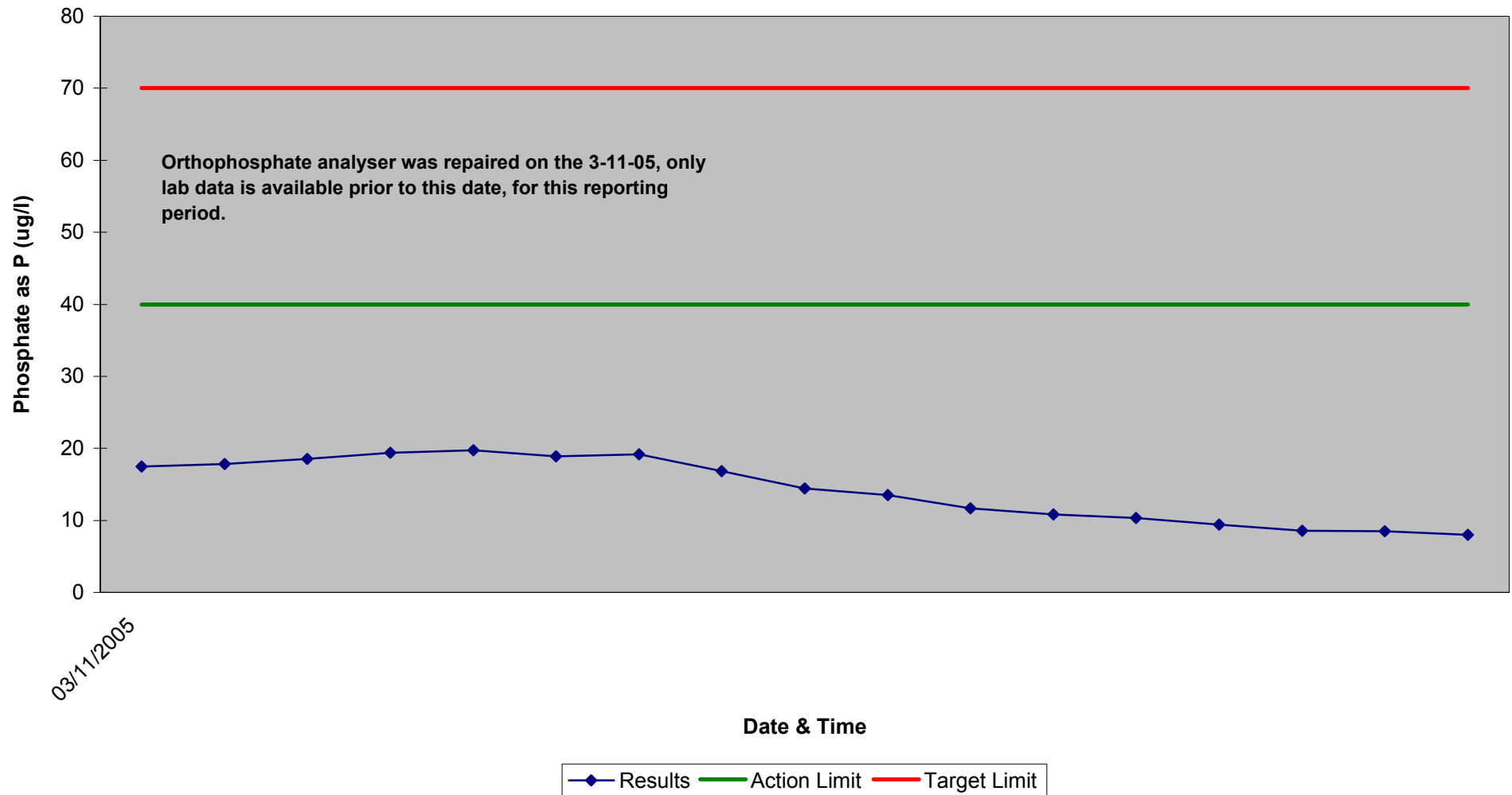
Dust Monitoring Record Sheet					no... 1 of 1		
Conducted by				Approved by			
Name: Sandra Barber		Signed		Name: Leslie Finnegan		Signed	
Determinant Results							
	Date Positioned	Date Removed	Ref. Number	Date Dispatched	Date Returned	Weight (mg/sq.m/day)	Comments
Target (Consent) Limit 350 mg m ² d ⁻¹ on as a 30 day average							
D1	31/01/2005	02/03/2005	59793	02/03/2005	24/03/2005	36	
D2	31/01/2005	02/03/2005	59794	02/03/2005	24/03/2005	10	
D3	31/01/2005	02/03/2005	59795	02/03/2005	24/03/2005	25	
D4	31/01/2005	02/03/2005	59796	02/03/2005	24/03/2005	22	
D1	02/03/2005	01/04/2005	61907	01/04/2005	08/04/2005	15	
D2	02/03/2005	01/04/2005	61908	01/04/2005	08/04/2005	15	
D3	02/03/2005	01/04/2005	61909	01/04/2005	08/04/2005	16	
D4	02/03/2005	01/04/2005	61910	01/04/2005	08/04/2005	14	
D1	01/04/2005	04/05/2005	64400	04/05/2005	09/05/2005	9	
D2	01/04/2005	04/05/2005	64401	04/05/2005	09/05/2005	23	
D3	01/04/2005	04/05/2005	64402	04/05/2005	09/05/2005	16	
D4	01/04/2005	04/05/2005	64403	04/05/2005	09/05/2005	7	
D1	04/05/2005	07/06/2005	67524	07/06/2005	10/06/2006	49	
D2	04/05/2005	07/06/2005	67525	07/06/2005	10/06/2006	29	
D3	04/05/2005	07/06/2005	67526	07/06/2005	10/06/2006	83	
D4	04/05/2005	07/06/2005	67527	07/06/2005	10/06/2006	44	
D1	07/06/2005	13/07/2005	70512	13/07/2005	18/07/2005	298	
D2	07/06/2005	13/07/2005	70513	13/07/2005	18/07/2005	354	
D3	07/06/2005	13/07/2005	70514	13/07/2005	18/07/2005	289	
D4	07/06/2005	13/07/2005	70515	13/07/2005	18/07/2005	270	
D1	13/07/2005	11/08/2005	77419	12/10/2005	24/10/2005	253	
D2	13/07/2005	11/08/2005	77420	12/10/2005	24/10/2005	111	
D3	13/07/2005	11/08/2005	77421	12/10/2005	24/10/2005	319	
D4	13/07/2005	11/08/2005	77422	12/10/2005	24/10/2005	123	

Monitoring Points are numbered clockwise through the Cardinal Marks (N, E, S, W)
Monitoring Results will be presented monthly

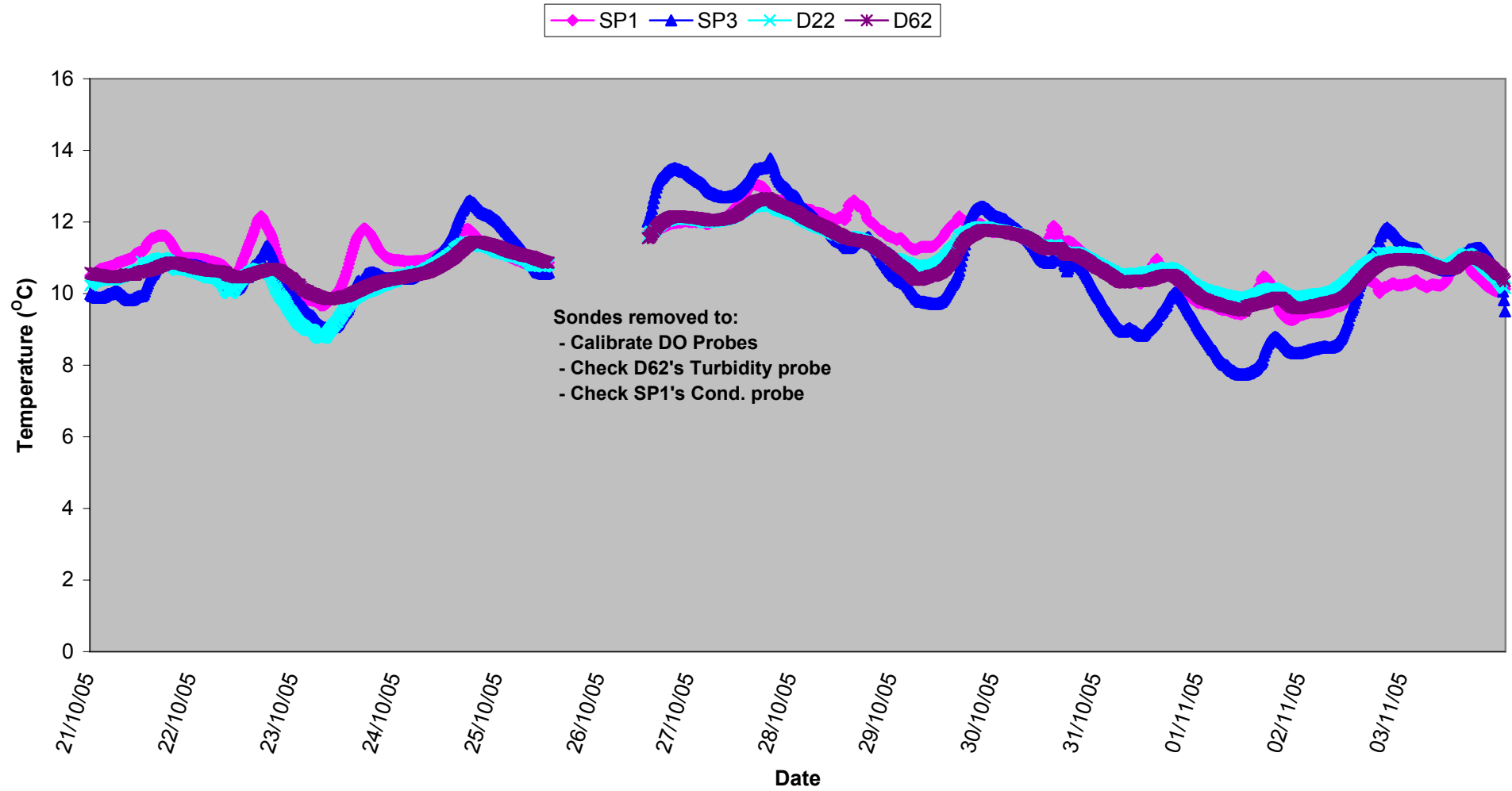
Total Suspended Solids @ SP1, Weeks 43/44 2005



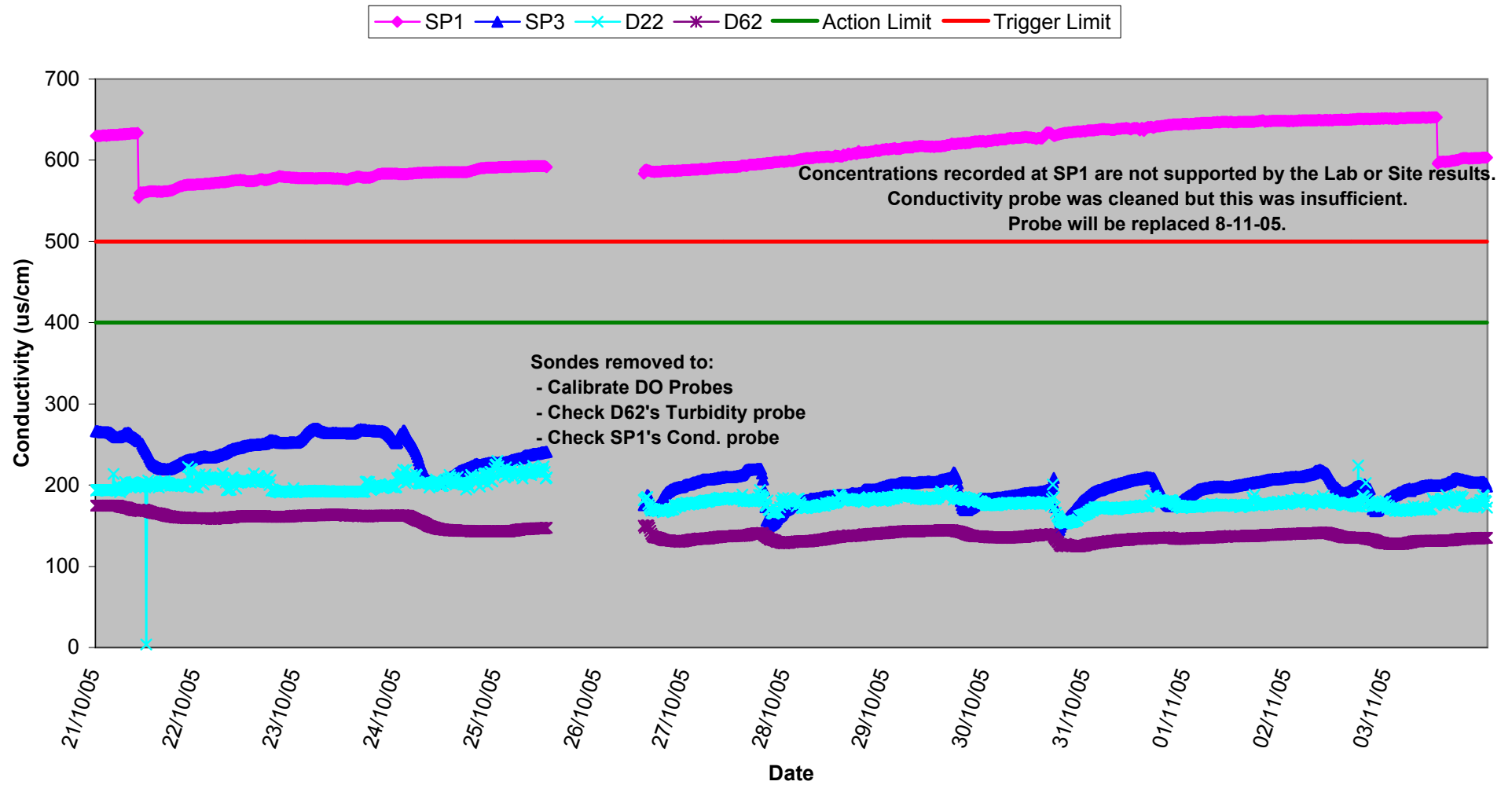
Orthophosphate @ SP1
Weeks 43/44 2005



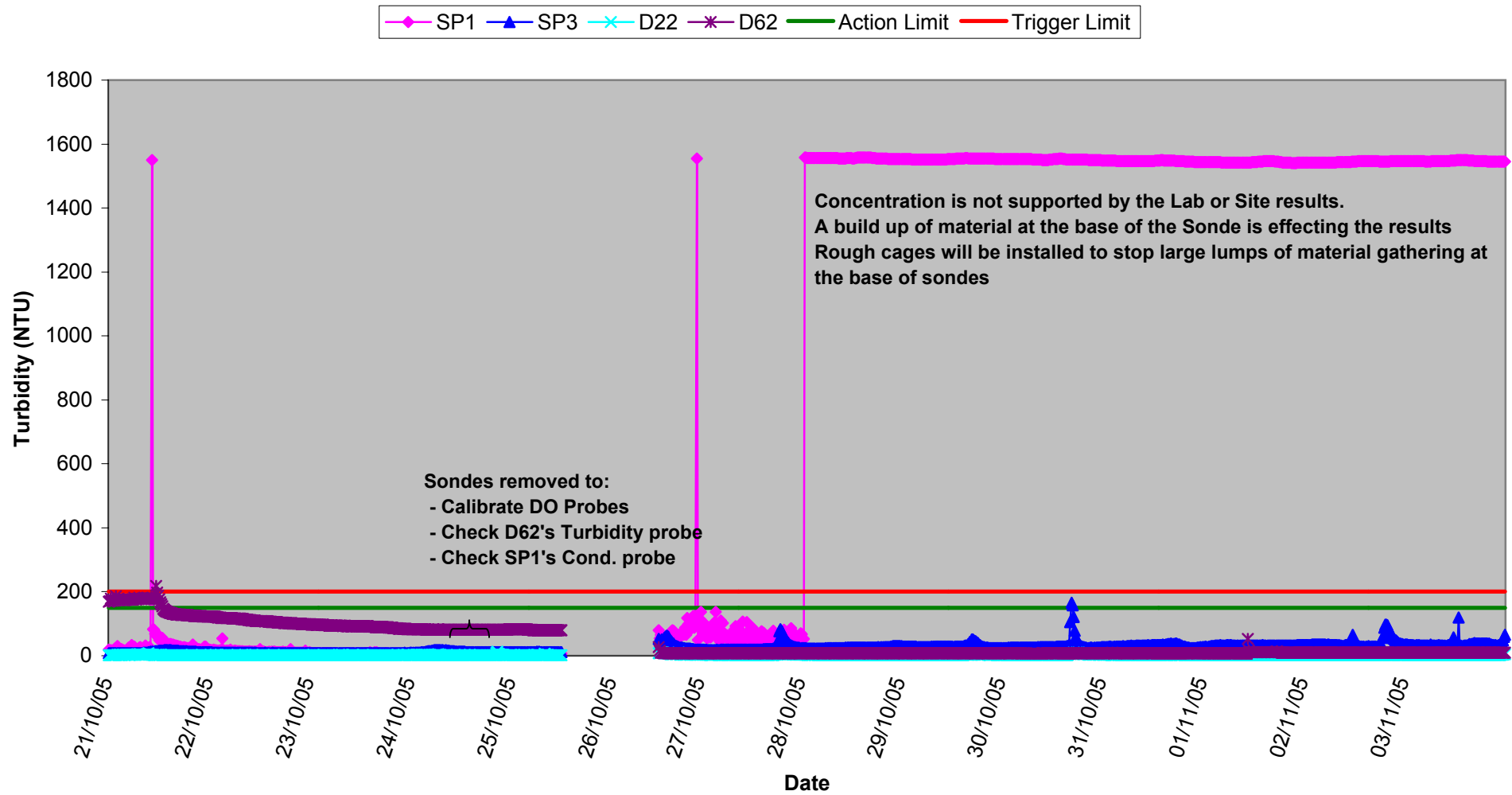
**Temperature - Surface Waters,
Weeks 43/44 2005**



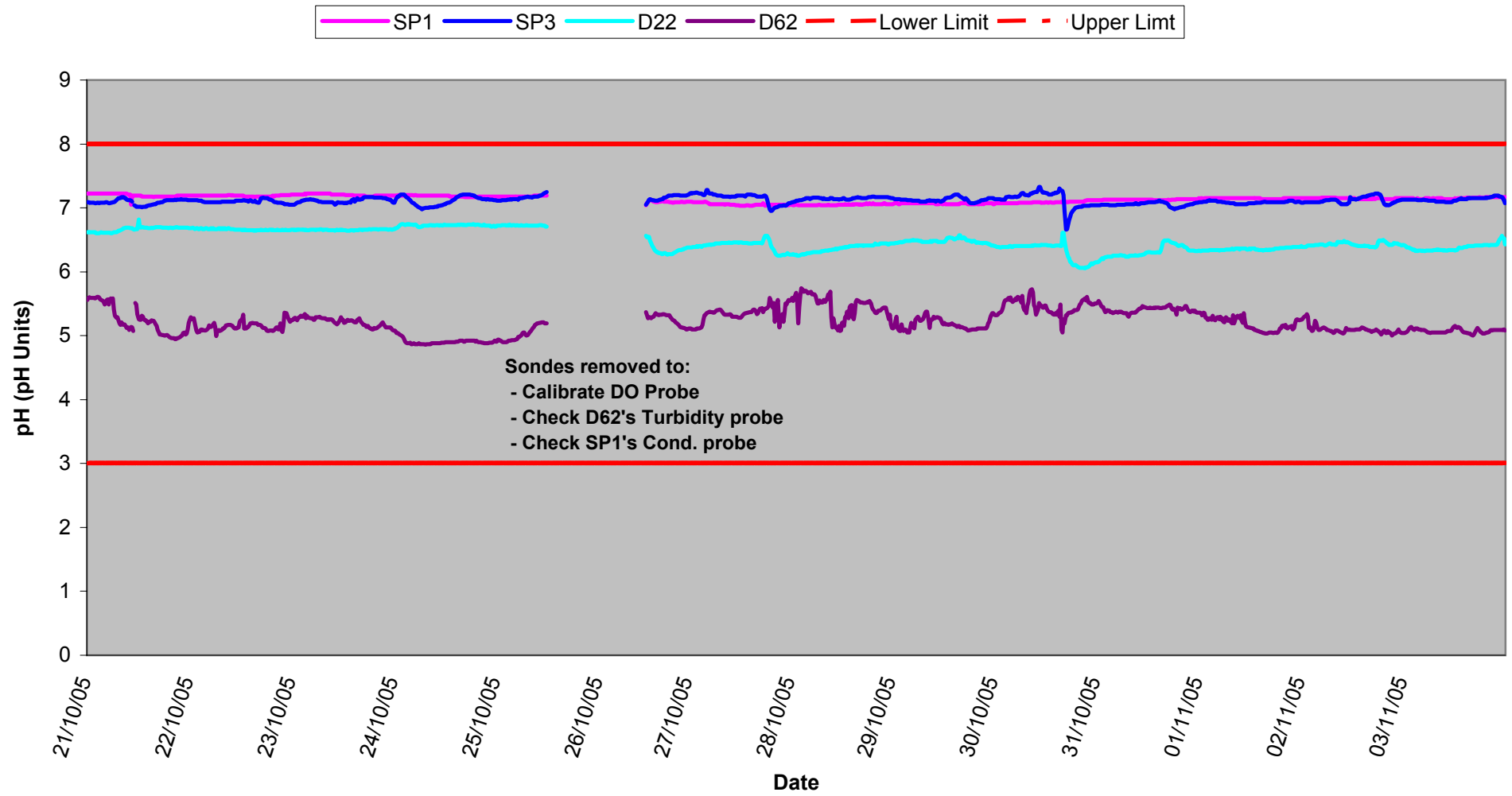
Conductivity - Surface Waters, Weeks 43/44 2005



Turbidity - Surface Waters, Weeks 43/44 2005

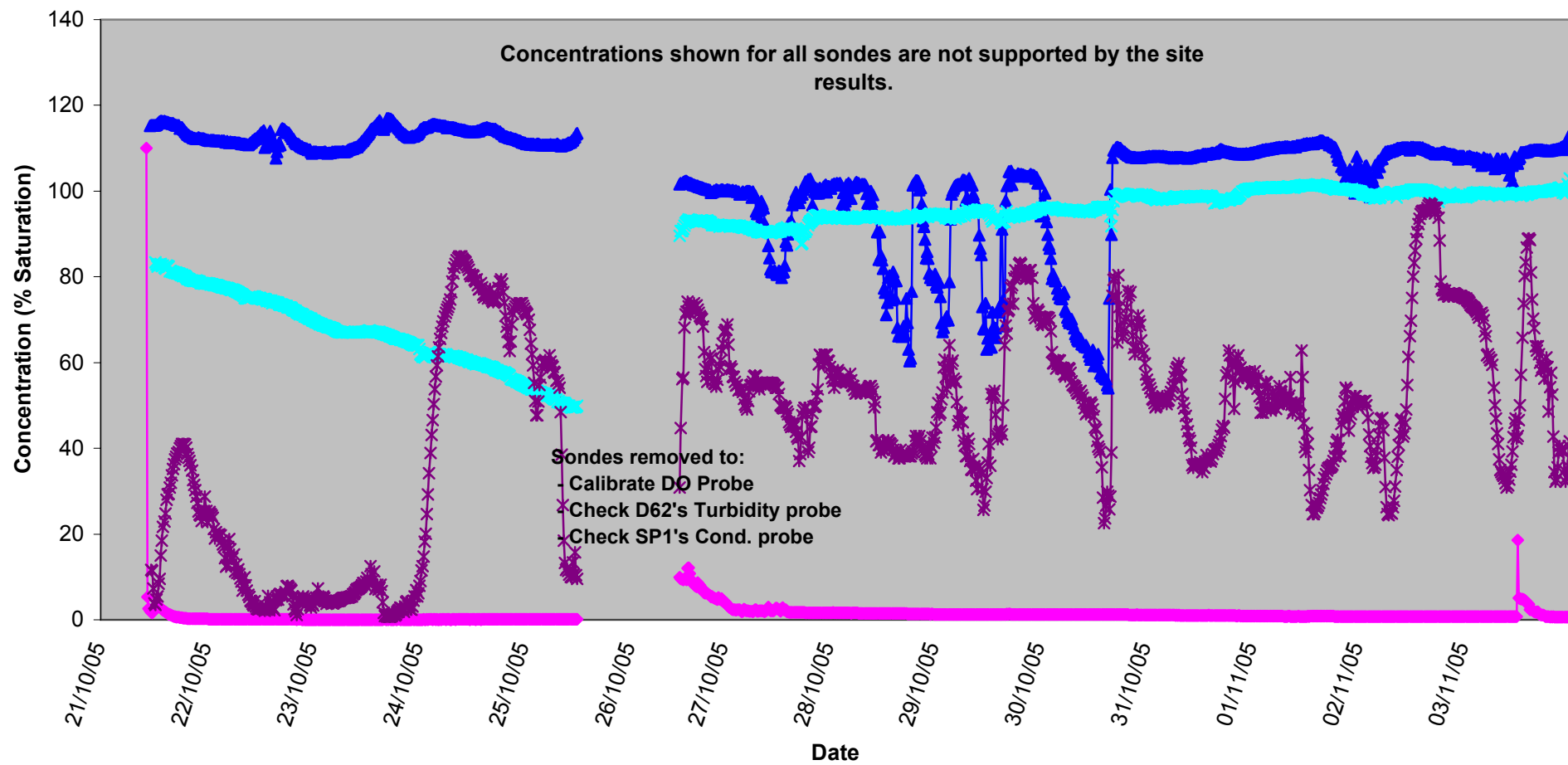


**pH - Surface Waters,
Weeks 43/44 2005**

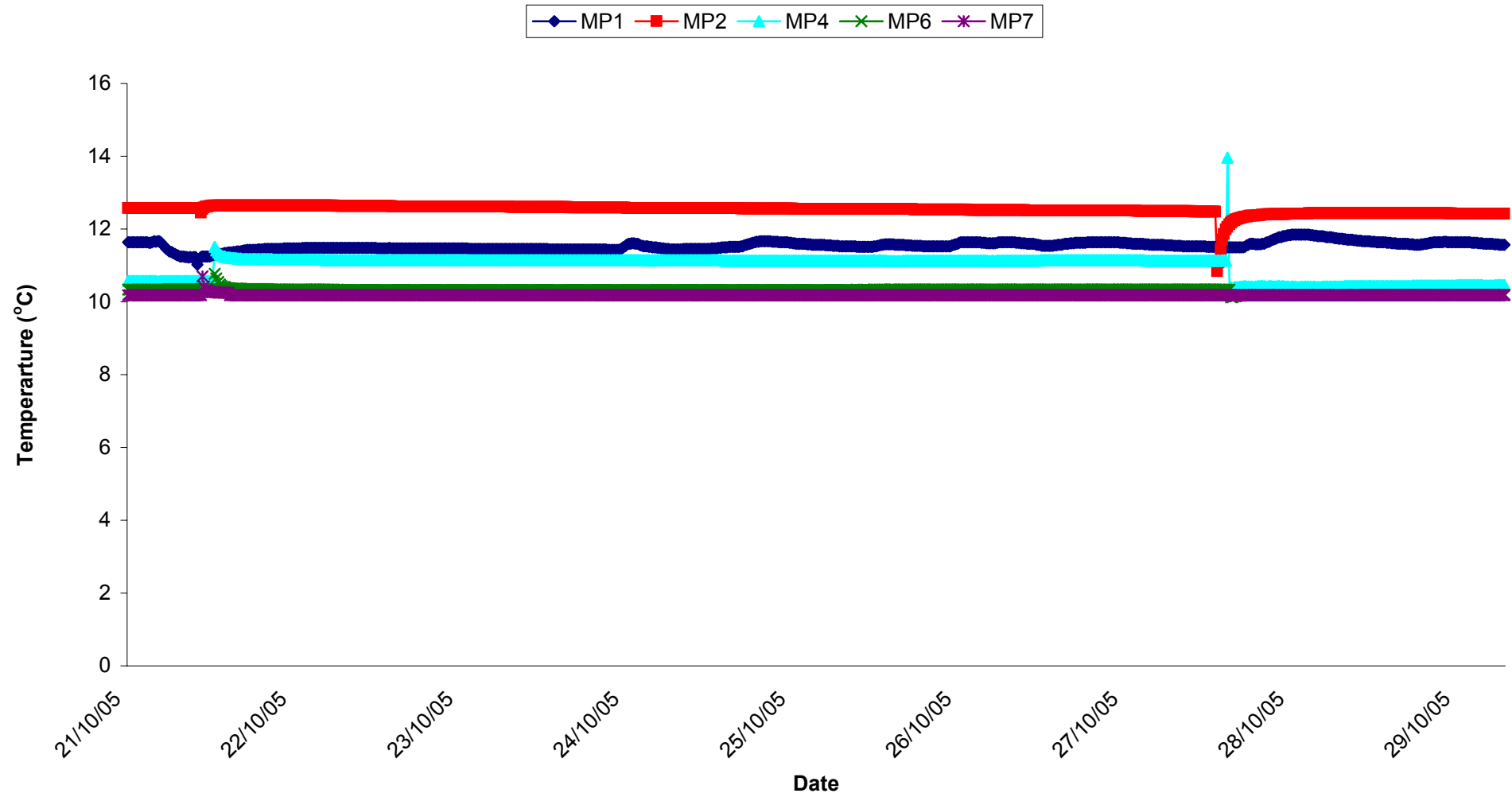


Dissolved Oxygen - Surface Waters, Weeks 43/44 2005

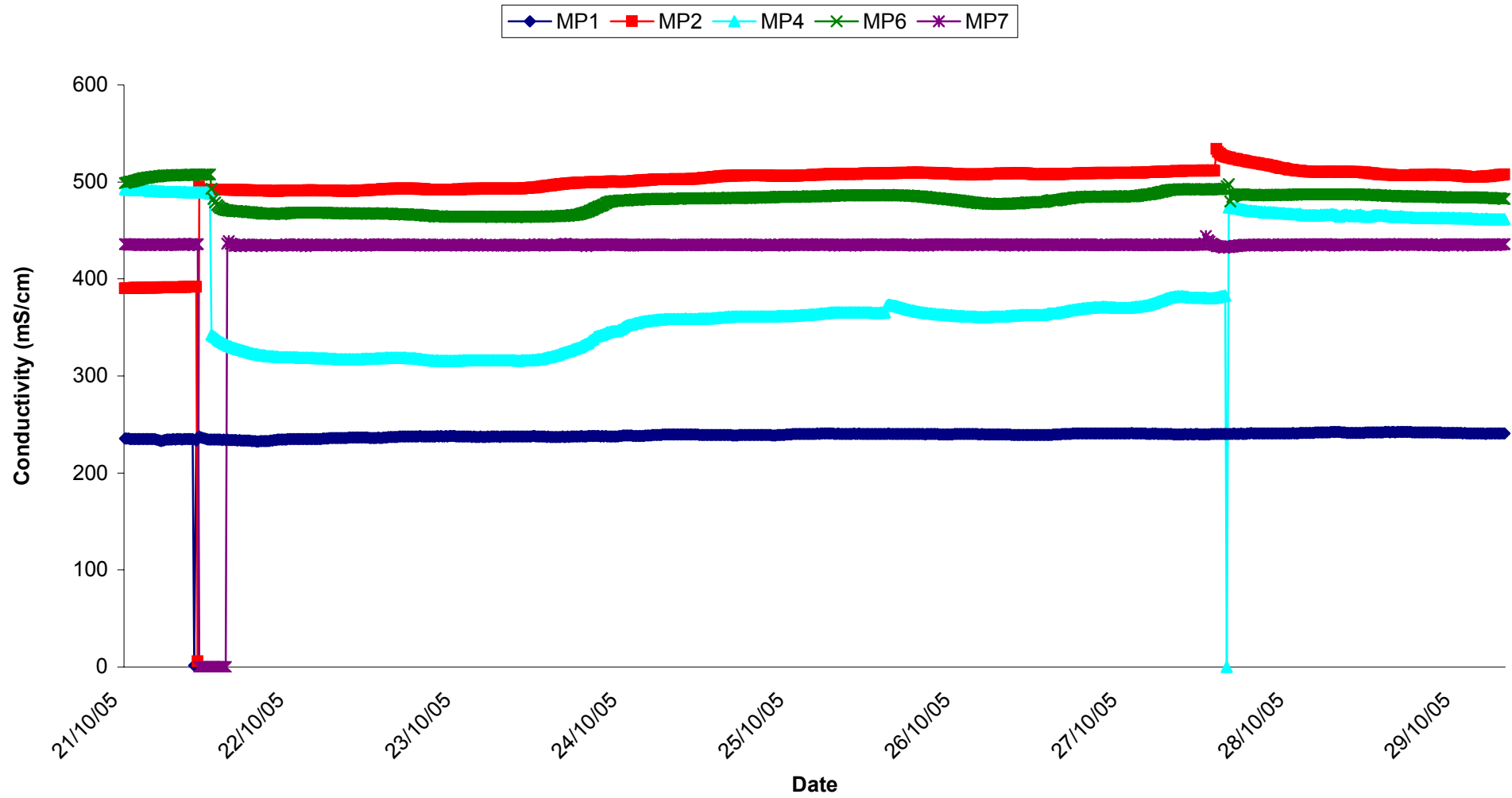
SP1 SP3 D22 D62



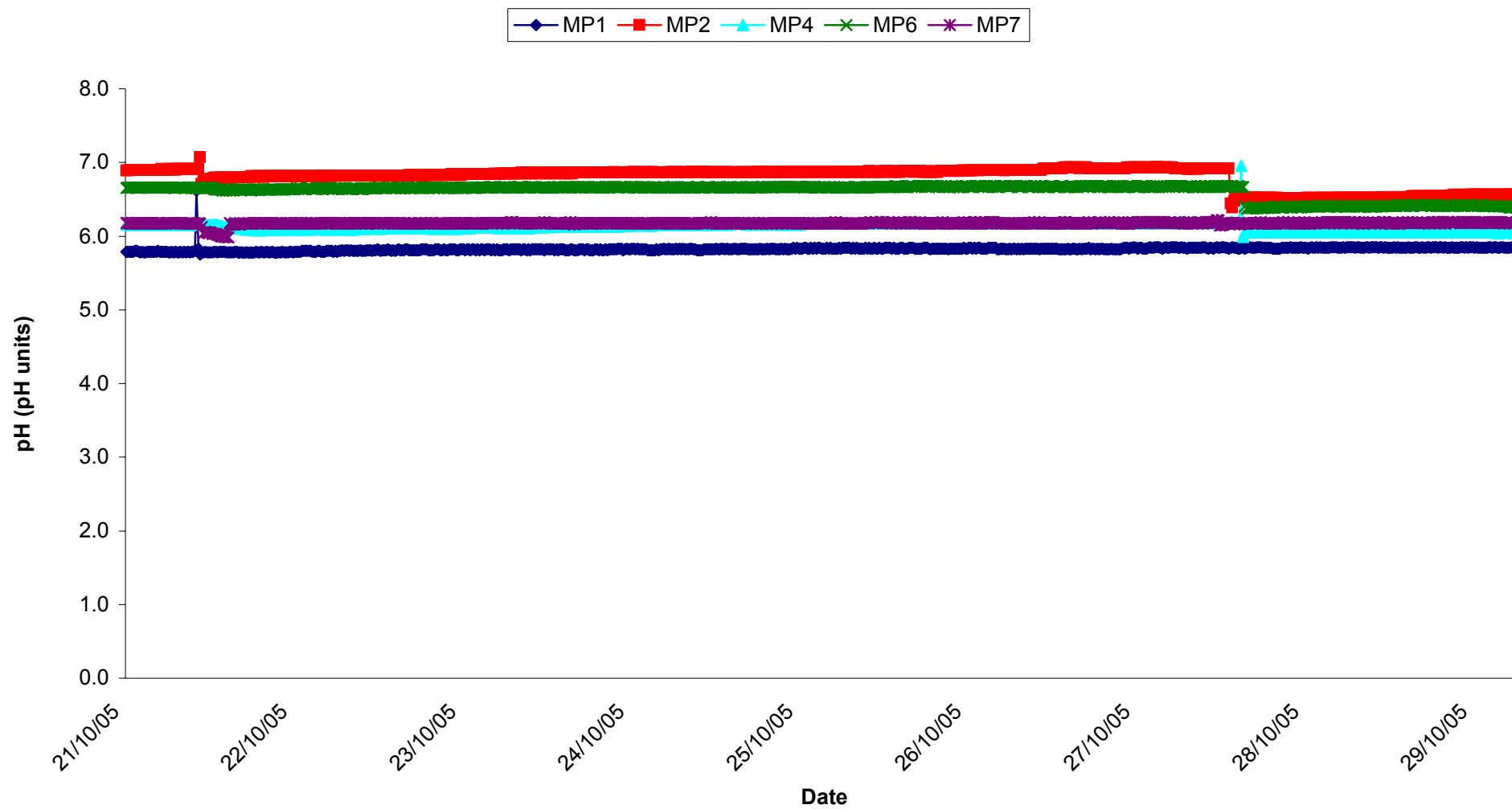
Temperature - Groundwaters
Weeks 43/44 2005



Conductivity - Groundwaters
Weeks 43/44 2005



**pH - Groundwaters
Weeks 43/44 2005**



Date	Air Temp	Relative Humidity	Wind Speed	Wind Direction	Sunshine	Rainfall
	Avg. (°C)	Avg. (%)	Avg. (m/s)	Avg. (°)	Total (Hours)	Total (mm)
21/10/2005	10.2	92.2	2.0	212	0.4	8.8
22/10/2005	9.5	94.1	0.9	117	0.5	0.4
23/10/2005	10.0	92.3	2.3	140	0.6	6.2
24/10/2005	12.9	94.8	4.1	84	0.3	5.6
25/10/2005	11.8	84.9	5.7	41	0.7	3.6
26/10/2005	14.0	89.5	5.2	232	0.1	12.0
27/10/2005	15.5	83.0	7.0	303	0.2	10.0
28/10/2005	12.0	81.1	6.7	70	0.6	1.8
29/10/2005	12.1	91.0	5.4	288	0.2	8.0
30/10/2005	12.5	77.7	6.9	171	0.4	12.2
31/10/2005	9.7	83.1	4.7	169	0.4	6.0
01/11/2005	9.2	78.3	3.7	121	0.7	1.6
02/11/2005	12.2	92.2	3.8	296	0.4	12.2
03/11/2005	10.8	93.8	5.6	154	0.2	13.2

21/10/2005	8.8
22/10/2005	0.4
23/10/2005	6.2
24/10/2005	5.6
25/10/2005	3.6
26/10/2005	12.0
27/10/2005	10.0

28/10/2005	1.8
29/10/2005	8.0
30/10/2005	12.2
31/10/2005	6.0
01/11/2005	1.6
02/11/2005	12.2
03/11/2005	13.2