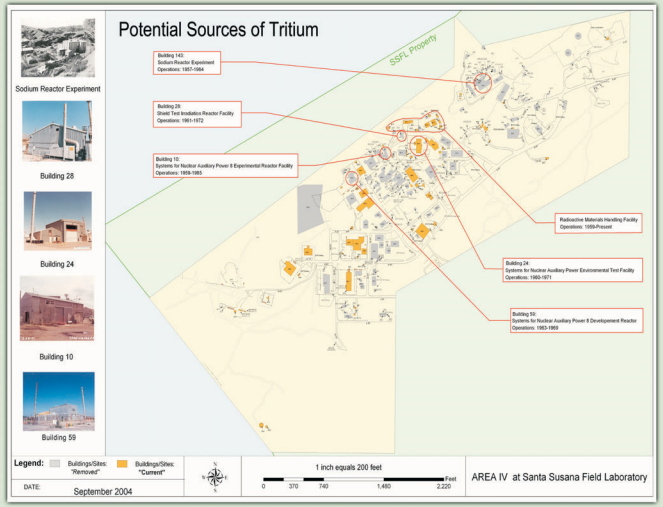
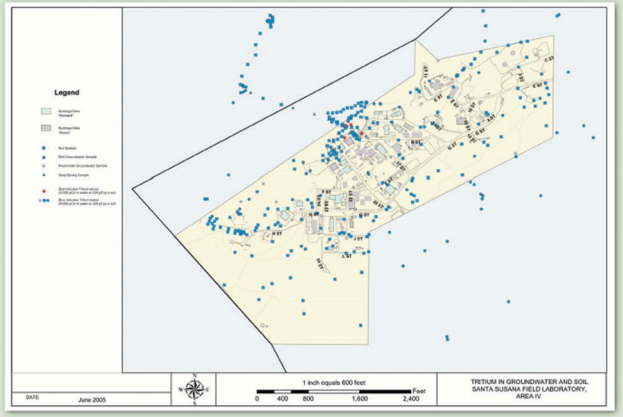
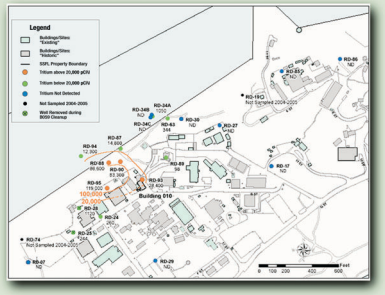
Tritium Investigation Continues



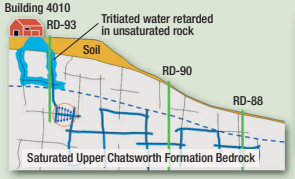
Where Have We Tested For Tritium?



Tritium in Groundwater



How We Think Tritium Moves in Groundwater



- Test reactor operation caused formation of tritium
- As tritiated water moves through unsaturated bedrock, some tritium is retarded within the rock particle structure
- Tritium decays and reduces by one-half every 12 years
- Rock/aquifer properties retard the movement of tritium

What Is the Likely Source of Tritium?

We believe Building 10 is the likely source of the tritium.

What Happened at Building 10?

- Constructed in 1959. Featured three subsurface vaults extending at least 14 feet below grade
- A prototype space nuclear reactor was tested in one of the vaults until 1960 and again from 1963 to 1965
- A nuclear reactor produces energetic particles called neutrons
- Tritium is a hydrogen atom with two extra neutrons
- Tritium was found in the concrete vault
- Found highest concentrations to date in the bedrock samples near building 10
- Building 10 was decontaminated and demolished in 1978

What We Have Sampled:

- Water from soil samples
- Water from rock samples
- Water from ground water wells

Tritium Investigation Update

Next Steps . . .

- Continue monitoring groundwater wells
- Analyze additional rock core samples
- Install new groundwater wells to further define vertical and horizontal extent of tritium in groundwater