RESULTS OF ARCHAEOLOGICAL MONITORING AT THE PANHANDLE SMELTING AND REFINING COMPANY SITE (10BR539), NEAR PONDERAY, IDAHO, IN MARCH 2023

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Introduction

Alta Science & Engineering, Inc. (Alta) is working with the City of Ponderay (City) to develop a public park in proximity to Lake Pend Oreille at the location of the former Panhandle Smelting and Refining Company (PSRC) site. Prior to development of the park, Alta and the City are conducting a series of soil tests. After reviewing a description of the planned undertaking, the Idaho State Historic Preservation Office (SHPO) recommended that an archaeologist monitor all ground-disturbing excavation associated with soil testing in the vicinity of the PSRC site. Monitoring was previously conducted at the site in November 2011 (Sappington and Longstaff 2012a) and again in May 2012 (Sappington and Longstaff 2012b) prior to the development of the adjacent Pend Oreille Bay Trail. At that time historic cultural resources were encountered in 16 of the 19 test pits and it was evident that historic artifacts and features are frequent in the vicinity of the site.

The PSRC site is an inactive facility located approximately 400 feet south of the community of Ponderay. The PSRC site consists of original smelter ruins, a small pile of unprocessed ore, several building depressions, and a slag dump. The slag dump appears to be weathering onto the beach and it is known locally as Black Rock.

The PSRC site was recorded as archaeological site 10BR539 in 1985 (Miss and Hudson 1986). Prior to a modification of a railroad grade, the U. S. Army Corps of Engineers, Seattle District (COE), requested an evaluation of the site to determine its eligibility for nomination to the National Register of Historic Places (Renk 2001). That report provides an excellent history of the smelter and the author concluded that 10BR589 was eligible for the National Register under criteria A and D (Renk 2001).

Access to the PSRC site is by the adjacent trail which has increased pedestrian and vehicle traffic and the area has become a popular swimming and recreation destination during the summer. There are elevated levels of lead, zinc, and other metals in the slag dump and nearby soil. The topography is mostly glacial terrace with some localized flood plain and the soils are predominantly sand overlying silt and clay (IDEQ 2006:4).

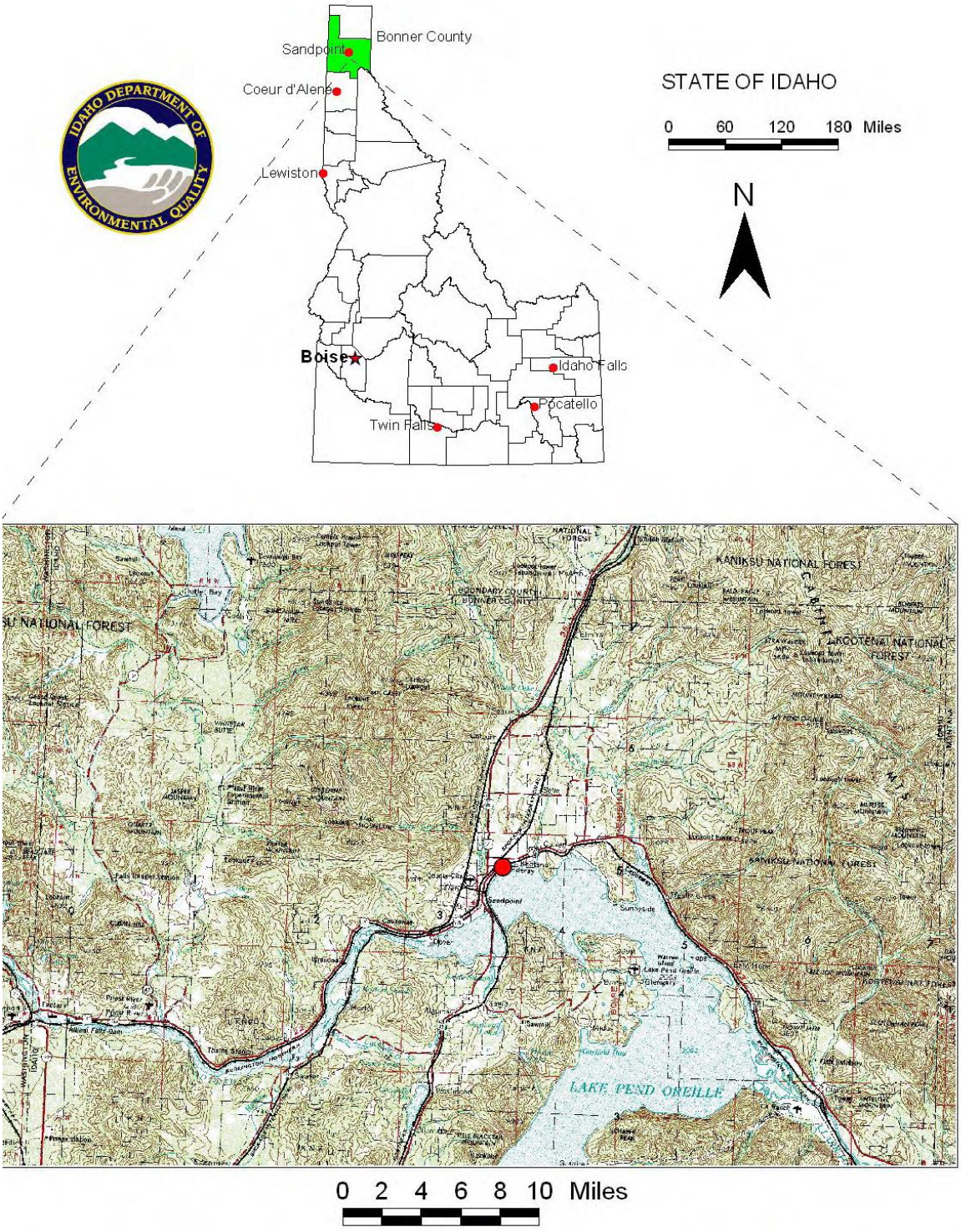

Figure 1. Map of the general project area. The location of the Panhandle Smelting and Refinery Company (PSRC) site (10BR539) is indicated by the red circle (adapted from IDEQ 2006: Figure 2-1).

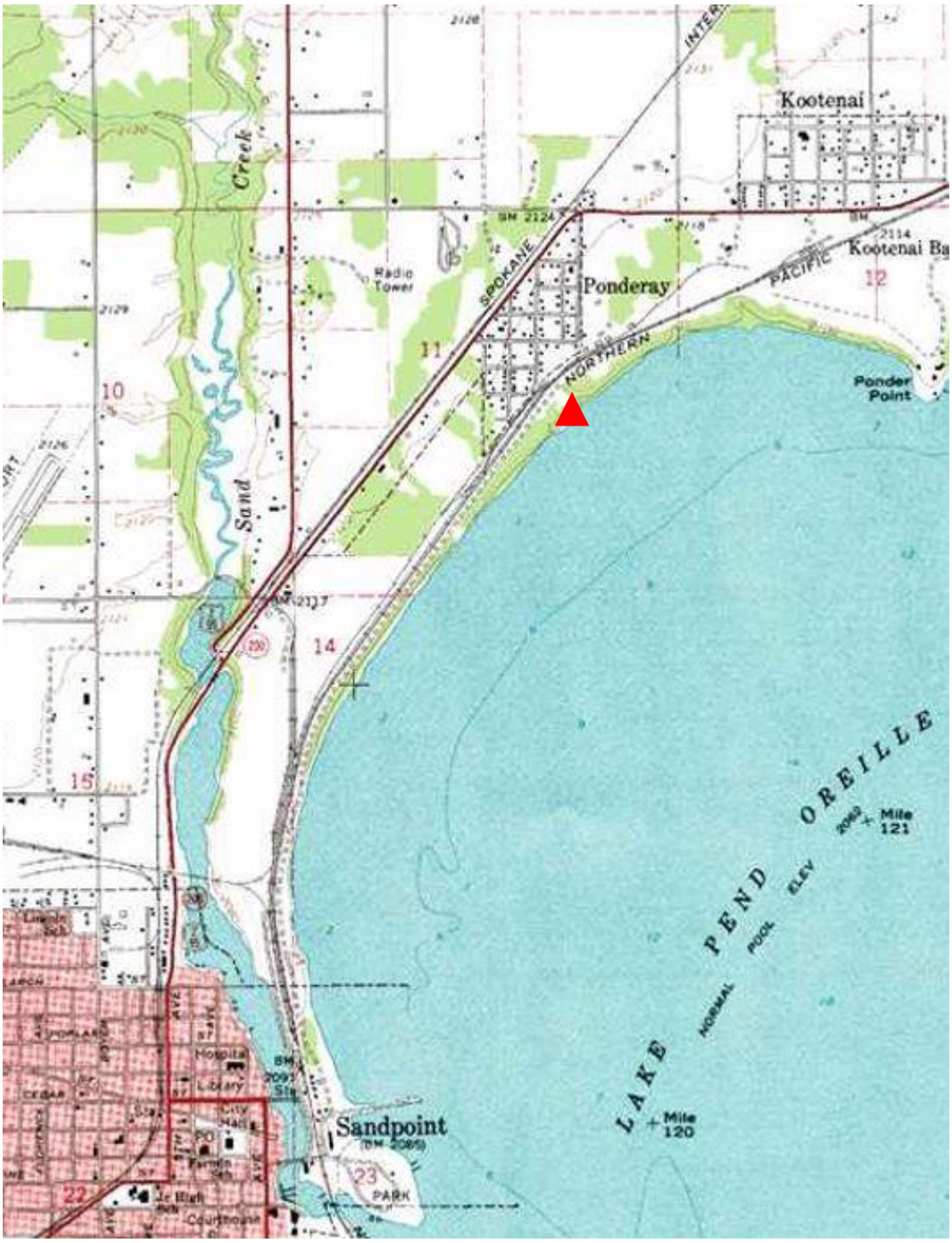

Figure 2. Location of the PSRC project area. The APE is indicated by the red triangle. Adapted from the Sandpoint, ID quadrangle.

Figure 3. Aerial photo map of the project area showing the PSRC site. The locations of the three test pits excavated in March 2023 are indicated by the pushpins (labeled and provided by Tom Jenkins, Alta). Note the BNSF railroad tracks at the upper left and Black Rock and Lake Pend Oreille at the lower right.

The history of the PSRC site is one of contentious management, accusations, and lawsuits rather than a record of actual smelting. Planning for the smelter began in 1902 and the townsite of Panhandle (the name was changed to Ponderay by early 1905) began to grow up adjacent to the smelter at that time. Construction of the smelter began in 1904; the first lead bars were poured in 1907 and the smelter ran sporadically through March 1909. Following foreclosures and various sales, salvage crews dismantled the plant by December 1922 (IDEQ 2006:4). Since that time, there has been little activity in the area with the exception of recent recreational use.

The project area is located well within the territory of the Kalispel Indians (Lahren 1998: Figure 1). Like other Plateau tribes, the Kalispel followed a seasonal round with subsistence based on a combination of wild foods including fish, game, and plant. Settlement centered on winter camps that were situated along the major drainages such as the Pend Oreille River while other seasonal camps were at locations where camas, berries, game, and other resources could be gathered and hunted. There are numerous precontact sites around Lake Pend Oreille but none appear to be in the vicinity of the APE.

Discussion

The author met with Alta, IDEQ, and City personnel at the trail access in Sandpoint on 1 March 2023. All personnel traveled along the trail to the PSRC site and the author monitored the mechanical excavation of three soil test pits. The locations of the units had been previously determined and all were within the boundaries of 10BR539. The project area was heavily vegetated and the surface of the APE was covered by snow so that no artifacts or features were visible. Excavation was conducted using a Bobcat E50 excavator and the author recorded GPS points at each test pit using a Garmin Etrex 32 instrument. The target depth of all units was 6 feet (72 inches) below the surface (BS), and the width of each unit was approximately 2 feet; the length of each trench varied with conditions and results. Changes in soil composition, texture, and color were recorded by Alta environmental scientist Tom Jenkins and the following descriptions have been adapted by the author from Mr. Jenkins' field notes. After each unit was excavated and the soil samples were collected that unit was backfilled. Representative sediment samples were collected Alta personnel for later analysis; no artifacts or samples were collected by the archaeological monitor.

TP 1

This was the third unit excavated (Figures 4-5). It was located in proximity to a former smoke stack (534744 mE/5349926 mN). The upper stratum (0-12 inches BS) was dark brown silty sand and several red common bricks were noted. The second stratum (12-24 inches BS) was yellowish brown-tan to light gray clay silt with very fine sands; it was glaciofluvial or glaciolacustrine in origin. The third stratum (24-48 inches BS) was light brown silty sand that was glaciofluvial or glaciolacustrine in origin. The basal stratum (48-72 inches BS and below) was tan buff to light gray silty clay that was similar to Stratum 2 but with slightly higher clay content and less fine sand; it was also glaciofluvial or glaciolacustrine in origin. Cultural material was limited to several scattered bricks at or near the surface; the underlying strata were natural with no evidence of artifacts or historic disturbance.

Figure 4. Photograph of TP 1 taken at the beginning of excavation. The view is to the south (note Lake Pend Oreille in the background).


Figure 5. Photograph of TP 1 taken at the end of excavation. The south wall of the unit is 6 feet below the surface. The view is to the south.

TP 2

This was the first unit excavated (Figures 6-8) It was situated in proximity to a former roaster (534748 mE/55349966 mN). The edge of a concrete slab with an embedded vertical iron I-beam (from the former roaster) was immediately encountered and the excavation shifted slightly to the south. Three strata were delineated. Stratum 1 was dark brown silty sand and was limited to the upper 6 inches. Stratum 2 (6-24 inches BS) was light gray silty sand; it showed evidence of historic disturbance including some charcoal. Stratum 3 (24-72 inches BS) continued into the floor of the unit; it consisted of tan-buff light gray silty clay with traces of sand that represented natural glaciofluvial or glaciolacustrine depositional processes. The upper two strata contained bricks and exhibited historic disturbance to a depth of 24 inches BS while the underlying stratum was undisturbed and natural.

Figure 6. Photograph of TP 2 taken at the beginning of excavation. The view is to the northeast.

Figure 7. Photograph of TP2 taken during the initial stages of excavation. The I-beam is in the lower center foreground to the right of the red brick. The view is to the southeast.

Figure 8. Photograph of TP2 taken at the end of excavation. The wall of the trench is 6 feet below the surface. The view is to the southeast.

TP 3

This was the second unit excavated (534767 mE/5349967 mN). It was located between the footpath and the slagpile in proximity to a roaster pile and several former buildings. Four strata were delineated. The uppermost strata (0-12 inches BS) consisted of dark brown sandy silt and it had several red common bricks. Stratum 2 (12-48 inches BS) consisted of yellow brown to tan clay silt with very fine sands that were deposited by glaciofluvial to glaciolacustrine processes. Stratum 3 (48 to 54 inches BS) consisted of light brown silty sand that was also deposited by glaciofluvial or glaciolacustrine processes. Stratum 4 (54 to 72 inches BS and continuing into the floor) consisted of lighter gray silty clay and was similar to the previous stratum.

Figure 9. Photograph of TP 3 taken at the start of excavation. The view is to the north.

Figure 10. Photograph of TP 3 taken at the end of excavation. The exposed wall is 6 feet below the surface. The view is to the east.

Summary and Management Recommendations

Archaeological monitoring was conducted at the Panhandle Smelting and Refining Company site during subsurface soil testing on 1 March 2023. Three test pits were excavated to 6 feet below the surface and sediments were similar in all units. The only cultural materials observed were red common bricks which were at or near the surface of all three units and continued to 24 inches BS in TP 2. There was no evidence of lithic material, fire-modified rocks, or any indication of a pre-contact occupation in any of the test units.

The PSRC site was considered eligible for nomination to National Register of Historic Places in 2001 under criteria A and D. Although the structures are gone and surface indications are minimal, there is clear subsurface evidence of the site. The results of monitoring in March 2023 are similar to those from previous projects in 2011 and 2012. It is therefore recommended that future ground-disturbing activities at the site continue to be monitored by a qualified archaeologist.

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