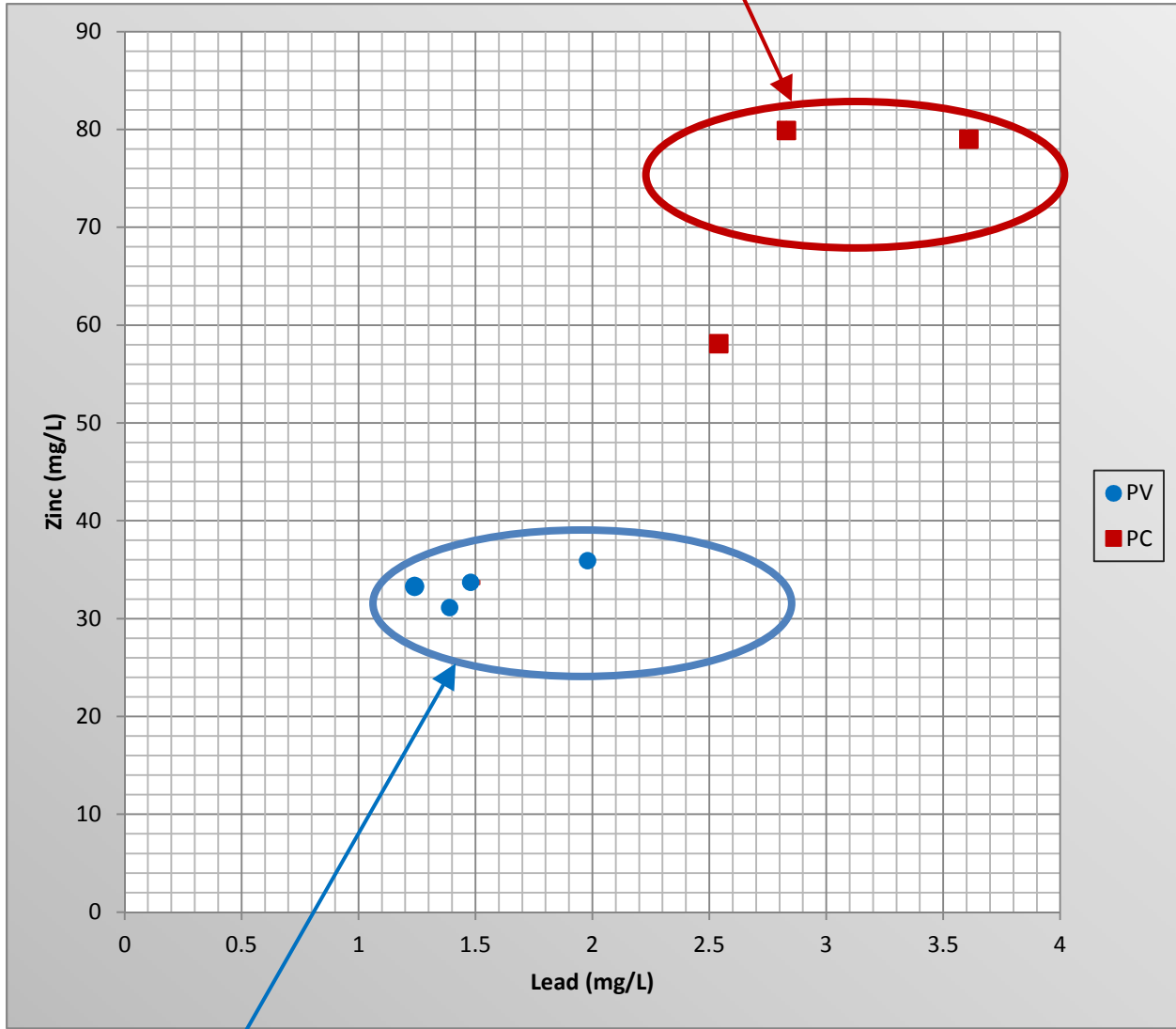


Typical control test results with PC



Typical control test results with PV

Shown above are recent test results using a synthesized waste (silica sand medium coated with lead acetate and zinc oxide; (STLC Pb = 41.5 mg/L, Zn = 1880 mg/L)) treated with the same concentration (20% by weight) of PV Cement (PV) and Portland cement (PC). The highlighted areas show typical results for testing using the synthesized waste control testing. Results differ from natural, uncontrolled testing due to greater variability and heterogeneity of waste streams. Real world testing has shown comparable treatment results albeit at different levels from the control testing shown above. Results in treatment with PV Cement versus Portland cement has been the difference between exceeding treatment limits (STLC, Pb = 5.0 mg/L, Zn = 250 mg/L) with PC and conforming to the regulatory limits with PV Cement treatment, especially for soluble concentrations of zinc.

	Lead (mg/L)	Zinc (mg/L)	pH of extract
Raw A	44.7	2090	5.37
Raw B	40.5	1810	5.34
Raw C	39.4	1740	5.35
Average	41.5	1880.0	5.4
PC A	2.83	79.9	12.2
PC B	2.54	58.1	12.24
PC C	3.61	79	12.32
Average	2.99	72.3	12.3
PV A	1.24	33.3	11.44
PV B	1.48	33.7	11.66
PV C	1.39	31.1	11.87
PV D	16.8	513	11.84
PV E	1.98	35.9	12.05
Average	1.5	33.5	11.8
PV vs. PC	-50.1%	-46.3%	-

Data from confirmation dosage testing (20% dosage) for incinerator ash treatment. Tests with statistical outliers beyond 2- σ have been omitted.