

Corrib Gas Pipeline Environmental Report	Period Ending:	30 th September 2012
Compiled By:	Siobhán Sheridan and Carmel Carey	
Approved By:	Aoife Reynolds & Sil Draaisma	
	Ref: COR-01-SH-MCC-MHLY-ENV-009	

1 Monitoring Data

1.1 Monitoring Equipment

Noise	Nine noise monitoring locations are currently being used – NSR1 & NSR2 (compliance monitoring points) and AN1, AN2, AN3, AN4, GN1, GN2 and RN1 (information purposes). The noise meters records in the 1/3 octave band.
Vibration	There are two vibration monitoring points being used- V2 and V3
Weather Station	The data used for this reporting period was taken from the Aughooose, Glengad and Terminal site meteorological stations.
TSS	There are TSS meters on each of the discharges on the Siltbusters at Aughooose (SB3 line 1 and SB3 line 2) the Veolia plant in Aughooose (VD), the Wayleave (SB6), Site Compound 4 (SB5) and Glengad (SB7).
Sonde	The results are displayed graphically for dissolved oxygen, conductivity, pH, turbidity and temperature.
Discharge pipe flow	The results are displayed graphically.

1.2 Summary

Environment	Comments
Vibration	There were no vibration exceedances during the reporting period. There was corrupted data at V3 on 17 th – 20 th September. This issue has since been rectified.
Weather	<u>Aughooose (Tunnel site)</u> There was a total rainfall of 164.2mm at the Aughooose weather station, with a temperature range of 1.8°C to 18.2°C. <u>Glengad (Compound)</u> There was a total rainfall of 112.0mm at the Glengad weather station, with a temperature range of 4.8°C to 17.9°C. <u>Corrib Gas Terminal</u> There was a total rainfall of 150.4mm at the Terminal weather station, with a temperature range of 3.3°C to 16.3°C.
Noise	The noise results were reviewed as per the noise monitoring protocol. An elevated noise level was recorded at NSR1 on 01/09/12 at 12:00. Noise monitoring data from the supporting noise meters and 15 minute wind data was assessed and it was confirmed that the 15 minute wind speed averages exceeded 8.5m/s. Supporting data from all noise monitors show that significant elevations in background noise during this period were due to weather effects, therefore, there were no noise exceedances during the reporting period.

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Environment	Comments
	<p>High winds speeds on 6th (9.5m/s – 10.2m/s) and 13th (10.2m/s – 10.5m/s) resulted in elevated noise levels at NSR2. Wind speeds throughout 13th September were very variable and gusting. Significant elevations are consistent at all noise monitors in the area, and due to the adverse meteorological conditions. No abnormal activities were being undertaken on site. Where elevated readings at compliance points are not automatically filtered by the noise monitoring protocols (i.e. 12.00, 13.00, 16.00), these periods have been reviewed and are considered to be also adversely affected by the meteorological conditions.</p> <p>High winds speeds (7.0ms – 12.2m/s) dominated noise results at NSR1 and NSR2 on 25th and 26th September. Elevated noise levels at NSR1 and NSR2 on 20th, 21st 25th and 26th were reviewed as per the noise monitoring protocol and confirmed not to be site related.</p>
Dust	There was an invalid result for the dust pot at AD3 due to interference with the pot.
Surface Water - Aughooose	There were no surface water exceedances during the reporting period. Discharge at Veolia (VD) commenced on 12 th September.
Surface Water - Glengad	There were no surface water exceedances during the reporting period.
Surface Water - Wayleave	There was one surface water exceedances during the reporting period.

2 Environmental Exceedances / Incidents / Complaints

2.1 Exceedances

Date and Time	4 th – 6 th of September 2012																										
Location	Site Compound 4 – Surface Water Treatment Composite Discharge SB5																										
Nature of Incident	<p>Laboratory results for SB5 composite samples have yielded traces of Diesel Range Organic Hydrocarbons - DROs during the period 4th – 15th September. DRO refers to hydrocarbons in the C12 -C28 range. The laboratory results for Petrol Range Organics are < 100µg/l. The DRO Concentrations are listed below and concentration of µg/l.</p> <table><tr><th>Date</th><th>SB5</th><th>SB5 Post/DL5</th></tr><tr><td>04/09/12</td><td>1288</td><td>1786</td></tr><tr><td>05/09/12</td><td>1355</td><td>1008</td></tr><tr><td>06/09/12</td><td>1095</td><td></td></tr><tr><td>07/09/12</td><td>613</td><td></td></tr><tr><td>08/09/12</td><td>480</td><td></td></tr><tr><td>09/09/12</td><td>348</td><td></td></tr><tr><td>10/09/12</td><td>599</td><td></td></tr></table>			Date	SB5	SB5 Post/DL5	04/09/12	1288	1786	05/09/12	1355	1008	06/09/12	1095		07/09/12	613		08/09/12	480		09/09/12	348		10/09/12	599	
Date	SB5	SB5 Post/DL5																									
04/09/12	1288	1786																									
05/09/12	1355	1008																									
06/09/12	1095																										
07/09/12	613																										
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	11/09/12	611	
	12/09/12	344	
	13/09/12	453	366
	14/09/12	494	
	15/09/12	398	
Actions Taken	<ul style="list-style-type: none"> • SEPIL have commenced an investigation on the elevated hydrocarbon concentrations referenced above. • The investigation undertaken assessed the work activity during the relevant period and the controls that are in place at SC 4. • Investigation has established that there was a presence of hydrocarbon in the siltbuster / pump. There was inadequate checking of the equipment prior to operation. 		
Category	Environmental Exceedance		
Status	Closed		

Final report on hydrocarbon exceedance to be issued shortly.

Date and Time	19 th September 2012
Location	Drain along Pipeline Wayleave - Monitoring Point SW10
Nature of Incident	<p>A surface water sample taken on 19th September at SW10 show elevated results for Turbidity, TSS and HC/DRO (436 NTU, 854mg/l, and 1609ug/l respectively).</p> <p>On 19th September a metal flume pipe was installed in an existing drain which traverses the pipeline wayleave. Measures to prevent the mobilisation of solids were inadequate during these works.</p> <p>No spill event was reported on site on 19th September. It is possible that runoff from the L1202 may have caused/contributed to the hydrocarbon exceedance.</p>
Actions Taken	<ul style="list-style-type: none"> ▪ Low level dams were created downstream of the works using oyster bags to aid settlement of solids in the water. ▪ The peat placed around the flume pipe was sealed and smoothed over to minimize any potential for further erosion. ▪ Environmental risk assessment will be carried out to ensure necessary control measures will be implemented.
Category	Environmental Exceedance
Status	Closed

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2.2 Incidents

There were no incidents during the reporting period.

2.3 Complaints

There were no complaints during the reporting period.

Surface Water Monitoring Results - Accredited Laboratory

	Date	Cond.	Turbidity	DO	pH	TSS	Orthophos phate as PO4	Extractable HC/ DRO (C8-C40) total and dissolved	PRO (C5 - C12) total and dissolved	TOC	DIN (TON as N + Ammonia as N)	COD
		µS/cm	NTU	%	pH units	mg/l	mg/l	ug/l	ug/l	mg/l	mg/l	mg/l
Composites - Aughoose												
SB3	01/09/2012	482	1.4	91.6	6.9	2	<0.03	<100	<100	2.20	0.658	<10
SB3	02/09/2012	468	0.9	87.3	7.0	6	<0.03	<100	<100	2.87	0.785	<10
SB3	03/09/2012	455	1.0	76.2	7.1	2	<0.03	111	<100	2.33	0.412	<10
SB3	04/09/2012	462	0.9	99.4	7.0	6	<0.03	<100	<100	2.47	0.581	<10
SB3	05/09/2012	458	0.8	74.9	7.2	2	<0.03	165	<100	2.82	0.863	<10
SB3	06/09/2012	455	0.7	78.9	7.6	2	<0.03	644	<100	2.85	0.819	17
SB3	07/09/2012	452	0.9	75.4	7.1	2	<0.03	504	<100	2.74	0.589	10
SB3	08/09/2012	462	0.8	72.9	7.0	2	<0.03	117	<100	2.40	0.657	42
SB3	09/09/2012	437	0.8	73.6	7.1	2	<0.03	<100	<100	2.39	0.714	18
SB3	10/09/2012	258	0.9	76.5	7.1	5	<0.03	<100	<100	3.76	0.586	26
SB3	11/09/2012	255	1.1	75.4	7.1	3	<0.03	<100	<100	3.55	0.615	17
SB3	12/09/2012	505	1.3	84.1	7.3	2	<0.03	164	<100	3.11	0.619	26
SB3	13/09/2012	255	2.6	79.5	7.3	3	<0.03	<100	<100	3.15	0.642	20
SB3	16/09/2012	487	1.5	63.6	7.2	2	<0.03	232	<100	4.06	0.714	<10
SB3	25/09/2012	390	2.2	75.4	7.1	4	<0.03	113	<100	2.90	0.527	34
Composites - Veolia Discharge (Aughoose)												
Veolia Discharge	12/09/2012	254	2.3	79.8	7.0	2	<0.03	<100	<100	3.19	0.651	21
Veolia Discharge	14/09/2012	467	1.7	87.6	7.3	2	<0.03	<400	<100	3.13	0.691	16
Veolia Discharge	17/09/2012	464	1.7	88.6	7.0	2	<0.03	<100	<100	3.05	0.711	27
Veolia Discharge	18/09/2012	497	1.3	89.6	7.0	2	<0.03	<100	<100	2.66	0.746	21
Veolia Discharge	19/09/2012	493	1.4	75.4	6.8	2	<0.03	<100	<100	1.54	0.4	<10
Veolia Discharge	20/09/2012	491	1.7	74.5	7.0	4	<0.03	<100	<100	1.56	0.434	<10
Veolia Discharge	21/09/2012	416	1.6	69	7.0	2	<0.03	293	<100	3.41	0.272	<10
Veolia Discharge	22/09/2012	428	2.2	75.3	7.2	2	<0.03	108	<100	2.93	0.356	<10
Veolia Discharge	23/09/2012	424	1.2	75	7.0	5	<0.03	<100	<100	1.85	0.37	<10
Veolia Discharge	24/09/2012	405	1.3	76.1	6.7	2	<0.03	170	<100	3.16	0.379	27
Veolia Discharge	25/09/2012	371	4.4	73.6	6.2	2	<0.03	163	<100	2.32	0.345	11
Veolia Discharge	26/09/2012	434	1.4	74.5	6.8	2	<0.03	227	<100	2.96	0.3	20
Veolia Discharge	27/09/2012	421	13.0	74.1	7.0	4	<0.03	<100	<100	2.69	0.506	18
Veolia Discharge	28/09/2012	282	1.1	89.7	6.9	2	<0.03	135	<100	2.70	0.496	<10
Veolia Discharge	29/09/2012	283	1.1	81.1	7.0	2	<0.03	296	<100	4.19	0.487	<10
Veolia Discharge	30/09/2012	281	1.2	81.3	6.9	2	<0.03	228	<100	4.03	0.3	12
I.P.	= In Progress											
≤ LOD	= Below Limit of Detection											
≥ LOD	= Above Limit of Detection											
On site laboratory results included in Appendix 1												
Grey shaded areas denote parameters that cannot or were not analysed on-site or the lab.												

	Date	Cond.	Turbidity	DO	pH	TSS	Orthophos phate as PO ₄	Extractable HC/ DRO (C8-C40) total and dissolved	PRO (C5 - C12) total and dissolved	TOC	DIN (TON as N + Ammonia as N)	COD
		µS/cm	NTU	%	pH units	mg/l	mg/l	ug/l	ug/l	mg/l	mg/l	mg/l
Composites - Wayleave												
SB6 (DL6)	01/09/2012	510	0.4	86.1	6.9	3	<0.03	<100	<100	2.45	0.677	<10
SB6 (DL6)	02/09/2012	510	1.1	78.0	6.8	4	<0.03	<100	<100	2.77	0.606	<10
SB6 (DL6)	03/09/2012	529	0.3	77.2	6.8	2	<0.03	<100	<100	2.13	0.482	<10
SB6 (DL6)	04/09/2012	575	0.6	76.4	7.2	4	<0.03	<100	<100	4.28	0.284	<10
SB6 (DL6)	05/09/2012	550	0.3	79.6	7.3	3	<0.03	<100	<100	2.42	0.690	<10
SB6 (DL6)	06/09/2012	556	0.6	80.3	7.1	4	<0.03	<100	<100	2.45	0.736	12
SB6 (DL6)	07/09/2012	481	1.1	73.1	6.9	10	<0.03	<100	<100	2.63	0.464	<10
SB6 (DL6)	08/09/2012	506	7.5	74.3	7.2	10	<0.03	<100	<100	3.78	0.550	58
SB6 (DL6)	09/09/2012	523	7.5	70.6	6.9	7	<0.03	<100	<100	11.50	0.481	49
SB6 (DL6)	10/09/2012	258	1.5	78.5	7.2	37	<0.03	<100	<100	3.18	0.435	38
SB6 (DL6)	11/09/2012	261	1.8	81.2	7.0	13	<0.03	<200	<100	2.79	0.636	61
SB6 (DL6)	12/09/2012	612	0.6	80.5	6.9	2	<0.03	<100	<100	2.64	0.467	26
SB6 (DL6)	13/09/2012	625	0.9	76.2	7.0	10	<0.03	<100	<100	2.55	0.473	23
SB6 (DL6)	14/09/2012	578	0.5	74.4	7.1	3	<0.03	189	<100	3.87	0.478	22
SB6 (DL6)	15/09/2012	596	0.3	72.9	7.1	2	<0.03	113	<100	3.56	0.509	<10
SB6 (DL6)	16/09/2012	591	5.0	72.3	7.2	2	<0.03	213	<100	3.53	0.500	<10
SB6 (DL6)	17/09/2012	587	2.4	88.5	7.1	8	<0.03	<100	<100	2.98	0.039	22
SB6 (DL6)	18/09/2012	605	0.4	86.7	6.7	2	<0.03	<100	<100	2.63	0.100	20
SB6 (DL6)	19/09/2012	614	0.8	77.8	7.4	3	<0.03	<100	<100	2.00	0.166	15
SB6 (DL6)	20/09/2012	524	4.9	78.6	7.4	2	<0.03	<100	<100	1.84	0.243	<10
SB6 (DL6)	21/09/2012	452	1.6	72.9	6.9	6	<0.03	<100	<100	3.04	0.320	19
SB6 (DL6)	22/09/2012	547	0.9	74.5	6.8	2	<0.03	<100	<100	5.31	0.136	51
SB6 (DL6)	23/09/2012	528	1.7	74.1	6.6	4	<0.03	<100	<100	3.19	0.143	21
SB6 (DL6)	24/09/2012	445	1.2	70.6	6.7	14	<0.03	<100	<100	1.58	0.068	<10
SB6 (DL6)	25/09/2012	418	2.5	73.8	6.6	38	<0.03	<100	<100	1.35	0.071	69
SB6 (DL6)	26/09/2012	416	1.6	76.3	7.0	2	<0.03	117	<100	4.08	0.067	21
SB6 (DL6)	27/09/2012	393	1.4	75.8	7.0	7	<0.03	140	<100	4.23	0.049	39
SB6 (DL6)	28/09/2012	283	2.9	71.7	7.5	3	<0.03	221	<100	1.39	0.078	<10
SB6 (DL6)	29/09/2012	284	2.2	69.6	7.2	3	<0.03	257	<100	3.99	0.108	22
SB6 (DL6)	30/09/2012	272										

Grey shaded areas denote parameters that cannot or were not analysed on-site or the lab.

	Date	Cond.	Turbidity	DO	pH	TSS	Orthophos phate as PO4	Extractable HC/ DRO (C8-C40) total and dissolved	PRO (C5 - C12) total and dissolved	TOC	DIN (TON as N + Ammonia as N)	COD
		µS/cm	NTU	%	pH units	mg/l	mg/l	ug/l	ug/l	mg/l	mg/l	mg/l
Grab Samples DL2												
DL2	06/09/2012	503	1.2	72.6	6.7	2	<0.03	<100	<100	2.79	0.766	15
DL2	11/09/2012	251	1.5	79.5	6.8	2	<0.03	227	<100	4.38	0.444	<10
DL2	14/09/2012	479	1.5	85.7	7.1	2	<0.03	190	<100	4.69	0.653	10
DL2	18/09/2012	480	2.2	80.6	7.1	2	<0.03	107	<100	2.93	0.698	27
DL2	25/09/2012	351	1.4	72.6	6.8	8	<0.03	145	<100	1.30	0.318	<10
Grab Samples SB3												
SB3 Post	05/09/2012	467	0.8	96.8	6.8	4	<0.03	154	<100	2.17	0.57	<10
SB3 Post	10/09/2012	431	2.3	73.6	6.8	4	<0.03	147	<100	3.31	0.61	45
SB3 Post	25/09/2012	337	3.8	75.1	6.8	5	<0.03	228	<100	1.33	0.319	25
Grab Samples DL5 (SB5)												
DL5 (SB5 Post)	04/09/2012	725	6.9	70.1	6.5	13	<0.03	1786	<100	38.30	0.715	95
DL5 (SB5 Post)	05/09/2012	697	5.0	62.4	6.7	8	<0.03	1008	<100	25.20	0.704	111
DL5 (SB5 Post)	13/09/2012	619	4.3	74.1	6.8	7	<0.03	366	<100	8.93	<0.005	37
DL5 (SB5 Post)	18/09/2012	721	3.8	85.1	6.8	6	<0.03	312	<100	12.20	0.056	35
DL5 (SB5 Post)	25/09/2012	689	3.8	74.6	6.5	11	<0.03	426	<100	1.69	0.021	28
Grab Samples DL6												
DL6 (SB6 Post)	04/09/2012	513	0.6	75.6	6.7	8	<0.03	<100	<100	2.42	0.551	<10
DL6 (SB6 Post)	10/09/2012	261	1.1	78.1	6.4	9	<0.03	121	<100	2.54	0.480	22
DL6 (SB6 Post)	19/09/2012	626	2.4	74.1	6.9	2	<0.03	112	<100	2.68	0.589	<10
DL6 (SB6 Post)	25/09/2012	452	3.5	72.2	7.2	14	<0.03	243	<100	1.08	0.250	15
Sruwaddaon Bay												
No Bay samples taken in September due to adverse weather conditions												
Baseline Monitoring - Pipeline Wayleave												
SW 11	04/09/2012	158	4.2	99.8	6.8	<2	<0.03	<100	<100	35.70	0.014	202
SW 12	04/09/2012	174	5.9	99.6	7.0	<2	0.207	<100	<100	36.30	0.010	201
SW 09	05/09/2012	176	13.3	58.6	6.8	30	0.457	192	<100	45.00	0.692	189
SW 10	05/09/2012	680	4.3	61.8	6.7	9	<0.03	1179	<100	32.40	0.704	124
SW 09	10/09/2012	143	8.3	78.5	6.3	32	0.190	<100	<100	40.30	0.211	241
SW 12	10/09/2012	256	32.5	86.2	6.5	32	0.063	371	<100	25.30	<0.005	165
SW 11	10/09/2012	142	1.1	75.6	6.3	<2	<0.03	229	<100	36.90	0.016	146
SW 12	10/09/2012	124	1.2	74.1	6.5	<2	0.086	340	<100	39.70	0.011	186
SW 09	18/09/2012	146	31.6	84.7	6.5	173	0.474	119	<100	29.90	0.260	135
SW 10	18/09/2012	655	17.8	86.9	6.8	209	<0.03	208	<100	14.90	0.020	103
SW 09	19/09/2012	171	8.7	74.1	6.4	15	0.170	113	<100	7.63	0.042	180
SW 10	19/09/2012	418	436.0	75.2	6.6	854	0.034	1609	<100	6.67	0.306	

Grey shaded areas denote parameters that cannot or were not analysed on-site or the lab.

Groundwater Monitoring Results - Accredited Laboratory

Location	Date	DO	Temp	Cond.	pH	TDS	BOD	Suspended Solids	Turbidity	Orthophosphate as PO4 -P	Ammonia as NH3-N	Total Phosphorus as P	Nitrate as NO ₃	Nitrite as NO ₂	Phosphate as PO4	COD	Copper
		% Sat	°C	uS/cm	pH Units	mg/l	mg/l	mg/l	N.T.U	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l
GW1	11/09/2012	16	10.3	438	6.3	212	<1	40	72.1	0.902	0.31	1.21	<0.44	<0.017	2.8	27	36
GW2	11/09/2012	33	10.3	417	6.2	206	<1	347	232.0	0.278	2.35	1.52	<0.44	<0.017	0.9	65	23
GW3	11/09/2012	7	10.4	445	6.3	197	<1	185	212.0	0.074	2.93	0.84	<0.44	<0.017	0.2	67	30
GW4	11/09/2012	6	10.4	429	6.5	185	<1	71	74.4	0.289	0.64	0.42	<0.44	<0.017	0.9	22	22
Location	Date	Arsenic, total	Chromium , total	Lead, total	Cadmium, total	Tin, total	Iron, total	Mercury	TOC	Total Hardness	Zinc	Extractable HC/ DRO (C8-C40) total and dissolved	PRO (C5 - C12) total and dissolved	Total Phosphorus as P	Manganese	Water Level	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/l	mg/l	ug/l	ug/l	ug/l	mg/l	ug/l	m	
GW1	11/09/2012	12	3	12	4.0	<0.5	19740	<0.05	6.6	144.0	14.0	<100	<100	1.21	2783	4.3	
GW2	11/09/2012	3	7	66	<0.5	<0.5	19130	<0.05	11.8	128.0	26.0	124	<100	1.52	408	3.7	
GW3	11/09/2012	8	11	22	<0.5	<0.5	72800	<0.05	3.8	54.7	35.0	123	<100	0.84	337	4.2	
GW4	11/09/2012	2	1	1	<0.5	<0.5	30970	<0.05	3.8	102.0	<5.0	<100	<100	0.42	1511	8.3	
Grey shaded areas denote parameters that cannot or were not analysed on-site or at the lab.																	
Graphs provided for GW1 - GW4: Temperature, Conductivity, and pH.																	

Dust Monitoring Record Sheet							
	Date Positioned	Date Removed	Ref. Number	Date Dispatched	Date Returned	Weight (mg/m ² /day)	Comment
Target (Consent) Limit:			350 mg m ² d ⁻¹ on as a 30 day average				
Dust Deposition - Aughoose							
AD1	8/15/2012	9/12/2012	398845	9/12/2012	9/18/2012	339	
AD2	8/15/2012	9/12/2012	398846	9/12/2012	9/18/2012	241	
AD3	8/15/2012	9/12/2012	398848	9/12/2012	9/18/2012	*	
AD4	8/15/2012	9/12/2012	398849	9/12/2012	9/18/2012	150	
Dust Deposition - Glengad							
GD1	8/15/2012	9/12/2012	398748	9/12/2012	9/18/2012	82	
GD2	8/15/2012	9/12/2012	398749	9/12/2012	9/18/2012	160	
GD3	8/15/2012	9/12/2012	398750	9/12/2012	9/18/2012	190	
NDP = No Determination Possible							
Monitoring Results will be presented monthly							

* Invalid result due to interference with pot

Vibration Monitoring Record Sheet					
Minimum Criterion 8mm/s					
Date	Location	PPV max (mm/s)	Location*	PPV max (mm/s)	Comment
03/09/2012	V2	0.80	V3	0.40	
04/09/2012	V2	1.21	V3	0.40	
05/09/2012	V2	1.36	V3	0.40	
06/09/2012	V2	1.85	V3	0.24	
07/09/2012	V2	1.61	V3	0.24	
08/09/2012	V2	0.56	V3	0.24	
10/09/2012	V2	1.29	V3	0.24	
11/09/2012	V2	0.72	V3	0.32	
12/09/2012	V2	0.72	V3	0.32	
13/09/2012	V2	1.77	V3	0.88	
14/09/2012	V2	1.04	V3	0.24	
15/09/2012	V2	0.40	V3	0.32	
17/09/2012	V2	1.45	V3	-	Loss of data due to power failure
18/09/2012	V2	0.88	V3	-	Loss of data due to power failure
19/09/2012	V2	1.04	V3	-	Loss of data due to power failure
20/09/2012	V2	1.21	V3	-	Loss of data due to power failure
21/09/2012	V2	2.17	V3	0.32	
23/09/2012	V2	0.32	V3	0.40	
24/09/2012	V2	1.29	V3	0.40	
25/09/2012	V2	1.12	V3	0.40	
26/09/2012	V2	0.72	V3	0.40	
27/09/2012	V2	0.64	V3	0.40	
28/09/2012	V2	0.56	V3	0.40	
29/09/2012	V2	0.48	V3	0.40	
*Vibration events due to personnel activity in and around cage at V3 have been excluded from this data					

Site Rainfall Data (Aughoose, Glengad & Terminal)			
Date	Rainfall mm - Glengad	Rainfall mm - Aughoose	Rainfall mm - Terminal
01/09/2012	1.2	4.8	4.6
02/09/2012	0.0	0.2	0.2
03/09/2012	0.4	3.8	3.8
04/09/2012	0.0	0.0	0.0
05/09/2012	0.0	0.0	0.2
06/09/2012	5.2	12.0	4.8
07/09/2012	0.6	3.6	9.2
08/09/2012	1.0	1.4	1.6
09/09/2012	8.2	10.2	9.0
10/09/2012	2.8	6.4	3.4
11/09/2012	2.2	4.4	0.8
12/09/2012	2.4	2.8	0.0
13/09/2012	1.6	4.6	1.8
14/09/2012	0.8	0.8	0.0
15/09/2012	0.0	0.0	16.4
16/09/2012	1.8	6.8	3.4
17/09/2012	3.0	9.2	5.2
18/09/2012	0.4	0.8	1.0
19/09/2012	1.0	0.6	0.6
9/20/2012	14.2	18.6	15.0
9/21/2012	0.2	0.2	0.6
9/22/2012	0.0	0.0	0.0
9/23/2012	4.0	7.8	4.8
9/24/2012	14.4	13.4	11.2
9/25/2012	28.2	21.4	24.8
9/26/2012	0.8	0.8	0.6
27/09/2012	2.0	4.0	2.8
28/09/2012	3.2	3.2	3.4
29/09/2012	9.2	14.2	11.0
30/09/2012	3.2	8.2	10.2
Total	112.0	164.2	150.4
	Denotes that no data is available		

Day Time Noise Monitoring / Max Hourly or above 60dB L _{Aeq} Record Sheet												
Determinant Results												
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			*Comments		
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}			
Action Limit							60.0					
Target Limit							65.0					
NSR1	13.6	16.5	01/09/2012 08:00	1:00:00	6.0	209.0	60.3	74.8	39.1			
NSR1			01/09/2012 09:00	1:00:00	4.6	206.5	61.8	74.7	41.6			
NSR1			01/09/2012 10:00	1:00:00	7.5	202.5	65.0	80.0	42.8	Wind dominates noise result.		
NSR1			01/09/2012 11:00	1:00:00	6.5	207.8	62.5	78.6	42.3			
NSR1			01/09/2012 12:00	1:00:00	6.2	214.8	65.5	77.3	44.4	Noise data reviewed by Noise consultant. Noise not site related.		
NSR1			01/09/2012 13:00	1:00:00	7.9	224.3	66.4	82.3	43.0			
NSR1			01/09/2012 14:00	1:00:00	6.6	220.8	64.1	79.8	41.8			
NSR1			01/09/2012 15:00	1:00:00	6.5	233.5	66.1	76.3	43.2	Noise reviewed as per noise monitoring protocol. Noise level not site related.		
NSR1			01/09/2012 16:00	1:00:00	5.5	232.5	66.0	77.6	42.6	Noise reviewed as per noise monitoring protocol. Noise level not site related.		
NSR1			01/09/2012 17:00	1:00:00	4.6	225.5	62.4	74.7	40.3			
NSR2			01/09/2012 07:00	1:00:00	8.9	186.3	60.5	76.6	43.6			
NSR2			01/09/2012 10:00	1:00:00	7.7	177.0	60.6	79.6	40.7			
NSR2			01/09/2012 11:00	1:00:00	7.9	175.5	62.0	79.9	40.6			
NSR2			01/09/2012 12:00	1:00:00	7.9	169.5	63.2	81.3	41.6			
NSR2			01/09/2012 13:00	1:00:00	8.1	172.0	63.3	79.4	41.6			
NSR2			01/09/2012 14:00	1:00:00	8.5	178.3	64.9	81.7	43.1			
NSR2			01/09/2012 15:00	1:00:00	10.8	183.3	69.5	84.4	48.5	Wind dominates noise result.		
NSR2			01/09/2012 16:00	1:00:00	9.9	185.8	67.0	81.0	48.7	Wind dominates noise result.		
NSR2			01/09/2012 17:00	1:00:00	8.3	190.8	61.8	78.1	45.2			
NSR1			13.8	18.2	03/09/2012 10:00	1:00:00	4.1	196.5	60.3	74.8	41.2	
NSR1	03/09/2012 11:00	1:00:00			5.4	216.3	60.0	72.0	41.4			
NSR1	03/09/2012 12:00	1:00:00			5.2	226.3	63.6	75.0	42.9			
NSR1	03/09/2012 13:00	1:00:00			4.3	198.3	64.1	74.3	42.7			
NSR1	03/09/2012 14:00	1:00:00			6.1	215.5	63.5	84.5	41.1			
NSR1	03/09/2012 15:00	1:00:00			4.6	221.8	62.6	74.0	41.1			
NSR1	03/09/2012 16:00	1:00:00			5.2	226.8	62.2	73.5	41.3			
NSR1	03/09/2012 17:00	1:00:00			5.2	222.0	63.8	78.6	41.7			
NSR1	03/09/2012 18:00	1:00:00			5.2	226.0	63.1	73.4	42.1			
NSR2	03/09/2012 07:00	1:00:00			7.0	152.8	64.8	91.4	36.8			
NSR2	03/09/2012 11:00	1:00:00			6.3	162.0	60.9	79.0	36.6			
NSR2	03/09/2012 12:00	1:00:00			7.7	164.0	62.7	75.1	39.5			
NSR2	03/09/2012 13:00	1:00:00			7.5	153.3	62.3	77.2	40.0			
NSR2	03/09/2012 15:00	1:00:00			7.0	169.5	61.6	75.9	39.0			
NSR2	03/09/2012 16:00	1:00:00			8.7	183.8	64.2	81.2	41.5			
NSR2	03/09/2012 17:00	1:00:00			9.7	180.8	66.9	85.1	46.4	Wind dominates noise result.		
NSR2	03/09/2012 18:00	1:00:00			8.5	181.5	63.1	74.2	41.9			
NSR1	9.5	15.9			04/09/2012 17:00	1:00:00			54.5	79.8	32.8	
NSR2					04/09/2012 09:00	1:00:00	5.0	240.0	57.1	75.5	43.8	
NSR1	8.6	17.3			05/09/2012 17:00	1:00:00	2.5	270.0	54.2	77.0	31.4	
NSR2			05/09/2012 15:00	1:00:00	1.6	249.0	59.7	90.2	40.6			
* Wind speeds in excess of 7 m/s negatively impact noise readings												
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))												
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring												
	NSR1											
	NSR2											

Determinant Results										
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			*Comments
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
NSR1			06/09/2012 07:00	1:00:00	6.5	210.5	60.8	74.6	39.3	
			06/09/2012 08:00	1:00:00	6.0	227.8	61.2	74.1	40.5	
			06/09/2012 09:00	1:00:00	5.6	238.8	61.1	73.0	40.9	
			06/09/2012 10:00	1:00:00	6.9	209.8	62.1	74.1	42.5	
			06/09/2012 11:00	1:00:00	4.7	226.5	63.8	78.8	42.5	
			06/09/2012 12:00	1:00:00	6.4	229.3	64.7	81.4	44.2	
			06/09/2012 13:00	1:00:00	5.8	224.3	62.4	76.4	41.7	
			06/09/2012 14:00	1:00:00	6.0	225.8	60.7	77.4	41.2	
			06/09/2012 15:00	1:00:00	5.3	219.3	61.6	74.8	39.8	
NSR2	8.3	16.2	06/09/2012 16:00	1:00:00	4.3	242.3	61.5	72.9	39.4	
			06/09/2012 17:00	1:00:00			60.7	74.0	38.9	
			06/09/2012 07:00	1:00:00	9.5	186.0	65.5	84.1	46.5	Elevated noise levels due to high winds speeds
			06/09/2012 08:00	1:00:00	9.9	185.8	66.8	82.9	47.9	Elevated noise levels due to high winds speeds
			06/09/2012 09:00	1:00:00	10.0	182.8	69.5	81.0	52.9	Elevated noise levels due to high winds speeds
			06/09/2012 10:00	1:00:00	10.2	188.0	68.4	85.5	47.2	Elevated noise levels due to high winds speeds
			06/09/2012 11:00	1:00:00	9.7	186.8	67.5	84.5	47.9	Elevated noise levels due to high winds speeds
			06/09/2012 12:00	1:00:00	9.6	187.5	65.3	80.2	46.6	Elevated noise levels due to high winds speeds
			06/09/2012 13:00	1:00:00	9.6	183.3	65.0	79.0	45.1	Elevated noise levels due to high winds speeds
			06/09/2012 14:00	1:00:00	9.1	185.3	64.5	81.5	44.0	
			06/09/2012 15:00	1:00:00	8.6	183.0	63.7	81.5	43.5	
NSR1	14.8	17.5	06/09/2012 16:00	1:00:00	8.2	184.5	61.7	77.0	43.7	
06/09/2012 17:00			1:00:00	7.9	185.3	61.3	76.2	43.1		
NSR1	11.8	16.6	06/09/2012 18:00	1:00:00	7.5	184.0	61.1	73.8	40.5	
NSR2			07/09/2012 18:00	1:00:00	2.5	231.5	54.1	82.8	32.6	
NSR1	9.4	14.1	07/09/2012 14:00	1:00:00	4.8	184.8	59.3	82.2	34.5	
NSR2			08/09/2012 12:00	1:00:00	3.7	231.0	57.3	77.7	36.2	
NSR1	8.7	14.5	08/09/2012 12:00	1:00:00	4.6	185.0	60.6	82.1	31.0	
NSR2			10/09/2012 18:00	1:00:00	1.1	263.8	55.2	74.2	32.1	
NSR1	7.8	15.4	10/09/2012 12:00	1:00:00	2.1	260.5	60.0	87.1	41.3	
NSR2			11/09/2012 12:00	1:00:00	5.9	309.8	58.8	82.0	36.5	
NSR1			11/09/2012 16:00	1:00:00	5.1	216.0	60.3	86.8	42.7	
NSR2			12/09/2012 08:00	1:00:00	4.8	333.3	54.6	74.5	34.1	
NSR1			12/09/2012 18:00	1:00:00	3.4	262.8	59.0	81.6	39.9	
NSR2										
NSR1			13/09/2012 11:00	1:00:00	4.7	244.8	61.8	76.0	40.7	
			13/09/2012 12:00	1:00:00	5.9	233.0	65.2	77.3	42.3	Noise reviewed as per noise monitoring protocol. Noise not site related.
			13/09/2012 13:00	1:00:00	4.5	224.3	65.0	78.4	42.4	
			13/09/2012 14:00	1:00:00	7.2	224.5	67.4	82.1	45.2	Elevated noise levels due to high wind speeds
			13/09/2012 15:00	1:00:00	7.7	234.0	67.7	84.5	45.3	Elevated noise levels due to high wind speeds
			13/09/2012 16:00	1:00:00	4.9	187.8	66.8	83.6	42.9	
			13/09/2012 17:00	1:00:00	4.5	209.8	66.0	88.3	43.6	Noise reviewed as per noise monitoring protocol. Noise not site related.
NSR2			13/09/2012 18:00	1:00:00	6.1	245.8	65.2	78.4	41.6	Noise reviewed as per noise monitoring protocol. Noise not site related.
			13/09/2012 11:00	1:00:00	8.8	191.8	63.9	79.7	44.1	
			13/09/2012 12:00	1:00:00	9.6	189.8	62.0	67.4	49.7	
			13/09/2012 13:00	1:00:00	10.2	186.3	67.6	84.7	48.4	Elevated noise levels due to high wind speeds
			13/09/2012 14:00	1:00:00	10.5	187.5	68.6	83.3	49.0	Elevated noise levels due to high wind speeds
			13/09/2012 15:00	1:00:00	10.2	188.3	67.7	83.2	48.6	Elevated noise levels due to high wind speeds
			13/09/2012 16:00	1:00:00	9.8	195.5	64.8	81.8	48.4	
13/09/2012 17:00	1:00:00	9.4	193.3	63.0	78.3	47.5				
13/09/2012 18:00	1:00:00	9.7	194.5	64.4	81.4	48.6				
* Wind speeds in excess of 7 m/s negatively impact noise readings										
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))										
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring										
	NSR1									
	NSR2									

Determinant Results										
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			*Comments
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
NSR1	12.2	16.7	14/09/2012 16:00	1:00:00	4.9	296.3	60.7	86.5	34.8	
NSR2			14/09/2012 07:00	1:00:00	7.9	242.5	59.1	77.3	50.4	
NSR1	12.9	15.9	15/09/2012 14:00	1:00:00	3.3	239.0	55.4	72.6	34.9	
NSR2			15/09/2012 11:00	1:00:00	5.3	200.3	61.4	79.2	39.6	
NSR1	9.5	15.5	17/09/2012 10:00	1:00:00	4.7	229.5	61.8	85.9	35.6	
			17/09/2012 11:00	1:00:00	4.3	270.5	60.2	82.3	37.2	
			17/09/2012 14:00	1:00:00	4.9	266.5	64.2	79.4	37.4	
			17/09/2012 15:00	1:00:00	3.8	258.3	61.4	74.8	38.6	
NSR2	8.0	14.5	17/09/2012 12:00	1:00:00	6.6	217.5	55.8	81.7	43.3	
NSR1			18/09/2012 17:00	1:00:00	4.2	306.3	59.8	89.1	33.8	
NSR2			18/09/2012 08:00	1:00:00	7.3	266.5	60.0	76.9	47.3	
NSR1			19/09/2012 08:00	1:00:00	1.2	275.5	64.5	91.0	28.3	
NSR2	6.1	15.4	19/09/2012 07:00	1:00:00	2.8	198.8	61.2	88.1	40.6	
NSR1	10.4	15.6	20/09/2012 14:00	1:00:00	2.5	250.0	67.8	89.3	40.1	Noise reviewed as per noise monitoring protocol. Noise not site related.
NSR2			20/09/2012 08:00	1:00:00	5.8	185.8	56.8	72.8	37.0	
NSR1	3.2	13.7	21/09/2012 11:00	1:00:00	4.1	59.5	54.9	71.9	39.6	
NSR2			21/09/2012 12:00	1:00:00	2.5	244.8	66.0	91.5	32.5	Noise reviewed as per noise monitoring protocol. Noise not site related.
			21/09/2012 18:00	1:00:00	2.6	102.0	60.1	87.1	32.7	
NSR1	1.8	15.3	22/09/2012 16:00	1:00:00	2.0	194.5	54.1	80.4	25.2	
NSR2			22/09/2012 10:00	1:00:00	2.9	97.5	56.6	82.7	27.0	
NSR1	8.6	11.4	24/09/2012 13:00	1:00:00	1.5	109.3	57.7	87.2	32.6	
NSR2			24/09/2012 09:00	1:00:00	1.8	85.8	61.7	81.7	28.7	
NSR1			25/09/2012 07:00	1:00:00	7.0	21.8	70.7	84.4	43.5	Wind dominates noise result
			25/09/2012 08:00	1:00:00	6.3	27.3	71.2	86.7	46.1	Noise reviewed as per noise monitoring protocol. Noise not site related.
			25/09/2012 09:00	1:00:00	7.8	12.3	71.7	87.5	46.1	Wind dominates noise result
			25/09/2012 10:00	1:00:00	9.7	19.0	70.8	82.6	45.4	Wind dominates noise result
			25/09/2012 11:00	1:00:00	9.2	104.0	72.4	87.8	47.1	Wind dominates noise result
			25/09/2012 12:00	1:00:00	9.6	14.5	74.3	86.9	48.8	Wind dominates noise result
			25/09/2012 13:00	1:00:00	11.7	10.5	73.8	86.7	49.2	Wind dominates noise result
			25/09/2012 14:00	1:00:00	9.7	100.3	74.6	90.9	51.6	Wind dominates noise result
			25/09/2012 15:00	1:00:00	10.4	14.0	76.0	90.2	53.0	Wind dominates noise result
			25/09/2012 16:00	1:00:00	10.7	6.8	75.6	87.0	51.5	Wind dominates noise result
NSR2			25/09/2012 17:00	1:00:00	9.3	12.3	75.4	87.7	50.6	Wind dominates noise result
			25/09/2012 18:00	1:00:00	12.2	9.5	76.5	87.5	51.2	Wind dominates noise result
			25/09/2012 07:00	1:00:00	7.4	354.3	66.9	81.0	45.5	Wind dominates noise result
			25/09/2012 08:00	1:00:00	6.7	349.0	67.6	83.2	44.8	Noise reviewed as per noise monitoring protocol. Noise not site related.
			25/09/2012 09:00	1:00:00	6.5	348.3	65.1	78.2	45.1	Noise reviewed as per noise monitoring protocol. Noise not site related.
			25/09/2012 10:00	1:00:00	6.6	339.8	68.6	81.3	44.6	Noise reviewed as per noise monitoring protocol. Noise not site related.
			25/09/2012 11:00	1:00:00	7.1	339.5	69.0	82.8	47.2	Wind dominates noise result
			25/09/2012 12:00	1:00:00	7.2	340.8	70.1	81.9	48.6	Wind dominates noise result
			25/09/2012 13:00	1:00:00	6.9	322.3	72.1	84.4	48.1	Wind dominates noise result
			25/09/2012 14:00	1:00:00	7.6	324.3	74.7	87.8	49.3	Wind dominates noise result
25/09/2012 15:00	1:00:00	7.8	323.3	75.0	87.9	49.8	Wind dominates noise result			
25/09/2012 16:00	1:00:00	7.1	333.0	72.1	86.4	47.5	Wind dominates noise result			
25/09/2012 17:00	1:00:00	7.2	322.8	73.4	86.4	47.6	Wind dominates noise result			
25/09/2012 18:00	1:00:00	7.8	324.3	74.9	91.9	46.8	Wind dominates noise result			
* Wind speeds in excess of 7 m/s negatively impact noise readings										
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))										
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring										
	NSR1									
	NSR2									

Determinant Results										
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			*Comments
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
NSR1			26/09/2012 07:00	1:00:00	8.6	18.8	70.1	84.4	46.1	Wind dominates noise result
			26/09/2012 08:00	1:00:00	8.5	10.5	69.3	82.3	46.0	Wind dominates noise result
			26/09/2012 09:00	1:00:00	8.0	15.8	70.1	83.4	46.1	Wind dominates noise result
			26/09/2012 10:00	1:00:00	7.5	15.8	69.3	84.2	45.6	Wind dominates noise result
			26/09/2012 11:00	1:00:00	8.4	24.3	67.1	81.4	43.2	Wind dominates noise result
			26/09/2012 13:00	1:00:00	8.5	95.5	63.2	77.3	42.1	
			26/09/2012 14:00	1:00:00	6.3	17.5	61.6	77.0	40.8	
			26/09/2012 15:00	1:00:00	6.7	10.8	61.1	82.4	41.6	
NSR2			26/09/2012 07:00	1:00:00	6.3	341.0	66.4	79.2	43.4	Noise reviewed as per noise monitoring protocol. Noise not site related.
			26/09/2012 08:00	1:00:00	6.5	327.8	67.1	78.2	44.7	Noise reviewed as per noise monitoring protocol. Noise not site related.
			26/09/2012 09:00	1:00:00	6.2	335.5	67.4	83.5	45.1	Noise reviewed as per noise monitoring protocol. Noise not site related.
			26/09/2012 10:00	1:00:00	6.2	338.8	66.4	84.0	44.4	Noise reviewed as per noise monitoring protocol. Noise not site related.
			26/09/2012 11:00	1:00:00	5.5	331.0	63.8	78.9	44.4	
			26/09/2012 12:00	1:00:00	5.4	333.8	63.8	76.2	44.1	
			26/09/2012 13:00	1:00:00	5.4	336.0	64.4	76.5	45.1	
			26/09/2012 14:00	1:00:00	5.2	318.0	62.3	75.7	44.1	
			26/09/2012 15:00	1:00:00	5.7	313.3	62.8	77.7	43.1	
			26/09/2012 16:00	1:00:00	5.2	307.0	60.9	74.4	42.6	
			26/09/2012 18:00	1:00:00	4.6	304.8	64.5	81.1	41.0	
NSR1	9.6	14.1	27/09/2012 14:00	1:00:00	4.6	235.0	63.5	89.3	34.3	
NSR2			27/09/2012 15:00	1:00:00	7.6	185.3	60.8	85.7	33.9	
NSR1	9.1	14.5	28/09/2012 13:00	1:00:00	5.0	295.3	61.6	87.0	32.8	
NSR2			28/09/2012 17:00	1:00:00	6.8	244.3	59.2	82.9	46.9	
NSR1	9.8	16.0	29/09/2012 08:00	1:00:00	4.4	293.8	66.1	93.4	32.8	Noise level analysed as per noise monitoring protocol. Noise not site related. AN1 noise level 54dB(A) Laeq at that time.
			29/09/2012 11:00	1:00:00	3.4	240.0	63.4	90.6	30.4	
			29/09/2012 19:00	1:00:00	4.1	211.0	62.6	74.9	38.2	
NSR2			29/09/2012 11:00	1:00:00	3.9	223.0	62.5	90.8	40.6	
			29/09/2012 15:00	1:00:00	8.1	187.0	60.8	79.1	43.6	
			29/09/2012 19:00	1:00:00	6.8	177.8	62.0	85.3	40.1	

Day Time Noise Monitoring / Max Hourly or above 60dB L_{aeg} Record Sheet

Determinant Results

Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB		
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}
Action Limit							60.0		
Target Limit							65.0		
AN1	13.6	16.5	01/09/2012 07:00	1:00:00	6.1	218.8	61.5	81.4	43.2
AN1			01/09/2012 08:00	1:00:00	6.0	209.0	68.6	85.4	48.6
AN1			01/09/2012 09:00	1:00:00	4.6	206.5	73.2	91.2	49.8
AN1			01/09/2012 10:00	1:00:00	7.5	202.5	74.7	92.0	50.0
AN1			01/09/2012 11:00	1:00:00	6.5	207.8	73.9	92.6	50.8
AN1			01/09/2012 12:00	1:00:00	6.2	214.8	75.7	91.0	50.7
AN1			01/09/2012 13:00	1:00:00	7.9	224.3	72.8	91.8	47.2
AN1			01/09/2012 14:00	1:00:00	6.6	220.8	70.0	87.3	46.7
AN1			01/09/2012 15:00	1:00:00	6.5	233.5	67.7	87.7	45.4
AN1			01/09/2012 16:00	1:00:00	5.5	232.5	68.0	85.4	46.0
AN1			01/09/2012 17:00	1:00:00	4.6	225.5	63.9	85.0	45.5
AN2			01/09/2012 10:00	1:00:00	7.5	202.5	61.5	76.1	43.6
AN2			01/09/2012 12:00	1:00:00	6.2	214.8	62.8	82.6	43.3
AN2			01/09/2012 13:00	1:00:00	7.9	224.3	60.7	79.7	43.2
AN2			01/09/2012 15:00	1:00:00	6.5	233.5	61.0	78.3	39.9
AN2			01/09/2012 16:00	1:00:00	5.5	232.5	64.9	79.4	42.0
AN2			01/09/2012 17:00	1:00:00	4.6	225.5	61.7	77.1	37.7
AN3			01/09/2012 15:00	1:00:00	6.5	233.5	54.5	73.6	34.1
GN1			01/09/2012 07:00	1:00:00	8.9	186.3	64.7	81.1	43.0
GN1			01/09/2012 08:00	1:00:00	6.6	181.3	61.0	81.4	38.8
GN1			01/09/2012 09:00	1:00:00	7.4	178.8	61.2	84.0	39.4
GN1			01/09/2012 10:00	1:00:00	7.7	177.0	64.9	84.7	40.4
GN1			01/09/2012 11:00	1:00:00	7.9	175.5	63.5	83.9	38.8
GN1			01/09/2012 12:00	1:00:00	7.9	169.5	66.3	87.4	41.4
GN1			01/09/2012 13:00	1:00:00	8.1	172.0	63.2	86.4	39.4
GN1			01/09/2012 14:00	1:00:00	8.5	178.3	66.5	84.9	43.1
GN1			01/09/2012 15:00	1:00:00	10.8	183.3	69.7	86.7	51.4
GN1			01/09/2012 16:00	1:00:00	9.9	185.8	66.4	83.0	52.1
GN1			01/09/2012 17:00	1:00:00	8.3	190.8	63.6	80.3	49.6
GN1			01/09/2012 18:00	1:00:00	7.1	195.5	60.7	76.1	47.5
GN2			01/09/2012 07:00	1:00:00	8.9	186.3	72.9	85.4	51.8
GN2			01/09/2012 08:00	1:00:00	6.6	181.3	66.1	81.6	50.6
GN2			01/09/2012 09:00	1:00:00	7.4	178.8	70.2	85.8	50.6
GN2			01/09/2012 10:00	1:00:00	7.7	177.0	70.2	84.4	50.6
GN2			01/09/2012 11:00	1:00:00	7.9	175.5	71.1	84.8	50.1
GN2			01/09/2012 12:00	1:00:00	7.9	169.5	72.7	87.2	50.1
GN2			01/09/2012 13:00	1:00:00	8.1	172.0	73.2	86.1	50.6
GN2			01/09/2012 14:00	1:00:00	8.5	178.3	74.1	89.6	51.9
GN2			01/09/2012 15:00	1:00:00	10.8	183.3	78.1	88.3	55.7
GN2			01/09/2012 16:00	1:00:00	9.9	185.8	75.1	84.6	55.3
GN2	01/09/2012 17:00	1:00:00	8.3	190.8	70.7	80.8	53.4		
GN2	01/09/2012 18:00	1:00:00	7.1	195.5	68.1	83.7	53.9		
GN2	01/09/2012 19:00	1:00:00	5.4	208.0	64.8	75.5	53.9		
RN1	01/09/2012 10:00	1:00:00	7.5	202.5	57.2	75.6	49.7		

* Wind speeds in excess of 7 m/s negatively impact noise readings

Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))

The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring

	AN1		AN2		AN3		GN1		RN1
	GN2								

Determinant Results											
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB				
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}		
Action Limit							60.0				
Target Limit							65.0				
AN1	13.8	18.2	03/09/2012 07:00	1:00:00	4.9	199.5	63.9	81.1	45.3		
AN1			03/09/2012 08:00	1:00:00	4.8	214.5	69.4	82.7	52.5		
AN1			03/09/2012 09:00	1:00:00	6.5	206.0	68.8	84.0	52.5		
AN1			03/09/2012 10:00	1:00:00	4.1	196.5	69.6	90.4	49.5		
AN1			03/09/2012 11:00	1:00:00	5.4	216.3	70.2	86.8	54.2		
AN1			03/09/2012 12:00	1:00:00	5.2	226.3	70.3	86.5	55.2		
AN1			03/09/2012 13:00	1:00:00	4.3	198.3	68.8	84.9	53.5		
AN1			03/09/2012 14:00	1:00:00	6.1	215.5	69.6	86.4	49.6		
AN1			03/09/2012 15:00	1:00:00	4.6	221.8	70.8	90.4	53.5		
AN1			03/09/2012 16:00	1:00:00	5.2	226.8	69.5	85.8	54.3		
AN1			03/09/2012 17:00	1:00:00	5.2	222.0	67.7	84.1	50.9		
AN1			03/09/2012 18:00	1:00:00	5.2	226.0	64.5	82.1	44.9		
AN2			03/09/2012 14:00	1:00:00	6.1	215.5	60.9	75.3	43.6		
AN2			03/09/2012 18:00	1:00:00	5.2	226.0	60.4	77.9	39.2		
AN3			03/09/2012 17:00	1:00:00	5.2	222.0	50.7	70.0	33.7		
GN1			03/09/2012 16:00	1:00:00	8.7	183.8	66.5	83.0	39.6		
GN1			03/09/2012 17:00	1:00:00	9.7	180.8	65.3	78.9	48.4		
GN1			03/09/2012 18:00	1:00:00	8.5	181.5	61.3	76.7	42.5		
GN2			03/09/2012 07:00	1:00:00	7.0	152.8	66.7	81.6	48.4		
GN2			03/09/2012 08:00	1:00:00	5.8	152.3	63.9	81.4	48.5		
GN2			03/09/2012 09:00	1:00:00	5.2	147.5	61.9	78.5	48.4		
GN2			03/09/2012 10:00	1:00:00	5.1	157.0	63.7	80.3	48.7		
GN2			03/09/2012 11:00	1:00:00	6.3	162.0	67.1	81.3	49.5		
GN2			03/09/2012 12:00	1:00:00	7.7	164.0	69.6	81.7	50.3		
GN2			03/09/2012 13:00	1:00:00	7.5	153.3	68.9	81.7	49.9		
GN2			03/09/2012 14:00	1:00:00	7.0	165.0	68.8	81.2	49.8		
GN2			03/09/2012 15:00	1:00:00	7.0	169.5	70.0	85.7	50.8		
GN2			03/09/2012 16:00	1:00:00	8.7	183.8	74.1	85.6	51.4		
GN2			03/09/2012 17:00	1:00:00	9.7	180.8	76.6	86.3	53.7		
GN2			03/09/2012 18:00	1:00:00	8.5	181.5	71.4	82.4	50.9		
GN2			03/09/2012 19:00	1:00:00	7.5	189.8	67.3	78.9	50.8		
RN1			03/09/2012 17:00	1:00:00	5.2	222.0	54.0	68.4	46.8		
AN1	9.5	15.9	04/09/2012 08:00	1:00:00			61.6	81.2	49.7		
AN1			04/09/2012 10:00	1:00:00			74.3	96.8	45.8		
AN1			04/09/2012 11:00	1:00:00			69.6	92.7	47.7		
AN1			04/09/2012 12:00	1:00:00			62.8	87.1	48.6		
AN1			04/09/2012 13:00	1:00:00			60.2	83.2	48.0		
AN1			04/09/2012 15:00	1:00:00			62.4	80.7	49.2		
AN1			04/09/2012 16:00	1:00:00			61.8	75.9	49.8		
AN1			04/09/2012 17:00	1:00:00			67.5	90.2	48.4		
AN1			04/09/2012 18:00	1:00:00	4.0	319.0	60.8	79.5	42.7		
AN2			04/09/2012 15:00	1:00:00			63.0	81.2	42.7		
AN3			04/09/2012 15:00	1:00:00			49.9	81.0	32.2		
GN1			04/09/2012 12:00	1:00:00	4.3	235.3	53.9	88.5	40.6		
GN2			04/09/2012 07:00	1:00:00	5.3	233.5	63.0	76.7	53.1		
GN2			04/09/2012 08:00	1:00:00	5.5	231.5	64.5	75.9	53.9		
GN2			04/09/2012 09:00	1:00:00	5.0	240.0	63.6	76.0	54.1		
GN2			04/09/2012 10:00	1:00:00	4.3	237.0	60.3	69.1	53.4		
GN2			04/09/2012 12:00	1:00:00	4.3	235.3	60.1	76.1	50.8		
GN2			04/09/2012 13:00	1:00:00	4.8	235.0	60.6	69.6	51.1		
GN2			04/09/2012 14:00	1:00:00	4.9	233.3	60.0	71.4	51.5		
GN2			04/09/2012 15:00	1:00:00	4.8	243.0	62.7	71.5	53.0		
GN2			04/09/2012 16:00	1:00:00	4.8	246.3	63.0	76.6	52.9		
GN2			04/09/2012 17:00	1:00:00	4.6	249.0	62.5	79.2	53.6		
GN2			04/09/2012 18:00	1:00:00	4.8	246.8	61.7	70.5	54.2		
GN2			04/09/2012 19:00	1:00:00	4.4	247.5	60.1	68.2	53.7		
RN1			04/09/2012 07:00	1:00:00	1.0	239.0	47.0	67.7	31.8		
* Wind speeds in excess of 7 m/s negatively impact noise readings											
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))											
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring											
	AN1		AN2		AN3		GN1		RN1		
	GN2										

Determinant Results												
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB					
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}			
Action Limit							60.0					
Target Limit							65.0					
AN1	8.6	17.3	05/09/2012 07:00	1:00:00	0.7	216.0	63.4	81.6	43.1			
AN1			05/09/2012 08:00	1:00:00	0.9	186.5	61.0	76.6	50.3			
AN1			05/09/2012 10:00	1:00:00	2.4	321.3	61.5	66.8	48.4			
AN1			05/09/2012 11:00	1:00:00	2.7	333.0	62.0	79.4	47.8			
AN1			05/09/2012 12:00	1:00:00	3.2	328.8	63.3	85.0	48.9			
AN1			05/09/2012 13:00	1:00:00	2.8	332.0	65.5	80.0	48.4			
AN1			05/09/2012 14:00	1:00:00	2.8	346.0	63.7	81.8	47.4			
AN1			05/09/2012 15:00	1:00:00	3.7	329.5	66.0	85.4	47.0			
AN1			05/09/2012 16:00	1:00:00	2.9	334.8	67.0	83.4	48.3			
AN1			05/09/2012 17:00	1:00:00	2.5	270.0	64.5	83.2	49.3			
AN2			05/09/2012 10:00	1:00:00	2.4	321.3	61.9	81.7	33.3			
AN2			05/09/2012 11:00	1:00:00	2.7	333.0	61.6	83.2	41.7			
AN3			05/09/2012 08:00	1:00:00	0.9	186.5	43.6	65.9	28.5			
GN1			05/09/2012 07:00	1:00:00	2.2	248.3	47.0	78.7	40.5			
GN2			05/09/2012 08:00	1:00:00	2.8	261.5	60.8	83.4	52.5			
GN2			05/09/2012 09:00	1:00:00	2.9	255.0	61.7	81.8	52.3			
GN2			05/09/2012 10:00	1:00:00	2.3	254.5	70.3	92.5	52.0			
GN2			05/09/2012 11:00	1:00:00	2.4	257.5	65.1	85.2	51.2			
GN2			05/09/2012 15:00	1:00:00	1.6	249.0	61.0	81.1	49.7			
GN2			05/09/2012 16:00	1:00:00	2.8	258.0	61.0	79.5	49.7			
RN1			05/09/2012 09:00	1:00:00	2.8	324.0	45.7	77.0	25.6			
AN1	8.3	16.2	06/09/2012 07:00	1:00:00	6.5	210.5	65.6	83.5	45.8			
			06/09/2012 08:00	1:00:00	6.0	227.8	67.5	82.8	50.4			
			06/09/2012 09:00	1:00:00	5.6	238.8	68.0	84.2	54.2			
			06/09/2012 10:00	1:00:00	6.9	209.8	69.0	84.6	51.5			
			06/09/2012 11:00	1:00:00	4.7	226.5	71.8	88.4	55.8			
			06/09/2012 12:00	1:00:00	6.4	229.3	71.2	89.9	53.0			
			06/09/2012 13:00	1:00:00	5.8	224.3	71.0	88.4	48.8			
			06/09/2012 14:00	1:00:00	6.0	225.8	72.1	89.1	26.3			
			06/09/2012 15:00	1:00:00	5.3	219.3	70.5	88.6	55.1			
			06/09/2012 16:00	1:00:00	4.3	242.3	67.9	83.4	56.4			
			06/09/2012 17:00	1:00:00			71.6	94.2	55.0			
			06/09/2012 18:00	1:00:00			62.7	79.9	46.6			
			AN2	06/09/2012 10:00	1:00:00	6.9	209.8	63.3	82.7	41.5		
				06/09/2012 11:00	1:00:00	4.7	226.5	61.6	79.7	43.2		
				06/09/2012 12:00	1:00:00	6.4	229.3	64.9	84.4	42.7		
AN3			06/09/2012 13:00	1:00:00	5.8	224.3	65.9	94.9	39.9			
GN1			06/09/2012 10:00	1:00:00	6.9	209.8	57.9	74.8	35.9			
			06/09/2012 07:00	1:00:00	9.5	186.0	64.4	81.8	45.4			
			06/09/2012 08:00	1:00:00	9.9	185.8	65.9	80.7	44.6			
			06/09/2012 09:00	1:00:00	10.0	182.8	67.6	82.5	43.5			
			06/09/2012 10:00	1:00:00	10.2	188.0	67.9	81.2	47.3			
			06/09/2012 11:00	1:00:00	9.7	186.8	67.7	89.1	45.7			
			06/09/2012 12:00	1:00:00	9.6	187.5	66.5	87.2	43.8			
			06/09/2012 13:00	1:00:00	9.6	183.3	66.1	82.4	47.3			
			06/09/2012 14:00	1:00:00	9.1	185.3	64.4	78.8	48.0			
			06/09/2012 15:00	1:00:00	8.6	183.0	62.8	76.9	45.1			
			06/09/2012 16:00	1:00:00	8.2	184.5	63.8	91.6	43.3			
			06/09/2012 17:00	1:00:00	7.9	185.3	64.9	82.9	44.5			
			GN2	06/09/2012 07:00	1:00:00	9.5	186.0	73.7	84.7	51.7		
				06/09/2012 08:00	1:00:00	9.9	185.8	75.2	86.1	52.5		
				06/09/2012 09:00	1:00:00	10.0	182.8	76.3	85.9	58.7		
06/09/2012 10:00				1:00:00	10.2	188.0	76.8	86.7	52.3			
06/09/2012 11:00				1:00:00	9.7	186.8	75.2	85.2	53.6			
06/09/2012 12:00				1:00:00	9.6	187.5	75.1	88.2	53.9			
06/09/2012 13:00				1:00:00	9.6	183.3	75.3	85.7	52.7			
06/09/2012 14:00				1:00:00	9.1	185.3	74.7	84.4	52.5			
06/09/2012 15:00				1:00:00	8.6	183.0	72.6	83.3	51.6			
06/09/2012 16:00				1:00:00	8.2	184.5	71.3	83.3	50.8			
06/09/2012 17:00				1:00:00	7.9	185.3	70.7	83.1	51.8			
06/09/2012 18:00				1:00:00	7.5	184.0	69.5	80.8	50.9			
RN1				06/09/2012 11:00	1:00:00	4.7	226.5	57.4	70.4	51.1		
* Wind speeds in excess of 7 m/s negatively impact noise readings												
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))												
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring												
	AN1		AN2		AN3		GN1		RN1			
	GN2											

Determinant Results											
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB				
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}		
Action Limit							60.0				
Target Limit							65.0				
AN1	14.8	17.5	07/09/2012 07:00	1:00:00	2.0	259.0	61.4	84.0	46.1		
			07/09/2012 08:00	1:00:00	2.0	233.3	62.2	79.6	49.7		
			07/09/2012 09:00	1:00:00	2.8	248.5	62.7	80.5	52.9		
			07/09/2012 10:00	1:00:00	3.6	249.5	60.3	74.5	51.2		
			07/09/2012 12:00	1:00:00	2.7	249.3	67.6	94.2	50.8		
			07/09/2012 13:00	1:00:00	2.4	214.8	61.0	84.8	48.4		
			07/09/2012 16:00	1:00:00	2.1	258.5	60.1	82.9	48.0		
			07/09/2012 11:00	1:00:00	3.4	250.8	71.6	84.8	36.1		
			07/09/2012 13:00	1:00:00	2.4	214.8	62.0	84.9	31.2		
			07/09/2012 14:00	1:00:00	3.7	218.8	61.6	85.0	32.1		
AN2			07/09/2012 10:00	1:00:00	3.6	249.5	43.5	74.3	29.2		
GN1			07/09/2012 09:00	1:00:00	3.9	205.8	51.2	81.9	36.1		
GN2			07/09/2012 12:00	1:00:00	4.2	197.8	63.1	84.8	49.8		
			07/09/2012 13:00	1:00:00	4.7	189.0	60.1	80.0	49.5		
			07/09/2012 09:00	1:00:00	2.8	248.5	47.9	72.9	24.5		
AN1	11.8	16.6	08/09/2012 15:00	1:00:00	3.2	216.5	59.3	77.4	42.6		
AN2			08/09/2012 11:00	1:00:00	3.6	178.8	51.5	79.1	28.0		
AN3			08/09/2012 12:00	1:00:00	3.7	231.0	46.1	77.2	29.1		
GN1			08/09/2012 15:00	1:00:00	5.0	172.0	53.9	75.1	31.6		
GN2			08/09/2012 15:00	1:00:00	5.0	172.0	59.5	73.7	48.9		
RN1			08/09/2012 10:00	1:00:00	2.8	210.5	49.2	73.3	28.9		
AN1	9.4	14.1	10/09/2012 10:00	1:00:00	1.5	312.3	71.7	97.0	43.4		
AN2			10/09/2012 15:00	1:00:00	2.0	228.0	60.7	81.1	38.5		
AN3			10/09/2012 14:00	1:00:00	2.1	300.5	56.2	92.8	28.3		
GN1			10/09/2012 14:00	1:00:00	2.7	236.3	54.4	89.4	33.5		
GN2			10/09/2012 10:00	1:00:00	2.4	269.5	70.8	88.8	50.7		
RN1			10/09/2012 09:00	1:00:00	1.2	303.5	48.1	78.5	24.8		
AN1	8.7	14.5	11/09/2012 06:00	1:00:00	4.7	314.3	68.6	83.2	43.1		
			11/09/2012 07:00	1:00:00	5.0	318.0	65.1	78.2	44.4		
			11/09/2012 08:00	1:00:00	4.9	326.8	65.6	82.4	47.7		
			11/09/2012 09:00	1:00:00	5.2	319.3	69.1	84.6	46.5		
			11/09/2012 10:00	1:00:00	5.8	306.0	71.5	95.3	46.5		
			11/09/2012 11:00	1:00:00	5.2	316.0	67.0	80.2	48.5		
			11/09/2012 12:00	1:00:00	5.9	309.8	67.2	80.2	48.7		
			11/09/2012 13:00	1:00:00	4.7	301.3	64.2	82.4	49.0		
			11/09/2012 14:00	1:00:00	4.6	291.5	64.9	80.6	49.1		
			11/09/2012 15:00	1:00:00	3.1	273.0	63.8	80.1	50.2		
			11/09/2012 16:00	1:00:00	2.3	269.8	61.4	78.4	49.2		
			11/09/2012 17:00	1:00:00	2.6	253.0	61.6	75.2	49.4		
			11/09/2012 09:00	1:00:00	5.2	319.3	60.5	77.3	38.1		
			11/09/2012 11:00	1:00:00	5.2	316.0	60.8	74.2	43.4		
			11/09/2012 12:00	1:00:00	5.9	309.8	61.0	80.6	41.4		
			11/09/2012 14:00	1:00:00	4.6	291.5	57.5	73.6	38.0		
			11/09/2012 14:00	1:00:00	6.8	228.3	57.6	74.2	44.8		
			11/09/2012 06:00	1:00:00	7.1	256.3	73.6	82.3	56.3		
			11/09/2012 07:00	1:00:00	6.9	253.0	71.2	80.1	55.2		
			11/09/2012 08:00	1:00:00	6.9	252.8	72.7	84.6	54.1		
			11/09/2012 09:00	1:00:00	6.8	254.0	75.4	84.3	57.1		
			11/09/2012 10:00	1:00:00	6.7	244.8	71.9	82.1	56.1		
			11/09/2012 11:00	1:00:00	6.5	242.5	70.6	80.8	54.5		
			11/09/2012 12:00	1:00:00	6.5	243.8	70.1	79.5	55.2		
			11/09/2012 13:00	1:00:00	6.2	229.5	68.9	80.7	54.0		
			11/09/2012 14:00	1:00:00	6.8	228.3	69.7	81.6	55.6		
			11/09/2012 15:00	1:00:00	6.4	228.3	69.9	90.4	54.6		
			11/09/2012 16:00	1:00:00	5.1	216.0	60.9	73.3	52.4		
			11/09/2012 18:00	1:00:00	5.2	223.8	67.5	79.2	52.9		
RN1			11/09/2012 09:00	1:00:00	5.2	319.3	47.9	68.4	34.1		
* Wind speeds in excess of 7 m/s negatively impact noise readings											
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))											
The results show L _{Aeq} (1hr) for maximum daily values or values over 60dB for each day of monitoring											
	AN1		AN2		AN3		GN1		RN1		
	GN2										

Determinant Results										
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
AN1	7.8	15.4	12/09/2012 07:00	1:00:00	4.4	285.3	62.0	84.0	45.4	
			12/09/2012 11:00	1:00:00	4.8	175.5	62.7	89.0	46.5	
			12/09/2012 13:00	1:00:00	4.7	331.3	62.3	87.2	45.2	
			12/09/2012 13:00	1:00:00	4.7	331.3	59.9	75.3	38.6	
AN2			12/09/2012 09:00	1:00:00	5.3	349.0	49.4	85.6	30.7	
AN3			12/09/2012 09:00	1:00:00	5.3	349.0	49.4	85.6	30.7	
GN1			12/09/2012 18:00	1:00:00	3.4	262.8	57.0	88.0	37.2	
GN2			12/09/2012 06:00	1:00:00	6.1	214.0	67.0	76.0	54.4	
			12/09/2012 07:00	1:00:00	6.0	231.0	69.1	79.0	54.0	
			12/09/2012 08:00	1:00:00	4.8	272.3	66.0	75.1	52.3	
			12/09/2012 09:00	1:00:00	5.5	291.8	63.1	73.3	51.5	
			12/09/2012 10:00	1:00:00	4.9	288.8	61.2	72.9	51.0	
			12/09/2012 11:00	1:00:00	5.0	282.8	63.0	73.1	51.4	
			12/09/2012 12:00	1:00:00	5.1	284.5	61.4	70.7	51.3	
			12/09/2012 13:00	1:00:00	4.9	270.8	60.0	70.2	51.8	
			12/09/2012 14:00	1:00:00	4.5	285.5	60.0	72.2	51.9	
	RN1	12/09/2012 07:00	1:00:00	4.4	285.3	49.1	74.1	37.1		
	AN1	8.8	16.9	13/09/2012 08:00	1:00:00	4.6	245.3	66.0	83.6	49.1
				13/09/2012 09:00	1:00:00	4.0	231.8	65.5	84.2	51.4
13/09/2012 10:00				1:00:00	5.1	229.5	66.5	82.5	50.0	
13/09/2012 11:00				1:00:00	4.7	244.8	71.0	88.8	54.9	
13/09/2012 12:00				1:00:00	5.9	233.0	74.2	89.8	56.1	
13/09/2012 13:00				1:00:00	4.5	224.3	71.8	87.0	54.2	
13/09/2012 14:00				1:00:00	7.2	224.5	73.5	89.4	52.4	
13/09/2012 16:00				1:00:00	4.9	187.8	73.1	92.9	54.1	
13/09/2012 17:00				1:00:00	4.5	209.8	71.0	89.0	54.2	
13/09/2012 18:00				1:00:00	6.1	245.8	69.9	88.9	46.4	
AN2	13/09/2012 10:00			1:00:00	5.1	229.5	60.2	74.3	36.1	
	13/09/2012 12:00			1:00:00	5.9	233.0	64.3	79.7	44.3	
	13/09/2012 13:00			1:00:00	4.5	224.3	66.8	80.1	44.9	
	13/09/2012 14:00			1:00:00	7.2	224.5	67.7	81.5	45.5	
	13/09/2012 15:00			1:00:00	7.7	234.0	68.8	85.7	46.3	
	13/09/2012 16:00			1:00:00	4.9	187.8	68.6	83.2	44.7	
	13/09/2012 17:00			1:00:00	4.5	209.8	65.3	78.5	42.3	
	13/09/2012 18:00			1:00:00	6.1	245.8	66.7	79.8	40.7	
AN3	13/09/2012 16:00			1:00:00	4.9	187.8	58.4	78.7	38.9	
GN1	13/09/2012 10:00			1:00:00	7.7	193.5	60.6	79.5	40.8	
	13/09/2012 11:00			1:00:00	8.8	191.8	64.6	80.0	43.7	
	13/09/2012 12:00			1:00:00	9.6	189.8	67.8	83.4	45.0	
	13/09/2012 13:00			1:00:00	10.2	186.3	68.4	82.2	46.7	
	13/09/2012 14:00			1:00:00	10.5	187.5	69.2	85.0	49.6	
	13/09/2012 15:00			1:00:00	10.2	188.3	69.0	84.3	46.4	
	13/09/2012 16:00			1:00:00	9.8	195.5	69.6	87.0	51.7	
	13/09/2012 17:00	1:00:00	9.4	193.3	68.3	83.4	47.6			
	13/09/2012 18:00	1:00:00	9.7	194.5	68.5	83.8	51.6			
	GN2	13/09/2012 07:00	1:00:00	6.3	198.5	63.4	77.3	51.7		
13/09/2012 08:00		1:00:00	6.8	196.3	66.1	78.7	51.6			
13/09/2012 09:00		1:00:00	7.1	196.5	66.8	80.8	51.7			
13/09/2012 10:00		1:00:00	7.7	193.5	66.5	85.5	51.2			
13/09/2012 11:00		1:00:00	8.8	191.8	70.2	81.2	51.4			
13/09/2012 13:00		1:00:00	10.2	186.3	75.1	87.4	53.5			
13/09/2012 14:00		1:00:00	10.5	187.5	76.3	88.6	53.5			
13/09/2012 15:00		1:00:00	10.2	188.3	75.5	85.8	54.1			
13/09/2012 16:00		1:00:00	9.8	195.5	74.5	85.9	54.3			
13/09/2012 17:00		1:00:00	9.4	193.3	74.5	86.4	55.0			
RN1	13/09/2012 18:00	1:00:00	9.7	194.5	74.4	85.5	55.6			
			13/09/2012 15:00	1:00:00	7.7	234.0	58.6	78.1	50.6	
* Wind speeds in excess of 7 m/s negatively impact noise readings										
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))										
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring										
	AN1		AN2		AN3		GN1		RN1	
	GN2									

Determinant Results												
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB					
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}			
Action Limit							60.0					
Target Limit							65.0					
AN1	12.2	16.7	14/09/2012 07:00	1:00:00	4.8	311.8	67.4	82.3	47.8			
			14/09/2012 08:00	1:00:00	6.0	312.8	67.4	82.8	50.9			
			14/09/2012 09:00	1:00:00	4.6	306.0	68.0	83.7	48.7			
			14/09/2012 10:00	1:00:00	5.3	305.8	67.1	83.5	47.7			
			14/09/2012 11:00	1:00:00	5.4	315.8	67.2	82.0	50.8			
			14/09/2012 12:00	1:00:00	5.8	298.3	67.1	87.5	49.5			
			14/09/2012 13:00	1:00:00	5.2	298.8	65.3	80.4	49.7			
			14/09/2012 14:00	1:00:00	5.3	299.3	64.3	82.1	46.3			
			14/09/2012 15:00	1:00:00	5.3	308.0	61.8	76.4	47.3			
			14/09/2012 16:00	1:00:00	4.9	296.3	61.1	78.5	47.4			
AN2			14/09/2012 08:00	1:00:00	6.0	312.8	62.0	80.8	46.5			
			14/09/2012 09:00	1:00:00	4.6	306.0	63.3	79.0	45.8			
			14/09/2012 11:00	1:00:00	5.4	315.8	61.5	77.7	44.9			
AN3			14/09/2012 12:00	1:00:00	5.8	298.3	62.8	80.0	44.8			
GN1			14/09/2012 08:00	1:00:00	6.0	312.8	57.5	75.1	39.4			
			14/09/2012 07:00	1:00:00	7.9	242.5	64.9	80.9	52.7			
GN2			14/09/2012 08:00	1:00:00	7.7	242.8	62.3	78.4	49.7			
			14/09/2012 10:00	1:00:00	7.1	242.5	60.1	74.3	48.3			
			14/09/2012 07:00	1:00:00	7.9	242.5	77.1	85.4	61.2			
			14/09/2012 08:00	1:00:00	7.7	242.8	75.8	84.1	59.3			
			14/09/2012 09:00	1:00:00	7.0	239.8	76.5	85.1	62.4			
			14/09/2012 10:00	1:00:00	7.1	242.5	73.3	82.8	57.1			
			14/09/2012 11:00	1:00:00	7.1	246.3	72.7	82.8	56.8			
			14/09/2012 12:00	1:00:00	6.6	244.0	70.2	79.4	56.2			
			14/09/2012 13:00	1:00:00	6.0	242.5	68.7	78.9	55.3			
			14/09/2012 14:00	1:00:00	5.9	242.5	67.2	76.9	54.9			
			14/09/2012 15:00	1:00:00	5.5	239.3	65.2	75.6	54.9			
			14/09/2012 16:00	1:00:00	5.6	228.0	63.7	73.1	54.8			
			14/09/2012 17:00	1:00:00	5.7	222.0	61.8	72.1	54.0			
			14/09/2012 18:00	1:00:00	5.3	229.0	63.5	77.3	54.0			
			RN1	14/09/2012 07:00	1:00:00	4.8	311.8	50.5	69.9	45.0		
AN1	12.9	15.9	15/09/2012 08:00	1:00:00	2.3	234.0	61.4	79.8	49.5			
			15/09/2012 11:00	1:00:00	3.1	242.0	60.4	78.2	48.4			
			15/09/2012 12:00	1:00:00	2.3	233.5	60.5	82.3	45.6			
			15/09/2012 14:00	1:00:00	3.3	239.0	57.4	77.2	31.9			
			15/09/2012 13:00	1:00:00	3.7	251.5	46.7	74.8	30.6			
			15/09/2012 15:00	1:00:00	5.4	204.5	55.9	81.8	41.2			
			15/09/2012 14:00	1:00:00	5.8	204.5	60.2	74.8	51.4			
RN1			15/09/2012 12:00	1:00:00	2.3	233.5	44.4	65.2	33.6			
AN1	9.5	15.5	17/09/2012 07:00	1:00:00	4.1	223.5	60.0	82.4	40.4			
			17/09/2012 08:00	1:00:00	3.4	251.3	62.1	83.9	50.1			
			17/09/2012 09:00	1:00:00	2.5	257.3	67.2	87.9	45.3			
			17/09/2012 10:00	1:00:00	4.7	229.5	62.7	78.7	46.8			
			17/09/2012 11:00	1:00:00	4.3	270.5	65.7	79.2	49.4			
			17/09/2012 12:00	1:00:00	5.8	252.8	66.3	81.1	51.4			
			17/09/2012 13:00	1:00:00	2.9	284.8	66.4	80.5	48.2			
			17/09/2012 14:00	1:00:00	4.9	266.5	68.0	84.1	46.1			
			17/09/2012 15:00	1:00:00	3.8	258.3	68.0	84.1	49.6			
			17/09/2012 16:00	1:00:00	5.3	267.8	63.2	80.3	49.3			
			17/09/2012 17:00	1:00:00	4.2	284.0	62.9	79.1	51.1			
			AN2	17/09/2012 11:00	1:00:00	4.3	270.5	62.2	81.0	39.2		
				17/09/2012 12:00	1:00:00	5.8	252.8	60.4	76.6	39.9		
				17/09/2012 13:00	1:00:00	2.9	284.8	61.7	79.3	37.6		
				17/09/2012 14:00	1:00:00	4.9	266.5	62.8	77.0	37.4		
17/09/2012 15:00				1:00:00	3.8	258.3	61.5	79.1	42.6			
AN3			17/09/2012 14:00	1:00:00	4.9	266.5	54.3	72.2	37.8			
GN1			17/09/2012 11:00	1:00:00	6.7	212.0	59.7	76.5	44.5			
GN2			17/09/2012 07:00	1:00:00	6.1	192.0	63.9	79.4	53.3			
			17/09/2012 08:00	1:00:00	5.4	198.8	61.5	76.3	53.6			
			17/09/2012 09:00	1:00:00	5.7	203.5	60.6	71.7	53.6			
			17/09/2012 10:00	1:00:00	6.5	203.8	66.4	82.5	52.7			
			17/09/2012 11:00	1:00:00	6.7	212.0	70.7	82.1	51.8			
			17/09/2012 12:00	1:00:00	6.6	217.5	70.2	81.6	53.7			
			17/09/2012 13:00	1:00:00	6.5	221.3	69.9	81.6	52.5			
			17/09/2012 14:00	1:00:00	6.9	214.5	68.6	79.6	53.3			
			17/09/2012 15:00	1:00:00	7.1	220.5	68.0	82.2	53.8			
			17/09/2012 16:00	1:00:00	6.4	225.8	66.6	81.8	54.4			
			17/09/2012 17:00	1:00:00	6.5	233.3	71.2	83.2	54.2			
			17/09/2012 18:00	1:00:00	6.1	239.8	69.8	80.5	56.6			
			RN1	17/09/2012 12:00	1:00:00	5.8	252.8	50.8	73.0	37.9		
			* Wind speeds in excess of 7 m/s negatively impact noise readings									
			Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))									
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring												
	AN1		AN2		AN3		GN1		RN1			
	GN2											

Determinant Results											
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB				
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}		
Action Limit							60.0				
Target Limit							65.0				
AN1	8.0	14.5	18/09/2012 06:00	1:00:00	6.6	330.8	63.3	80.6	45.1		
			18/09/2012 07:00	1:00:00	5.2	325.8	64.4	81.4	45.4		
			18/09/2012 08:00	1:00:00	7.3	331.8	67.5	80.0	50.3		
			18/09/2012 09:00	1:00:00	6.0	333.5	65.0	81.8	47.0		
			18/09/2012 10:00	1:00:00	5.8	316.8	71.8	94.2	47.1		
			18/09/2012 11:00	1:00:00	5.0	318.8	64.5	81.2	47.7		
			18/09/2012 12:00	1:00:00	5.2	321.5	66.9	80.1	46.5		
			18/09/2012 13:00	1:00:00	5.2	325.7	67.6	80.5	47.8		
			18/09/2012 14:00	1:00:00	6.4	319.5	66.0	80.3	46.3		
			18/09/2012 15:00	1:00:00	5.4	321.0	63.3	76.1	48.0		
18/09/2012 16:00			1:00:00	5.4	320.8	70.3	95.3	47.9			
18/09/2012 17:00			1:00:00	4.2	306.3	61.7	76.0	46.7			
AN2			18/09/2012 06:00	1:00:00	6.6	330.8	60.9	79.2	35.1		
			18/09/2012 07:00	1:00:00	5.2	325.8	61.6	81.2	38.8		
			18/09/2012 08:00	1:00:00	7.3	331.8	67.1	82.8	44.2		
			18/09/2012 09:00	1:00:00	6.0	333.5	67.0	74.7	47.0		
AN3			18/09/2012 11:00	1:00:00	5.0	318.8	62.0	74.3	45.8		
			18/09/2012 12:00	1:00:00	5.2	321.5	60.6	81.1	43.6		
			18/09/2012 14:00	1:00:00	6.4	319.5	60.0	76.3	38.1		
			18/09/2012 14:00	1:00:00	6.4	319.5	57.6	75.0	36.9		
GN1			18/09/2012 13:00	1:00:00	6.6	258.5	57.8	92.8	43.6		
GN2			18/09/2012 06:00	1:00:00	6.6	260.3	69.1	77.9	53.9		
			18/09/2012 07:00	1:00:00	6.5	264.3	72.0	89.7	53.4		
			18/09/2012 08:00	1:00:00	7.3	266.5	75.3	85.8	57.4		
			18/09/2012 09:00	1:00:00	6.4	264.0	69.0	81.1	56.5		
			18/09/2012 10:00	1:00:00	6.8	262.3	70.6	81.1	54.6		
			18/09/2012 11:00	1:00:00	6.2	259.0	67.4	79.4	54.1		
			18/09/2012 12:00	1:00:00	6.4	257.3	68.3	77.5	53.8		
			18/09/2012 13:00	1:00:00	6.6	258.5	69.2	77.1	55.4		
			18/09/2012 14:00	1:00:00	6.5	252.0	68.7	76.9	54.6		
			18/09/2012 15:00	1:00:00	5.9	259.0	66.7	77.6	52.3		
			18/09/2012 16:00	1:00:00	5.9	260.8	66.9	79.7	53.3		
			18/09/2012 17:00	1:00:00	5.8	256.5	66.7	77.6	55.4		
			18/09/2012 18:00	1:00:00	5.9	258.5	65.7	75.4	54.4		
			RN1	18/09/2012 07:00	1:00:00	5.2	325.8	49.3	73.8	30.6	
			AN1	6.1	15.4	19/09/2012 08:00	1:00:00	1.2	275.5	61.2	75.8
19/09/2012 11:00						1:00:00	2.9	262.3	60.0	73.8	48.5
19/09/2012 12:00						1:00:00	3.3	250.8	60.7	73.0	48.7
19/09/2012 13:00						1:00:00	2.9	262.5	61.9	75.2	48.5
19/09/2012 15:00	1:00:00	1.8	249.3			60.6	78.3	49.3			
19/09/2012 17:00	1:00:00	2.7	246.8			61.2	80.7	48.1			
AN2	19/09/2012 08:00	1:00:00	1.2			275.5	61.3	85.9	39.8		
	19/09/2012 13:00	1:00:00	2.9			262.5	60.8	83.4	30.6		
	19/09/2012 15:00	1:00:00	1.8			249.3	62.3	84.7	35.4		
	19/09/2012 07:00	1:00:00	0.8			222.0	46.0	69.4	28.0		
GN1	19/09/2012 15:00	1:00:00	4.0			193.0	58.7	92.8	32.8		
GN2	19/09/2012 10:00	1:00:00	3.5			212.8	63.8	80.9	53.1		
RN1	19/09/2012 07:00	1:00:00	0.8			222.0	43.5	65.0	30.7		
* Wind speeds in excess of 7 m/s negatively impact noise readings											
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))											
The results show L _{Aeq} (1hr) for maximum daily values or values over 60dB for each day of monitoring											
	AN1		AN2		AN3		GN1		RN1		
	GN2										

Determinant Results										
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
AN1	10.4	15.6	20/09/2012 09:00	1:00:00	2.9	234.0	62.0	75.4	47.3	
			20/09/2012 11:00	1:00:00	3.2	223.5	67.6	86.4	52.4	
			20/09/2012 12:00	1:00:00	4.7	207.3	64.4	82.2	51.7	
			20/09/2012 13:00	1:00:00	2.5	229.0	66.3	84.2	48.2	
			20/09/2012 14:00	1:00:00	2.5	250.0	60.6	79.3	45.0	
			20/09/2012 15:00	1:00:00	2.9	268.0	63.4	80.5	50.6	
			20/09/2012 16:00	1:00:00	2.6	263.8	61.6	78.1	50.8	
			20/09/2012 17:00	1:00:00	2.0	257.5	61.1	73.5	51.8	
			AN2	20/09/2012 17:00	1:00:00	2.0	257.5	58.6	75.1	39.4
			AN3	20/09/2012 14:00	1:00:00	2.5	250.0	48.3	62.6	37.4
GN1	20/09/2012 18:00	1:00:00	3.2	282.3	56.7	94.5	37.8			
GN2			20/09/2012 07:00	1:00:00	5.8	185.0	61.4	77.7	49.3	
			20/09/2012 08:00	1:00:00	5.8	185.8	60.2	72.5	46.7	
			20/09/2012 09:00	1:00:00	6.0	187.8	60.9	73.9	46.3	
			20/09/2012 13:00	1:00:00	6.2	190.5	62.8	75.1	50.4	
			20/09/2012 14:00	1:00:00	5.0	211.0	62.0	73.7	50.9	
			20/09/2012 15:00	1:00:00	4.7	218.5	63.1	75.1	50.5	
			20/09/2012 17:00	1:00:00	3.8	217.8	60.4	81.4	50.8	
			20/09/2012 18:00	1:00:00	3.2	282.3	60.4	71.2	51.3	
RN1	20/09/2012 14:00	1:00:00	2.5	250.0	48.1	63.1	42.0			
AN1	3.2	13.7	21/09/2012 14:00	1:00:00	2.9	36.8	57.1	74.2	45.5	
AN2			21/09/2012 13:00	1:00:00	3.7	56.8	59.2	73.8	40.4	
AN3			21/09/2012 07:00	1:00:00	1.2	59.5	49.0	68.5	29.6	
GN1			21/09/2012 18:00	1:00:00	2.6	102.0	54.2	84.1	28.2	
GN2			21/09/2012 12:00	1:00:00	2.5	244.8	59.2	79.3	49.2	
RN1			21/09/2012 11:00	1:00:00	4.1	59.5	44.5	63.7	33.0	
AN1	1.8	15.3	22/09/2012 09:00	1:00:00	1.2	141.5	57.8	74.3	46.5	
AN2			22/09/2012 12:00	1:00:00	3.4	146.3	57.3	80.3	30.9	
AN3			22/09/2012 08:00	1:00:00	0.7	227.8	50.0	78.6	27.5	
GN1			22/09/2012 18:00	1:00:00	2.0	128.8	58.1	92.4	24.4	
GN2			22/09/2012 18:00	1:00:00	2.0	128.8	55.1	80.9	47.9	
RN1			22/09/2012 08:00	1:00:00	0.7	227.8	44.6	68.2	29.1	
AN1	8.6	11.4	24/09/2012 12:00	1:00:00	1.0	64.3	61.6	87.3	47.0	
AN2			24/09/2012 13:00	1:00:00	1.5	109.3	60.5	82.4	44.7	
AN3			24/09/2012 15:00	1:00:00	3.2	43.3	57.1	73.8	42.3	
GN1			24/09/2012 08:00	1:00:00	0.8	70.5	50.6	77.5	30.7	
GN2			24/09/2012 16:00	1:00:00	3.2	24.3	51.2	81.2	36.3	
GN2			24/09/2012 10:00	1:00:00	2.0	73.5	58.7	75.7	49.5	
RN1			24/09/2012 08:00	1:00:00	0.8	70.5	47.9	69.7	34.7	
Wind speeds in excess of 7 m/s negatively impact noise readings										
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))										
The results show LAeq(1hr) for maximum daily values or values over 60dB for each day of monitoring										
	AN1		AN2		AN3		GN1		RN1	
	GN2									

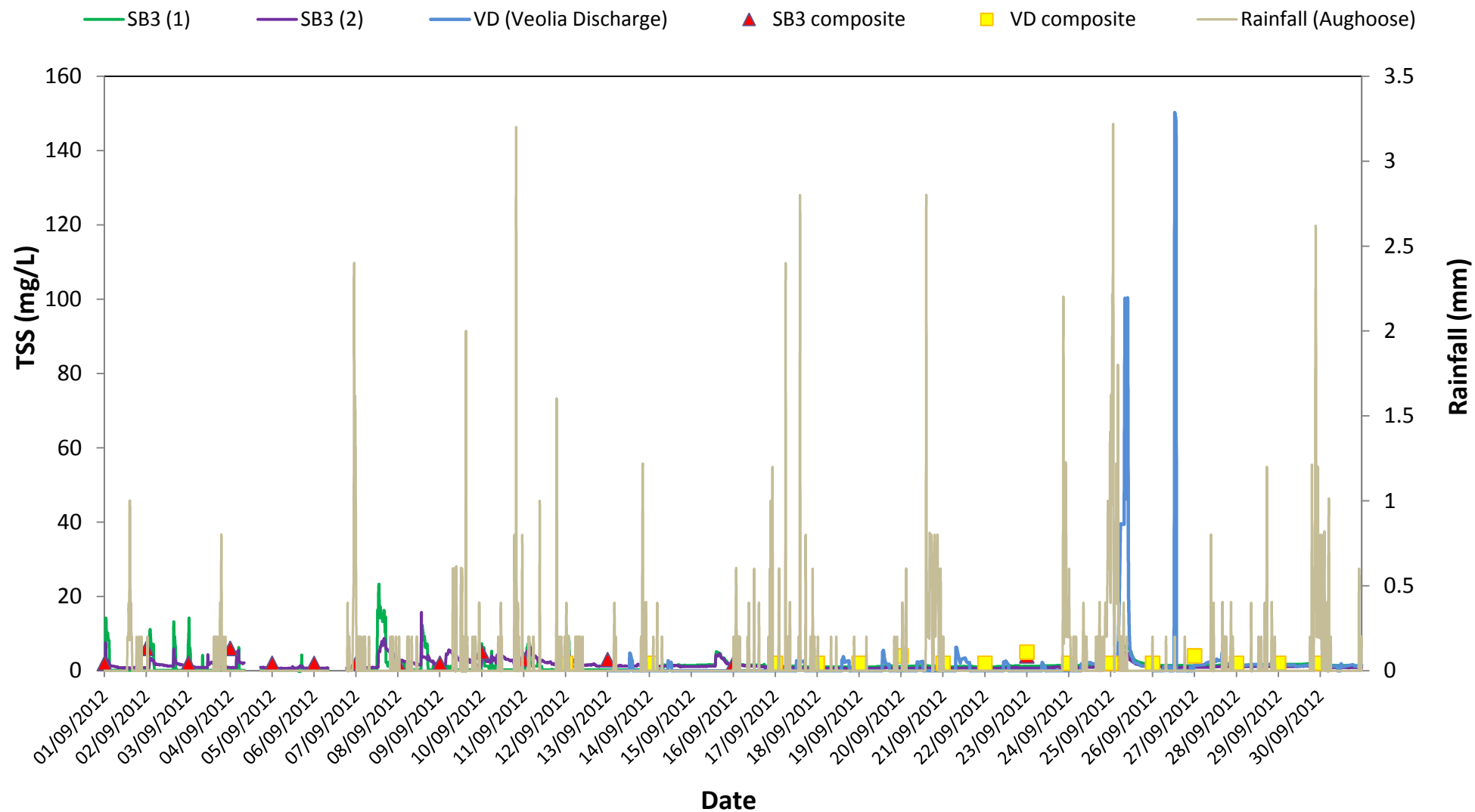
Determinant Results									
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB		
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}
Action Limit							60.0		
Target Limit							65.0		
AN1	9.5	12.7	25/09/2012 06:00	1:00:00	6.2	36.0	64.3	79.8	45.0
			25/09/2012 07:00	1:00:00	7.0	21.8	68.3	78.7	48.4
			25/09/2012 08:00	1:00:00	6.3	27.3	69.1	80.5	50.3
			25/09/2012 09:00	1:00:00	7.8	12.3	69.9	81.7	48.3
			25/09/2012 10:00	1:00:00	9.7	19.0	69.5	80.4	48.3
			25/09/2012 11:00	1:00:00	9.2	104.0	70.4	81.5	50.5
			25/09/2012 12:00	1:00:00	9.6	14.5	73.3	82.7	53.7
			25/09/2012 13:00	1:00:00	11.7	10.5	73.0	85.4	54.4
			25/09/2012 14:00	1:00:00	9.7	100.3	73.7	85.5	54.5
			25/09/2012 15:00	1:00:00	10.4	14.0	75.5	85.8	57.2
			25/09/2012 16:00	1:00:00	10.7	6.8	74.2	84.3	55.1
			25/09/2012 17:00	1:00:00	9.3	12.3	74.2	84.1	55.5
25/09/2012 18:00			1:00:00	12.2	9.5	76.1	85.8	55.1	
AN2			25/09/2012 06:00	1:00:00	6.2	36.0	67.3	79.4	42.2
			25/09/2012 07:00	1:00:00	7.0	21.8	67.9	80.5	44.3
			25/09/2012 08:00	1:00:00	6.3	27.3	66.1	82.6	47.3
			25/09/2012 09:00	1:00:00	7.8	12.3	66.6	80.6	46.1
			25/09/2012 10:00	1:00:00	9.7	19.0	66.7	82.6	45.9
			25/09/2012 11:00	1:00:00	9.2	104.0	65.8	80.8	49.0
			25/09/2012 12:00	1:00:00	9.6	14.5	67.3	79.9	49.7
			25/09/2012 13:00	1:00:00	11.7	10.5	68.5	81.3	48.8
			25/09/2012 14:00	1:00:00	9.7	100.3	68.3	86.3	47.1
			25/09/2012 15:00	1:00:00	10.4	14.0	70.1	83.9	51.4
			25/09/2012 16:00	1:00:00	10.7	6.8	69.8	82.8	50.7
			25/09/2012 17:00	1:00:00	9.3	12.3	69.4	81.9	50.6
25/09/2012 18:00			1:00:00	12.2	9.5	70.4	83.7	49.4	
AN3			25/09/2012 14:00	1:00:00	9.7	100.3	60.6	78.6	47.9
			25/09/2012 15:00	1:00:00	10.4	14.0	62.3	78.6	49.5
			25/09/2012 16:00	1:00:00	10.7	6.8	61.0	79.7	47.8
			25/09/2012 18:00	1:00:00	12.2	9.5	61.6	77.6	49.6
GN1			25/09/2012 06:00	1:00:00	6.3	356.0	61.3	82.1	43.7
			25/09/2012 07:00	1:00:00	7.4	354.3	66.2	82.4	45.9
			25/09/2012 08:00	1:00:00	6.7	349.0	64.2	81.1	47.2
			25/09/2012 09:00	1:00:00	6.5	348.3	63.6	80.0	45.5
			25/09/2012 10:00	1:00:00	6.6	339.8	64.1	82.2	45.7
			25/09/2012 11:00	1:00:00	7.1	339.5	61.2	79.8	46.2
			25/09/2012 12:00	1:00:00	7.2	340.8	65.1	84.3	47.6
			25/09/2012 13:00	1:00:00	6.9	322.3	66.0	93.1	47.8
			25/09/2012 14:00	1:00:00	7.6	324.3	67.3	85.2	47.3
			25/09/2012 15:00	1:00:00	7.8	323.3	68.8	85.9	50.8
			25/09/2012 16:00	1:00:00	7.1	333.0	66.1	86.4	48.3
			25/09/2012 17:00	1:00:00	7.2	322.8	67.0	84.9	47.7
25/09/2012 18:00			1:00:00	7.8	324.3	66.4	87.2	46.9	
GN2			25/09/2012 06:00	1:00:00	6.3	356.0	70.4	86.2	50.4
			25/09/2012 07:00	1:00:00	7.4	354.3	68.7	83.8	50.5
			25/09/2012 08:00	1:00:00	6.7	349.0	67.7	82.1	50.5
			25/09/2012 09:00	1:00:00	6.5	348.3	67.7	82.3	50.4
			25/09/2012 10:00	1:00:00	6.6	339.8	66.9	81.9	51.0
			25/09/2012 11:00	1:00:00	7.1	339.5	67.8	83.5	52.2
	25/09/2012 12:00	1:00:00	7.2	340.8	67.9	81.9	52.5		
	25/09/2012 13:00	1:00:00	6.9	322.3	69.5	82.2	53.8		
	25/09/2012 14:00	1:00:00	7.6	324.3	70.3	82.2	54.0		
	25/09/2012 15:00	1:00:00	7.8	323.3	69.2	86.2	53.1		
	25/09/2012 16:00	1:00:00	7.1	333.0	68.4	81.2	52.6		
	25/09/2012 17:00	1:00:00	7.2	322.8	69.3	83.6	51.5		
25/09/2012 18:00	1:00:00	7.8	324.3	67.7	81.1	51.6			
RN1	25/09/2012 06:00	1:00:00	6.2	36.0	60.9	77.2	41.9		
	25/09/2012 07:00	1:00:00	7.0	21.8	65.7	80.9	45.0		
	25/09/2012 08:00	1:00:00	6.3	27.3	64.4	88.3	42.9		
	25/09/2012 09:00	1:00:00	7.8	12.3	64.0	83.0	43.2		
	25/09/2012 10:00	1:00:00	9.7	19.0	64.9	85.2	44.8		
	25/09/2012 11:00	1:00:00	9.2	104.0	65.6	83.4	43.5		
	25/09/2012 12:00	1:00:00	9.6	14.5	69.1	87.2	46.0		
	25/09/2012 13:00	1:00:00	11.7	10.5	67.5	88.4	44.0		
	25/09/2012 14:00	1:00:00	9.7	100.3	67.2	88.5	44.9		
	25/09/2012 15:00	1:00:00	10.4	14.0	68.9	87.6	47.6		
	25/09/2012 16:00	1:00:00	10.7	6.8	65.9	85.7	46.3		
	25/09/2012 17:00	1:00:00	9.3	12.3	67.9	86.5	46.8		
25/09/2012 18:00	1:00:00	12.2	9.5	67.6	87.8	46.6			
Wind speeds in excess of 7 m/s negatively impact noise readings									
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))									
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring									
	AN1		AN2		AN3		GN1		RN1
	GN2								

Determinant Results										
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
AN1	9.6	13.1	26/09/2012 06:00	1:00:00	8.3	12.0	69.8	80.3	50.8	
			26/09/2012 07:00	1:00:00	8.6	18.8	68.5	78.7	49.9	
			26/09/2012 08:00	1:00:00	8.5	10.5	70.1	79.5	49.3	
			26/09/2012 09:00	1:00:00	8.0	15.8	69.8	84.8	48.7	
			26/09/2012 10:00	1:00:00	7.5	15.8	68.8	79.9	48.4	
			26/09/2012 11:00	1:00:00	8.4	24.3	64.9	78.2	47.3	
			26/09/2012 12:00	1:00:00	8.5	22.5	65.5	73.4	50.1	
			26/09/2012 13:00	1:00:00	8.5	95.5	65.0	75.2	48.1	
			26/09/2012 14:00	1:00:00	6.3	17.5	63.0	75.2	47.5	
			26/09/2012 15:00	1:00:00	6.7	10.8	64.6	73.7	50.0	
			26/09/2012 16:00	1:00:00	6.2	268.3	62.0	76.9	48.4	
			AN2	26/09/2012 06:00	1:00:00	8.3	12.0	65.6	81.1	44.3
				26/09/2012 07:00	1:00:00	8.6	18.8	63.0	77.6	43.3
				26/09/2012 08:00	1:00:00	8.5	10.5	64.6	79.8	47.0
				26/09/2012 09:00	1:00:00	8.0	15.8	65.0	82.3	46.4
26/09/2012 10:00				1:00:00	7.5	15.8	65.1	85.3	44.6	
26/09/2012 11:00				1:00:00	8.4	24.3	63.9	82.2	46.5	
26/09/2012 13:00				1:00:00	8.5	95.5	63.0	81.2	43.6	
AN3			26/09/2012 14:00	1:00:00	6.3	17.5	61.5	79.8	41.4	
			26/09/2012 15:00	1:00:00	6.7	10.8	63.4	79.7	47.1	
			26/09/2012 16:00	1:00:00	6.2	268.3	61.1	74.4	45.2	
GN1			26/09/2012 08:00	1:00:00	8.5	10.5	55.2	84.6	41.4	
			26/09/2012 06:00	1:00:00	7.1	343.3	62.9	81.5	45.8	
			26/09/2012 07:00	1:00:00	6.3	341.0	60.0	81.1	44.0	
GN2			26/09/2012 08:00	1:00:00	6.5	327.8	60.3	79.4	43.8	
			26/09/2012 09:00	1:00:00	6.2	335.5	62.7	81.7	44.6	
			26/09/2012 10:00	1:00:00	6.2	338.8	61.1	81.9	43.0	
			26/09/2012 06:00	1:00:00	7.1	343.3	64.0	82.6	49.9	
			26/09/2012 07:00	1:00:00	6.3	341.0	64.7	80.2	50.1	
			26/09/2012 08:00	1:00:00	6.5	327.8	64.6	81.8	49.8	
	26/09/2012 09:00	1:00:00	6.2	335.5	64.2	79.6	49.5			
	26/09/2012 10:00	1:00:00	6.2	338.8	62.2	80.0	49.6			
	26/09/2012 11:00	1:00:00	5.5	331.0	64.8	80.2	50.4			
	26/09/2012 12:00	1:00:00	5.4	333.8	65.2	80.2	51.1			
	26/09/2012 13:00	1:00:00	5.4	336.0	65.4	77.2	51.2			
	26/09/2012 14:00	1:00:00	5.2	318.0	67.0	78.1	51.7			
RN1	26/09/2012 15:00	1:00:00	5.7	313.3	61.6	73.2	51.3			
	26/09/2012 06:00	1:00:00	8.3	12.0	66.4	83.8	44.9			
	26/09/2012 07:00	1:00:00	8.6	18.8	65.2	83.2	44.4			
	26/09/2012 08:00	1:00:00	8.5	10.5	65.6	82.0	41.7			
	26/09/2012 09:00	1:00:00	8.0	15.8	66.8	83.0	43.5			
	26/09/2012 10:00	1:00:00	7.5	15.8	63.3	82.1	45.1			
AN1	9.6	14.1	26/09/2012 11:00	1:00:00	8.4	24.3	61.9	81.2	43.3	
			26/09/2012 12:00	1:00:00	8.5	22.5	60.6	76.8	38.3	
			27/09/2012 08:00	1:00:00	1.2	196.3	61.8	77.3	52.1	
			27/09/2012 09:00	1:00:00	1.5	259.0	60.4	75.1	51.4	
			27/09/2012 12:00	1:00:00	4.0	235.3	69.4	84.3	54.1	
			27/09/2012 13:00	1:00:00	3.8	219.5	60.3	71.9	52.1	
			27/09/2012 14:00	1:00:00	4.6	235.0	61.1	78.0	52.0	
			27/09/2012 15:00	1:00:00	3.9	225.0	63.1	82.2	54.1	
			27/09/2012 16:00	1:00:00	3.8	210.5	61.7	76.0	54.4	
			27/09/2012 17:00	1:00:00	4.0	218.0	63.2	78.8	55.1	
			AN2	27/09/2012 13:00	1:00:00	3.8	219.5	60.8	74.9	35.1
			AN3	27/09/2012 09:00	1:00:00	1.5	259.0	54.6	79.3	28.8
			AN4	27/09/2012 12:00	1:00:00	4.0	235.3	62.7	84.1	51.9
			GN1	27/09/2012 16:00	1:00:00	3.8	210.5	60.0	79.2	52.5
			GN2	27/09/2012 16:00	1:00:00	6.1	176.3	59.1	86.2	33.3
27/09/2012 14:00	1:00:00	6.5		182.5	60.7	77.1	49.7			
27/09/2012 15:00	1:00:00	7.6		185.3	65.8	77.6	49.3			
27/09/2012 16:00	1:00:00	6.1		176.3	63.5	79.1	49.2			
27/09/2012 17:00	1:00:00	6.3		180.8	64.4	76.9	49.4			
27/09/2012 18:00	1:00:00	5.6		220.0	66.0	77.1	51.0			
RN1	27/09/2012 19:00	1:00:00	5.0	235.3	67.2	80.6	52.5			
			27/09/2012 15:00	1:00:00	3.9	225.0	48.5	64.0	38.0	
Wind speeds in excess of 7 m/s negatively impact noise readings										
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))										
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring										
	AN1		AN2		AN3		GN1		RN1	
	GN2									

Determinant Results											
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB				
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}		
Action Limit							60.0				
Target Limit							65.0				
AN1	9.1	14.5	28/09/2012 07:00	1:00:00	4.1	260.8	60.1	74.8	47.8		
			28/09/2012 08:00	1:00:00	4.3	262.5	62.3	79.7	52.8		
			28/09/2012 09:00	1:00:00	4.0	288.0	60.5	77.7	50.4		
			28/09/2012 10:00	1:00:00	5.2	274.8	61.7	78.1	49.4		
			28/09/2012 11:00	1:00:00	3.8	297.3	62.8	76.1	51.7		
			28/09/2012 12:00	1:00:00	4.7	298.8	64.5	79.5	49.3		
			28/09/2012 13:00	1:00:00	5.0	295.3	63.1	80.4	49.1		
			28/09/2012 14:00	1:00:00	4.4	310.8	61.0	76.8	47.7		
			28/09/2012 15:00	1:00:00	5.5	282.0	62.4	77.2	52.1		
			28/09/2012 16:00	1:00:00	3.4	281.5	62.4	73.6	53.0		
AN2			28/09/2012 17:00	1:00:00	2.9	315.0	61.6	78.7	51.4		
			28/09/2012 10:00	1:00:00	5.2	274.8	63.4	85.4	35.7		
			28/09/2012 11:00	1:00:00	3.8	297.3	61.8	78.0	44.2		
			28/09/2012 12:00	1:00:00	4.7	298.8	60.9	74.6	43.2		
AN3			28/09/2012 14:00	1:00:00	4.4	310.8	61.0	76.6	40.0		
			28/09/2012 15:00	1:00:00	5.5	282.0	62.6	81.4	44.2		
			28/09/2012 15:00	1:00:00	5.5	282.0	58.9	80.2	37.5		
			AN4	28/09/2012 10:00	1:00:00	5.2	274.8	61.0	76.0	48.8	
28/09/2012 11:00				1:00:00	3.8	297.3	62.5	76.0	49.7		
28/09/2012 12:00				1:00:00	4.7	298.8	63.4	84.6	49.4		
28/09/2012 13:00				1:00:00	5.0	295.3	61.4	75.9	49.2		
GN1			28/09/2012 14:00	1:00:00	4.4	310.8	62.4	77.6	49.8		
			28/09/2012 15:00	1:00:00	5.5	282.0	60.8	75.0	50.1		
			28/09/2012 16:00	1:00:00	3.4	281.5	60.3	78.1	50.7		
			28/09/2012 18:00	1:00:00	7.1	241.3	59.8	74.8	47.9		
			GN2	28/09/2012 07:00	1:00:00	5.9	217.0	64.3	80.8	53.6	
				28/09/2012 08:00	1:00:00	6.1	229.0	65.3	76.2	53.0	
				28/09/2012 09:00	1:00:00	6.6	228.5	66.5	75.0	54.1	
				28/09/2012 10:00	1:00:00	6.8	231.5	66.6	74.1	53.7	
				28/09/2012 11:00	1:00:00	6.7	230.3	67.1	75.2	54.5	
				28/09/2012 12:00	1:00:00	6.5	231.0	71.7	86.3	54.7	
28/09/2012 13:00				1:00:00	6.3	240.0	73.1	86.1	55.9		
28/09/2012 14:00				1:00:00	6.9	234.0	73.5	83.2	58.0		
28/09/2012 15:00				1:00:00	7.0	231.8	71.1	81.7	56.0		
28/09/2012 16:00				1:00:00	6.1	226.8	70.6	81.1	55.1		
RN1			28/09/2012 17:00	1:00:00	6.8	244.3	75.1	86.5	58.4		
			28/09/2012 18:00	1:00:00	7.1	241.3	74.0	84.7	59.6		
			28/09/2012 17:00	1:00:00	2.9	315.0	47.7	64.1	36.5		
AN1	9.8	16.0	29/09/2012 17:00	1:00:00	4.8	206.5	61.4	87.5	43.3		
29/09/2012 19:00			1:00:00	4.1	211.0	60.5	75.9	46.0			
AN2			29/09/2012 19:00	1:00:00	4.1	211.0	59.3	75.1	39.6		
AN3			29/09/2012 19:00	1:00:00	4.1	211.0	52.2	73.5	34.8		
AN4			29/09/2012 17:00	1:00:00	4.8	206.5	62.0	76.8	51.3		
			29/09/2012 18:00	1:00:00	3.4	177.5	62.7	79.5	51.2		
			29/09/2012 19:00	1:00:00	4.1	211.0	62.8	79.7	52.1		
GN1			29/09/2012 16:00	1:00:00	6.4	179.5	60.1	79.1	39.0		
GN2			29/09/2012 07:00	1:00:00	6.3	243.8	67.3	74.5	56.5		
			29/09/2012 08:00	1:00:00	5.5	242.8	64.3	80.3	54.4		
			29/09/2012 09:00	1:00:00	4.4	238.5	60.6	69.7	51.6		
			29/09/2012 11:00	1:00:00	3.9	223.0	60.7	73.2	51.6		
			29/09/2012 14:00	1:00:00	6.3	183.0	60.3	71.2	51.0		
			29/09/2012 15:00	1:00:00	8.1	187.0	64.4	73.4	52.2		
			29/09/2012 16:00	1:00:00	6.4	179.5	61.3	72.9	49.8		
			29/09/2012 17:00	1:00:00	6.1	173.0	60.5	73.4	49.9		
			29/09/2012 18:00	1:00:00	6.0	175.0	63.6	76.4	50.2		
			29/09/2012 19:00	1:00:00	4.1	211.0	55.2	78.0	48.1		
* Wind speeds in excess of 7 m/s negatively impact noise readings											
Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))											
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring											
	AN1		AN2		AN3		GN1		RN1		
	GN2										

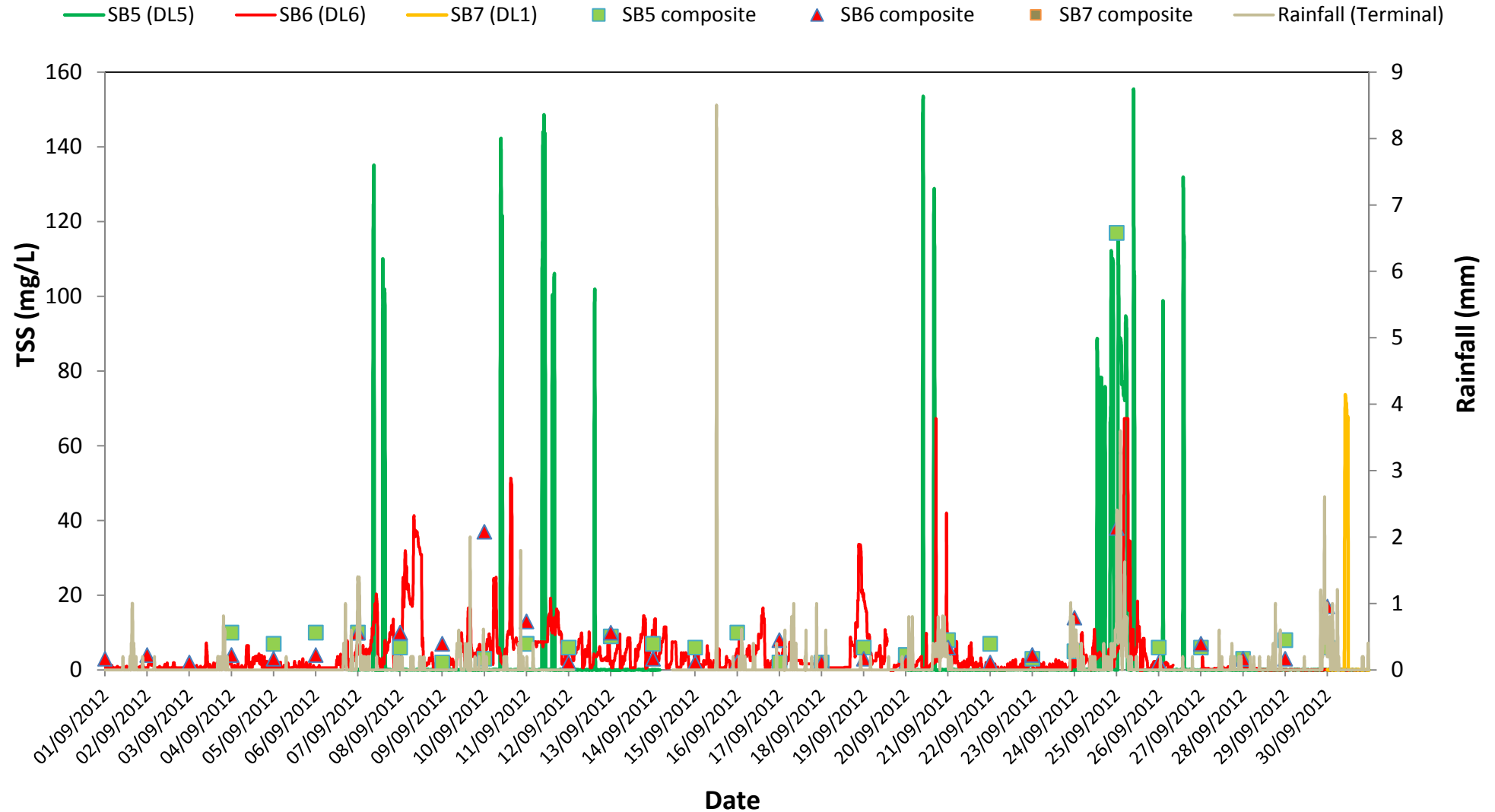
TSS - Surface Water Discharge - Aughooose

September 2012

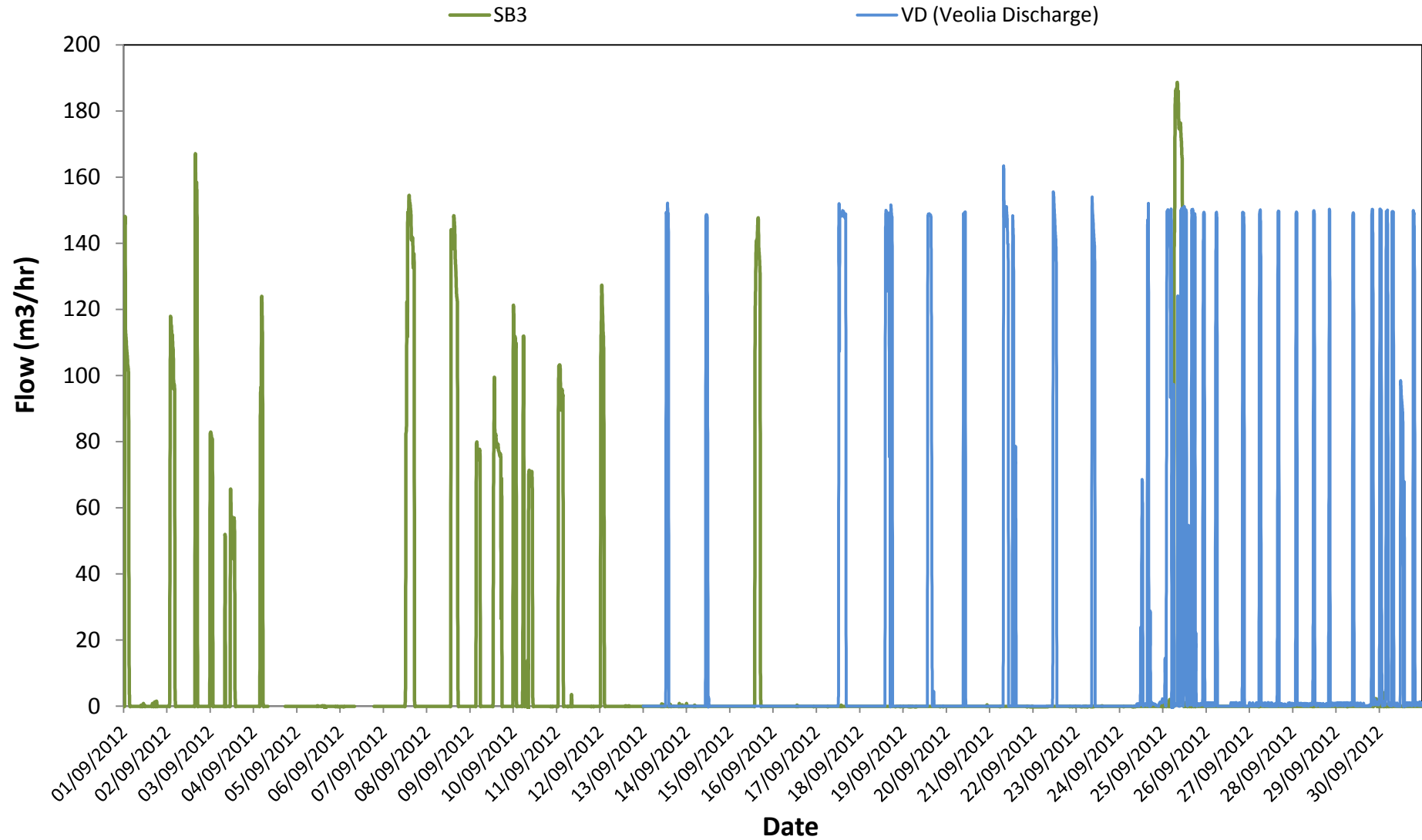


TSS - Surface Water Discharge - Pipeline Wayleave

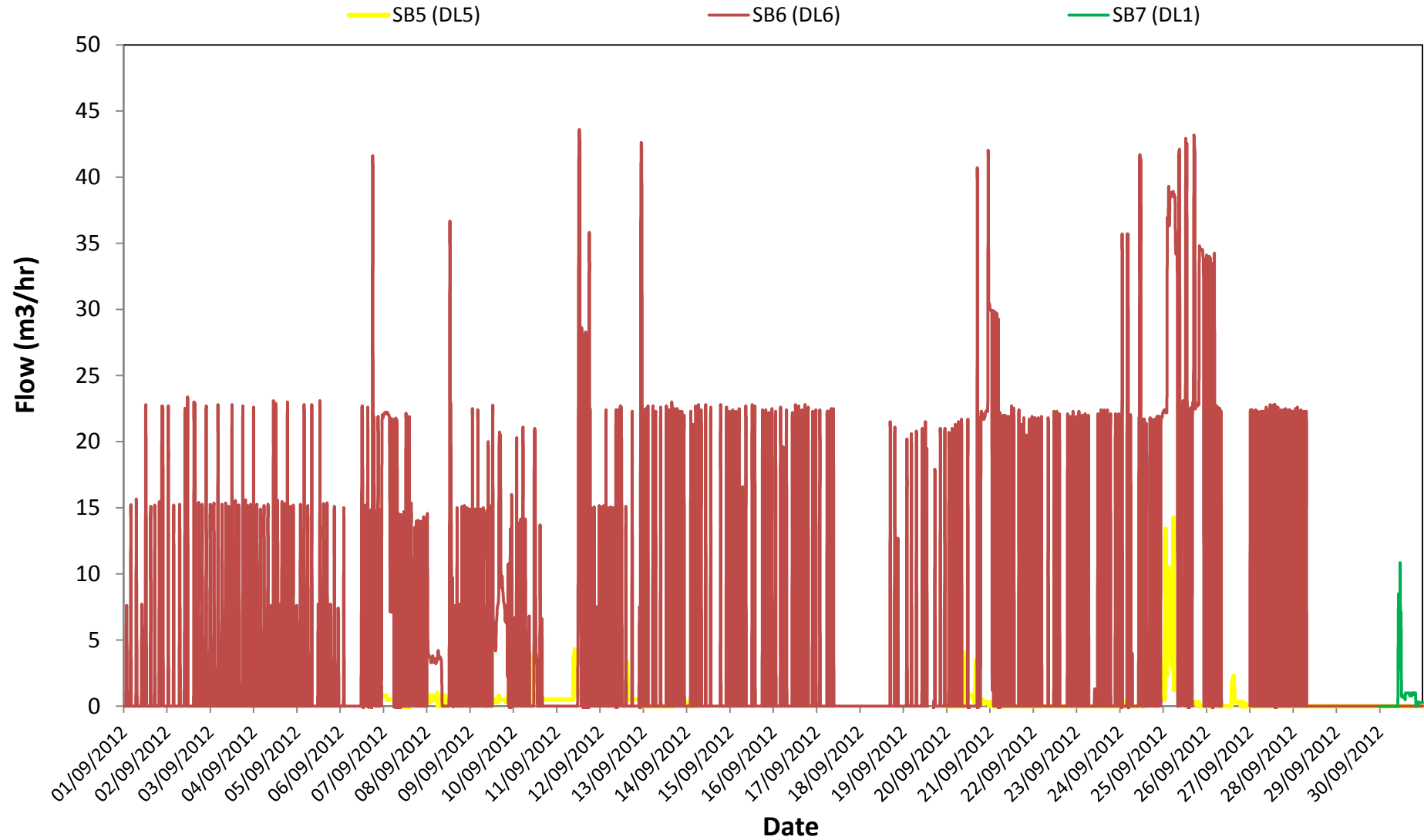
September 2012



Flow - Surface Water Discharge - Aughooose September 2012

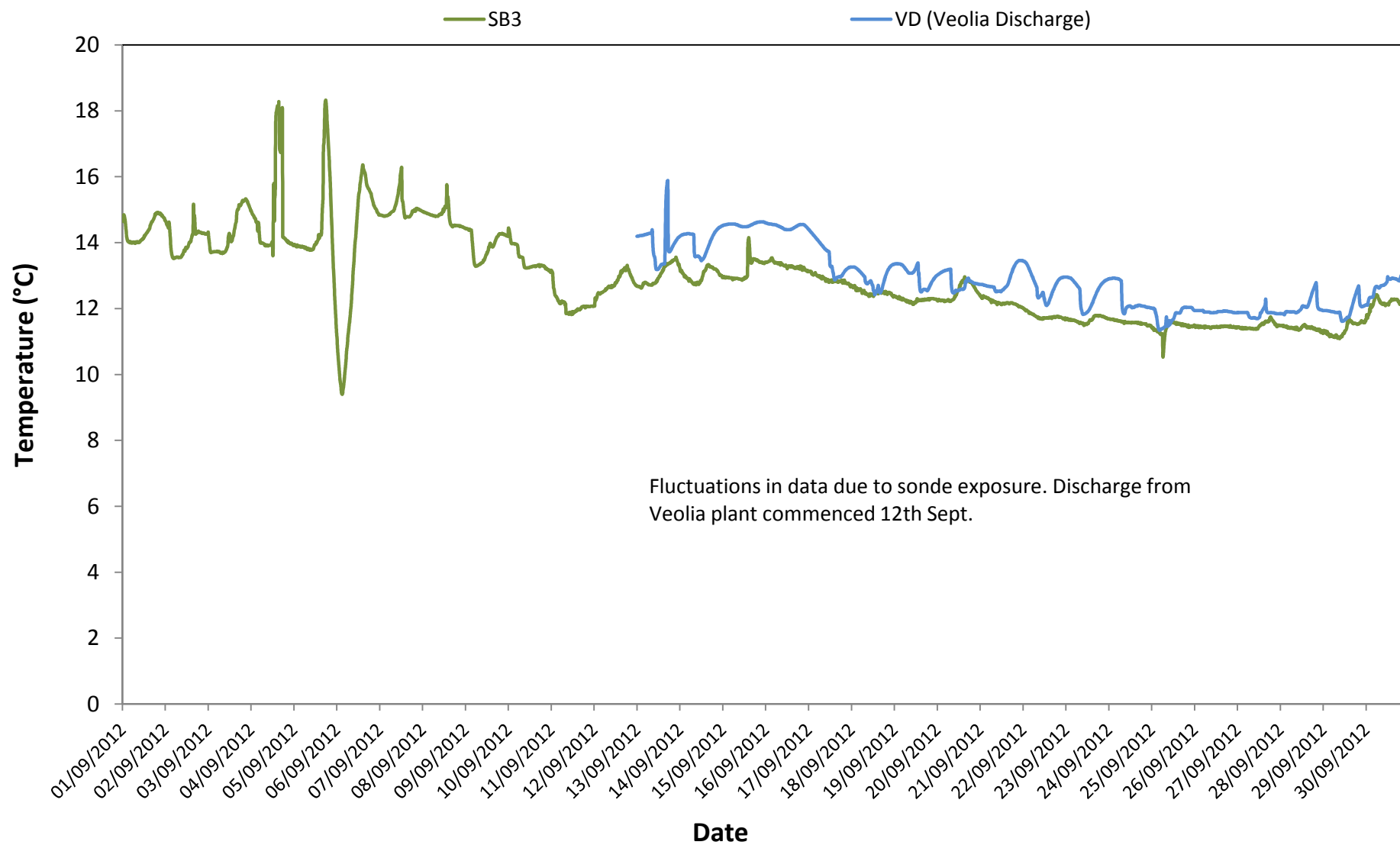


Flow - Surface Water Discharge - Pipeline Wayleave September 2012



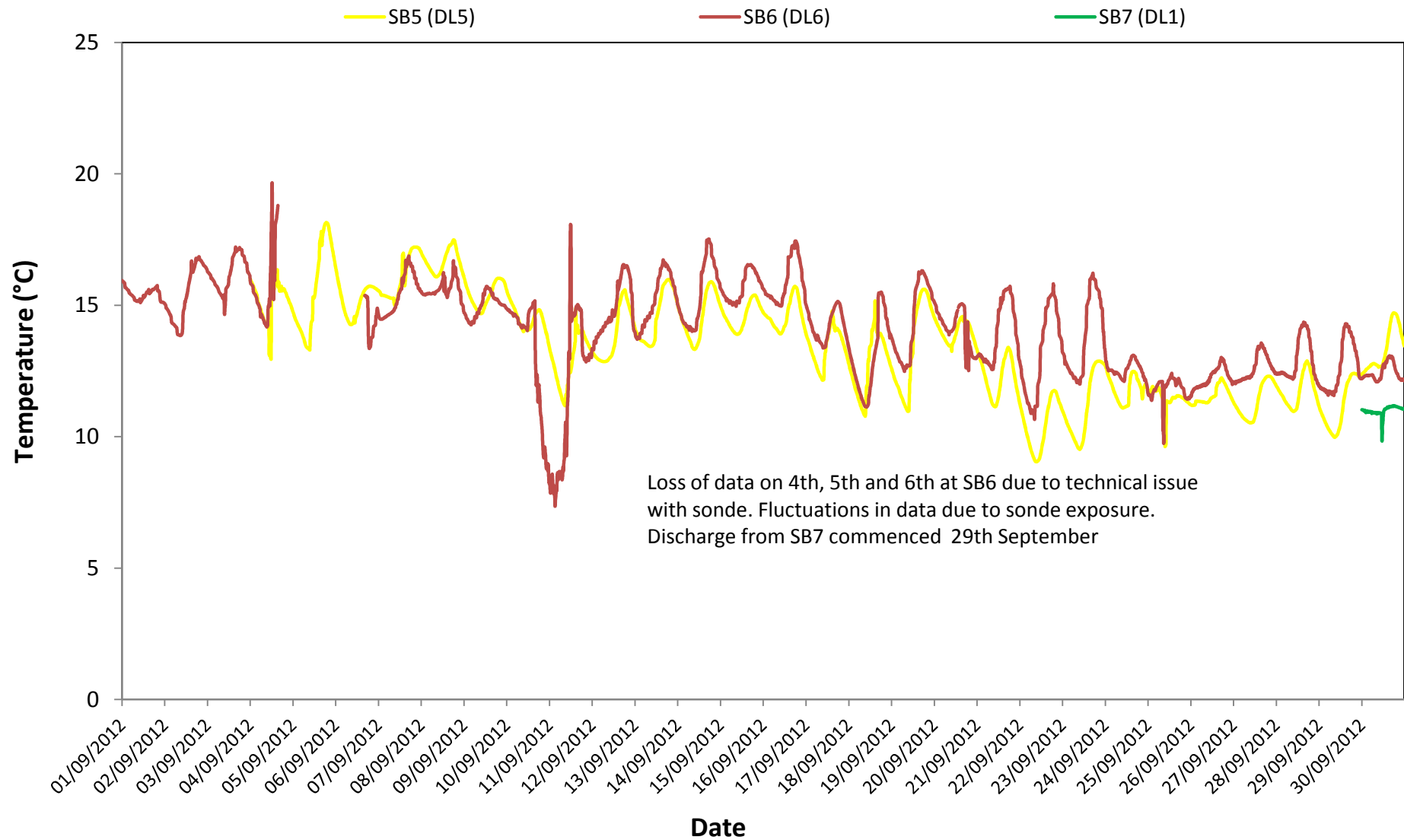
Temperature - Surface Water Discharge - Aughooose

September 2012

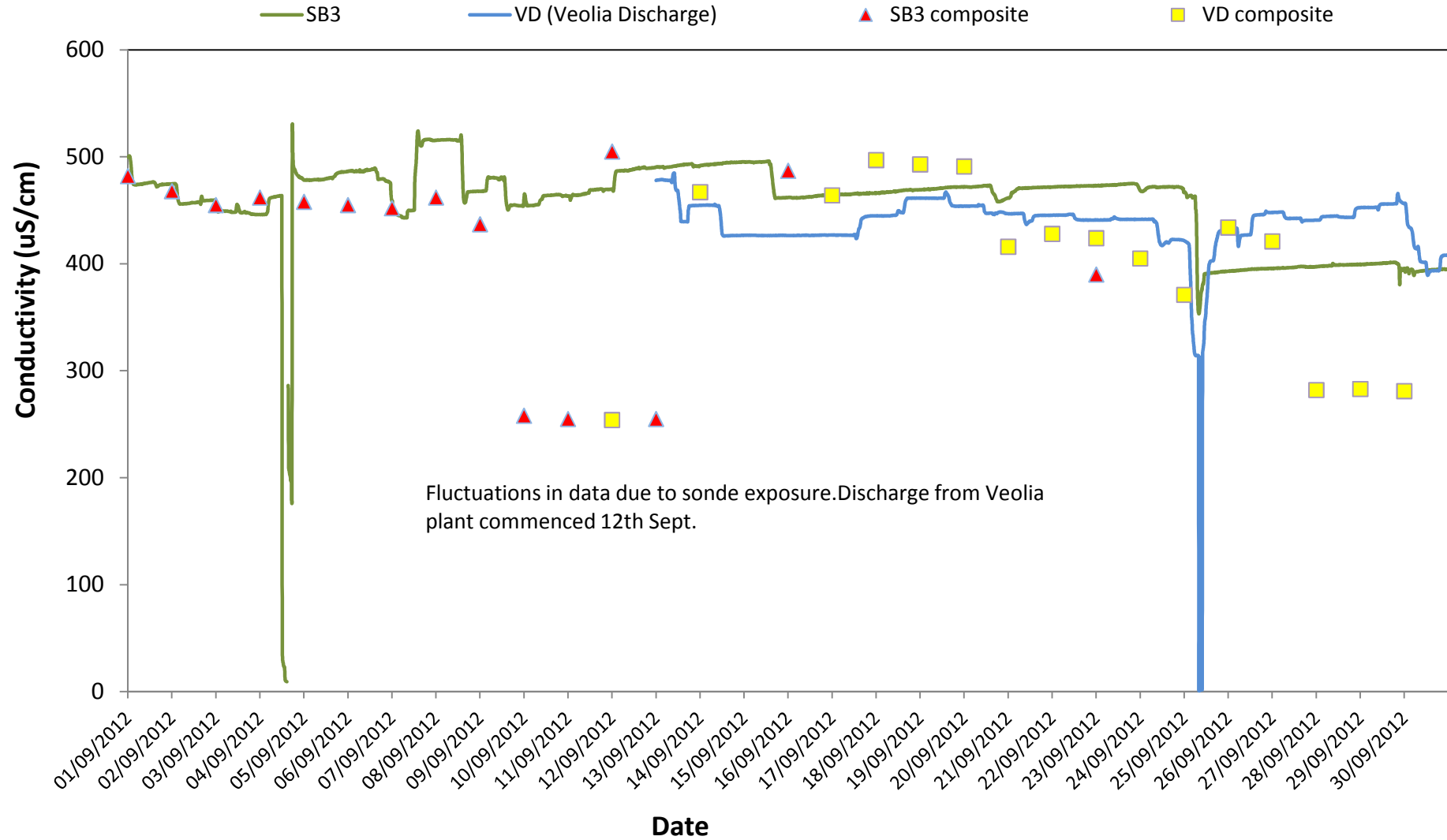


Temperature - Surface Water Discharge - Pipeline Wayleave

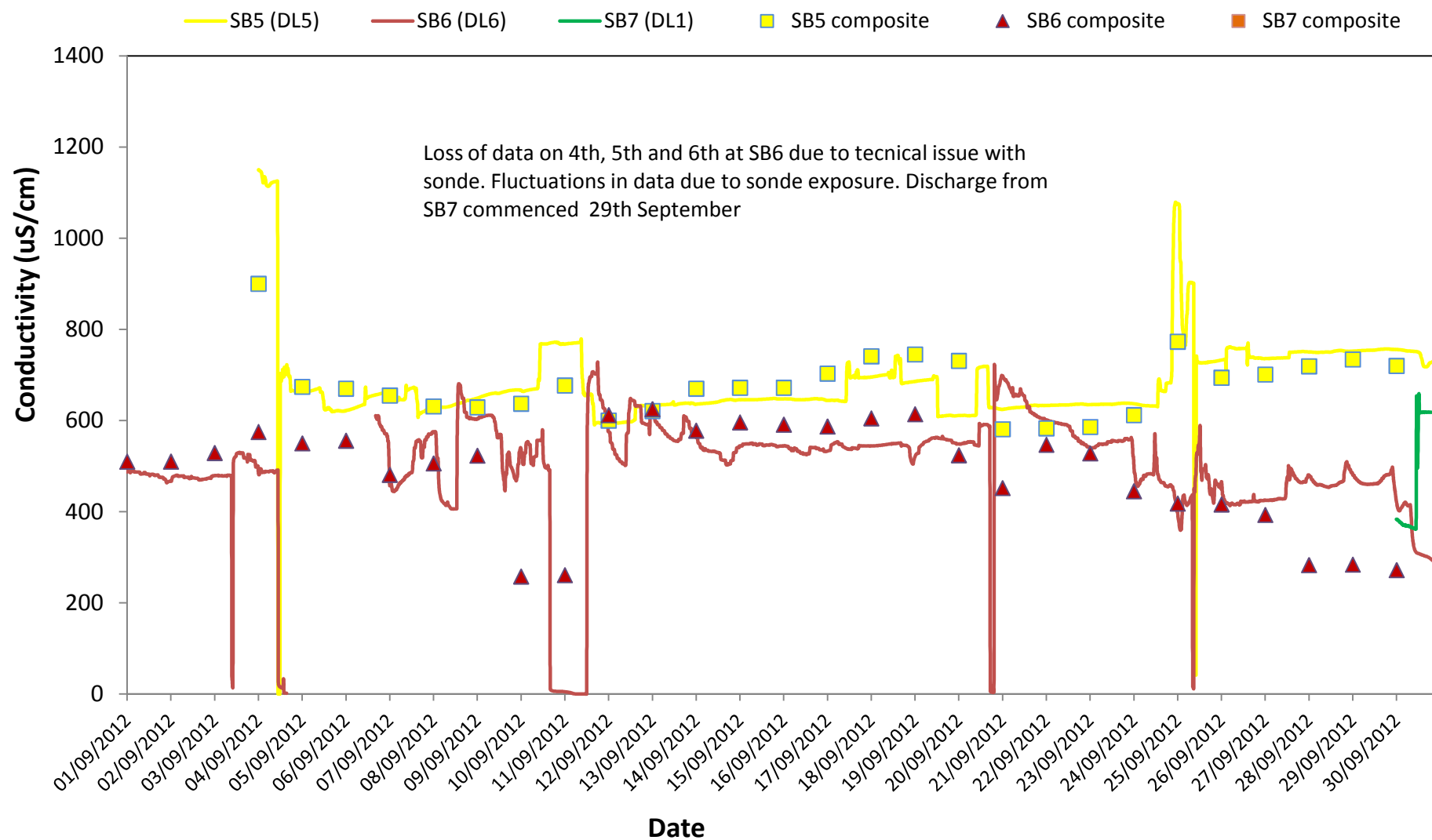
September 2012



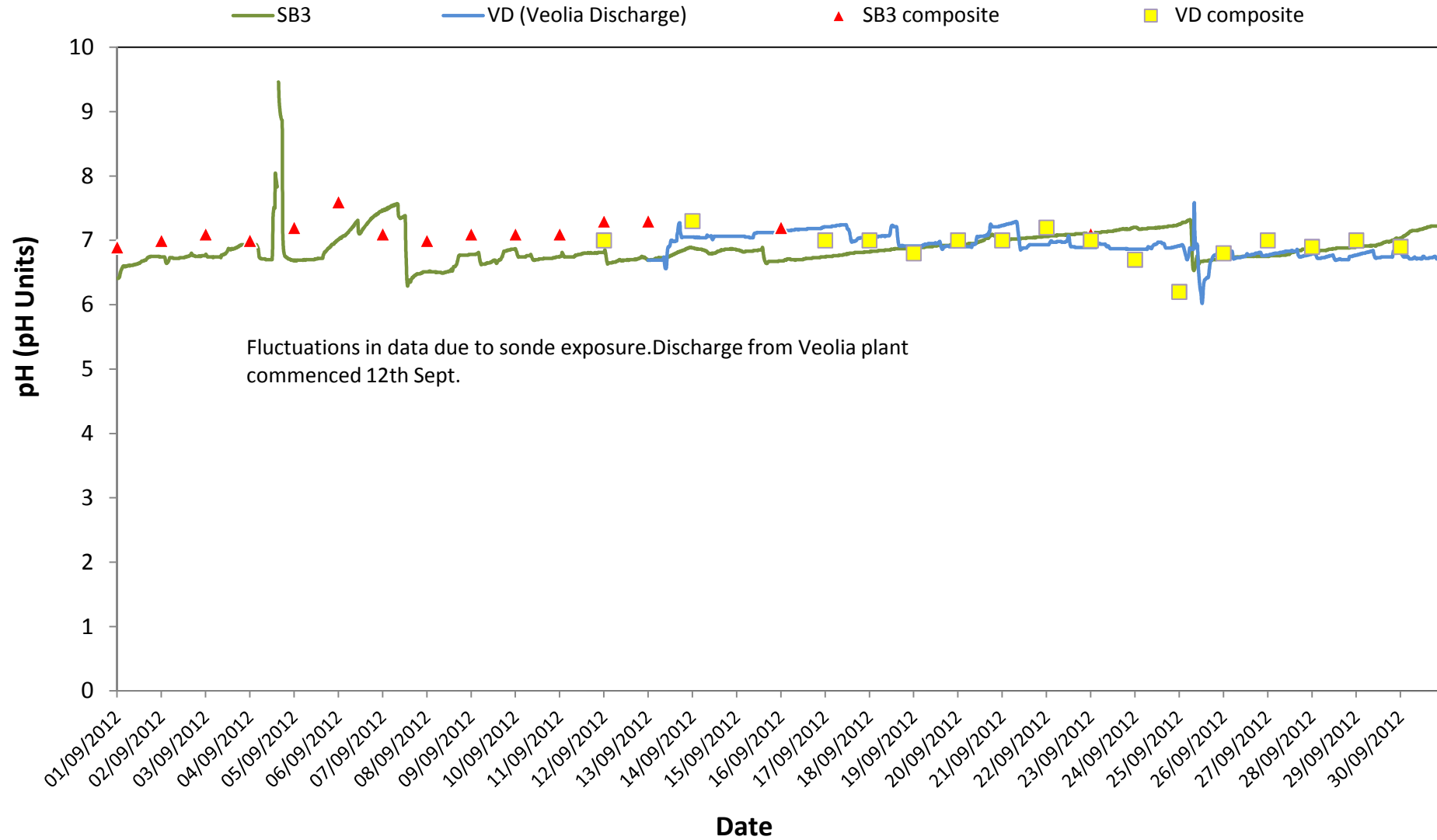
Conductivity - Surface Water Discharge - Aughooose September 2012



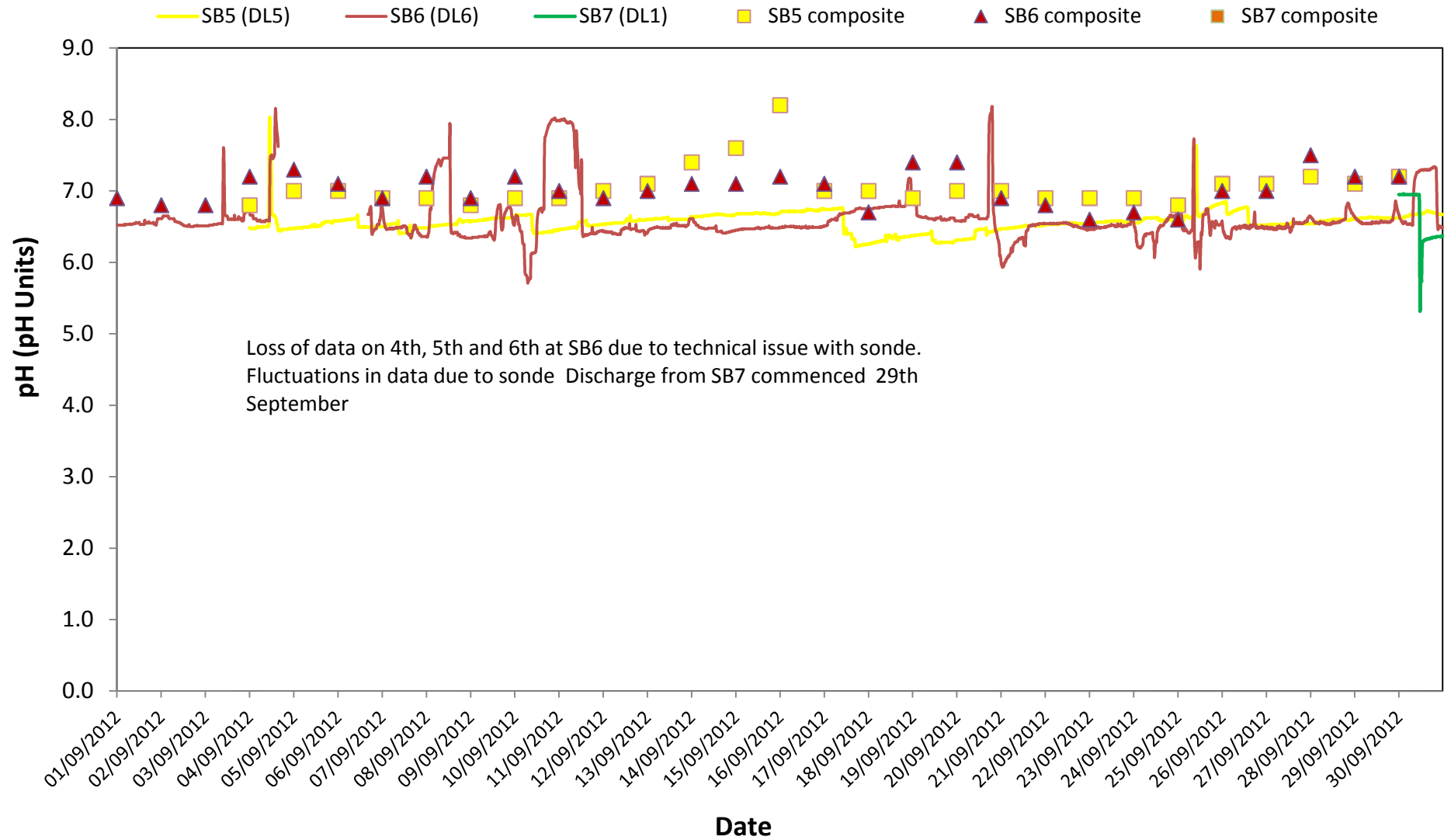
Conductivity - Surface Water Discharge - Pipeline Wayleave September 2012



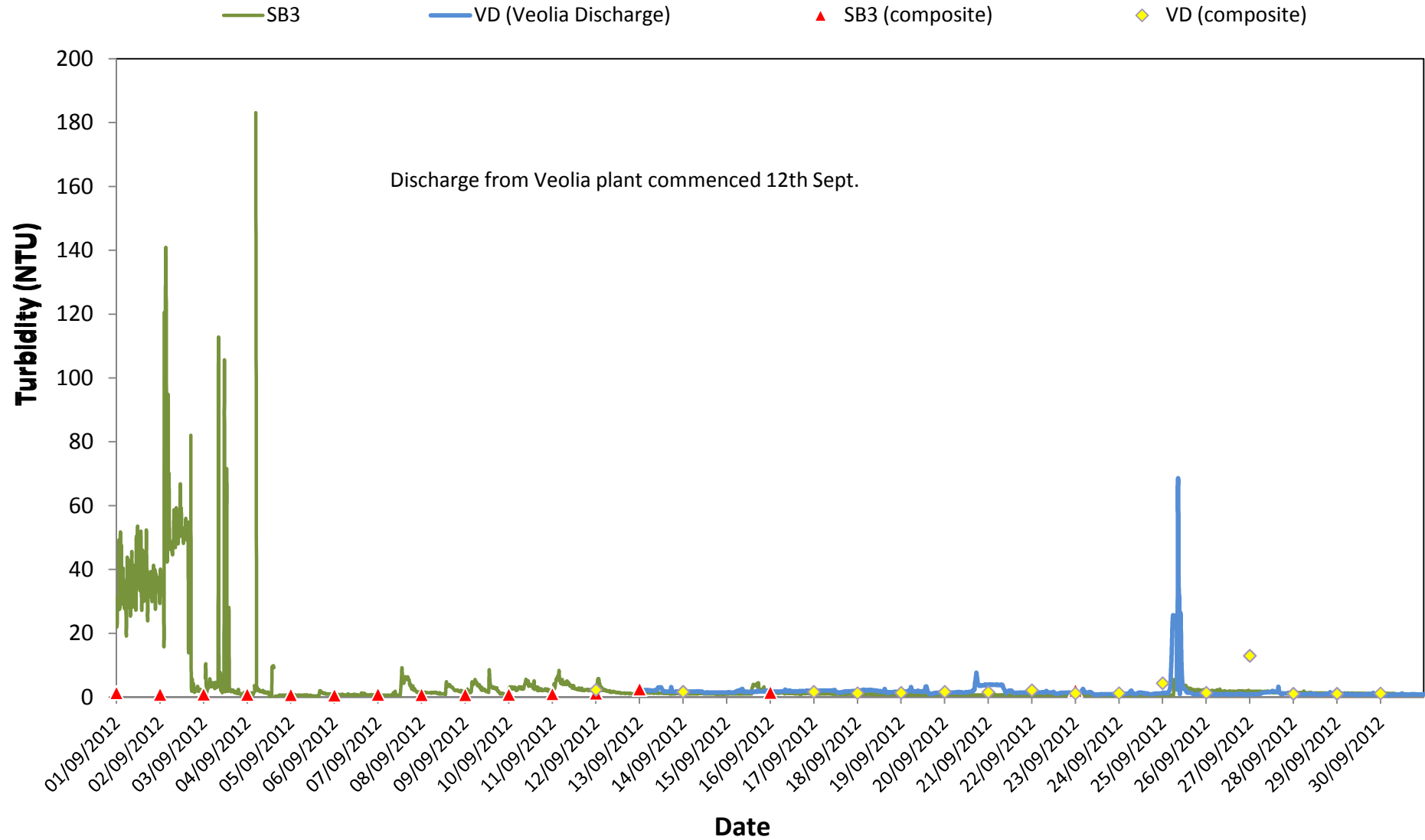
pH - Surface Water Discharge - Aughooose September 2012



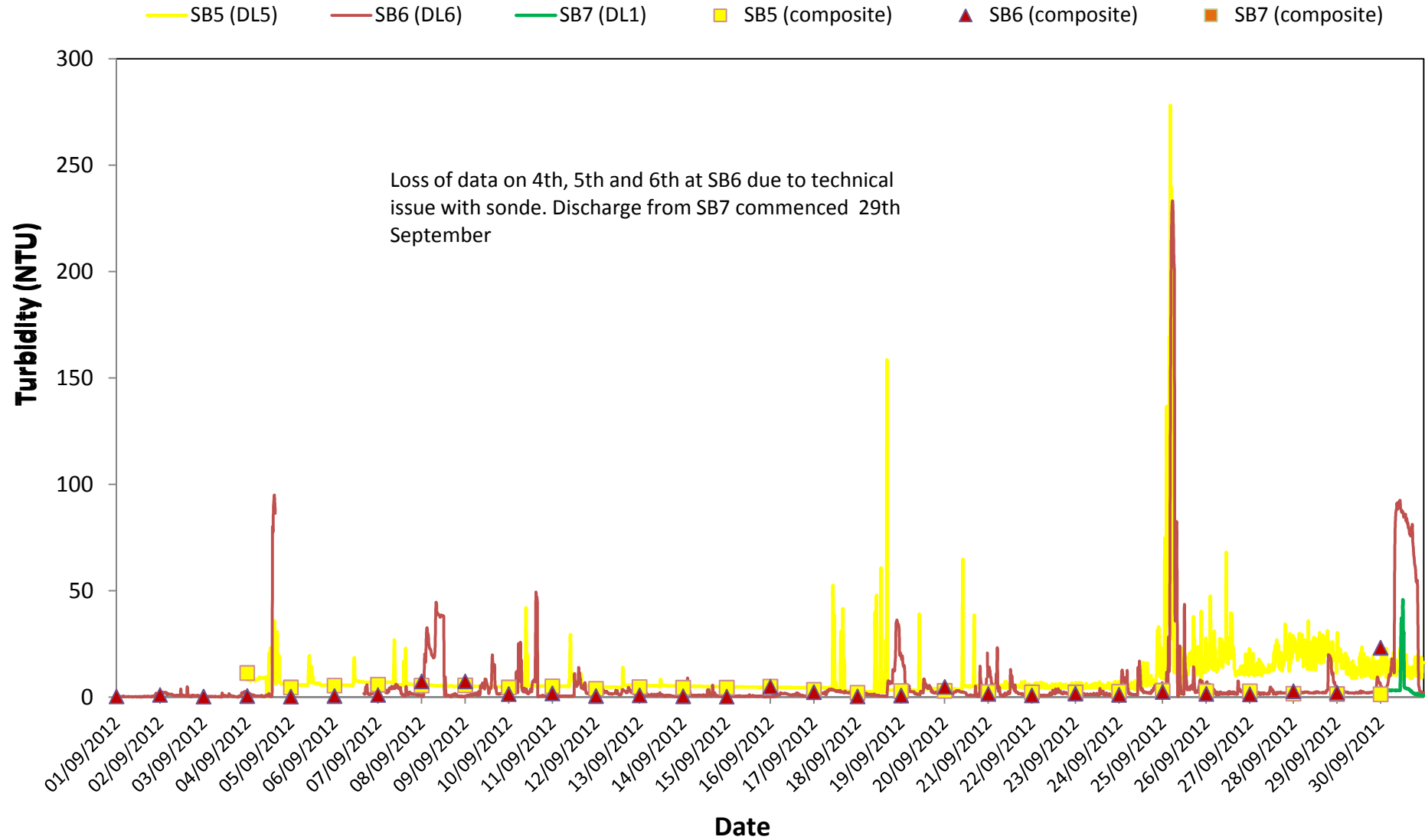
pH - Surface Water Discharge - Pipeline Wayleave September 2012



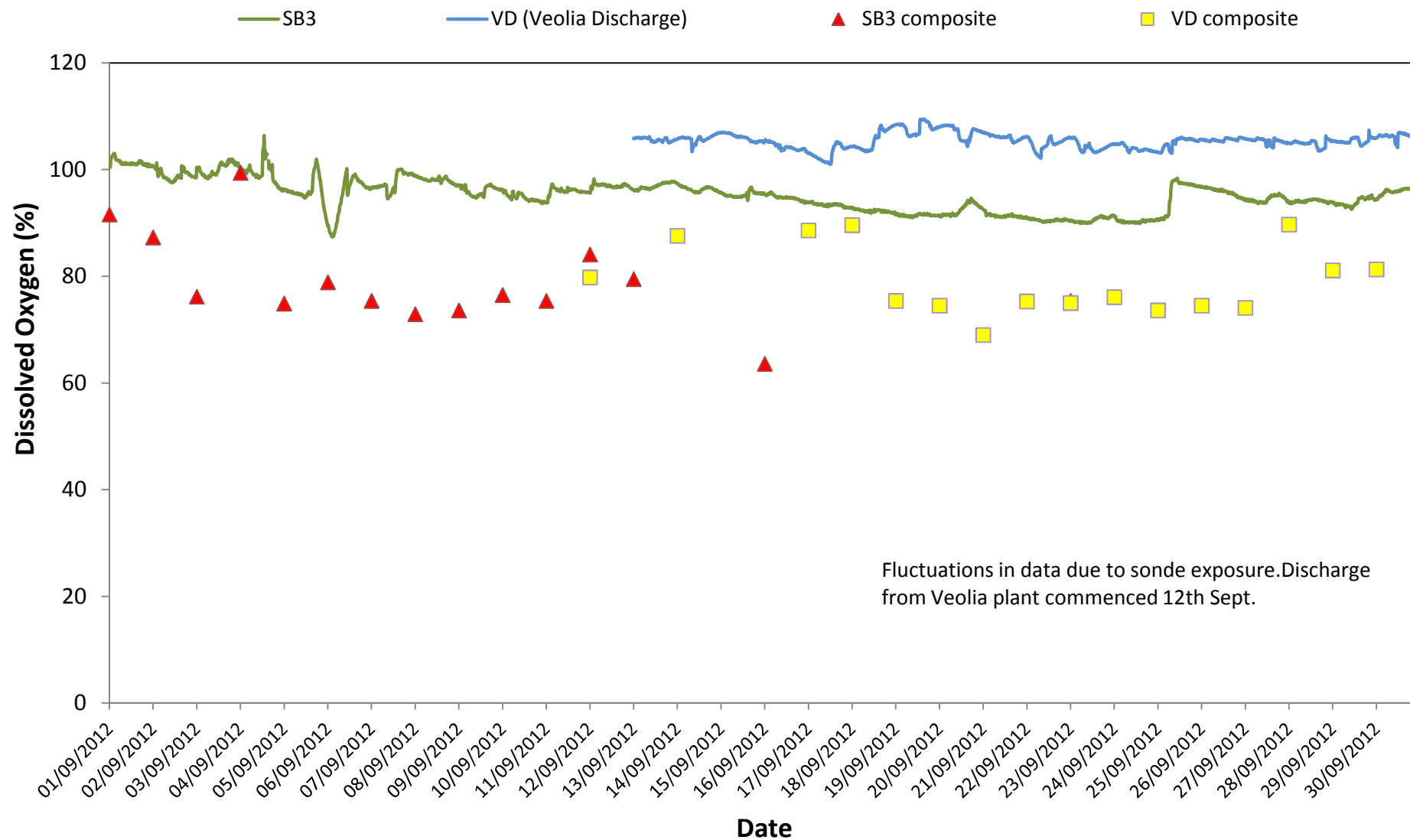
Turbidity - Surface Water Discharge - Aughooose September 2012



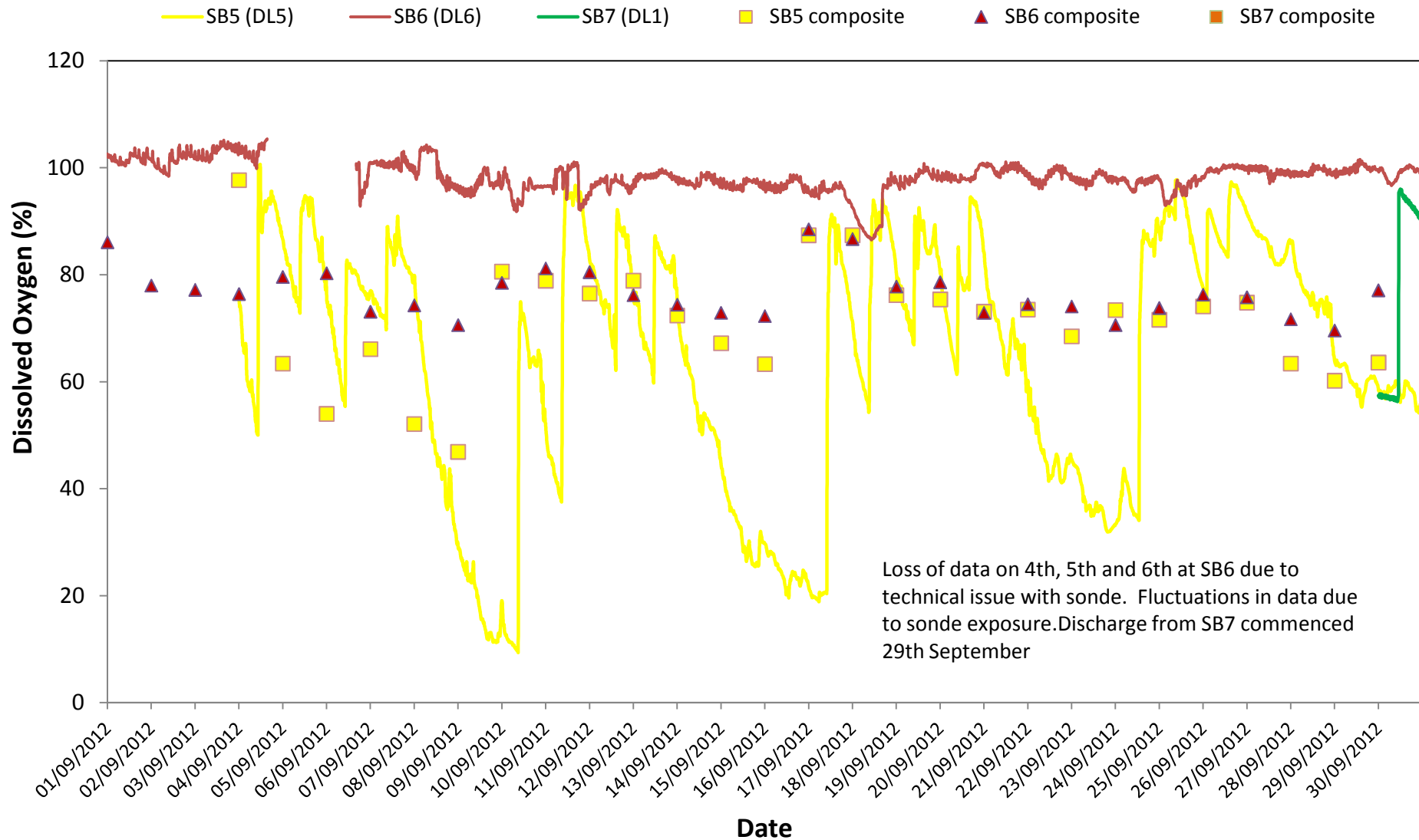
Turbidity - Surface Water Discharge - Pipeline Wayleave September 2012



Dissolved Oxygen - Surface Water Discharge - Aughooose September 2012

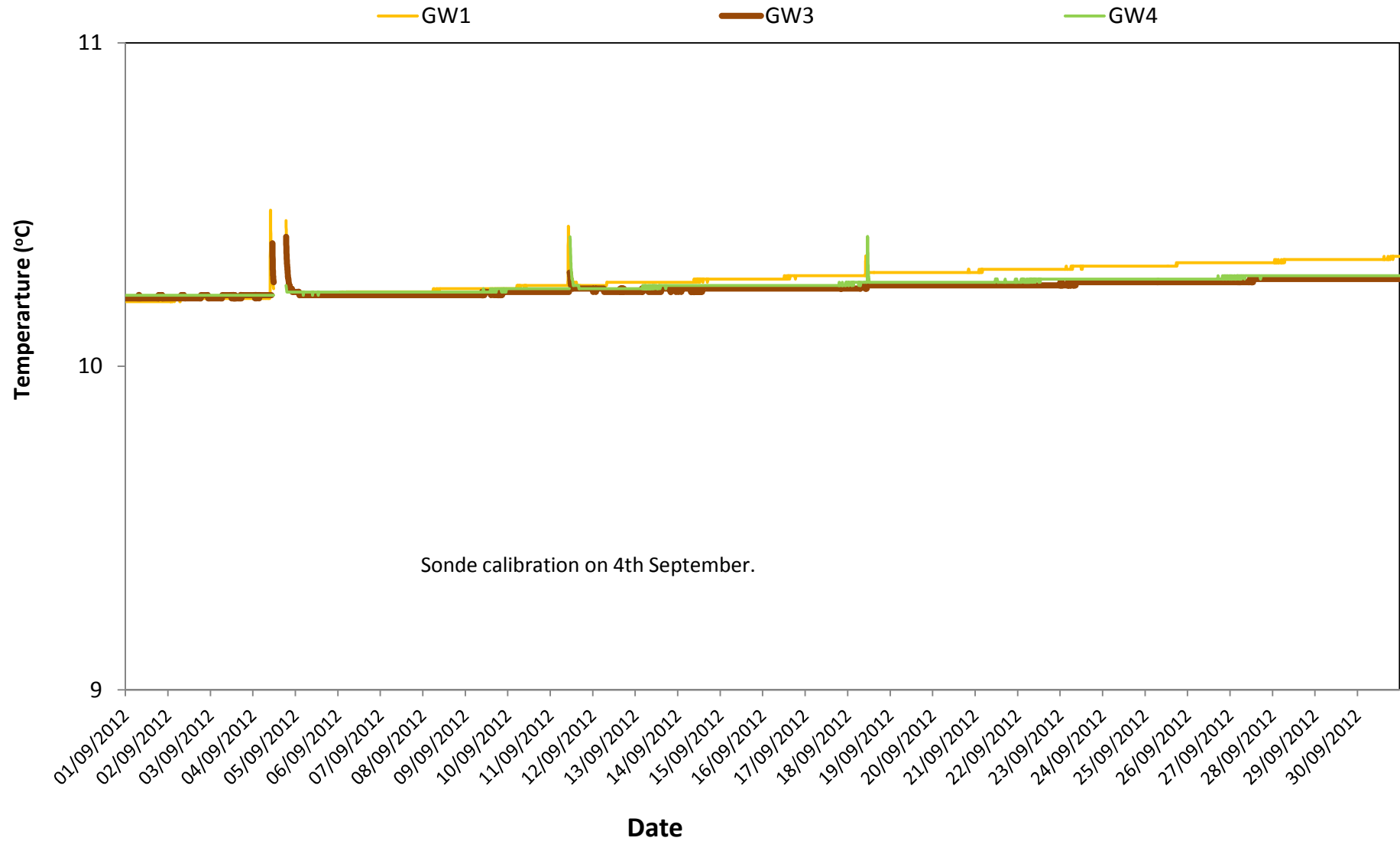


Dissolved Oxygen - Surface Water Discharge - Pipeline Wayleave September 2012



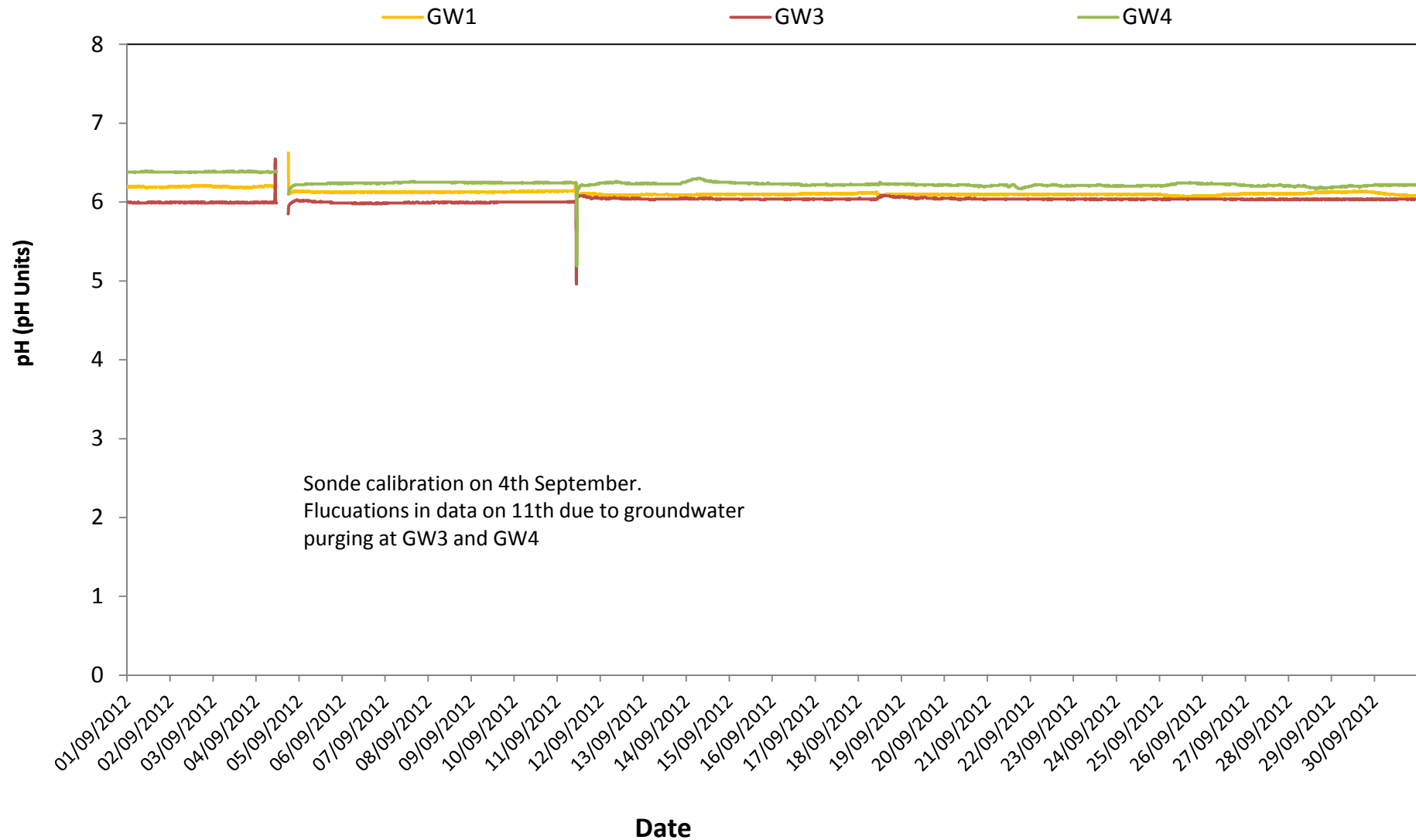
Temperature - Groundwater - Aughooose

September 2012



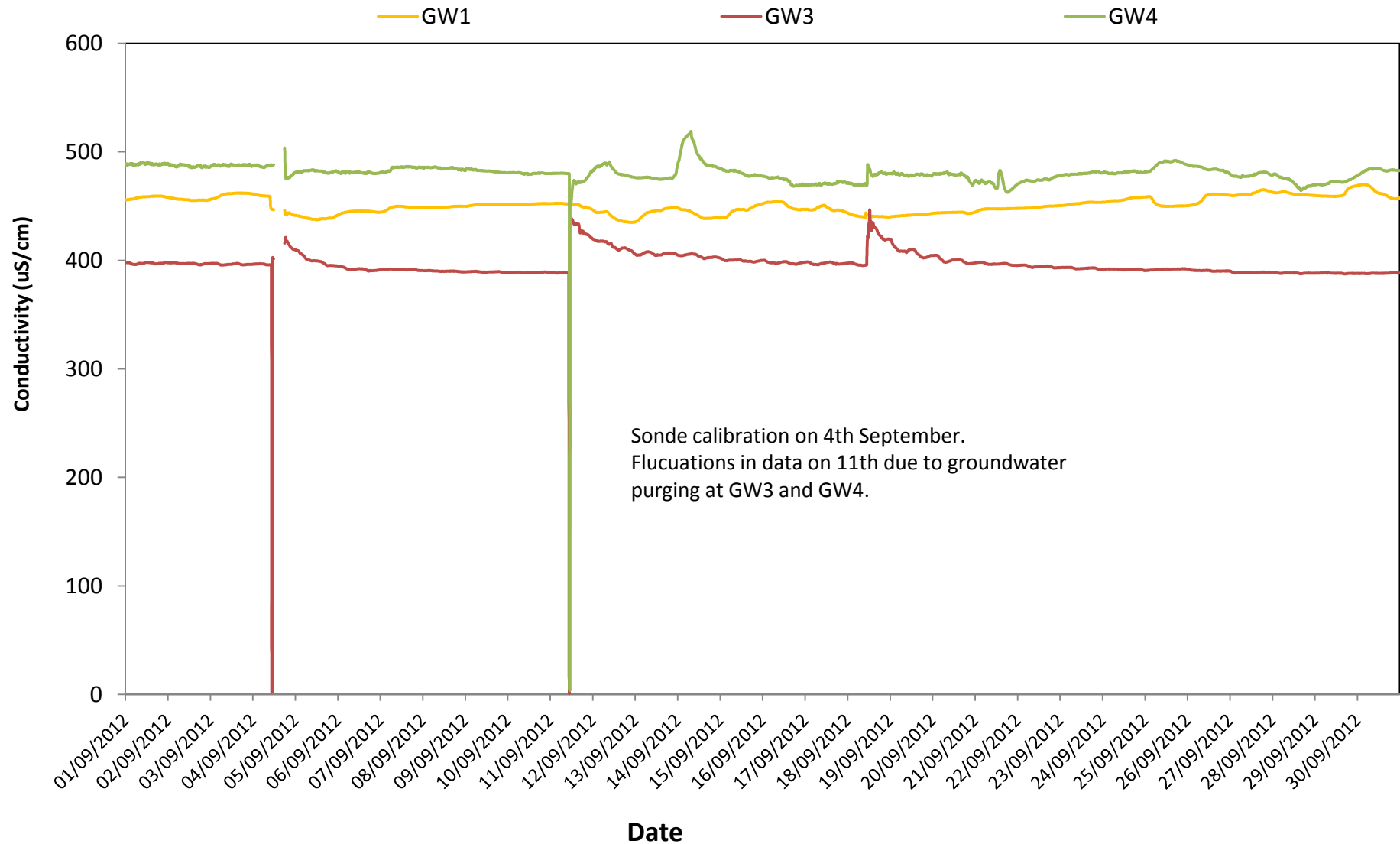
pH - Groundwater - Aughooose

September 2012



Conductivity - Groundwater - Aughooose

September 2012



Appendix 1

Appendix 1: Surface Water Monitoring Record Sheet- Onsite Monitoring

	Date	Temp	DO	Cond.	Turbidity	pH
		oC	% Sat	µS/cm	NTU	pH units
Aughooose (Grab Samples)						
DL2	03/09/2012	15.6	89.1	473	3.4	7.0
DL2	04/09/2012	14.6	87.5	478	3.7	7.8
DL2	05/09/2012	14.9	98.4	504	14.0	6.5
DL2	06/09/2012	14.6	93.3	506	15.7	7.7
DL2	07/09/2012	14.9	83.4	206	5.0	6.4
DL2	10/09/2012	14.4	99.5	440	4.0	6.5
DL2	11/09/2012	12.6	71.9	374	7.0	7.0
DL2	12/09/2012	14.2	97.5	504	20.8	7.2
DL2	13/09/2012	14.6	97.6	474	7.4	8.7
DL2	14/09/2012	13.8	99.5	456	7.0	7.4
DL2	17/09/2012	12.3	86.1	484	4.0	7.0
DL2	18/09/2012	13.5	98.2	469	5.0	6.4
DL2	19/09/2012	12.9	99.1	478	4.4	6.9
DL2	20/09/2012	13.7	97.3	479	10.3	7.0
DL2	21/09/2012	13.7	97.1	459	11.0	6.9
DL2	24/09/2012	13.6	92.8	360	3.8	6.4
DL2	26/09/2012	12.9	98.2	468	3.1	6.6
DL2	27/09/2012	12.8	96.5	472	6.0	7.0
DL2	28/09/2012	12.7	95.6	495	50.0	6.8
Veolia Discharge (Grab Samples)						
VD (Veolia discharge)	13/09/2012	No Discharge				
VD (Veolia discharge)	14/09/2012			473	34.0	8.2
VD (Veolia discharge)	17/09/2012	19.7	93.6	450	4.0	6.8
VD (Veolia discharge)	18/09/2012			497	1.3	7.0
VD (Veolia discharge)	19/09/2012	17.5	81.2	480	8.7	8.0
VD (Veolia discharge)	27/09/2012			466	3.0	6.9
VD (Veolia discharge)	28/09/2012	23.6	104.2	459	5.0	6.2
Site Compound 4 Siltbuster (Grab Samples)						
DL5 (SB5)	13/09/2012			634	15.4	6.7
DL5 (SB5)	14/09/2012			632	8.0	6.3
DL5 (SB5)	17/09/2012	19.7	93.6	450	4.0	6.8
DL5 (SB5)	18/09/2012	21.4	85.3	686	4.0	6.4
DL5 (SB5)	19/09/2012	17.5	81.2	480	8.7	8.0
DL5 (SB5)	20/09/2012	22.8	90.6	616	8.4	6.9
DL5 (SB5)	21/09/2012	26.0	100.1	624	12.2	6.3
DL5 (SB5)	24/09/2012	15.2	83.3	636	4.3	6.4
DL5 (SB5)	25/09/2012	22.0	103.7	739	5.7	6.5
DL5 (SB5)	26/09/2012	10.4	101.7	729	9.7	6.9
DL5 (SB5)	27/09/2012	24.3	103.5	700	6.0	6.8
DL5 (SB5)	28/09/2012	23.4	95.4	723	3.0	6.7
	= Indicative Only					
I.P.	= In Progress					
< LOD	= Below Limit of Detection					
> LOD	= Above Limit of Detection					

Wayleave Siltbuster (Grab Samples)						
DL6 (SB6)	03/09/2012	21.0	94.5	467.0	3.1	6.4
DL6 (SB6)	04/09/2012	16.7	93.3	547.0	14.5	6.9
DL6 (SB6)	05/09/2012	17.2	85.7	580.0	6.3	6.5
DL6 (SB6)	06/09/2012	22.0	98.9	590	6.00	6.7
DL6 (SB6)	07/09/2012	22.3	97.5	469	8.00	6.0
DL6 (SB6)	10/09/2012	18.8	91.6	539	4.70	6.24
DL6 (SB6)	11/09/2012	18.3	90.1	578	2.00	6.80
DL6 (SB6)	12/09/2012	18.8	91.6	539	4.70	6.2
DL6 (SB6)	13/09/2012	18.7	93.3	606	3.4	7.7
DL6 (SB6)	14/09/2012	20.6	94.1	560	2.0	6.1
DL6 (SB6)	17/09/2012	20.4	101.3	585	7.0	7.1
DL6 (SB6)	18/09/2012	21.1	97.2	569	6.7	6.9
DL6 (SB6)	19/09/2012	17.8	93.7	640	3.0	6.8
DL6 (SB6)	20/09/2012	21.6	93.7	598	6.4	6.4
DL6 (SB6)	21/09/2012	25.9	103.2	662	8.2	6.3
DL6 (SB6)	24/09/2012	14.7	106.0	467	4.1	7.9
DL6 (SB6)	25/09/2012	21.3	103.3	505	4.5	6.5
DL6 (SB6)	26/09/2012	20.9	99.9	437	4.9	7.1
DL6 (SB6)	27/09/2012	16.1	82.7	496	6.0	6.9
DL6 (SB6)	28/09/2012	24.5	109.2	463	7.0	6.2
	= Indicative Only					
< LOD	= Below Limit of Detection		> LOD	= Above Limit of Detection		
Sruwaddacon Bay						
No Bay samples taken in September due to adverse weather conditions						
	= Indicative Only					
I.P.	= In Progress					
< LOD	= Below Limit of Detection					
> LOD	= Above Limit of Detection					

Appendix 2

1 MONITORING PERIOD

This report is in respect of ecological monitoring activities undertaken during September 2012. These included:

- Site inspections at the Aughooose and Glengad construction compounds;
- Site inspections of the pipeline route to the north and south of RDX1;
- Visual inspection of the “190m” at Aughooose
- Ongoing weekly bird monitoring of the Sruwaddacon Bay area and Sand Martin colonies.
- Fauna monitoring surveys
- Ongoing checks at known faunal burrows at Glengad;
- Vegetation surveys
- Freshwater ecological monitoring
- Inspection of SAC habitats adjacent to the temporary working areas at Glengad

2 AUGHOOOSE SITE INSPECTIONS

Inspections of the Aughooose compound were undertaken by the Project Ecologist in the company of SEPIL's Environmental Advisor on 11th, 13th and 26th September. The ongoing implementation and effectiveness of ecological mitigation was examined and discussed with the Environmental Advisor. The following were included in the visit:

- A check on the condition of the stored surface vegetation layer in the peat storage areas.
- Avian and non-avian mitigation measures, including: fencing, screening and wildlife proofing on the inside of the perimeter security fence, settlement ponds and silt traps covers.

A drive by was conducted on the evening of 26th September in order to observe the green lighting on the gantry crane, and other lighting at the compound.

Inspections of the exterior of the perimeter fence in respect of faunal (avian and non-avian) mitigation measures were undertaken during the weekly bird survey visits and during the faunal monitoring surveys.

2.1 Peat storage areas - vegetation layer

The vegetation layer on top of the peat storage areas was inspected on 13th and 26th September in advance of commencing the recording of quadrats (See 7.2).

3 GLENGAD SITE INSPECTIONS

A detailed walkover and inspection of the temporary working area (TWA) at Glengad and the exterior of the fence at SC1 was undertaken by the Project Ecologist in the company of a SEPIL Environmental Advisor on 11th. The site inspection included:

- A check on the condition of the soil stock piles.
- Check that faunal (avian and non-avian) mitigation measures were being correctly implemented including: fencing, screening and wildlife proofing on the inside of the perimeter security fence, settlement ponds covers. Inspection of: the SAC grassland habitat adjacent to the fenceline on the northern side of the TWA, shorelines, cliff and erosion control measure.
- Inspection of the gully burrows.

A further site inspection was undertaken by the Project Ecologist on 26th September, including a drive by on the evening of 26th September to observe the level of night lighting in the TWA.

Additional site inspections and checks were undertaken on behalf of the project ecologist by her associate specialists during faunal surveys and in tandem with weekly bird surveys, as follows:

- Check on the exterior of the compound fencing – faunal mitigation;
- Observations of faunal, tracks and signs;
- Weekly check on known mammal burrows at Glengad;
- Regular check that mammal gates are kept open.

3.1 SAC Habitats at Glengad

No change in habitat condition was noted since the previous month.

3.2 Mitigation - avian and non-avian fauna

The following were examined in relation to the implementation of avian and mammal protection measures at:

- The perimeter fence at SC1 internal and external - on 26th September it was noted that the required works had been completed.
- Settlement ponds – mammal proofing (completed) and Hexacover coverage.
- Gates between SC1 and wayleave - work in progress. This was discussed on site with SEPIL's Environmental Advisor, the contractor's environmental officer and site personnel.

4 ONSHORE PIPELINE INSPECTIONS

A walkover inspection of the pipeline wayleave route to the north and south of RDX1 was undertaken by the Project Ecologist in the company of SEPIL's Environmental Advisor on 11th September.

- Measures in relation to non-avian fauna (mammal gates, mammal proofing of settlement ponds and silt traps etc), were inspected and discussed on site
- Re-growth on some treated *Rhododendron* stumps was noted, as previously.
- Surface water management in relation to drains and watercourses were inspected and discussed.

A further inspection of the wayleave and SC4, particularly in relation to settlement ponds and silt traps was undertaken on 26th September.

The '190m' was inspected on 11th September and it was noted to be in good condition, with summer growth of blanket bog vegetation at its height. The works carried out by the ESB were found not to have impacted on the wayleave under the power lines. A further inspection of the 190m was carried out on 13th September by the Project Ecologist and her assistant specialist botanist prior to the vegetation survey in order to decide the location of an additional transect and quadrats.

5 BIRDS

5.1 Surveys

The following bird surveys were undertaken during September:

- Bay Area (HW & LW Surveys)
 - 05/06 September 2012
 - 11/12 September 2012
 - 18/19 September 2012
 - 27/28 September 2012
- Sand Martin Surveys
 - September 6th – Colony A & B and Colony C at Rinroe surveyed
 - September 11th – Glengad walkover & visit to Coastal Mammal Burrows

5.2 Sruwaddacon Bay area – water birds and waders

The findings of the weekly low water and high water counts during September may be summarised as follows:

- Species which overwinter in Ireland began to arrive in appreciable numbers.

- Larger numbers of Curlew, Redshank and Greenshank were recorded than in August.
- Sixteen Light-bellied Brent Geese were observed in the Sruwaddacon Bay area on September 26th - this is especially notable because their arrival is more than three weeks earlier than had been recorded in previous survey seasons. It is also interesting to note that Brent Geese had been observed on the Mullet several weeks earlier than in a typical year (Dave Suddaby, pers. comm.).
- Some birds were recorded on passage:
 - A flock of 16 Greenshank were observed at Low Water on September 5th. This is an unusually high number of Greenshank for this site and was not repeated during the rest of the month.
 - Small flocks of Redshank and Ringed Plover were recorded with numbers of Redshank present increasing to 16 by September 27th.
- On September 27th a total of 27 Cormorants were recorded in the study area. This is a relatively high count of Cormorants for this site and many were observed feeding within Sruwaddacon Bay.

5.3 Sand Martin Monitoring

Sand Martin activity at the monitored colonies had ceased by the first survey visit in September. A small number of Sand Martins were observed on the wing on September 05th 2012 but none were present by the second week in September.

6 NON-AVIAN FAUNA

6.1 Surveys

The latest phase of faunal monitoring surveys commenced in early September 2012. Because of constraints imposed by tide and poor weather conditions previous surveys of the Bay area have sometimes extended over a lengthy period. In September, it was hoped to complete the survey of the entire Bay area within as short a window of time as possible to enable a better snapshot picture of usage. Most of the survey was largely completed in September, but poor weather towards the end of the month prevented completion of the surveys. The remaining small area will be completed in October.

As described in earlier reports, otter activity is being monitored on a regular basis throughout the Bay area by searching for otter spraints (faeces) and other signs, checking on otter or other mammal activity at known burrows, and continuing to search for additional or new burrows. Other mammalian and amphibian/reptile species of interest are also monitored in the course of these surveys. Particular attention is being paid to the areas in the vicinity of the construction compounds at Aughoose and Glengad, with sites of known interest re-inspected.

6.1.1 Otter

Otter surveys of the Bay area in September included:

- The shoreline at Glengad, and portions of terrestrial areas there, through to the east of Pollatomish.
- The dune area at Glengad was intensively searched by means of a series of transects across the dunes.
- The shoreline along the southern shore of the Bay, from west of Aughooose, and including the Leenamoy River area, and eastwards to the Glenamoy River.
- All of the north shore of the Bay from Rossport pier to the area of the confluence of the Glenamoy River.
- The north shore from the Rossport pier to inner Rossport Bay. The survey was extended 200m further westwards into inner Rossport Bay than was the case in previous surveys.

The area remaining to be surveyed is from west of Aughooose towards Pollatomish.

Otter activity observed in September was similar to that recorded in previous surveys of the Bay area:

- Frequent signs at the cliff areas, and relatively few signs along much of the northern shore.
- Considerable activity in the Leenamoy River area and along shorelines at Aughooose and along the southern shore east of Pollatomish.
- Signs showed that otters frequently traverse the dune system at Glengad

Some changes in otter activity are to be expected as the territorial activity of otters in the Bay area will vary over the duration of these ongoing long-term studies – ie. natural fluctuations.

Otter diet, as adjudged by a brief examination of spraints, continued to be mainly of crab and marine fish. Samples of otter spraints have been collected and frozen for further analysis. Generally, only fresh or fairly fresh spraints have been collected.

6.1.2 Other species

The following is a summary of findings in relation to other mammals:

- Fox and Irish Hare signs were frequent along the shores, as has been observed in previous surveys.
- Badger signs were present at the Glenamoy River area, and at the Glengad area. The thorough survey of the dunes revealed several latrine sites and one badger sett (not a breeding sett), as well as several burrows used by foxes.
- No signs of badgers were observed in the Rossport area in the September surveys – as was found in July. However it is worth noting that badger surveys in summer tend to reveal fewer signs than in winter or early spring.

6.2 Mammal activity in vicinity of the Glengad

As part of the faunal surveys, mammal-proof fencing, and other wildlife mitigation measures, at the compound area at Glengad were reviewed by a brief inspection around the outside of perimeter fencing. It was noted that, where mammal access was provided Irish hares are moving freely through the mammal gates provided. (See also at 3.0)

The mammal burrows at Glengad were inspected. In September, the entrances remained open, but suggested no recent activity by badgers or otters. However, as was also reported in July 2012, badgers and otters remain active in the vicinity, with fresh badger latrines to the north-east of the TWA, and fresh otter spraints along the shoreline at Glengad. In addition to faunal survey visits, routine inspections of the burrows at Glengad were made on 6th and 11th September

6.3 Mammal activity in the vicinity of Aughooose and Leenamore

Otter activity in the vicinity of the Aughooose temporary working areas has continued much as observed in prior surveys. During the previous survey in July fewer signs had been noted along the Leenamore River, but in September, considerable otter activity in this area was noted. There are no otter holts or badger setts present in the vicinity of the Aughooose TWA. The fenceline around the compound at Aughooose was inspected and the mammal-proofing measures in place are effective in preventing larger mammals entering, as intended.

6.4 Bats

A bat survey in the area was conducted over two evenings and nights in late September 2012, and covered an area from Aughooose to Pollatomish and to Bellanaboy.

No bats were encountered and their absence was not a result of inclement weather conditions. However the absence of flying insects during the surveys was noted. The lack of insects on the wing may have been as a result of the very poor weather conditions in spring, summer and early autumn. It is noteworthy that bat activity throughout the country was noticeably affected in 2012 with early, staggered and late birth of young, abandonment of young, roost absence and poor foraging activity. Bat surveys will be repeated next spring to further evaluate the situation as to bat activity in the project area.

6.5 Casual Observations

- On 11th of September, two Grey Seals were recorded feeding a short distance to the east of Rossport Pier.
- Later in the day on 11th a small Otter (adult female or sub-adult) was observed swimming in the mid-bay to the north of Pullathomas National School.
- A Grey Seal was observed close to the sandbank near Rossport Pier on September 27th.
- A small specimen of bog beetle (*Carabus clatratus*) was observed on the fence screening at Glengad, in a sheltered sunny position, on 11th September.

7.0 VEGETATION SURVEYS

The following vegetation surveys were undertaken during September:

- **Recovering eroded blanket bog – the “190m”**
 - Pre-survey site visit on 13th September.
 - Transect surveys were carried out on 14th and 26th September
- **Peat storage areas at Aughooose**
 - Pre-survey evaluation inspections on 13th.
 - Quadrat-based survey being undertaken on 26th and 27th September.

8.0 FRESHWATER ECOLOGICAL MONITORING

Benthic macroinvertebrate sampling and electrofishing (licenced) were undertaken towards the very end of September, in accordance with the EMP monitoring programme.

Results are not yet available, but a summary of findings will be provided in next month's summary report (for October 2012).

Appendix 3

Corrib Onshore Pipeline
Monthly Archaeological Report

**Aughoose, Glengad, Bellagelly and Bellanaboy
townlands**

DAHG Licence Reference: 11E0214
DAHG Metal Detection Licence Reference: 11R0090

Director: James Kyle

Month Ending: 30th September 2012

COURTNEYDEERY 
Heritage Consultancy

IAC Irish Archaeological
Consultancy

1.0 General Review of Works

1.1 Works

Works commenced Monday the 25th of July 2011 at the Aughoose Compound.

Works commenced Monday the 6th of February 2012 at the Glengad Compound.

Works commenced Monday the 28th of May 2012 for the construction phase of the pipeline in Bellanaboy and Bellagelly townlands.

2.0 Staffing Levels

The following licenced archaeologists are present to monitor all ground breaking and excavation works:

Site Director: James Kyle,
Archaeologist: David Bayley.

3.0 Areas Investigated

3.1 Aughoose

Construction works were carried out at two separate areas at the Aughoose site (Figure 1), all of which were monitored under archaeological supervision.

The bulk excavation of peat from the stringing area took place throughout September, this work comprised the excavation of peat from the footprints of the following various elements:

- Bulk turving of the stringing area was completed on the 14th of September. This work took place in order to finalise the extension of Peat Storage Area B and to accommodate the storage of peat.
- Peat was excavated from IR 9 to a depth of 1.7m below present ground level and this was subsequently backfilled with stone.
- Peat was excavated from the site of the proposed stringing area silt lagoon in the eastern corner of the site. This area measured 30m east-west x 20m north-south x 3m in depth and following the removal of all peat, 1m of mineral soil was excavated from the lagoon site to bring it to formation level. This process used a trench box to excavate along the margins of the lagoon (Plate 1).
- The temporary site car park was dismantled and peat was excavated from an area measuring 40m north-south x 20m east-west x 1.7m in depth.

- The excavation of peat and mineral soil from a footprint measuring 30m east-west x 10m north-south x 3.5m in depth to facilitate the construction of a petrol interceptor to the immediate west of the lagoon. (Plate 2)

Bulk excavation of material from the tunnel starter pit and ramp (Plate 3) continued throughout September:

- These works involved the removal of bulk materials and bedrock to construction formation levels and this was achieved in a gradual phased manner to facilitate the installation of supporting struts, crossbeams and rock anchors on an on-going basis (9m below present ground level).

In addition to the above, all construction works which had any impact on the peat or the underlying residual ground substrate were monitored and nothing of archaeological significance was revealed.

3.2 Glengad

Construction works were finalised at the Glengad site on the 31st of August, however, subsequently it was necessary to undertake additional works, and these were carried out under archaeological supervision. The works comprised:

- On Tuesday 4th September, work was undertaken to reduce the potential erosion of the cliff-face. A trench was excavated (Plate 4) to allow the placement of a drainage pipe to take water from a land drain at the top of the cliff-face to the bottom without the water running down the cliff face. The trench was excavated through soil that had previously been excavated during the 2009 phase of works at Glengad. Nothing of archaeological significance was noted during these works.

No construction works were carried in the vicinity of the enclosure site (MA004-015). Archaeological monitoring has previously taken place on two separately licenced occasions in the vicinity of this site, (Frazer 2002 and Kieran 2009)¹. No archaeological features or finds were revealed.

3.3 Pipeline wayleave

All excavation works associated with the pipeline wayleave in the forested area of Bellagelly South and Bellanaboy townlands were archaeologically monitored. These works for the month of September included:

¹ Monitoring of topsoil removal Glengad (Licence Ref. 02E0568, W. Frazer) Margaret Gowen Ltd. Archaeological monitoring of construction works associated with the Corrib Gas Pipeline at Broadhaven Bay (Licence Ref. 09E176 and 09E177, E. Kieran) Moore Marine.

- The bulk excavation of the stone road commenced Monday 10th September, this excavation began from the end of the pre-existing stone road, in a northward direction towards the L1202. The excavation covered a strip 20m east-west in width and 3-3.5m in depth (Plate 5), with a 0.2-0.4m peat remainder left in place to construct a peat stone matrix. Approximately 80m of the stone road was excavated and constructed this month and this involved a diversion to the stream at the base of slope in the fenced wayleave to facilitate the stone road construction crossing the stream.
- The bulk excavation of the area for the silt buster and the silt lagoon location in the site compound (Sc 4). This area measured 40m north-south and 40m east-west, 2.5m depth of peat excavated (Plate 6) with a 0.2-0.4m peat remainder left in place to construct a peat stone matrix.
- The sheet piling and subsequent excavation of the silt lagoon (30m x 10m), in the site compound (Sc 4). The lagoon construction entailed a sheet piled perimeter which requires it to be securely braced before it can be fully excavated to a depth of 3m (Plate 7).
- The continuation of the drainage v-ditch network (Plate 8); this was excavated adjacent to the fenceline on the eastern side of the wayleave, from the stream to the L1202 and excavated to a depth of 0.7m in peat, this work was completed as far as the L1202 and is continuing on the northern side of this road, adjacent to Sc 4.

In addition to the above; all construction works which had any impact on the underlying residual ground substrate were monitored and nothing of archaeological significance was revealed.

4.0 Projected Future Work and Staff

Archaeological monitoring, and where deemed necessary metal detection, will be undertaken during the construction phase of the project to determine the presence (if any) of below ground archaeological features or the presence of artefacts of an archaeological nature. This will be conducted by two licenced archaeologists, James Kyle and David Bayley, on a rotational basis between Aughooose, Glengad, Bellanaboy and Bellagelly townlands.

5.0 Reporting

The monthly report records the extent of works requiring archaeological monitoring and metal detection. In the event of archaeological material being revealed, archaeologists will record, photograph and map any new discovery. As part of the licensing requirement a final report will be completed upon the cessation of ground breaking and excavation

works. This report will describe in detail the results of the archaeological monitoring programme and will be sent to the statutory authorities in accordance to the licensing agreement.

6.0 Location of Artefacts and Samples

To date no artefacts or samples have been retrieved from Aughooose, Glengad, Ballinaboy or Bellagelly townlands where investigations have occurred.

7.0 Information on any Unforeseen Difficulties

Bulk excavation of peat was halted project-wide at 11am on Tuesday 25th September due to the 24hr maximum rainfall limit being reached. Excavation recommenced at 15:00 on the same day, when the rainfall levels had attenuated.

8.0 Health and Safety Issues

Both on-site archaeologists have been inducted on site and have received the requisite conflict management training and manual handling training.

Summary

Nothing of an archaeological significance has been uncovered as a result of monitoring or metal detection of materials excavated from construction works for the Corrib on-shore pipeline project to date.



Plate 1 Aughooose: Excavation of the stringing area lagoon, facing east.



Plate 2 Aughooose: Bulk excavation of material from the petrol interceptor, facing west.

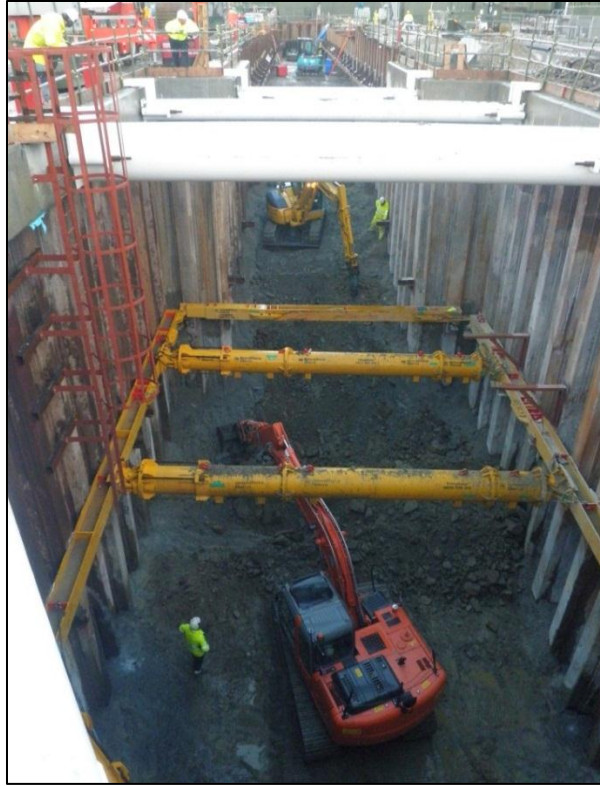


Plate 3 Aughooose: Bulk excavation of material from the tunnel starter pit & ramp, facing south.



Plate 4 Glengad: Excavation of trench for a drainage pipe to help prevent erosion of the cliff face, facing east



Plate 5 Pipeline wayleave: Bulk peat excavation and stone road construction, facing east.



Plate 6 Pipeline wayleave: Bulk excavation of peat at Sc 4 for Silt buster, facing east.



Plate 7 Pipeline wayleave: Peat excavation from silt lagoon, facing north.



Plate 8: Pipeline wayleave: V-Ditch excavation exterior to Sc 4, facing east.

