

Management Summary
Phase II National Register Evaluation

Site 36LU301

Bell Bend Nuclear Power Plant
Luzerne County, Pennsylvania
ER 81-0658-079

Prepared for:
PPL Bell Bend, LLC
Allentown, PA

Prepared by:
Barbara A. Munford, M.A.
GAI Consultants, Inc.
385 East Waterfront Drive
Homestead, Pennsylvania

GAI Project No. C110751.00

October 10, 2011

Table of Contents

I. Introduction and Project Overview	1
Project Summary	1
Regulatory Guidelines	4
Previous Archaeological Investigations	5
II. Field Methods	7
Surface Collection	7
Shovel Testing	7
Test Unit Excavation	7
Plowzone Stripping	8
Feature Sampling	8
III. Field Results	9
Surface Collection	9
Shovel Testing	10
Test Units	11
Plowzone Stripping	13
Feature Overview	14
Thermal Features	19
Possible Prehistoric or Historic Postmolds	23
Historic Features	24
Non Cultural Features/Anomalies	25
IV. Artifact Summary	26
Prehistoric Artifacts	26
Historic Artifacts	27
V. Conclusions	29
VI. References	30

Appendix A Project Correspondence

List of Figures

Figure 1. Site 36LU301 Location	2
Figure 2. Site 36LU301 Phase II Testing Locations	3
Figure 3. Site 36LU301 Showing Phase Ib Testing Locations	6

List of Photographs

Photograph 1.	Site 36LU301 Overview showing Surface Collection Activities, Facing East	1
Photograph 2.	Site 36LU301 Overview from Northwest Portion of Field, showing Michael Farmstead in Distance, Facing Southeast.....	4
Photograph 3.	Site 36LU301: View of Controlled Surface Collection, Facing West.....	10
Photograph 4.	Site 36LU301: Judgmental Shovel Testing in Cultivated Field, Facing Southwest	10
Photograph 5.	Site 36LU301: TU 1 West Wall Profile, Facing West	12
Photograph 6.	Site 36LU301: TU 10 South Wall Profile showing Cobbles and Gravels, Facing South	12
Photograph 7.	Site 36LU301: View of Plowzone Stripping, Trenches 3, 4, and 5, Facing Northeast.....	13
Photograph 8.	Site 36LU301: Trench 2 showing Exposed B Horizon Surface, Possible Cultural Features Marked by Pin Flags, Facing North.....	13
Photograph 9.	Site 36LU301: Trench 1 Overview showing Exposed B Horizon Surface, Possible Cultural Features Marked with Pin Flags.	13
Photograph 10.	Site 36LU301: Trench 2 showing Band of Cobbles and Gravels on Exposed B Horizon Surface, Facing North	14
Photograph 11.	Site 36LU301: Feature 150, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing West	19
Photograph 12.	Site 36LU301: Feature 150, Profile of Thermal Feature, Facing Northwest.....	19
Photograph 13.	Site 36LU301: Feature 153, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing North.....	20
Photograph 14.	Site 36LU301: Feature 153, Profile of Thermal Feature, Facing Southeast.....	20
Photograph 15.	Site 36LU301: Feature 154, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing West	21
Photograph 16.	Site 36LU301: Feature 154, Profile of Thermal Feature, Facing West.....	21
Photograph 17.	Site 36LU301: Feature 161, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing North.....	21
Photograph 18.	Site 36LU301: Feature 161, Profile of Thermal Feature, Facing West.....	22
Photograph 19.	Site 36LU301: Feature 171, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing West	22
Photograph 20.	Site 36LU301: Feature 171, Profile of Thermal Feature, Facing West.....	22
Photograph 21.	Site 36LU301: Feature 37, Profile of Postmold on Exposed B Horizon Surface (Trench 2), Facing North	23
Photograph 22.	Site 36LU301: Feature 38, Profile of Postmold on Exposed B Horizon Surface (Trench 2), Facing East.....	23

Photograph 23.	Site 36LU301: Feature 77, Plan View on Exposed B Horizon Surface (Trench 3) showing Feature 77 (to right) Feature 76 to the south and Feature 78 to the West (left), Facing North	24
Photograph 24.	Site 36LU301: Feature 77, Profile, Facing East.....	24
Photograph 25.	Site 36LU301: Early Woodland Cresap Projectile Point (FS 216) and Untyped Projectile Point (FS 217).....	25

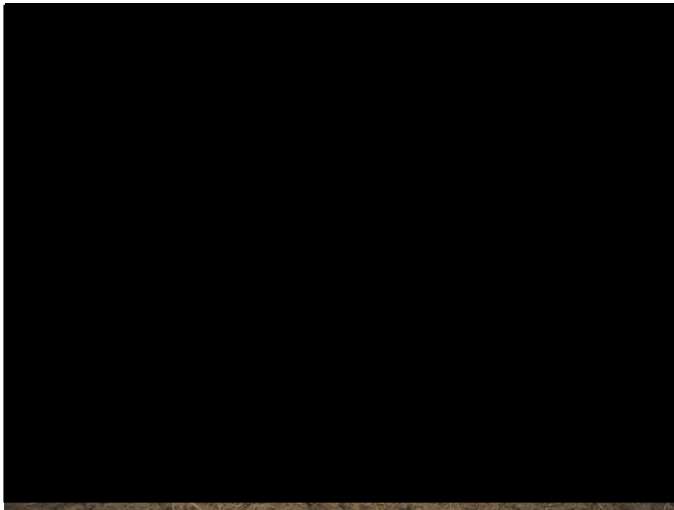
List of Tables

Table 1.	Site 36LU301 Phase II: Stratigraphic Distribution of Prehistoric Artifacts by Testing Method	9
Table 2.	Site 36LU301 Phase II: Stratigraphic Distribution of Historic Artifacts by Testing Method	9
Table 3.	Site 36LU301 Phase II: Test Unit Summary	11
Table 4.	Site 36LU301 Phase II: Feature Types and Sampling Strategy	15
Table 5.	Site 36LU301 Phase II: Summary of Identified Features by Trench.....	15
Table 6.	Site 36LU301 Phase II: Summary of Sampled Features	16
Table 7.	Site 36LU301 Phase II: Stratigraphic Distribution of Prehistoric Artifacts by Artifact Class	26
Table 8.	Site 36LU301 Phase II: Crosstabulation of Artifact Class by Lithic Raw Material	26
Table 9.	Site 36LU301 Phase II: Pattern Analysis, Historic Artifacts	29

I. Introduction and Project Overview

Project Summary

GAI Consultants, Inc. (GAI) conducted a Phase II National Register Evaluation of Site 36LU301, located within the proposed Bell Bend Nuclear Power Plant (BBNPP) project area in Luzerne County, Pennsylvania, for PPL Bell Bend, LLC (PPL) (Figure 1, Photograph 1). The overall BBNPP project area is situated adjacent to PPL's existing Susquehanna Steam Electric Station (SSES). PPL proposes construction of a nuclear power generation unit in this locality. Site 36LU301 was identified during GAI's Second Supplemental Phase Ib investigation of the BBNPP project area, conducted in 2010. Based on results of the Phase Ib survey and review by the Pennsylvania Historic and Museum Commission/Bureau for Historic Preservation (PHMC/BHP), the site was recommended as potentially eligible for listing on the National Register of Historic Places (NRHP). Phase II fieldwork was performed between June 24 and July 27, 2011.



Photograph 1. Site 36LU301 Overview showing Surface Collection Activities, Facing East

The purpose of GAI's Phase II study was to investigate this potentially-eligible archaeological site in order to conclusively evaluate the site's NRHP eligibility and to provide recommendations on the need for further archaeological investigations. This management summary presents preliminary results of GAI's Phase II investigation. Final results of the study (including recommendations of site eligibility and the need for additional work, if necessary) will be provided in a subsequent Phase II Technical Report.

Phase II investigations were conducted in accordance with GAI's May 13, 2011 Scope of Work. Based on interim field results, which documented over 200 possible features (soil anomalies) on the surface of plowzone stripped trenches, and subsequent consultation with Brad Wise (PPL) and Steve McDougal (PHMC-BHP), the work was expanded to include sampling of these possible features. The scope of Supplemental Phase II work was summarized in a July 15, 2011, e-mail to Brad Wise.

Site 36LU301 is situated on a broad upland flat approximately 91 meters (300 feet) north of Walker Run, in the western portion of the BBNPP project area (see Figure 1, see Photograph 2). Based on the results of Phase II investigations, the site measures 140x210 meters (459x689 feet) and occupies the southern portion of a large cultivated field, as well as a small section of the adjacent farmyard, northwest of a right-angle bend in North Market

