

## AREA OF POTENTIAL EFFECT

A field view of the project area was conducted on March 23, 2005 with representatives from DeIDOT, the SHPO and a local property owner. Based on discussion during the field view, areas with the potential to contain archaeological materials were visually identified. Disturbed areas were also identified and precluded from archaeological testing. It was determined that KCI would conduct archaeological testing within the plotted Temporary Construction Easement (TCE) limits and potential staging areas (see **Figure 2**).

The lower terrace along the northeast stream bank exhibited characteristics of a natural landform with the potential to contain buried archaeological deposits. Thus this area became the focus of archaeological and geomorphological testing (see **Figure 2**).

In addition, Mr. John Biggs III, a local historian and property owner, indicated that an historic well associated with Wooddale may be located within the anticipated

construction areas for the project. He provided copies of an historic map indicating the historic well location (**Figure 6**).

### **RESULTS OF FIELD TESTING**

Four shovel test pits (STPs), one hand auger test, and one deep test unit (TU) were excavated along the northeast stream bank of Red Clay Creek, in the area that it anticipated to be used for staging activities during construction (see **Figure 2**).

**STP 1** was located 5 meters SW of Utility Pole # 6 (UP 6) just east of the bridge construction slope and fill line associated with the old bridge. Construction debris and rubble were present in the subsurface from 0-50 centimeters below surface (cmbs). Excavation ceased at 50 cmbs when the fill became impenetrable. No artifacts were recovered.

**STP 2** was located 15 meters east of STP 1. The upper 20 cm of the profile designated (AC horizon) consisted of recent flood deposits composed of organic-rich (7.5YR 4/1) dark gray silt laminated with pale unoxidized sands. One (1) flat discoid lead fragment was recovered from this horizon. The AC horizon was underlain by a BC horizon composed of a 7.5YR 4/6 strong brown micaceous silt loam with weak sub-angular to sub-rounded peds. The BC horizon represents overbank silts deposited on a vertically aggrading floodplain. The BC horizon is interpreted as an intact alluvial deposit with the potential to preserve archaeological deposits. However no artifacts were recovered from this horizon.

Visual inspection of the stream cut bank just east of STP 2 revealed that the terrace surface was elevated approximately 2 meters above the present pool level of the stream. At 87 cmbs a hand auger test was initiated at the base of STP 2. From 87-150 cmbs the profile coarsened with depth, grading from a silty loam to a fine micaceous sand CB horizon. At 150 cmbs, the fine sand exhibited strong reduction mottling, and water rounded pebbles and fragments of weathered bedrock (C horizon) were present. Auger refusal occurred at 180 cmbs.

**STP 3** was located 15m ENE of STP 2. A thin layer of organic-rich flood silt (A) was present from 0-10 cmbs. This was underlain from 10 -50 cmbs by a 7.5YR 4/6 strong brown micaceous silt loam (BC horizon). At 50 cmbs a large fragment of hornblende gneiss was encountered. The petrology of this fragment is consistent with that of outcropping rock just to the north of the floodplain, and may be associated with the construction of the hydro-electric race which cuts through similar rock. No artifacts were recovered.

**STP 4** was placed 15 m east of STP 3. From 0-22 cmbs an AC horizon was present. This horizon represents recent flood deposits consisting of fine micaceous sands laminated with partially decomposed organic material. Underlying the AC horizon, a buried historic horizon (Ab) composed of 10YR 4/3 micaceous silt loam with organics extended from 22-48 cmbs. A cut nail was recovered from the base of the

Ab horizon at 48 cmbs. A second AC horizon underlay the Ab horizon. An unweathered burnt tree limb with bark fragments still visible was present from 48-58 cmbs. No additional artifacts were recovered from this horizon.

**Deep Test 1** was located 5m SW of STP 4 astride the natural levee of Red Clay Creek. Due to the steep construction slope leading to the lower terrace, heavy equipment access was restricted in this area. Thus the deep test was hand excavated. Following OSHA guidelines for benched excavations, a 2x2 meter block was excavated to a depth of 50 cmbs. A 1x 1 meter excavation was then placed in the center of the 2 x 2 meter block and excavated to a depth of 150 cmbs. At 150 cmbs a 0.50x0.50 meter block was excavated to channel lag. Approximately 1/3 (33%) of the excavated soil was screened through ¼ inch hardware cloth. The stratigraphic sequence was recorded and mapped (**Figure 7 and Plate 3**).

Recent flood deposits consisting of 10YR6/2 light brownish gray fine to medium grained massive sands laminated with organics extended from 0-10 cmbs (C horizon).

This horizon, in turn, was underlain by three discrete stacked AC horizons; the upper extending from 10-35 cmbs composed of a 10YR4/6 dark grayish brown fine sand loam lightly flecked with organics. The intermediate designated 2AC horizon extended from 35-55 cmbs and was composed of 7.5YR4/2 dark grayish brown fine silty sand with light organic flecking. The lower AC horizon (3AC) extended from 55-70 cmbs and was composed of a 10YR4/3 brown fine silty sand with light organic flecking. Coal slag and thin plastic (possibly from fertilizer packaging) were present in the 3AC horizon. From 70-87 cmbs a 3AE horizon containing organics leached from the overlying 3AC horizon was present. No artifacts were recovered from this horizon.

A thick C horizon (3C) with a layer of water-rounded cobbles at the base was present from 87 – 130 cmbs. This deposit represents a disconformity in the profile associated with a high discharge event and lateral migration of the stream channel, with the cobbles at the base indicating a channel position north of the existing channel. No artifacts were recovered from this deposit.

A cambic B-horizon (Bw) composed of a 7.5YR 5/6 strong brown fine micaceous sandy silt, with weak subrounded to subangular blocky structure, extends to channel lag at 220 cmbs. The Bw horizon begins just below the disconformity marked by the cobble layer at 130 cmbs. At 180 cmbs the sand content of the 4Bw horizon increases, along with pronounced redox mottling, leading to the designation 4Bwg.

KCI archaeologists also investigated the areas that historic mapping indicated had contained a train station and a well. Field investigations did not verify the well location, nor did they uncover evidence of the former train station.

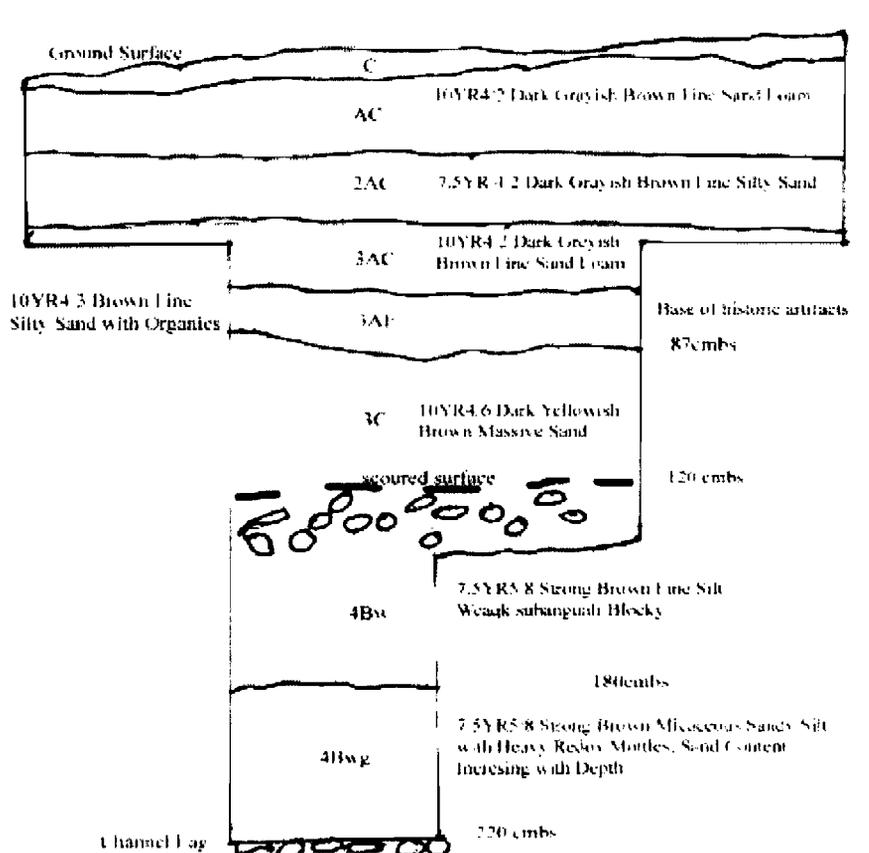


Figure 7: Profile Drawing of Deep Test 1



**Plate 3:** West Wall Profile of Deep Test 1

Based on comparisons with historic maps and existing conditions, it appears the former train station location is currently under the existing roadway leading to the temporary bridge disturbance directly adjacent to the roadway (**Plate 4**). No archaeological remains of the train station were found.



**Plate 4:** Possible Location of Former Train Station.  
(Note: see Plate 2 for comparison to historic photograph.)

There were no surface indications of a former well within the area indicated on the historic map. Surface conditions of the area appear to be disturbed and overlain with fill (**Plate 5**). No archaeological evidence of an historic well was found.