movement from recharge area to the position of the spring. For example, the springs in mountainous terrane usually have no other plausible source other than nearby recharge because of 1) elevation of occurrence, 2) absence or distant separation from higher recharge areas other than those immediately adjacent, 3) discharge pulses that follow spring runoff and 4) low temperature water which suggests shallow circulation. However, the springs that fall into the higher water chemistry range of the local flow system classification are the least well documented as to their true system relationships. Many of these occur in or along the flanks of alluvial basins, and in such environments could be positions of discharge for short interbasin flow systems.

ions versus Cl+SO_4 ions found in the large springs associated with the carbonated rock terrane. Also shown are the discussed boundaries of flow system classification, the springs assayed for tritium, and the springs that displayed significant tritium. Although the scatter of data is not extreme, it is believed that part of the scatter relates to analytical problems produced by using several sources of analysis, and part relates to local hydrogeological environments. For example, many springs in the sample issue through at least a limited thickness of alluvium and many different temperatures of water are involved. It is also possible that various carbonate rock sequences contain different concentrations of the considered ions, and this

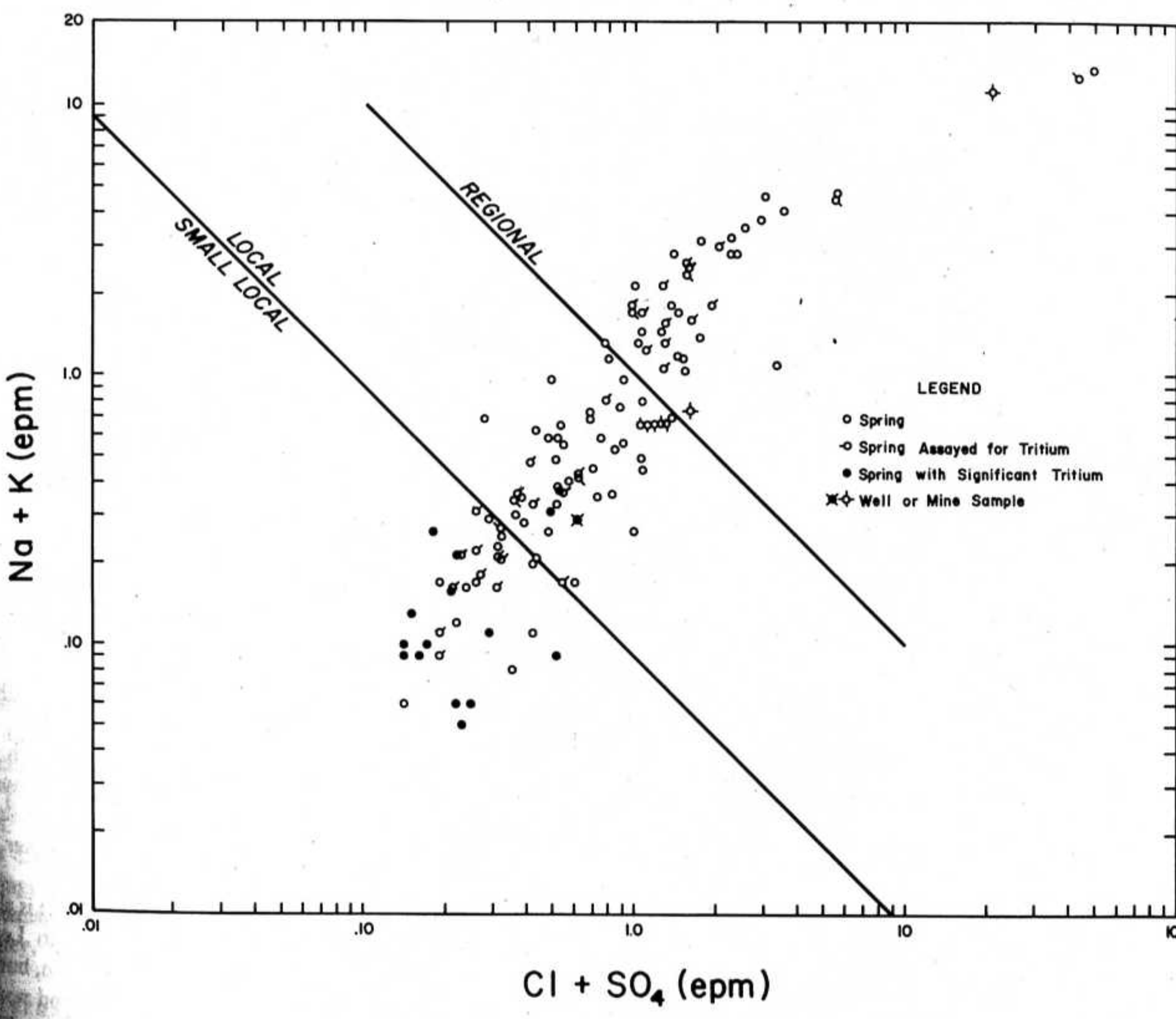

FIGURE 13 - Plot of the relation between water chemistry, tritium, and spring classification