

Figure 1. Map of marine shelf of San Diego County. Bathymetric units are meters. Locations of littoral cells, submarine canyons, outfalls (PLOO and SBOO), rivers, and Kelp Forests (shaded areas close to shore) are indicated.

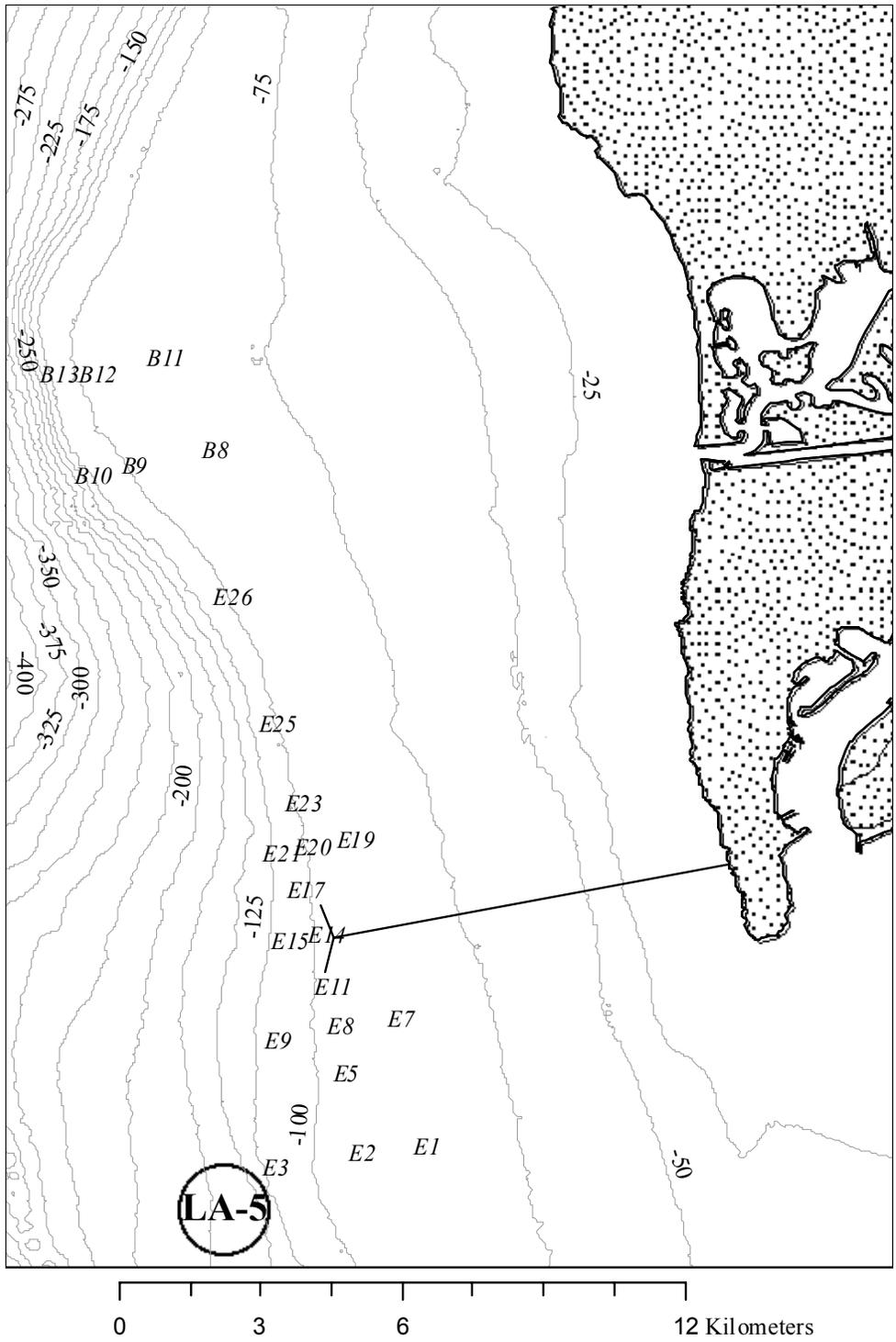


Figure 2. Map of benthic monitoring stations offshore of Pt. Loma. Bathymetric units are meters. The location of the LA-5 dredge disposal site is also indicated.

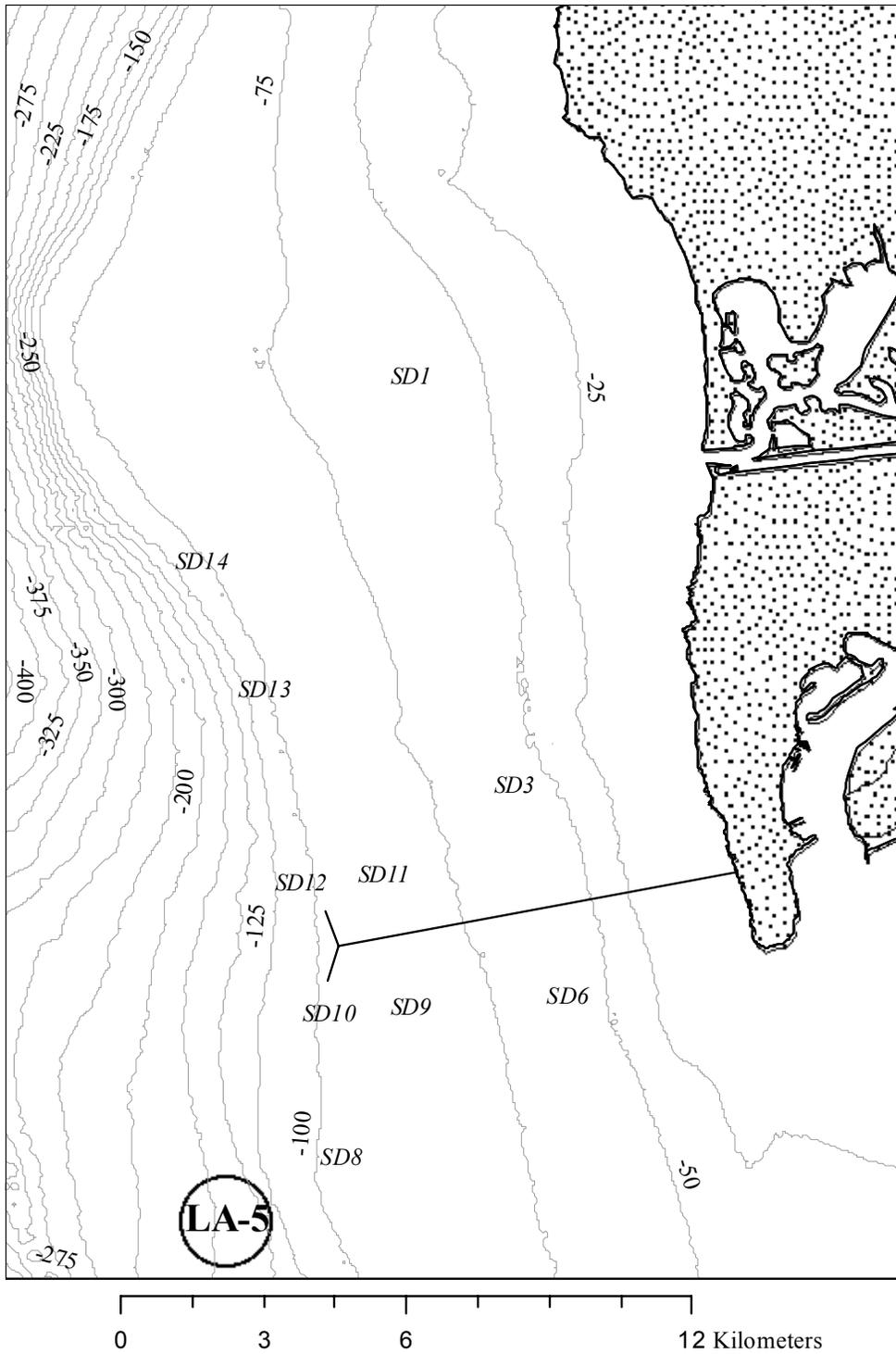


Figure 3. Map of megabenthic trawling stations offshore of Pt. Loma. Bathymetric units are meters. The location of the LA-5 dredge disposal site is also indicated.

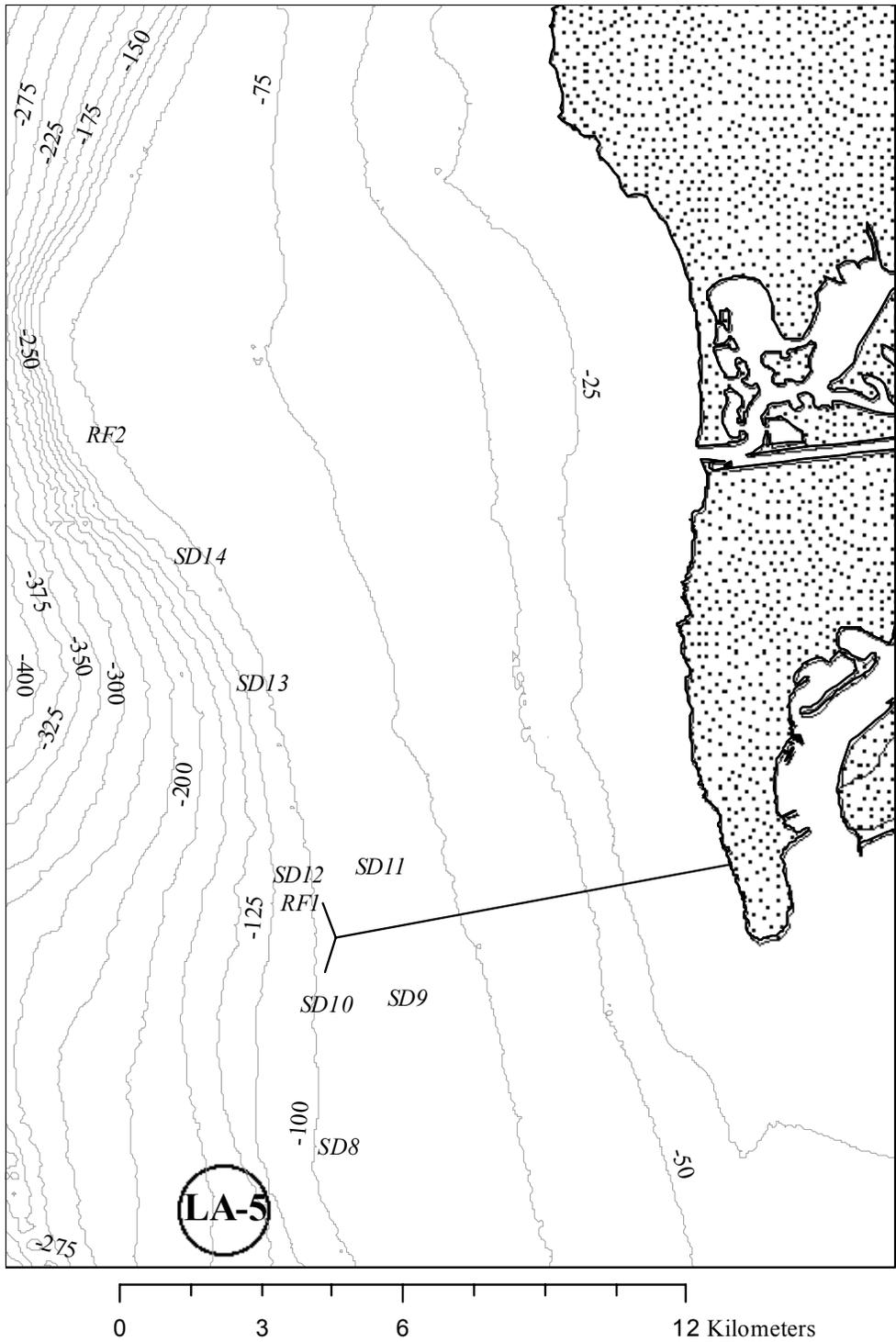


Figure 4. Map of bioaccumulation study sites offshore of Pt. Loma. Bathymetric units are meters. The location of the LA-5 dredge disposal site is also indicated.

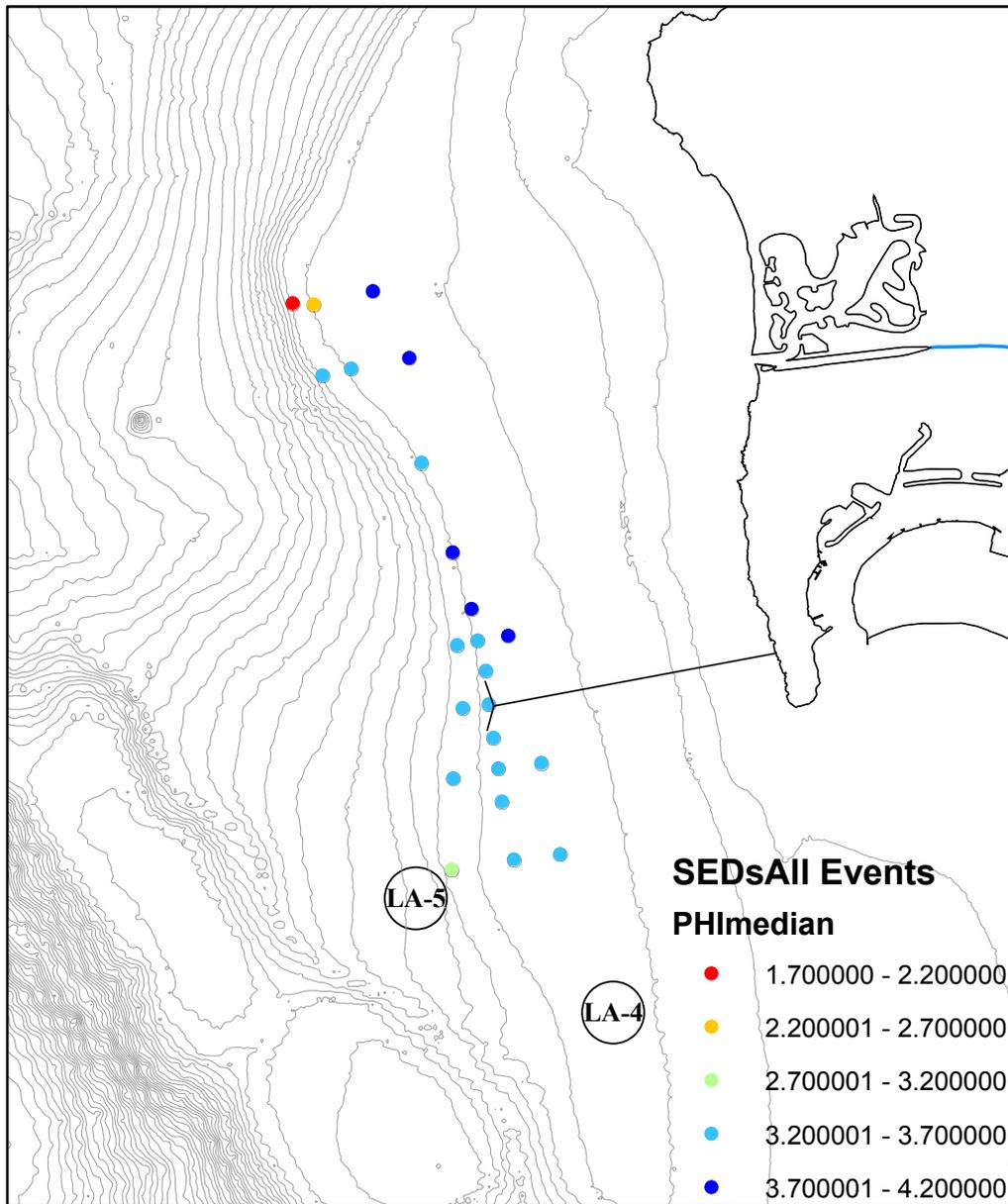
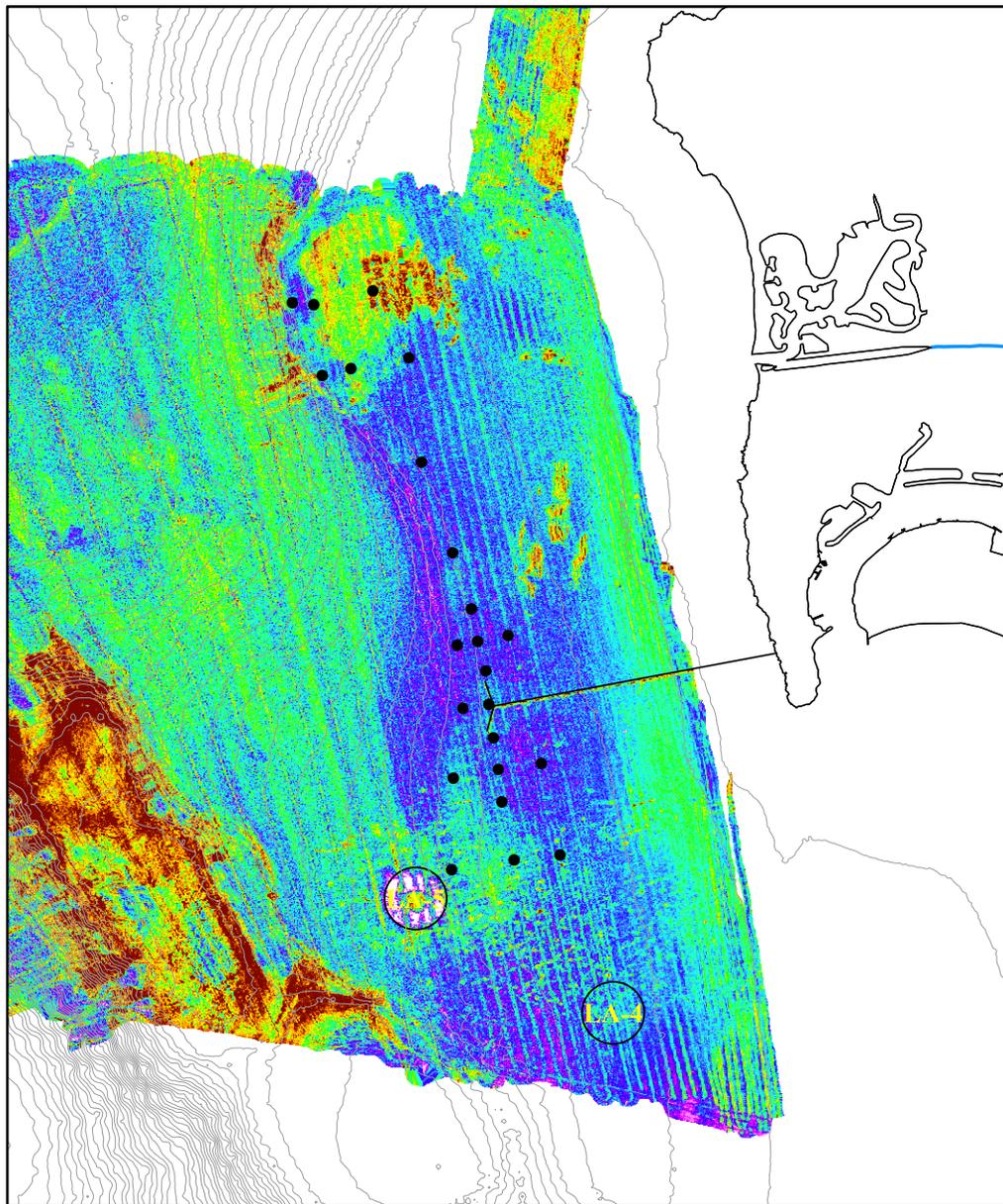


Figure 5. Mean of median grain sizes (PHI) for PLOO sediment stations.  
 Note, PHI increases with decreasing grain size.

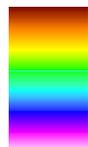


Figure 6. Satellite imagery of Pt. Loma during the period that the outfall was ruptured in 1992. Note the spatial distribution of waters emanating from Mission and San Diego Bays, and the current reversal of plume. False color represents surface temperatures. Warmer temperatures are indicated by red.



**sdbackscatter**

**Value**



High : 248.447449

Low : 99.524330

Figure 7. Spatial distribution of backscatter on the shelf off San Diego. Data are from a study by Gardner et al. (1998).

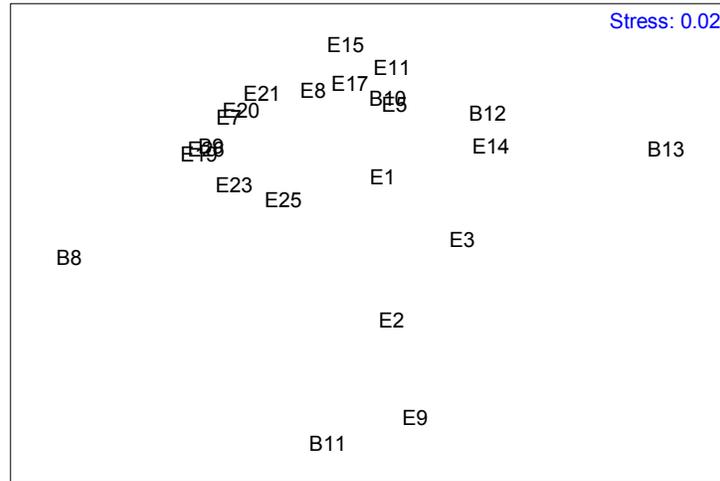


Figure 8. MDS plot of sediment composition. Data used for analysis are from sediment samples from 2001 and include median value of PHI, standard deviation of PHI (c.f., sorting), % coarse, % sand, and % fines. Data were square-root transformed.

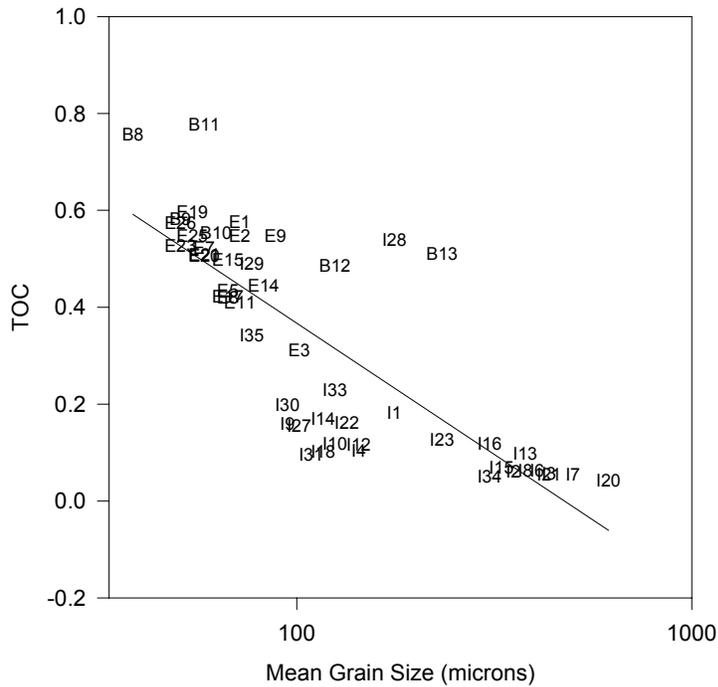


Figure 9. Concentrations of total organic carbon (TOC) plotted as a function of mean grain size (1000 microns=1mm) for the benthic monitoring stations of the PLOO and SBOO.

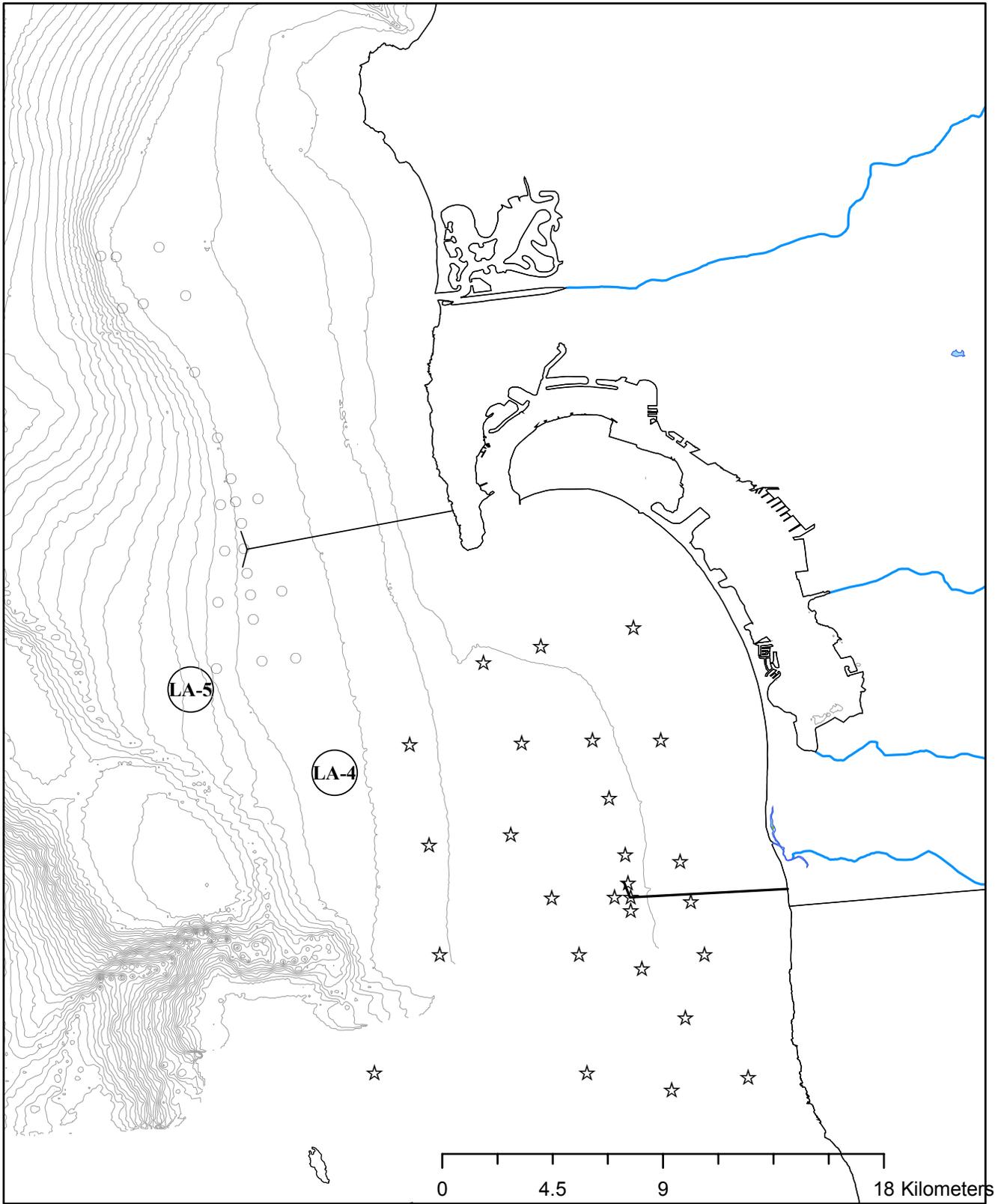


Figure 10. Map showing locations of benthic monitoring stations associated with the Pt. Loma (circles) and South Bay (stars) monitoring program.

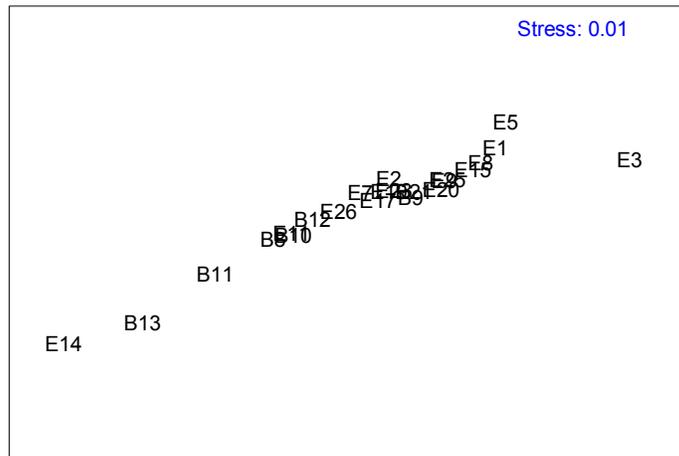


Figure 11. Plot of MDS results for analysis of organics in sediments. Data are from 2001.

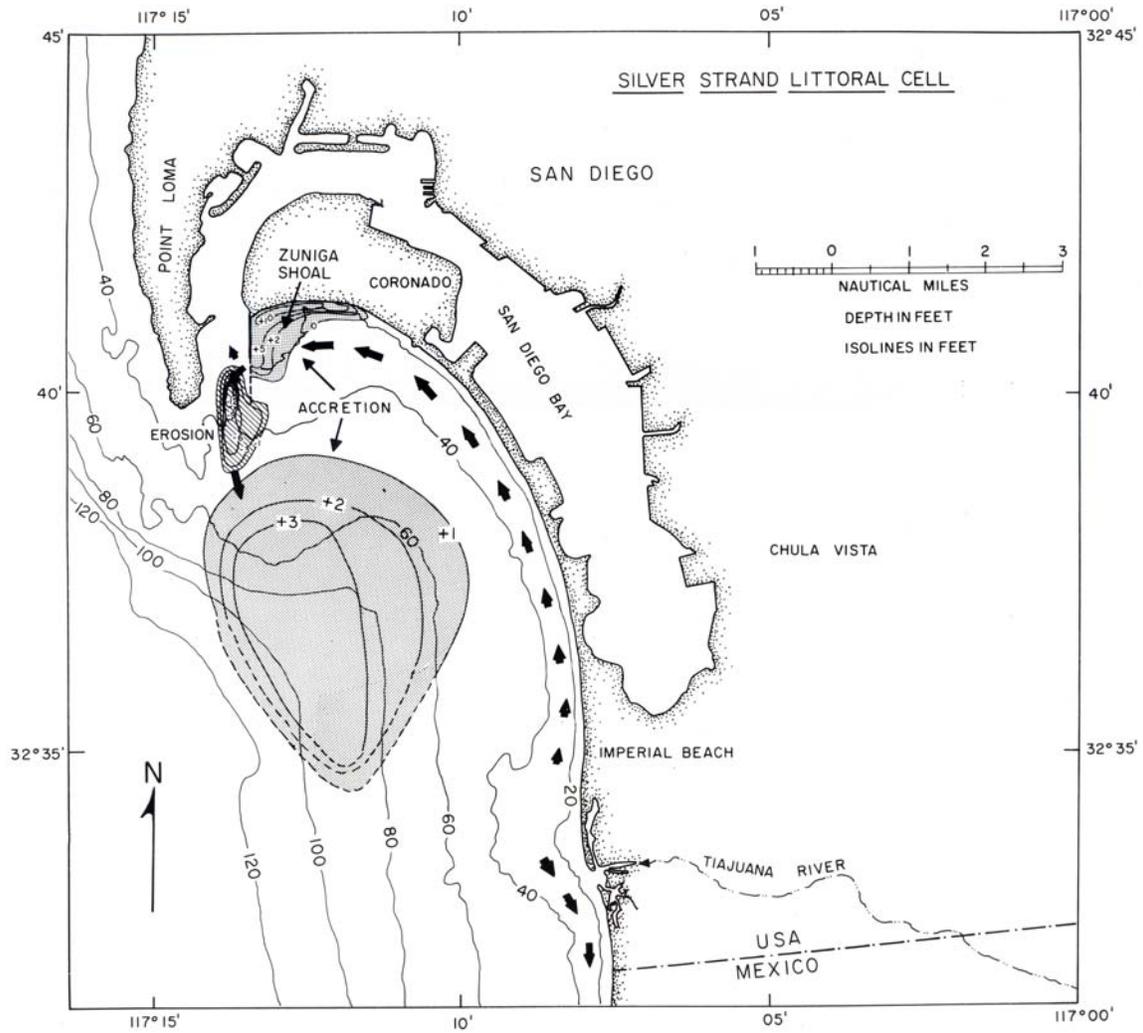


Figure 12. Map indicating sediment transport in the Silver Strand Littoral Cell (from Inman, 1976). Zones of sediment accretion and erosion are indicated. Bathymetric units are feet.

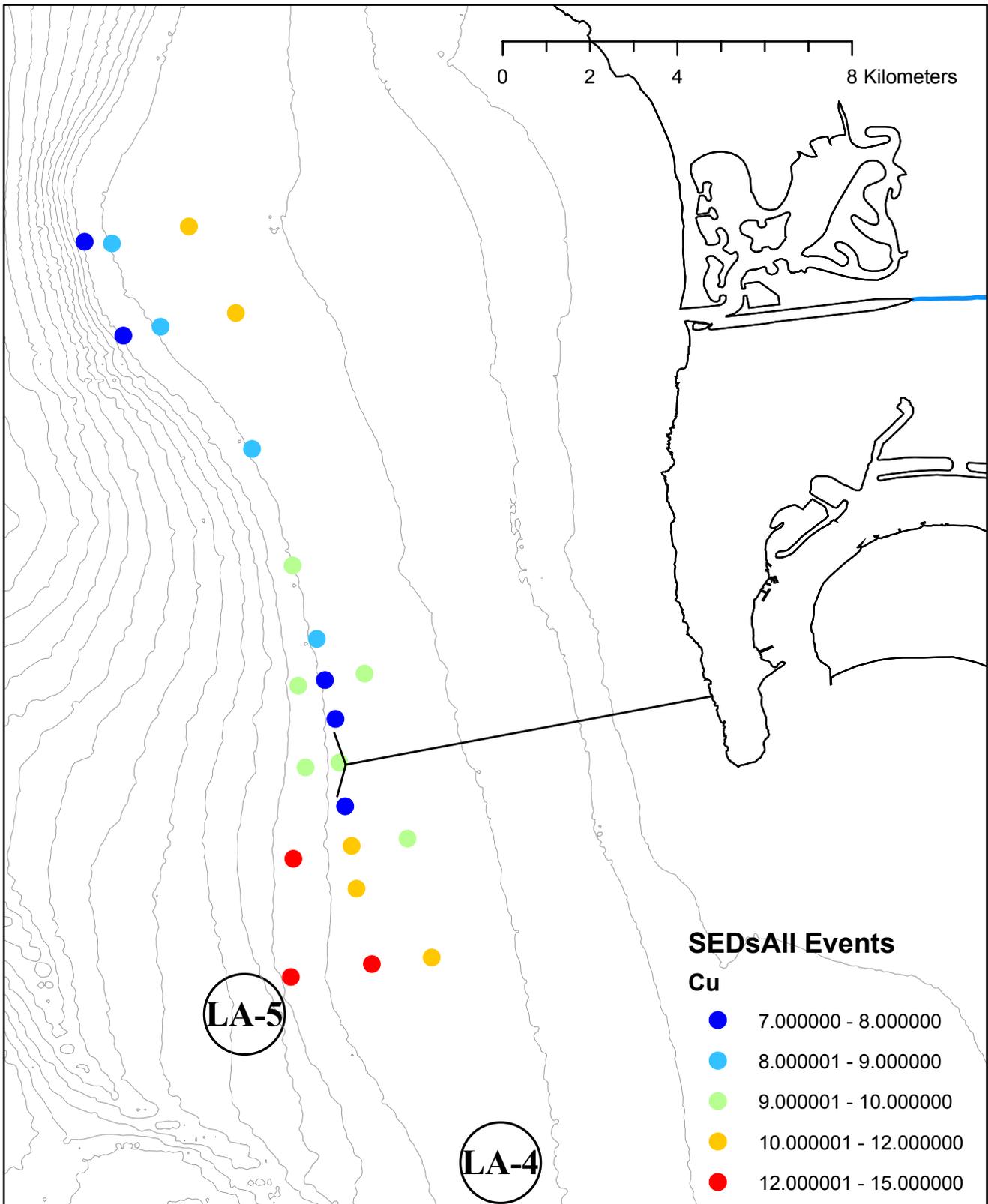


Figure 13. Concentrations of copper in sediment samples (ppm). Data are from 2001.

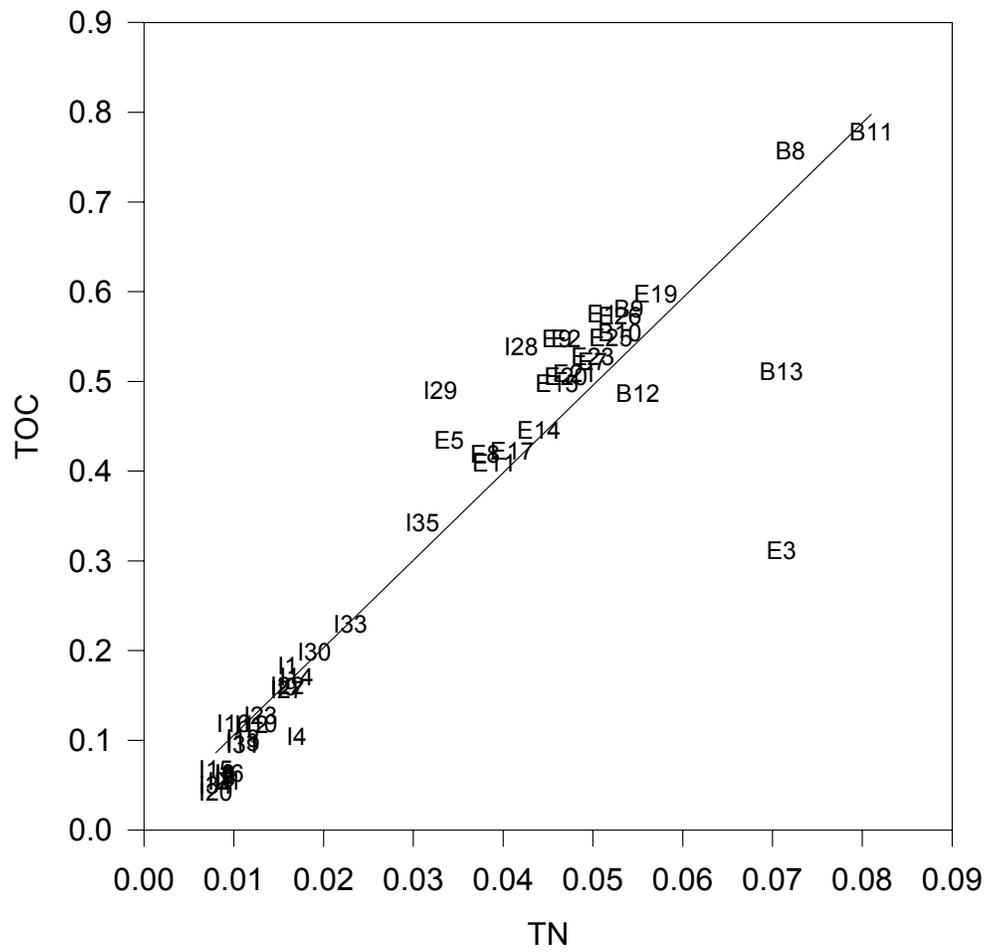


Figure 14. Relationship of total organic carbon and total nitrogen from samples collected as part of the Pt. Loma and South Bay Ocean outfalls. South Bay stations are 'I' stations and Pt. Loma stations are 'B' and 'E'. Values are means of 2001 data.

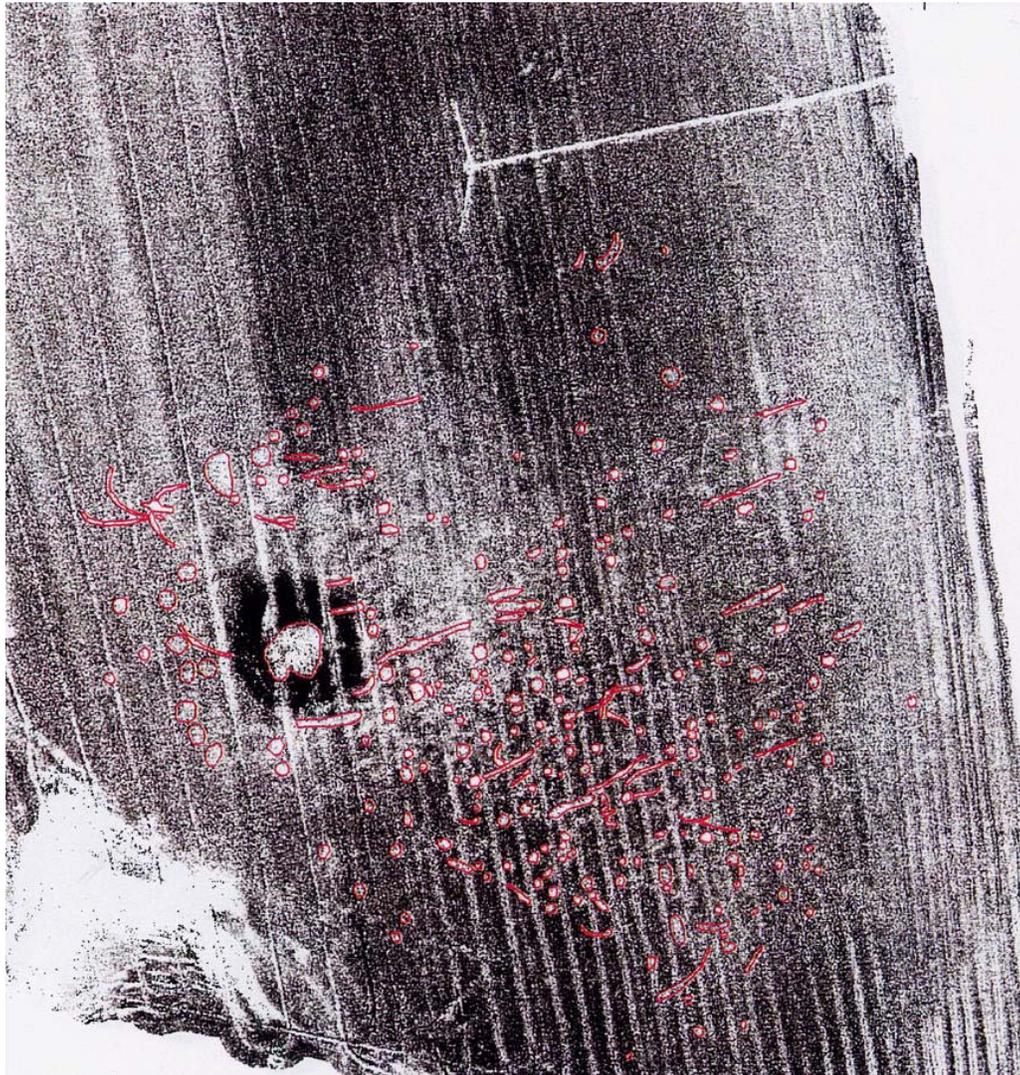


Figure 15. Backscatter image showing spatial distribution of dredge disposal mounds (outlined in red). Dark circle with concentric lighter circle is the LA-5 dredge disposal site. The Pt. Loma Ocean Outfall is clearly visible. Survey from Gardner et al., 1998).

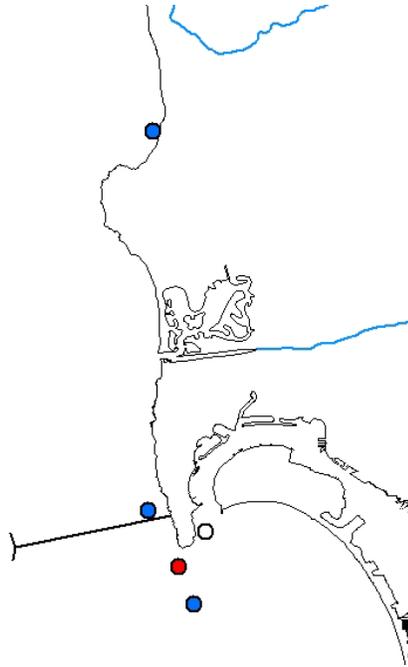


Figure 16. Map of San Diego indicating locations where mussels were outplanted in cages on moorings near the surface and bottom (see text for description of sites). The open circle indicates the site within the mouth of San Diego Bay where the mooring was lost. The red circle indicates the location of the 'hot spot' where concentrations of some contaminants were elevated (see text).

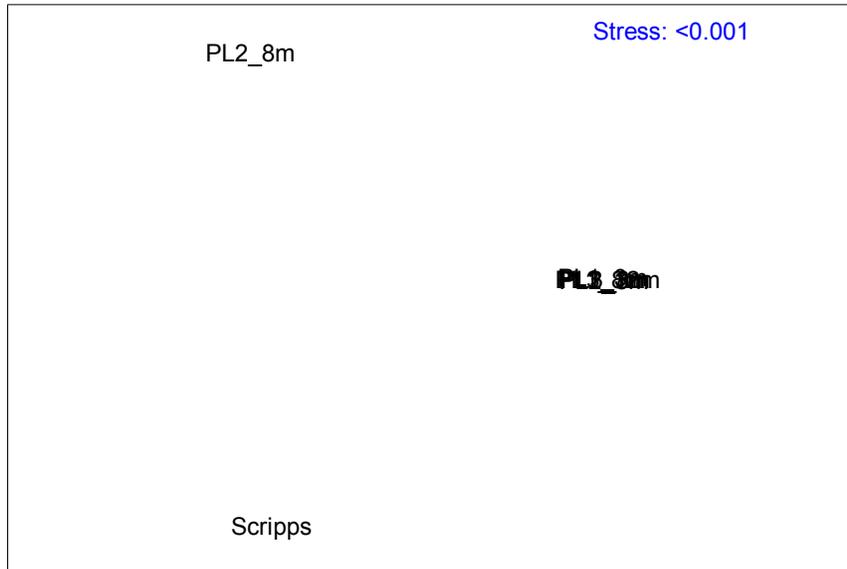


Figure 17. Results of MDS analysis. Analytes used in the analysis included organics, heavy metals, and PCB's in mussel tissue. A site near the Scripps pier was used as a reference site. All samples at all depths, except for the reference spot and the bottom sample near the mouth of the San Diego Bay (indicated by red circle in Fig. 15 and by "PL2\_8m" in this figure), clustered closely together. A stress level of zero indicates that the results are unambiguous.