collected for groundwater (nine wells), surface water (four locations), sediment (one location), surface soils (seven locations), vegetation (four locations), and air (from three stack emissions) for gross alpha/gross beta analysis (air samples are analyzed for gross alpha only). The license sampling also includes the effluent sampling conducted under the NPDES permit.

1.6 AREAS OF CONCERN AND POTENTIAL CONTAMINANTS OF CONCERN

Records of historical operations at the Hematite Facility and results of previous investigations were used to develop the following list of AOCs and associated RCOPCs and CCOPCs (Tables 1 and 2 of LBG 2003, see Fig. 1.4 for map of AOCs):

- AOC #1 Groundwater (PCE, TCE and associated degradation products, fluoride, ^{238}U, ^{235}U, ^{234}U, and ^{99}Tc),
- AOC #2 Surface Water Features (PCE, TCE and associated degradation products, fluoride, ^{238}U, ^{235}U, ^{234}U, ^{99}Tc, and ^{232}Th),
- AOC #3 Burial Pits (PCE, TCE and associated degradation products, fluoride, ^{238}U, ^{235}U, ^{234}U, ^{99}Tc, and ^{232}Th),
- AOC #4 Evaporation Ponds (PCE, TCE and associated degradation products, fluoride, ^{238}U, ^{235}U, ^{234}U, ^{99}Tc, and ^{232}Th),
- AOC #5 Former Leach Field/Sanitary Sewer System (^{232}Th, PCE, TCE and associated degradation products, fluoride, ^{238}U, ^{235}U, ^{234}U, and ^{99}Tc),
- AOC #6 Soil Beneath Buildings (PCE, TCE and associated degradation products, fluoride, ^{238}U, ^{235}U, ^{234}U, ^{99}Tc, and ^{232}Th),
- AOC #7 Limestone Storage and Limestone Fill Areas (^{238}U, ^{235}U, ^{234}U, ^{99}Tc, ^{232}Th, and fluoride),
- AOC #8 Outdoor and Shallow Surface Area (PCE, TCE and associated degradation products, fluoride, ^{238}U, ^{235}U, ^{234}U, ^{99}Tc, and ^{232}Th),
- AOC #9 Former Gas Station [PCE, TCE and associated degradation products, semivolatile organic compounds (SVOCs), total petroleum hydrocarbons, and metals],
- AOC #10 Gas Pipeline (PCE, TCE and associated degradation products, fluoride, ^{99}Tc, and ^{232}Th),
- AOC #11 Red Room Roof Burial Area (^{238}U, ^{235}U, ^{234}U, ^{232}Th, and fluoride),
- AOC #12 Domestic Well #3 (PCE and TCE and associated degradation products),
- AOC #13 Deul's Mountain (^{238}U, ^{235}U, ^{234}U, ^{232}Th, and fluoride),
- AOC #14 Cistern Burn Pit Area (PCE, TCE and associated degradation products, SVOCs, metals, dioxin, fluoride, ^{238}U, ^{235}U, ^{234}U, and ^{232}Th), and

- AOC #15 Joachim Creek Bridge. This area was included as an AOC to investigate if materials were buried at this location. No sampling was planned for this AOC (LBG 2003). A geophysical survey was conducted to investigate the AOC (Geophex 2005, also summarized in Sect. 2.8).

The AOCs generally align with the Hematite Site features that are described in Sect. 1.4 of this RI report. With the exception of Joachim Creek Bridge, which was addressed through a geophysical survey (Geophex 2005), the RI field activities were conducted such that soil, sediment and/or groundwater samples were collected from each of the AOCs.

CHAPTER 1 FIGURES

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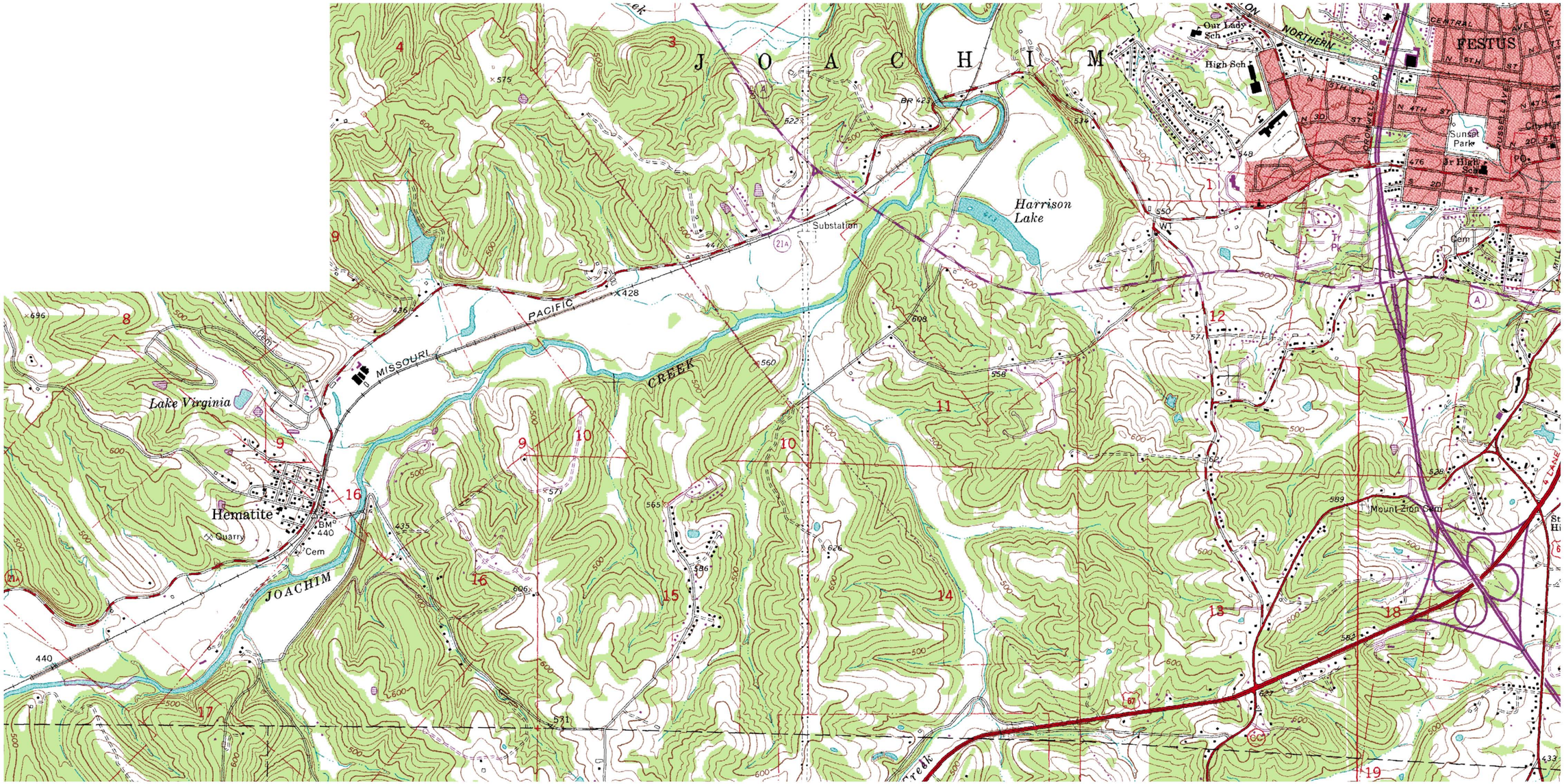

Fig. 1.1. Location of Hematite Site.