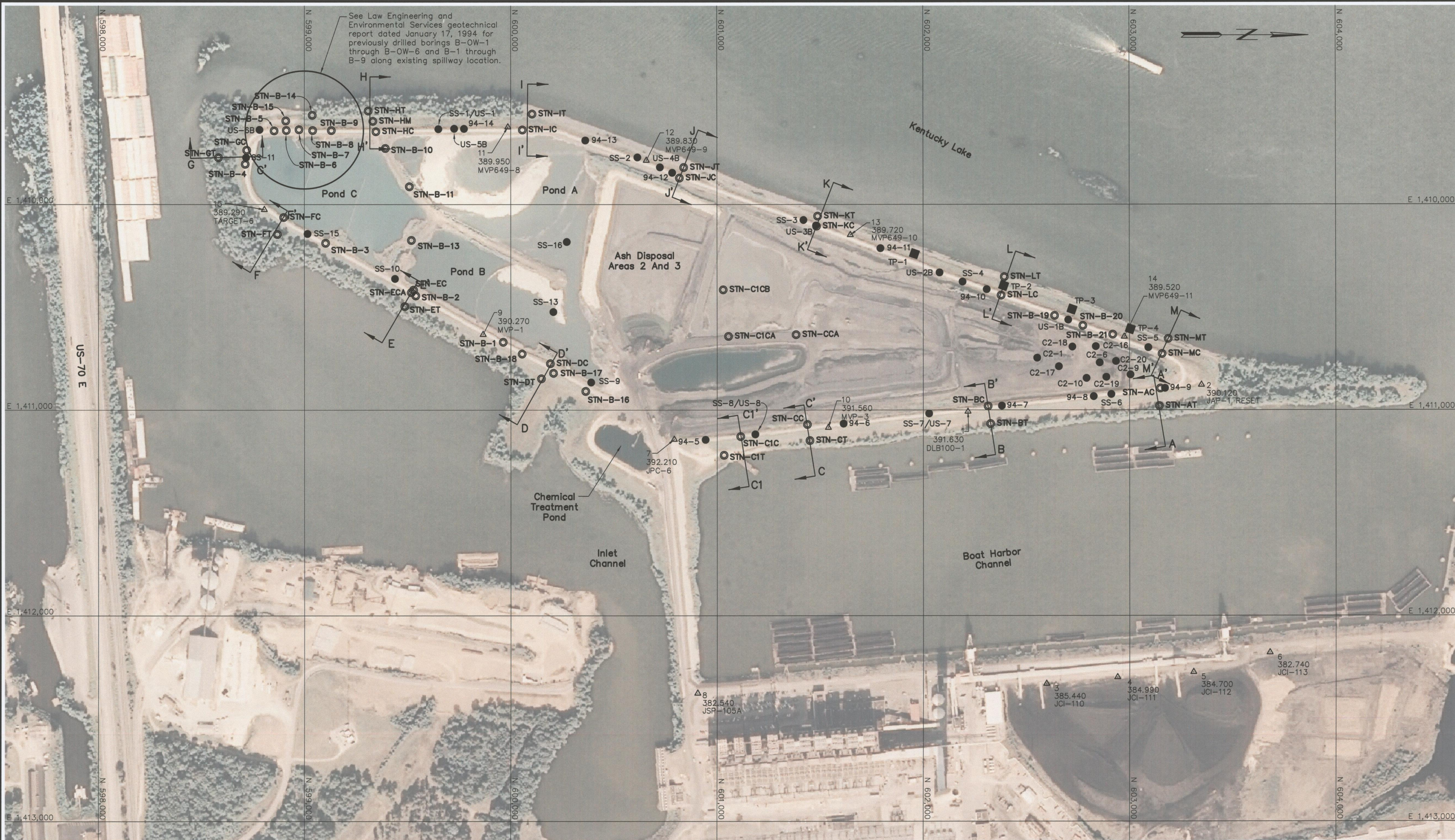


# **Appendix B**

## **Boring Plan**



| BORING LOCATION TABLE |             |              |             |
|-----------------------|-------------|--------------|-------------|
| BORING                | NORTHING    | EASTING      | ELEV. (FT.) |
| STN-AC                | 603,148.82  | 1,410,894.84 | 391.4       |
| STN-AT                | 603,144.12  | 1,410,980.20 | 368.4       |
| STN-BC                | 602,313.93  | 1,410,981.18 | 391.5       |
| STN-BT                | 602,326.17  | 1,411,067.30 | 369.8       |
| STN-C1C               | 601,113.79  | 1,411,129.20 | 391.5       |
| STN-C1CA              | 601,054.92  | 1,410,641.77 | 394.0       |
| STN-C1CB              | 601,029.42  | 1,410,415.09 | 398.4       |
| STN-C1T               | 601,033.28  | 1,411,220.15 | 365.5       |
| STN-CC                | 601,437.52  | 1,411,070.75 | 391.6       |
| STN-CCA               | 601,382.49  | 1,410,633.59 | 394.6       |
| STN-CT                | 601,449.55  | 1,411,148.76 | 368.9       |
| STN-DC                | 600,191.17  | 1,410,774.31 | 390.0       |
| STN-DT                | 600,147.64  | 1,410,847.53 | 365.3       |
| STN-EC                | 599,528.35  | 1,410,416.19 | 390.2       |
| STN-ECA               | 599,517.65  | 1,410,428.37 | 390.2       |
| STN-ET                | 599,486.09  | 1,410,496.27 | 363.8       |
| STN-FC                | 598,898.88  | 1,410,062.79 | 369.4       |
| STN-FT                | 598,868.34  | 1,410,145.49 | 362.9       |
| STN-GC                | 598,719.43  | 1,409,736.38 | 389.6       |
| STN-GT                | 598,582.54  | 1,409,772.40 | 360.8       |
| STN-HC                | 599,345.93  | 1,409,646.07 | 389.5       |
| STN-HM                | 599,331.00  | 1,409,595.58 | 377.9       |
| STN-HT                | 599,308.41  | 1,409,545.23 | 363.1       |
| STN-IC                | 600,055.90  | 1,409,637.66 | 389.8       |
| STN-IT                | 600,103.14  | 1,409,560.28 | 368.8       |
| STN-JC                | 600,817.61  | 1,409,871.68 | 389.6       |
| STN-JT                | 600,838.26  | 1,409,820.33 | 378.7       |
| STN-KC                | 601,482.90  | 1,410,105.77 | 389.8       |
| STN-KT                | 601,488.26  | 1,410,056.92 | 377.6       |
| STN-LC                | 602,377.53  | 1,410,442.03 | 369.9       |
| STN-LT                | 602,392.94  | 1,410,352.26 | 365.3       |
| STN-MC                | 603,157.11  | 1,410,726.95 | 390.6       |
| STN-MT                | 603,187.15  | 1,410,653.44 | 365.6       |
| *STN-B-1              |             |              | 390.6       |
| *STN-B-2              |             |              | 390.2       |
| *STN-B-3              |             |              | 390.2       |
| *STN-B-4              |             |              | 389.5       |
| *STN-B-5              |             |              | 389.9       |
| *STN-B-6              |             |              | 389.9       |
| *STN-B-7              |             |              | 390.1       |
| *STN-B-8              |             |              | 389.9       |
| *STN-B-8A             |             |              | 389.9       |
| *STN-B-9              |             |              | 389.7       |
| *STN-B-10             |             |              | 389.1       |
| *STN-B-11             |             |              | 389.6       |
| *STN-B-12             | Not Drilled |              |             |
| *STN-B-13             |             |              | 390.1       |
| *STN-B-14             |             |              | 367.3       |
| *STN-B-15             |             |              | 378.9       |
| *STN-B-16             |             |              | 389.6       |
| *STN-B-17             |             |              | 389.1       |
| *STN-B-18             |             |              | 391.0       |
| *STN-B-19             |             |              | 388.3       |
| *STN-B-20             |             |              | 388.9       |
| *STN-B-21             |             |              | 389.2       |

| INSPECTION TEST PIT LOCATION TABLE |            |              |             |
|------------------------------------|------------|--------------|-------------|
| BORING                             | NORTHING   | EASTING      | ELEV. (FT.) |
| TP-1                               | 601,957.34 | 1,410,239.85 | -           |
| TP-2                               | 602,389.71 | 1,410,395.38 | -           |
| TP-3                               | 602,721.20 | 1,410,510.10 | -           |
| TP-4                               | 603,003.70 | 1,410,606.32 | -           |

\*Borings not surveyed and elevations are approximate.

\*Test Pit Locations are approximate.

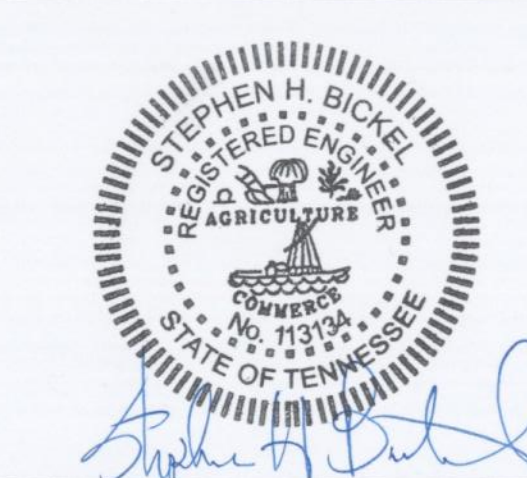
| BORINGS                                    |  |
|--|--|
| B-1 through B-9 and B-OW-1 through B-OW-6  |  |
| 94-5 through 94-14                         |  |
| US-1B through US-6B                        |  |
| SS-13, SS-15, SS-16                        |  |
| SS-1 through SS-11 and US-1, US-7 and US-8 |  |
| C2-1 through C2-20                         |  |

| REFERENCE   |  |
|---|--|
| Report of Geotechnical Exploration, Ash Pond Dike, New Johnsonville Plant, New Johnsonville, Tennessee, Law Engineering and Environmental Services, Inc., January 17, 1994. |  |
| Subsurface Exploration Data, TVA Borings at Johnsonville Fossil Plant, Johnsonville, Tennessee, Law Engineering and Environmental Services, Inc., October 11, 1994.         |  |
| Johnsonville Steam Plant - Ash Pond - Soil and Foundation Exploration, J.C. McGraw, TVA Construction Services Branch, September 17, 1969.                                   |  |
| Johnsonville Groundwater Assessment, TVA Resource Group, Engineering Services, March 1995.  |  |
| Johnsonville Steam Plant - Ash Disposal Area No. 2 Dike Raising - Soil Exploration and Testing, G. Farmer, TVA Construction Services Branch, November 22, 1977.             |  |
| Report of Ash Pond Investigation, Johnsonville Fossil Plant, New Johnsonville, Tennessee, MACTEC Engineering and Consulting, December 4, 2003.                              |  |

- LEGEND**
- Soil Boring with Undisturbed (Shelby) Tube Samples and/or Standard Penetration Tests
  - Soil Boring from previous explorations by Others
  - Excavated Inspection Test Pit
  - ▲ TVA Survey Monument

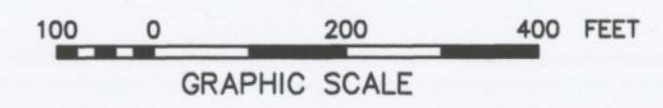
- NOTES:**
- Horizontal and vertical locations of 2009 borings provided by T.V.A. Location of previously drilled borings approximated from boring layouts provided in previous reports.
  - The geotechnical information and data furnished herein are not intended as representation or warranties but are furnished for information only. It shall be distinctly understood that the Owner or Engineer will not be responsible for any deduction, interpretation or conclusion drawn therefrom. The information is made available in order that the Contractor may have ready access to the same information available to the Owner and the Engineer and is not part of this contract.

For Supporting Design Calculations see



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|  |                          |                          |                             |                           |                           |                          |
|--|--------------------------|--------------------------|-----------------------------|---------------------------|---------------------------|--------------------------|
| DESIGNED BY:<br>P. COOPER  | DRAWN BY:<br>J. MCKINNEY | CHECKED BY:<br>P. COOPER | SUPERVISED BY:<br>S. BICKEL | REVIEWED BY:<br>S. BICKEL | APPROVED BY:<br>S. BICKEL | ISSUED BY:<br>T. JOHNSON |
| <b>JOHNSONVILLE FOSSIL PLANT<br/>TENNESSEE VALLEY AUTHORITY<br/>FOSSIL AND HYDRO ENGINEERING</b> |                          |                          |                             |                           |                           |                          |
| AUTOCAD R 2000   |                          | DATE<br>01/27/10         | 30                          | C                         | XXWXXX-01                 | R 0                      |



|                    |         |
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| STANTEC            | 0       |
| TASK COMPLETED BY: | REV NO. |

PLOT FACTOR:XX  
W\_TVA

C.A.D. DRAWING  
DO NOT ALTER MANUALLY



| INSTRUMENTATION LOCATION TABLE |            |              |             |                 |
|--------------------------------|------------|--------------|-------------|-----------------|
| ID                             | NORTHING   | EASTING      | ELEV. (FT.) | INSTRUMENT TYPE |
| STN-AC-PZ                      | 603,133.83 | 1,410,898.66 | 391.60      | PZ              |
| STN-AC-PZ(2)                   | 603,085.01 | 1,410,909.64 | 391.80      | PZ              |
| STN-AT-PZ                      | 603,144.12 | 1,410,980.20 | 368.40      | PZ              |
| STN-BC-PZ                      | 602,314.45 | 1,410,988.89 | 392.40      | PZ              |
| STN-BT-PZ                      | 602,326.17 | 1,411,067.30 | 369.80      | PZ              |
| STN-C1C-PZ                     | 601,113.79 | 1,411,129.20 | 391.50      | PZ              |
| STN-C1C-PZ(2)                  | 601,026.14 | 1,411,143.53 | 392.40      | PZ              |
| STN-C1T-PZ                     | 601,033.28 | 1,411,220.15 | 365.50      | PZ              |
| STN-CC-PZ                      | 601,439.64 | 1,411,087.11 | 392.50      | PZ              |
| STN-CC-PZ(2)                   | 601,398.92 | 1,411,099.20 | 392.40      | PZ              |
| STN-CT-PZ                      | 601,449.55 | 1,411,148.76 | 368.90      | PZ              |
| STN-DC-PZ                      | 600,184.33 | 1,410,790.81 | 391.20      | PZ              |
| STN-DC-PZ(2)                   | 600,140.29 | 1,410,778.22 | 390.90      | PZ              |
| STN-DT-PZ                      | 600,147.64 | 1,410,847.53 | 365.30      | PZ              |
| STN-EC-PZ                      | 599,517.65 | 1,410,428.37 | 390.40      | PZ              |
| STN-ET-PZ                      | 599,486.09 | 1,410,496.27 | 363.80      | PZ              |
| STN-FC-PZ                      | 598,892.27 | 1,410,076.24 | 389.80      | PZ              |
| STN-FT-PZ                      | 598,868.34 | 1,410,145.49 | 362.90      | PZ              |
| STN-GC-PZ                      | 598,696.58 | 1,409,758.99 | 389.80      | PZ              |
| STN-GT-PZ                      | 598,582.54 | 1,409,772.40 | 360.80      | PZ              |
| STN-HC-PZ                      | 599,314.96 | 1,409,635.77 | 390.00      | PZ              |
| STN-HT-PZ                      | 599,308.41 | 1,409,545.23 | 363.10      | PZ              |
| STN-IC-PZ                      | 600,086.63 | 1,409,629.83 | 390.10      | PZ              |
| STN-IT-PZ                      | 600,103.14 | 1,409,560.28 | 368.80      | PZ              |
| STN-JC-PZ                      | 600,825.25 | 1,409,856.37 | 390.00      | PZ              |
| STN-JT-PZ                      | 600,838.26 | 1,409,820.33 | 378.70      | PZ              |
| STN-KC-PZ                      | 601,483.81 | 1,410,099.66 | 390.50      | PZ              |
| STN-KT-PZ                      | 601,488.26 | 1,410,056.92 | 377.60      | PZ              |
| STN-LC-PZ                      | 602,374.84 | 1,410,429.97 | 390.50      | PZ              |
| STN-LT-PZ                      | 602,392.94 | 1,410,352.26 | 366.30      | PZ              |
| STN-MC-PZ                      | 603,157.20 | 1,410,719.51 | 391.10      | PZ              |
| STN-MT-PZ                      | 603,187.15 | 1,410,653.44 | 365.60      | PZ              |
| STN-SI-1                       | 601,441.71 | 1,411,095.09 | 392.50      | SI              |
| STN-SI-1A                      | 601,436.97 | 1,411,096.68 | 392.50      | SI              |
| STN-SI-2                       | 601,119.30 | 1,411,134.51 | 391.70      | SI              |
| STN-SI-3                       | 599,513.18 | 1,410,433.95 | 390.20      | SI              |
| STN-SI-4                       | 601,487.29 | 1,410,094.04 | 390.40      | SI              |

Northring, Easting and Ground Surface Elevations were provided by TVA, Power Systems Operations, Surveying and Project Services.  
 Horizontal Datum: NAD 27 (Tennessee Lambert). Vertical Datum: NGVD29.  
 "PZ" denotes Piezometer  
 "SI" denotes Slope Inclinometer

**LEGEND**  
 □ Piezometer (PZ)  
 ○ Slope Inclinometer (SI)  
 ▲ TVA Survey Monument

- NOTES:**
- Horizontal and vertical locations of 2009 borings provided by T.V.A. Location of previously drilled borings approximated from boring layouts provided in previous reports.
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For Supporting Design Calculations see



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|          |          |      |      |      |      |      |      |      |             |           |          |
|----------|----------|------|------|------|------|------|------|------|-------------|-----------|----------|
| REV. NO. | DATE     | DSGN | DRWN | CHKD | SUPV | RVWD | APPD | ISSD | PROJECT NO. | AS CONST. | REV. NO. |
| R-0      | 01/27/10 | PC   | JM   | PC   | SHB  | SHB  | SHB  | TJ   |             |           |          |

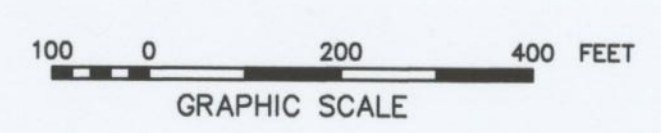
SCALE: 1"=200'  
 EXCEPT AS NOTED

**YARD**  
**ASH DISPOSAL AREAS 2 AND 3**  
**GEOTECHNICAL EXPLORATION**  
**INSTRUMENTATION PLAN**

|              |             |             |                |              |              |            |
|--------------|-------------|-------------|----------------|--------------|--------------|------------|
| DESIGNED BY: | DRAWN BY:   | CHECKED BY: | SUPERVISED BY: | REVIEWED BY: | APPROVED BY: | ISSUED BY: |
| P. COOPER    | J. MCKINNEY | P. COOPER   | S. BICKEL      | S. BICKEL    | S. BICKEL    | T. JOHNSON |

**JOHNSONVILLE FOSSIL PLANT**  
**TENNESSEE VALLEY AUTHORITY**  
 FOSSIL AND HYDRO ENGINEERING

AUTOCAD R 2000 DATE 01/27/10 30 C XXWXXX-02 R 0



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