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TABLE 1. *Commonly used extractions and the main minerals extracted (for methodology see Poulton and Canfield, 2005).*

Extraction	**Main Minerals Extracted**
Na acetate, pH 4.5, 24 hr	Carbonate Fe, including siderite and ankerite
Na dithionite, pH 4.8, 2 hr	Ferrihydrite, lepidocrocite, goethite, hematite
NH_4 oxalate, pH 3.2, 6 hr	Magnetite
Boiling 12 N HCl, 2 mins	All Fe (oxyhydr)oxides, carbonate Fe and some silicate iron

TABLE 2. *Modern sediment proxy values (data from Anderson and Raiswell, 2004; Raiswell and Canfield, 1998).*

Sediment	**Fe_{HR}/Fe_T**	**Fe_{py}/Fe_{HR}**
Black Sea	0.70±0.19	0.88±0.02
Cariaco Basin	0.51±0.03	0.89±0.02
Dysoxic or Fluctuating	0.28±0.10	0.63±0.27
Continental Margin + Deep Sea	0.26±0.08	0.10±0.17

TABLE 3. *Best practice thresholds for the iron proxies.*

	Best Practice Thresholds			
Environment	**DOP***	**Fe_T/Al****	**Fe_{HR}/Fe_T**$^+$**	**Fe_{py}/Fe_{HR}**$^{++}$**
Oxic, Dysoxic	<0.45	0.55±0.11	<0.22 or 0.38	<1.0
Anoxic, Ferruginous	<0.75	>0.66	0.22(0.38) to >0.7	0.22(0.38)-0.7
Euxinic	>0.75	>0.66	>0.7	>0.7

* See DOP section; consider constraints 1-5

**See Fe_T/Al section; consider local thresholds and dilution effects. Hydrothermal inputs possible for $Fe_T/Al > 2$.

$^+$See Fe_{HR}/Fe_T section; consider compositional constraints (Fe_T >0.5%, organic C >0.5%). Modern sediment values in brackets.

$^+$See Fe_{py}/Fe_{HR} section; consider in conjunction withFe_T/Al and Fe_{HR}/Fe_T**.** Modern sediment values in brackets.