

Noise, Vibration, Air & Water Quality Report / May 2025

Executive Summary

Noise, vibration and air quality data is generated by onsite internal monitors, administered by Acoustic1, located in the North and South of the site. An additional vibration monitor offsite is located at the Whitchurch Hospital Chapel.

Water quality data of the attenuation pond is measured using a handheld pH monitoring device on a weekly inspection basis.

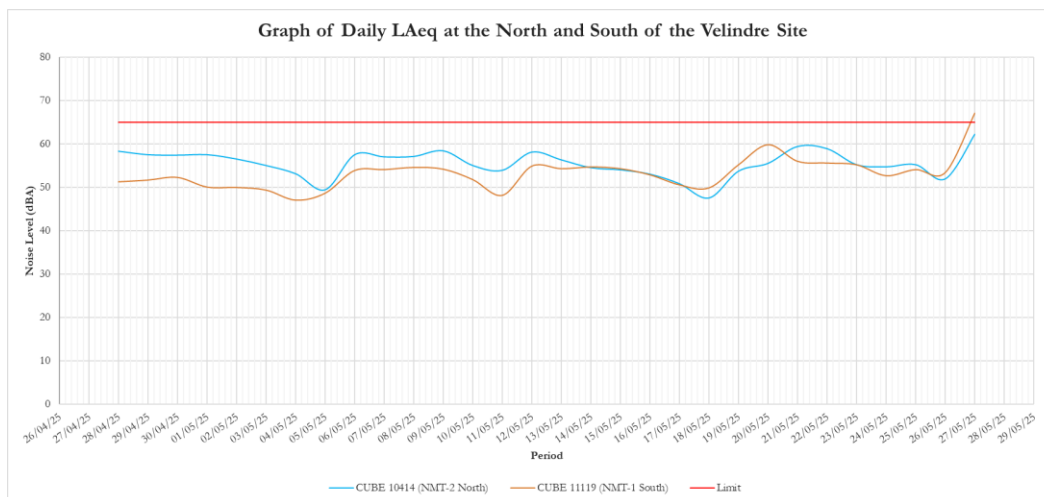
Data is compiled monthly. Over the May measurement period, there was one minor exceedance to Sacyr's soft noise limit of 65dB(A) on the South monitoring station 'CUBE 11119 (NMT-1 South)' of 67dB(A) on a 24hr average 27/05/25. However, this did not breach the hard limit of 70dB(A).

An exceedance to the Southern Air Quality monitor for PM10 was recorded on 28/04/25. The anomaly coincided with routine calibrations.

	Layout	Period	Data Type	Threshold Values	Work Hours
Noise	One graph of both CUBE Units	Daily averages	Leq	65dB	8am-6pm
Vibration	Two graphs, on site and off site (church)	Hourly averages	mm/s	3mm/s	8am-6pm
Air Quality	One graph of both KUNAK Units	Hourly averages	PM10	190µg/m ³	8am-6pm

Location	CUBE	ORION	KUNAK
South Monitoring Point	CUBE 11119 (NMT-2)	ORION (VMT-2)	K-B3 SOUTH
North Monitoring Point	CUBE 10695 (NMT-1)	ORION (VMT-1)	K-B3 NORTH
Church	N/A	ORION (VMT-3)	N/A

Noise

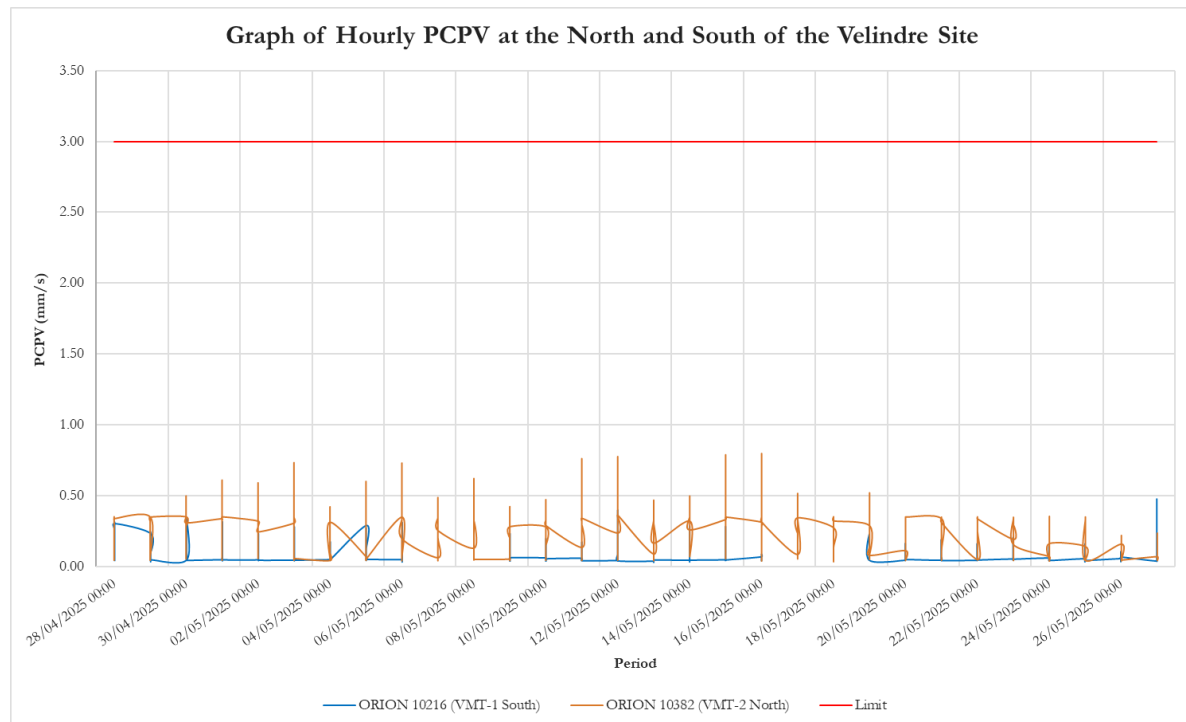


It was recommended in the Environmental Strategy (ES – produced by Walters) to limit noise on site to 70dB(A). Sacyr has set a soft limit of 65dB(A); anything surpassing this limit requires investigation, though mitigation measures need to be in place for anything over the hard limit of 70dB(A).

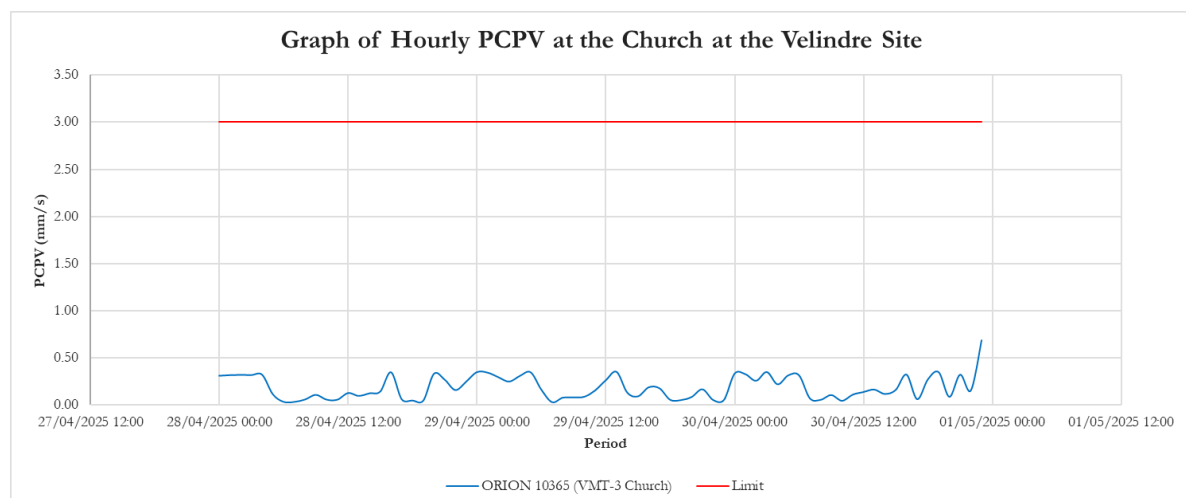
An exceedance of 67dB(A) to the soft noise limit of 65dB(A) was recorded on 27/05/25, Investigation determined likely cause as works in the ET&S area. No noise complaints lodged by residents aligning with the soft limit exceedance.

Vibration

No limit on vibration has yet been set between Sacyr and Cardiff Council, however, a provisional limit has been set as vibrations measuring 1.00mm/s or more, lasting for longer than an hour, can often be felt by nearby residents and can be subsequent causes of complaint.



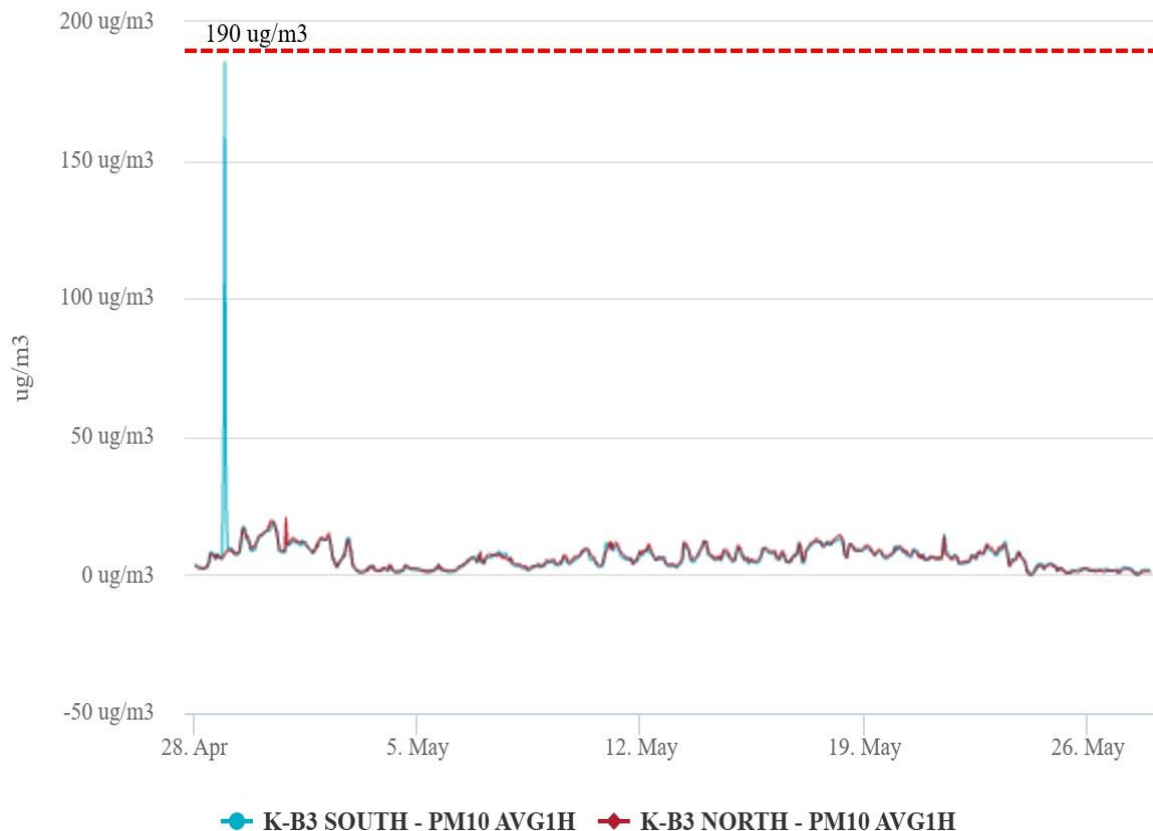
No vibration data recorded exceeded the 1.00mm/s limit at both the North and South monitoring stations on the Velindre site for the period covering 28/04/2025-27/05/2025.



No vibration data recorded exceeded the 1.00mm/s limit at the Church monitoring station outside the Velindre site for the period covering 28/04/2025-27/05/2025.

Air Quality

Internal air quality monitors measure 'Particulate Matter' PM1, PM2.5 and PM10. These refer to the size (microns) of the particulates, with PM10 being the largest. Limits on PM10 must not exceed 40µg/m³ on an annual average and no more than 35 instances per year of 50µg/m³ daily average.



There was an exceedance recorded from the South monitoring station of PM10 on 28/04/25. This anomaly was investigated and found it coincided with a calibration. The north monitor does not display the same elevated level for the time period.

The mean average for hourly recordings of PM10 (28/04/25-27/05/25) are as follows:

South monitoring station PM10 AVG1h (ug/m³) – 6.40ug/m³

North monitoring station PM10 AVG1h (ug/m³) – 6.32ug/m³

Water Quality

The nVCC site features drainage systems to manage water onsite which is directed to an attenuation pond. The pH of the water in the attenuation is monitored on a weekly basis. A pH range is set by Dwr Cymru Welsh Water with a lower limit of pH6 and upper limit of pH 11.

No lower or upper exceedances recorded in weekly measurements June 2025. (Water level

Date	Time	Water Level (cm)	Level Status	Equipment Used	Weather Conditions	Action Taken
2-May-25	11:00am	0	Low (pH 9.28)	pH Monitor	Sunny	None
9-May-25	12:00pm	0	Low (pH 9.39)	pH Monitor	Sunny	None
16-May-25	12:00pm	0	(pH 9.69)	pH Monitor	Sunny	None
23-May-25	12:45pm	0	(pH 9.25)	pH Monitor	Sunny	None
30-May-25	10:15am	10	(pH 8.10)	pH Monitor	Overcast	None

measures "0cm" in some periods due to depth/measurement gauge stick out of use)