

Contract No:

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2 November~~16 August~~ 2017

TO: Tom Butcher

FROM: Laura Bagwell
Patti Bennett

REVIEWER: Walt Kubilius

Elevation of Water Table and Various Stratigraphic Surfaces beneath E Area Low Level Waste Disposal Facility

PA Strategic Planning Team Topic 3.5.1, Vadose Zone Models, Recommendation 148b

Note: This Rev.1 memorandum corrects two errors found in the Rev.0 memo and dataset:

1. a data assembly/keystroke error (ground elevation at Slit Trench 6 vertex is 280.58', not 258.63'), and
2. a GIS data transformation error (caused by extent of SRS BEIDMS Sample Stations data layer).

Abstract: This memorandum describes work that supports revision of the Radiological Performance Assessment (PA) for the E Area Low Level Radioactive Waste Disposal Facility (LLRWDF). The work summarized here addresses portions of the PA Strategic Planning Team's recommendation #148b (Butcher and Phifer, 2016):

| Recommendation #148b | Date Accepted |
|--|---------------|
| 3.5.1 Vadose Zone Models | |
| Consider the following features in selecting the number of models and model geometry (i.e., 2D lateral, 2D longitudinal, or 3D) of Slit and Engineered Trenches for the next PA and document in the Conceptual Model report. The overall goal will be to keep the number of vadose zone models at a minimum. <i>b. Differences in trench unit vadose zone cross-sections (i.e., trench dimensions, surface slope, position of unit within the UVZ and LVZ, depth to water table, UVZ and LVZ thickness, etc.)</i> | 8-20-15 |

Scope Summary: The PA Strategic Planning Team recommended compiling data on the depth to groundwater (water table) and depth and thickness of various stratigraphic units beneath E Area. In response to these recommendations, the scope of this work included creation of four subsurface elevation models for E Area:

- 1) water table
- 2) Lower Aquifer Zone (LAZ) of the Upper Three Runs Aquifer (UTRA)
- 3) Tan Clay Confining Zone (TCCZ)
- 4) Tobacco Road Sand (TRS; interpreted as the boundary between the upper vadose zone [UVZ] and lower vadose zone [LVZ])

From each model, elevation data were extracted at the vertices and centroids of individual low level waste (LLW) disposal units. At these same vertices and centroids, ground surface elevations were extracted from the SRS LiDAR raster (collected 2009). At each vertex and centroid, the elevations of the four subsurfaces were subtracted from the ground elevation to yield depth measurements, thereby satisfying recommendation #148b.

Model Area: The model area is defined by a 100-m spatial buffer around E Area (Figure 1A); this area includes multiple individual LLW disposal units, both extant and future (Figure 1B).

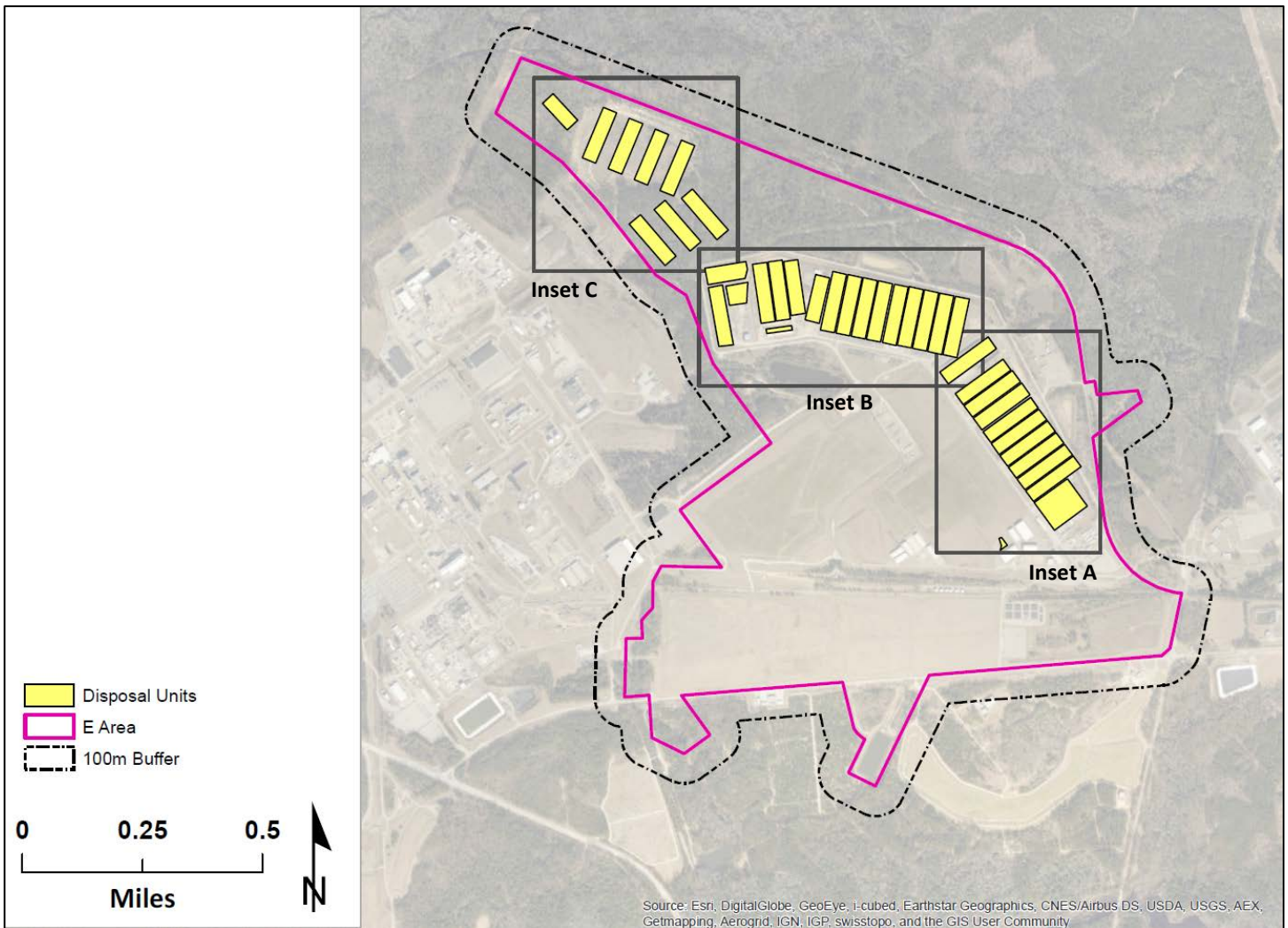


Figure 1A. E Area, 100-meter buffer, and inset maps showing individual LLW disposal units.

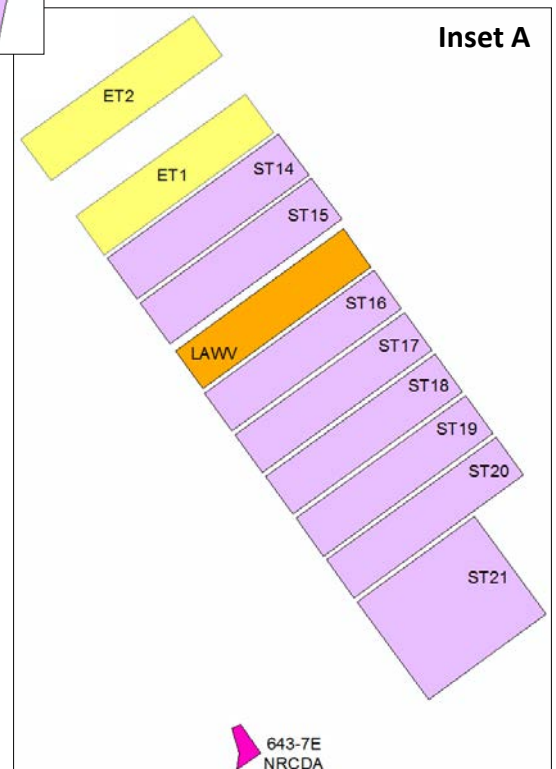
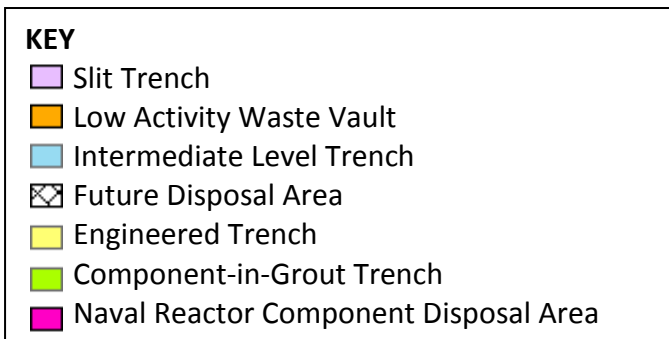
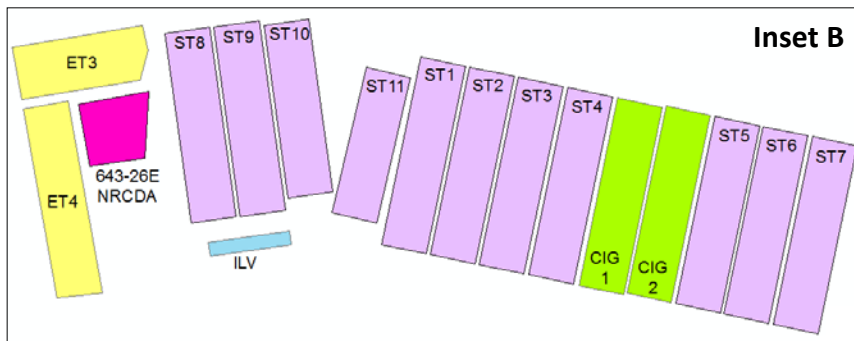
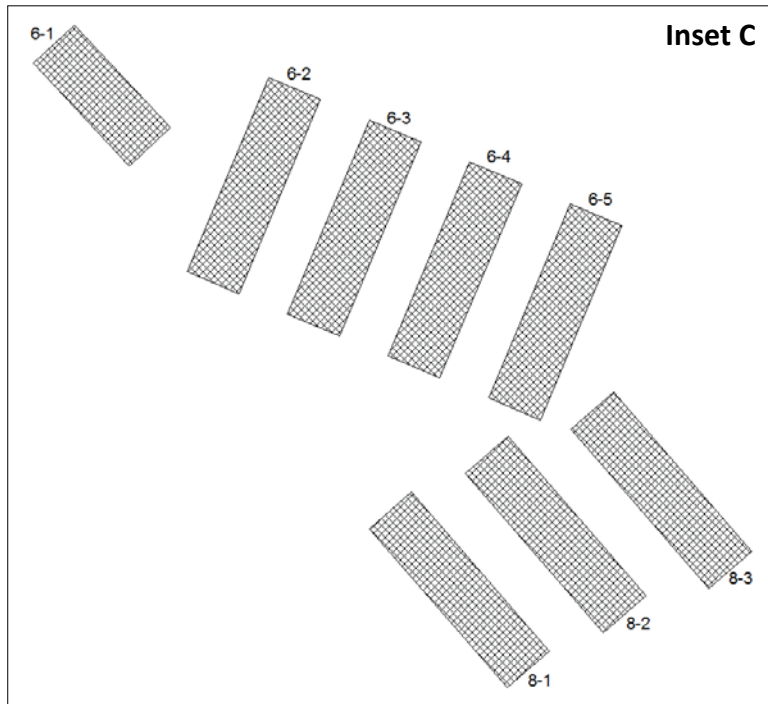


Figure 1B. Inset maps showing individual LLW disposal units.

Subsurface Zone of Interest: Beneath E Area, the relationship between the water table and various stratigraphic units is locally complex and is affected by sediment properties (hydraulic conductivity), by seasonal and long-term precipitation (recharge), and by proximity to Upper Three Runs Creek to the north of the model area. Figure 2 illustrates this complexity, as well as the subsurface units – water table, LAZ, TCCZ, and TRS – for which elevation models were prepared.

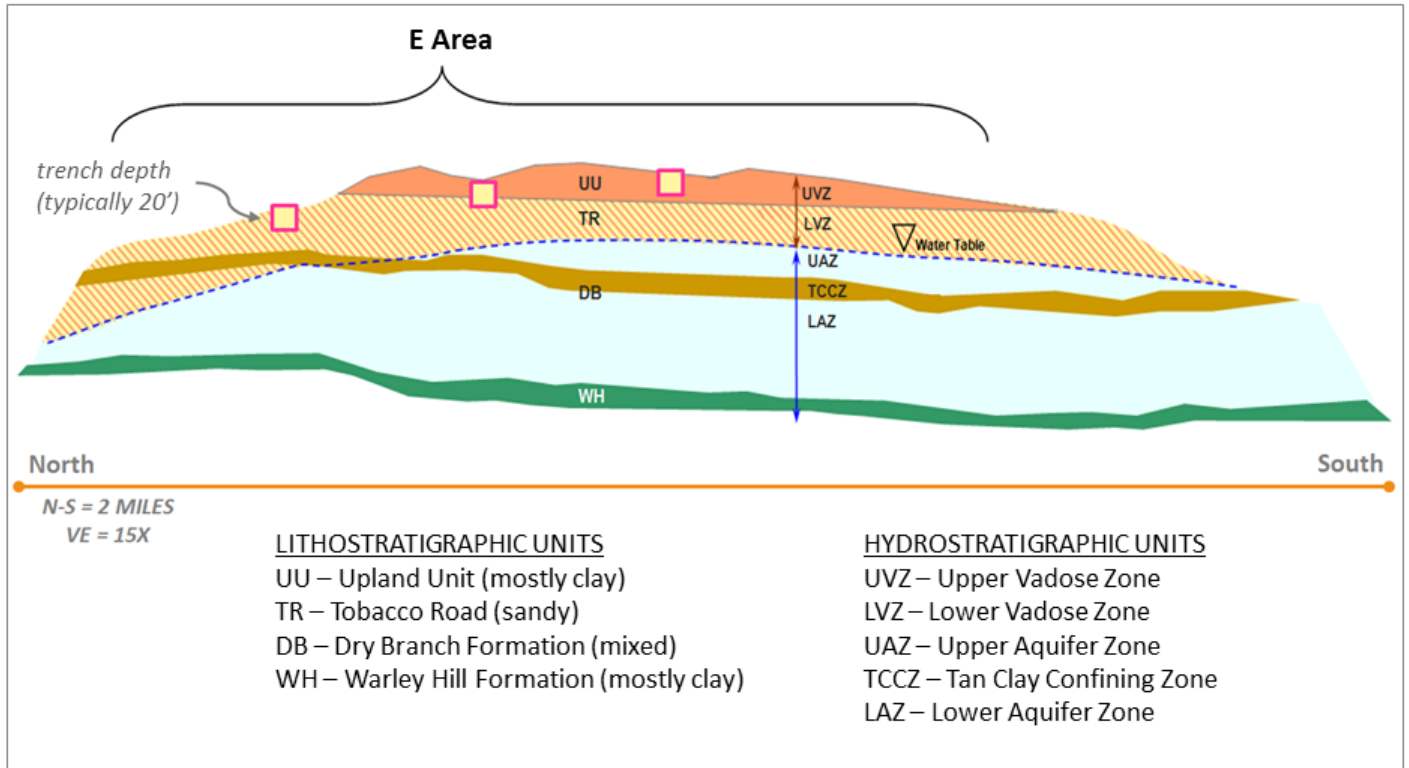


Figure 2. Generalized schematic cross-section through E Area showing underlying stratigraphic units and typical excavation depth of LLW trenches.

Modeling, Extraction, and Mathematical Processes: All existing control points (elevations) for the four subsurface units of interest were assembled into discrete datasets. The water table dataset included mean water levels from 99 monitoring wells during the period 2004-2014 (Hiergesell et al., 2015); to this dataset, 20 additional control points along Upper Three Runs Creek and its tributaries (all gaining streams) were added to improve spatial resolution in the northern part of the model area. Control points for the LAZ, TCCZ, and TRS included 716 stratigraphic "picks" (interpretations) based on core descriptions and borehole geophysical logs (Bagwell et al., 2017; SRS GDMS, 2017; Smits et al., 1997). The number of controls points for each subsurface were as follows: LAZ = 218; TCCZ = 233; TRS = 265.

Control points were loaded into *ArcMap 10.4* and individual elevation models (interpolation rasters) were constructed using the *Exponential with Nugget* algorithm available with the *ArcToolbox / Spatial Analyst / Interpolation / Kriging* tool. Figures 3, 4, 5, and 6 show the elevation models and control points for the water table, LAZ, TCCZ, and TRS, respectively. Appendices 1, 2, 3, and 4 include the control points for the water table, LAZ, TCCZ, and TRS models, respectively; model settings, variograms, etc. are included with each appendix.

Applying the *ArcToolbox / Spatial Analyst / Extraction / Extract Values to Points* tool to each of the four elevation models, the elevation values at the vertices and centroids of the 37 disposal units were extracted. Figure 7 illustrates the modeling and extraction processes. At each vertex and centroid, the elevations of the four subsurfaces were subtracted from the ground elevation (SRS LiDAR) to yield depth measurements. Appendix 5 presents the results of the extractions and subtractions; this revision-controlled dataset constitutes the final deliverable and satisfies recommendation #148b.

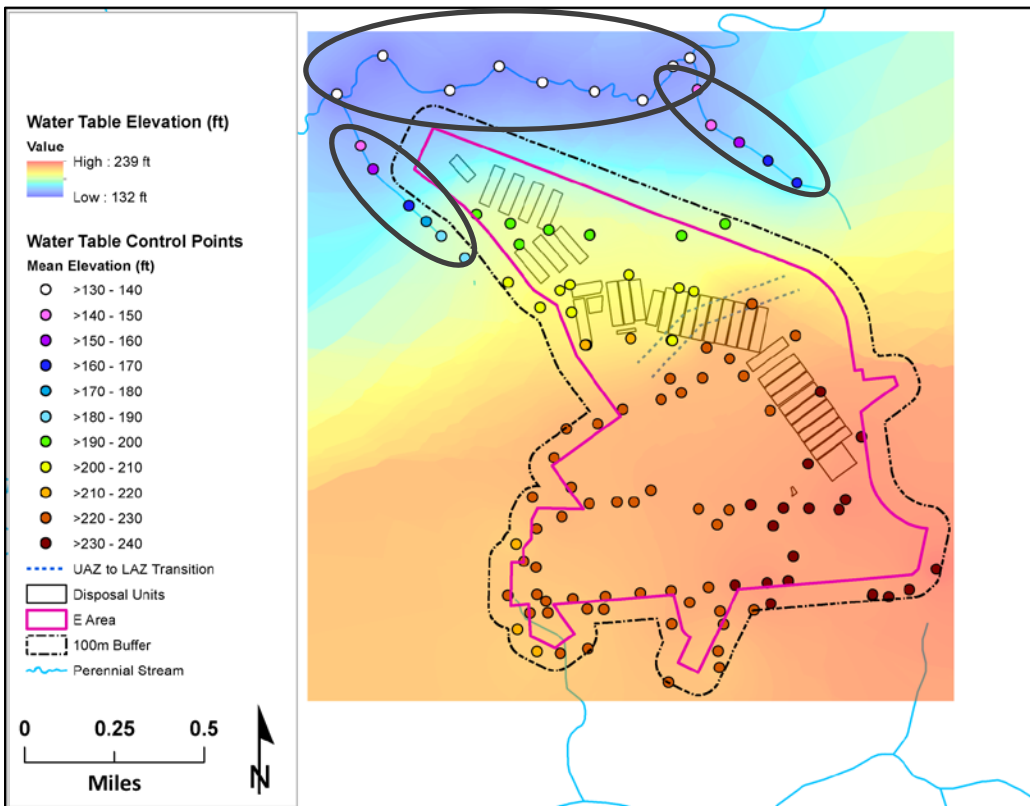


Figure 3. Elevation model and control points for the water table; ovals indicate control points added along perennial streams.

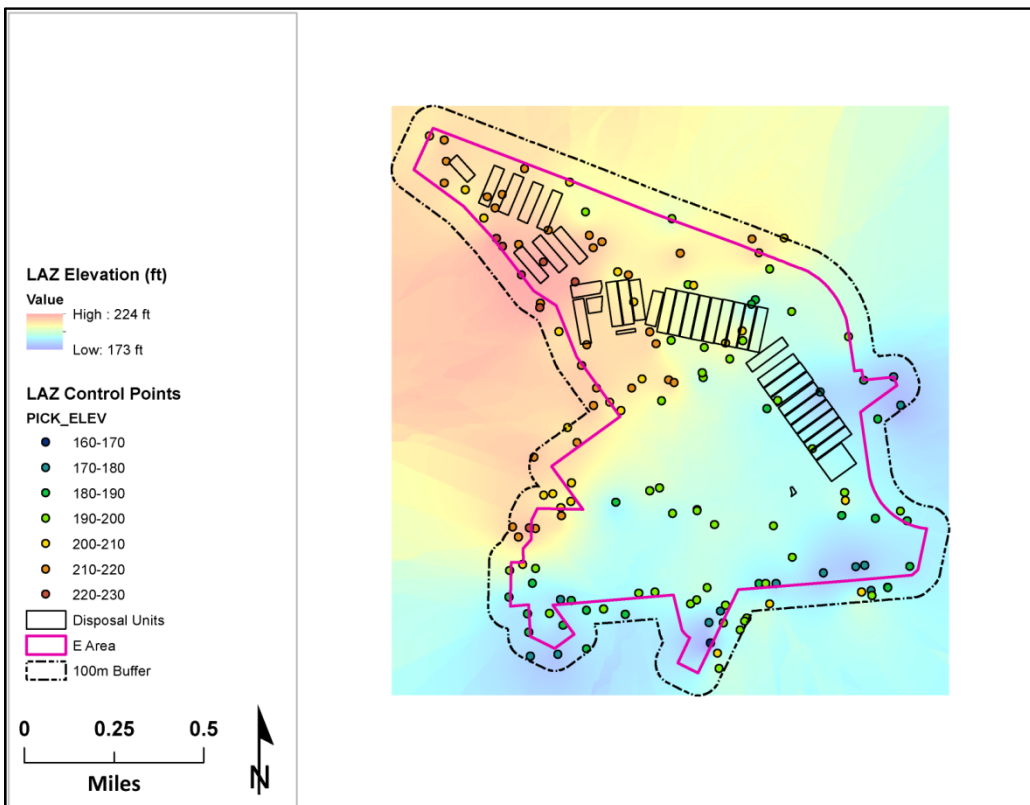


Figure 4. Elevation model and control points for the Lower Aquifer Zone (LAZ).



Figure 5. Elevation model and control points for the Tan Clay Confining Zone (TCCZ).

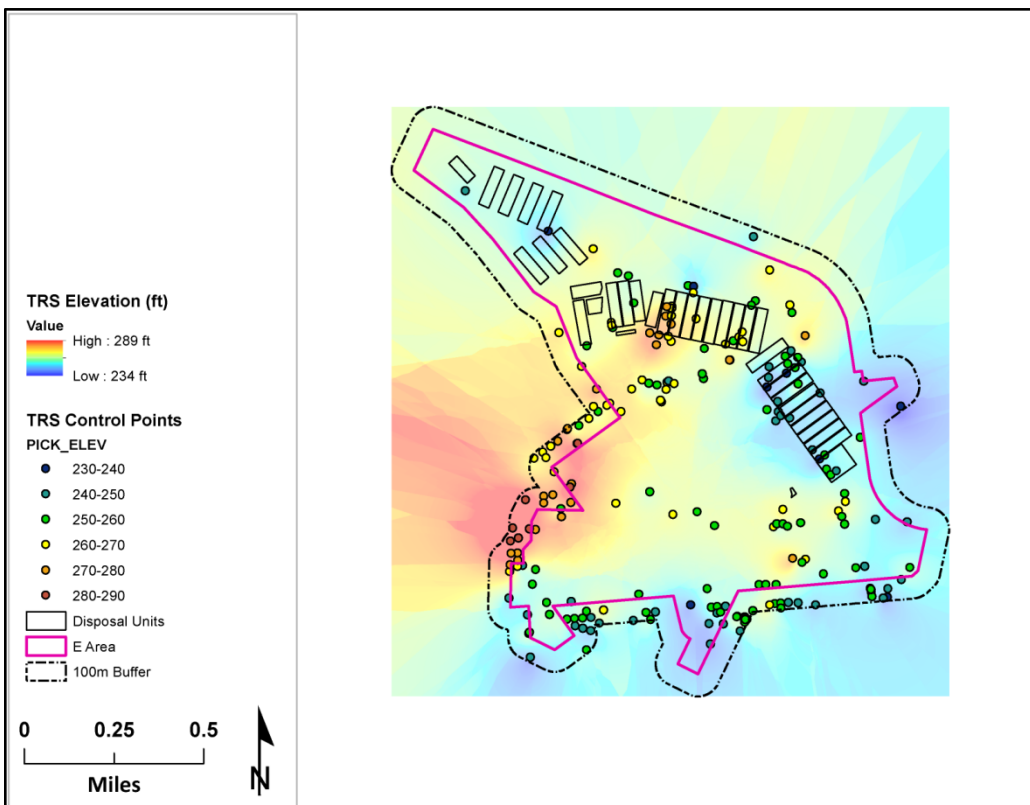


Figure 6. Elevation model and control points for the Tobacco Road Sand (TRS).

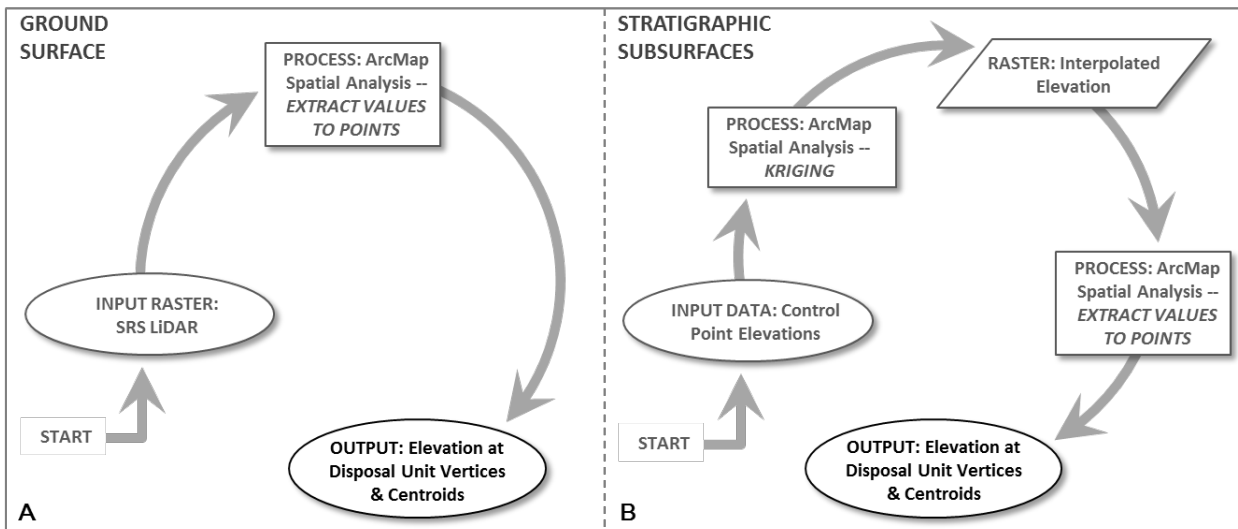


Figure 7. Process for determining elevations of (A) ground surface and (B) stratigraphic subsurfaces (water table, LAZ, TCCZ, and TRS) at vertices and centroids of disposal units.

Observations and Notes on the Elevation Models: The utility of interpolation rasters depends on – and is limited by – the number, density, and accuracy of control points, and on the method and settings of interpolation. In the case of geologic elevation models, understanding these limitations is especially important.

Tobacco Road Sand (TRS): Additional spatial analysis of the TRS elevation raster illustrates a noteworthy caveat on its use, specifically its prediction beyond the actual outcrop extent. Figure 9A shows the geographic extent of the TRS raster, encompassing a rectangular region that includes the entire model area. (The data illustrated in Figure 9A correspond to the data in column "TRS elevation (ft) from kriged dataset" in Appendix 5.) Figure 9B shows the effect of truncating the TRS raster to the SRS LiDAR (ground elevation) raster, effectively removing all regions where the TRS has been eroded. The legitimacy of this truncation can be confirmed by comparing the truncated TRS raster with the outcrop geology map (SCGS, 2008). Figure 10 illustrates the general agreement between the mapped outcrop extent of the TRS (and overlying formations) and the truncated TRS raster.

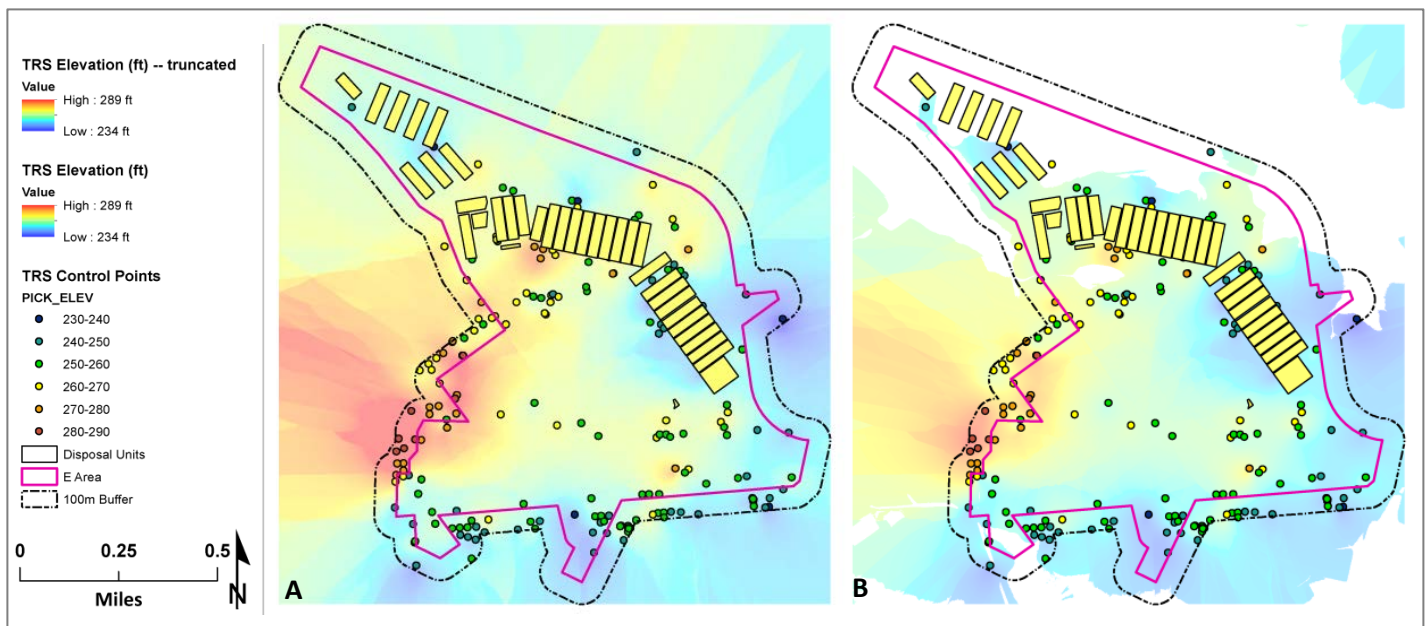


Figure 9. Elevation model for the Tobacco Road Sand without (A) and with (B) truncation to ground surface.

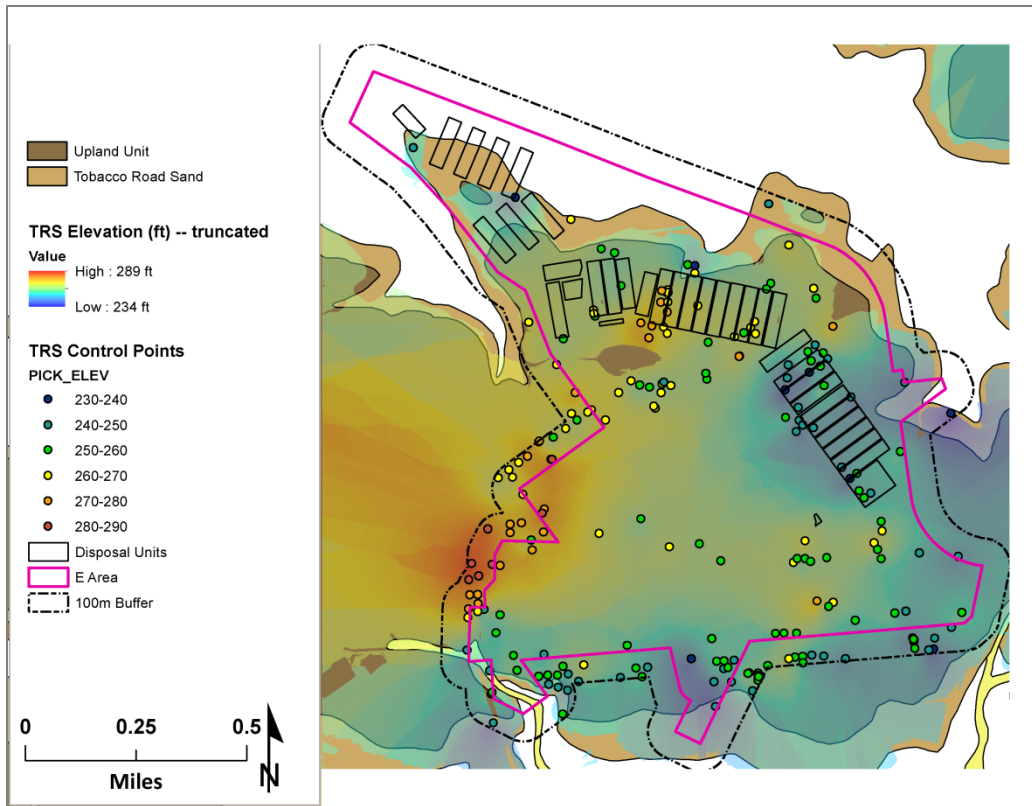


Figure 10. Tobacco Road Sand – truncated elevation model compared with mapped outcrop extent.

References:

Bagwell, L.A., Bennett, P.L., and Flach, G.P., 2017, General Separations Areas (GSA) Groundwater Flow Model Update: Hydrostratigraphic Data, SRNL-STI-2016-00516, Revision 0.

Hiergesell, R.A., Taylor, G.A., Phifer, M.A., Whiteside, T.S., and Flach, G.P., 2015, General Separations Areas (GSA) Groundwater Model Calibration Targets, SRNL-STI-2015-00351, Revision 0.

Butcher, B.T., and Phifer, M.A., 2016, Strategic Plan for Next E-Area Low-Level Waste Facility Performance Assessment, SRNL-STI-2015-00620, Revision 0.

SCGS, 2008, 7.5 Minute Geologic Quadrangle Data, South Carolina Geologic Survey.

< <http://www.dnr.sc.gov/geology/DigitalMapping.htm#Aiken> >

Smits, A.D., Harris, M.K., Hawkins, K.L., and Flach, G.P., 1997, Integrated Hydrogeological Model of the General Separations Area, Volume 1, Hydrogeologic framework, WSRC-TR-96-0399.

SRS GDMS, 2017, Savannah River Site Geological Data Management System.

< [http://sqlsan1/reports\\$srsl_p/Pages/Report.aspx?ItemPath=/GDMS/GDMS-Web/SearchResultsReport](http://sqlsan1/reports$srsl_p/Pages/Report.aspx?ItemPath=/GDMS/GDMS-Web/SearchResultsReport) >

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Appendix 1. Control points (n=119) for elevation model of the water table.

| Well Name | UTME (m) | UTMN (m) | Aquifer Unit | Mean (ft) |
|-----------|-----------|-------------|--------------|-----------|
| BGO 1D | 438,984.2 | 3,682,856.1 | UAZ | 234.9 |
| BGO 2D | 438,845.5 | 3,683,062.3 | UAZ | 231.1 |
| BGO 3DR | 438,676.0 | 3,683,300.6 | UAZ | 228.3 |
| BGO 4D | 438,557.6 | 3,683,454.7 | UAZ | 226.1 |
| BGO 5D | 438,494.3 | 3,683,532.0 | UAZ | 225.6 |
| BGO 6D | 438,372.3 | 3,683,447.0 | UAZ | 226.3 |
| BGO 7D | 438,277.5 | 3,683,380.6 | UAZ | 226.3 |
| BGO 8D | 438,186.8 | 3,683,350.1 | UAZ | 226.6 |
| BGO 10DR | 438,014.0 | 3,683,305.8 | UAZ | 226.3 |
| BGO 11DR | 437,901.8 | 3,683,240.8 | UAZ | 226.2 |
| BGO 13DR | 437,706.6 | 3,683,089.5 | UAZ | 226.0 |
| BGO 14DR | 437,784.2 | 3,682,956.6 | UAZ | 225.7 |
| BGO 15D | 437,863.9 | 3,682,883.2 | UAZ | 225.7 |
| BGO 16D | 437,988.2 | 3,682,890.0 | UAZ | 226.0 |
| BGO 17DR | 438,065.2 | 3,682,890.4 | UAZ | 226.6 |
| BGO 18D | 438,140.8 | 3,682,944.0 | UAZ | 229.0 |
| BGO 20D | 438,354.3 | 3,682,859.1 | UAZ | 228.9 |
| BGO 21D | 438,491.3 | 3,682,855.6 | UAZ | 229.9 |
| BGO 22DX | 438,588.2 | 3,682,877.9 | UAZ | 230.4 |
| BGO 23D | 438,735.3 | 3,682,863.4 | UAZ | 231.5 |
| BGO 24D | 438,851.1 | 3,682,862.7 | UAZ | 232.9 |
| BGO 26D | 437,628.3 | 3,682,769.9 | UAZ | 223.7 |
| BGO 27D | 437,626.6 | 3,682,598.8 | UAZ | 222.5 |
| BGO 28D | 437,630.8 | 3,682,477.9 | UAZ | 221.4 |
| BGO 29D | 437,498.7 | 3,682,473.8 | UAZ | 221.6 |
| BGO 30D | 437,669.8 | 3,682,445.7 | UAZ | 221.3 |
| BGO 31D | 437,790.5 | 3,682,457.3 | UAZ | 222.0 |
| BGO 32D | 437,937.4 | 3,682,466.9 | UAZ | 222.7 |
| BGO 33D | 438,093.4 | 3,682,483.1 | UAZ | 225.4 |
| BGO 34D | 438,231.8 | 3,682,493.5 | UAZ | 227.5 |
| BGO 35D | 438,399.3 | 3,682,508.8 | UAZ | 229.3 |
| BGO 36D | 438,517.2 | 3,682,518.4 | UAZ | 232.9 |
| BGO 37D | 438,662.3 | 3,682,528.7 | UAZ | 234.2 |
| BGO 38D | 438,756.5 | 3,682,536.4 | UAZ | 232.6 |
| BGO 39D | 438,778.3 | 3,682,648.0 | UAZ | 231.1 |
| BGO 40D | 437,535.9 | 3,682,701.8 | UAZ | 217.3 |
| BGO 43D | 437,763.2 | 3,683,218.1 | UAZ | 226.4 |
| BGO 44D | 438,228.2 | 3,683,444.6 | UAZ | 226.3 |
| BGO 45D | 437,571.5 | 3,682,625.4 | UAZ | 222.5 |
| BGO 46D | 437,677.9 | 3,682,393.6 | UAZ | 221.2 |
| BGO 47D | 437,854.5 | 3,682,411.3 | UAZ | 222.0 |

Note: Depending on location in the study area, the water table occurs in the UAZ (above the TCCZ) or in the LAZ (beneath the TCCZ). See Figure 2. LAZ control points included in this elevation model are from monitoring wells where the water table occurs beneath the TCCZ, in the LAZ. See Hiergesell et al. (2015) for more detail.

| Well Name | UTME (m) | UTMN (m) | Aquifer Unit | Mean (ft) |
|-----------|-----------|-------------|-----------------|--------------|
| BGO 48D | 437,930.8 | 3,682,409.1 | UAZ | 221.6 |
| BGO 49D | 438,313.8 | 3,682,441.0 | UAZ | 228.9 |
| BGO 50D | 437,599.5 | 3,682,392.1 | UAZ | 220.9 |
| BGO 51D | 438,689.7 | 3,682,785.0 | UAZ | 231.1 |
| BGO 52D | 438,437.8 | 3,682,789.8 | UAZ | 229.2 |
| BGO 53D | 437,742.3 | 3,682,825.8 | UAZ | 227.4 |
| BGX 1D | 438,391.3 | 3,683,582.2 | UAZ | 224.9 |
| BGX 2B | 438,233.9 | 3,683,616.1 | LAZ | 207.9 |
| BGX 2D | 438,238.1 | 3,683,615.0 | LAZ | 209.8 |
| BGX 3D | 438,049.6 | 3,683,622.7 | LAZ | 210.1 |
| BGX 4C | 437,851.8 | 3,683,595.2 | LAZ | 209.2 |
| BGX 4D | 437,846.4 | 3,683,594.3 | LAZ | 210.3 |
| BGX 5D | 437,785.5 | 3,683,741.4 | LAZ | 204.2 |
| BGX 6D | 437,778.1 | 3,683,863.5 | LAZ | 201.9 |
| BGX 7D | 438,042.3 | 3,683,908.5 | LAZ | 201.4 |
| BGX 8DR | 438,333.7 | 3,683,834.3 | LAZ | 201.8 |
| BGX 9D | 438,593.7 | 3,683,777.2 | UAZ | 223.7 |
| BGX 10D | 438,788.6 | 3,683,635.4 | UAZ | 223.1 |
| BGX 11D | 438,901.5 | 3,683,385.0 | UAZ | 231.1 |
| BGX 12D | 439,084.0 | 3,683,182.4 | UAZ | 234.5 |
| BGX006DR | 437,733.7 | 3,683,838.0 | LAZ | 202.7 |
| BGX013D | 438,267.4 | 3,683,849.1 | LAZ | 202.1 |
| BSE 1D1 | 438,678.6 | 3,682,435.6 | UAZ | 232.9 |
| BSE 1D3 | 438,678.6 | 3,682,435.6 | UAZ | 231.8 |
| BSE 2D1 | 438,601.8 | 3,682,407.5 | UAZ | 231.2 |
| BSE 2D2 | 438,601.8 | 3,682,407.5 | UAZ | 227.5 |
| BSE 2D3 | 438,601.8 | 3,682,407.5 | UAZ | 227.4 |
| BSW 1D1 | 437,629.7 | 3,682,220.5 | UAZ | 218.3 |
| BSW 1D2 | 437,629.7 | 3,682,220.5 | UAZ | 218.2 |
| BSW 1D3 | 437,629.7 | 3,682,220.5 | UAZ | 217.3 |
| BSW 2D1 | 437,734.1 | 3,682,212.3 | UAZ | 219.2 |
| BSW 2D2 | 437,734.1 | 3,682,212.3 | UAZ | 220.5 |
| BSW 3D1 | 437,856.6 | 3,682,234.2 | UAZ | 220.4 |
| BSW 3D2 | 437,856.6 | 3,682,234.2 | UAZ | 221.5 |
| FCB002DR | 437,610.0 | 3,682,912.9 | UAZ | 224.7 |
| FSS 2D | 437,541.9 | 3,682,320.9 | UAZ | 219.3 |
| HMD 1D | 437,643.7 | 3,683,762.5 | LAZ | 205.9 |
| HMD 2D | 437,549.2 | 3,684,045.7 | LAZ | 197.3 |
| HMD 3D | 437,682.0 | 3,684,109.6 | LAZ | 196.9 |
| HMD 4B | 437,868.8 | 3,684,088.1 | LAZ | 194.4 |
| HMD 4D | 437,866.2 | 3,684,086.0 | LAZ | 197.1 |
| HOB 5D | 439,207.5 | 3,682,466.5 | UAZ | 233.3 |
| HSB 65 | 439,134.0 | 3,682,470.6 | UAZ | 231.6 |

| Well Name | UTME (m) | UTMN (m) | Aquifer Unit | Mean (ft) |
|-----------------|-----------|-------------|-----------------|--------------|
| HSB 65C | 439,135.2 | 3,682,476.7 | UAZ | 231.0 |
| HSB 85C | 439,014.0 | 3,682,902.1 | UAZ | 235.8 |
| HSB116D | 438,447.2 | 3,682,148.7 | UAZ | 221.2 |
| HSB119D | 438,442.1 | 3,682,222.6 | UAZ | 223.5 |
| HSB120D | 438,465.8 | 3,682,342.8 | UAZ | 226.3 |
| HSB138D | 438,221.0 | 3,682,082.8 | UAZ | 222.5 |
| HSB147D | 438,235.2 | 3,682,344.8 | UAZ | 227.8 |
| HSL 1D | 439,299.5 | 3,682,498.4 | UAZ | 233.3 |
| HSL 2D | 439,420.3 | 3,682,590.5 | UAZ | 239.0 |
| NEP 1D | 437,357.9 | 3,684,179.8 | LAZ | 192.0 |
| NEP 2D | 437,510.6 | 3,684,137.3 | LAZ | 195.6 |
| NEP 3D | 438,278.6 | 3,684,083.8 | LAZ | 194.8 |
| NEP 4D | 438,473.2 | 3,684,136.4 | LAZ | 191.8 |
| NWP 2D | 437,500.3 | 3,683,874.9 | LAZ | 201.5 |
| SEP001MD | 438,450.5 | 3,682,401.2 | UAZ | 228.0 |
| UTR_CTRL_1 | 436,937.3 | 3,684,890.1 | STREAM | 132.7 |
| UTR_CTRL_2 | 437,237.9 | 3,684,734.5 | STREAM | 135.1 |
| UTR_CTRL_3 | 437,460.1 | 3,684,843.5 | STREAM | 134.9 |
| UTR_CTRL_4 | 437,654.9 | 3,684,770.5 | STREAM | 135.7 |
| UTR_CTRL_5 | 437,887.8 | 3,684,728.9 | STREAM | 136.4 |
| UTR_CTRL_6 | 438,103.5 | 3,684,690.9 | STREAM | 138.1 |
| UTR_CTRL_7 | 438,240.0 | 3,684,842.8 | STREAM | 139.1 |
| UTR_CTRL_8 | 438,314.3 | 3,684,880.7 | STREAM | 139.4 |
| UTR_CTRL_9 | 438,348.2 | 3,684,737.0 | STREAM | 144.9 |
| UTR_CTRL_10 | 438,409.6 | 3,684,578.7 | STREAM | 147.1 |
| UTR_CTRL_11 | 438,538.8 | 3,684,501.1 | STREAM | 154.1 |
| UTR_CTRL_12 | 438,664.8 | 3,684,419.5 | STREAM | 160.0 |
| UTR_CTRL_13 | 438,794.9 | 3,684,322.6 | STREAM | 161.8 |
| UTR_TRIB_CTRL_1 | 436,732.0 | 3,684,717.6 | STREAM | 132.3 |
| UTR_TRIB_CTRL_2 | 436,838.9 | 3,684,486.9 | STREAM | 147.6 |
| UTR_TRIB_CTRL_3 | 436,896.0 | 3,684,382.1 | STREAM | 151.4 |
| UTR_TRIB_CTRL_4 | 437,055.8 | 3,684,217.0 | STREAM | 167.3 |
| UTR_TRIB_CTRL_5 | 437,134.2 | 3,684,149.3 | STREAM | 178.5 |
| UTR_TRIB_CTRL_6 | 437,199.8 | 3,684,084.7 | STREAM | 183.5 |
| UTR_TRIB_CTRL_7 | 437,306.7 | 3,683,981.0 | STREAM | 187.7 |

Appendix 2. Control points (n=218) for elevation model of the Lower Aquifer Zone (LAZ).

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|----------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Lower Aquifer Zone of UTRA | BGC1A | WELL | 438,627.7 | 3,682,526.2 | 281.5 | 97.7 | 183.8 |
| Lower Aquifer Zone of UTRA | BGC2A | WELL | 438,161.9 | 3,682,488.2 | 273.1 | 81.3 | 191.8 |
| Lower Aquifer Zone of UTRA | BGC3A | WELL | 437,737.6 | 3,682,454.9 | 271.1 | 91.6 | 179.5 |
| Lower Aquifer Zone of UTRA | BGO10A | WELL | 438,008.9 | 3,683,301.0 | 299.1 | 92.0 | 207.1 |
| Lower Aquifer Zone of UTRA | BGO10A | WELL | 438,008.9 | 3,683,301.0 | 299.1 | 92.0 | 207.1 |
| Lower Aquifer Zone of UTRA | BGO10AA | WELL | 437,958.9 | 3,683,338.0 | 298.8 | 90.5 | 208.3 |
| Lower Aquifer Zone of UTRA | BGO10AA | WELL | 437,958.9 | 3,683,338.0 | 298.8 | 92.0 | 206.8 |
| Lower Aquifer Zone of UTRA | BGO12A | WELL | 437,811.5 | 3,683,158.0 | 311.4 | 95.5 | 216.0 |
| Lower Aquifer Zone of UTRA | BGO14A | WELL | 437,787.1 | 3,682,978.0 | 300.2 | 88.0 | 212.2 |
| Lower Aquifer Zone of UTRA | BGO14A | WELL | 437,787.1 | 3,682,978.0 | 300.2 | 90.7 | 209.5 |
| Lower Aquifer Zone of UTRA | BGO16A | WELL | 437,985.8 | 3,682,890.0 | 302.8 | 120.0 | 182.8 |
| Lower Aquifer Zone of UTRA | BGO16A | WELL | 437,985.8 | 3,682,890.0 | 302.8 | 120.0 | 182.8 |
| Lower Aquifer Zone of UTRA | BGO18A | WELL | 438,137.9 | 3,682,942.0 | 292.9 | 94.0 | 198.9 |
| Lower Aquifer Zone of UTRA | BGO18A | WELL | 438,137.9 | 3,682,942.0 | 292.9 | 94.0 | 198.9 |
| Lower Aquifer Zone of UTRA | BGO20A | WELL | 438,350.3 | 3,682,857.7 | 281.3 | 87.0 | 194.3 |
| Lower Aquifer Zone of UTRA | BGO20AA | WELL | 438,350.6 | 3,682,851.6 | 281.3 | 87.0 | 194.3 |
| Lower Aquifer Zone of UTRA | BGO20AA | WELL | 438,350.6 | 3,682,851.6 | 281.3 | 87.0 | 194.3 |
| Lower Aquifer Zone of UTRA | BGO25A | WELL | 437,783.7 | 3,682,894.0 | 294.7 | 94.0 | 200.7 |
| Lower Aquifer Zone of UTRA | BGO25A | WELL | 437,783.7 | 3,682,894.0 | 294.7 | 94.0 | 200.7 |
| Lower Aquifer Zone of UTRA | BGO26A | WELL | 437,625.6 | 3,682,773.0 | 285.1 | 73.4 | 211.7 |
| Lower Aquifer Zone of UTRA | BGO27C | WELL | 437,626.3 | 3,682,594.0 | 273.9 | 82.0 | 191.9 |
| Lower Aquifer Zone of UTRA | BGO27C | WELL | 437,626.3 | 3,682,594.0 | 273.9 | 82.0 | 191.9 |
| Lower Aquifer Zone of UTRA | BGO29A | WELL | 437,506.3 | 3,682,466.0 | 262.1 | 77.0 | 185.1 |
| Lower Aquifer Zone of UTRA | BGO29A | WELL | 437,506.3 | 3,682,466.0 | 262.1 | 77.0 | 185.1 |
| Lower Aquifer Zone of UTRA | BGO31C | WELL | 437,785.6 | 3,682,451.0 | 271.1 | 83.0 | 188.1 |
| Lower Aquifer Zone of UTRA | BGO31C | WELL | 437,785.6 | 3,682,451.0 | 271.1 | 83.4 | 187.7 |
| Lower Aquifer Zone of UTRA | BGO33C | WELL | 438,088.4 | 3,682,483.2 | 277.4 | 86.0 | 191.4 |
| Lower Aquifer Zone of UTRA | BGO33C | WELL | 438,088.4 | 3,682,483.2 | 277.4 | 86.0 | 191.4 |
| Lower Aquifer Zone of UTRA | BGO35C | WELL | 438,395.9 | 3,682,508.0 | 271.4 | 74.0 | 197.4 |
| Lower Aquifer Zone of UTRA | BGO35C | WELL | 438,395.9 | 3,682,508.0 | 271.4 | 75.0 | 196.4 |
| Lower Aquifer Zone of UTRA | BGO37C | WELL | 438,657.7 | 3,682,527.0 | 284.3 | 93.0 | 191.3 |
| Lower Aquifer Zone of UTRA | BGO37C | WELL | 438,657.7 | 3,682,527.0 | 284.3 | 93.0 | 191.3 |
| Lower Aquifer Zone of UTRA | BGO39A | WELL | 438,777.8 | 3,682,644.0 | 293.7 | 100.1 | 193.6 |
| Lower Aquifer Zone of UTRA | BGO3A | WELL | 438,663.4 | 3,683,310.1 | 288.0 | 100.0 | 188.0 |
| Lower Aquifer Zone of UTRA | BGO3A | WELL | 438,663.4 | 3,683,310.1 | 288.0 | 100.0 | 188.0 |
| Lower Aquifer Zone of UTRA | BGO41A | WELL | 437,662.9 | 3,682,923.0 | 298.3 | 90.0 | 208.3 |
| Lower Aquifer Zone of UTRA | BGO41A | WELL | 437,662.9 | 3,682,923.0 | 298.3 | 92.2 | 206.1 |
| Lower Aquifer Zone of UTRA | BGO42C | WELL | 437,703.9 | 3,682,928.0 | 295.9 | 87.0 | 208.9 |
| Lower Aquifer Zone of UTRA | BGO42C | WELL | 437,703.9 | 3,682,928.0 | 295.9 | 89.0 | 206.9 |
| Lower Aquifer Zone of UTRA | BGO43AA | WELL | 437,769.1 | 3,683,225.0 | 312.2 | 104.0 | 208.2 |
| Lower Aquifer Zone of UTRA | BGO44AA | WELL | 438,222.1 | 3,683,438.0 | 283.3 | 70.7 | 212.6 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|----------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Lower Aquifer Zone of UTRA | BGO45A | WELL | 437,567.8 | 3,682,613.0 | 276.9 | 76.0 | 200.9 |
| Lower Aquifer Zone of UTRA | BGO45A | WELL | 437,567.8 | 3,682,613.0 | 276.9 | 76.9 | 200.0 |
| Lower Aquifer Zone of UTRA | BGO46B | WELL | 437,688.3 | 3,682,393.0 | 263.4 | 70.0 | 193.4 |
| Lower Aquifer Zone of UTRA | BGO46B | WELL | 437,688.3 | 3,682,393.0 | 263.4 | 72.0 | 191.4 |
| Lower Aquifer Zone of UTRA | BGO47A | WELL | 437,854.2 | 3,682,407.0 | 264.8 | 75.0 | 189.8 |
| Lower Aquifer Zone of UTRA | BGO47A | WELL | 437,854.2 | 3,682,407.0 | 264.8 | 75.0 | 189.8 |
| Lower Aquifer Zone of UTRA | BGO48C | WELL | 437,929.7 | 3,682,412.0 | 274.7 | 83.0 | 191.7 |
| Lower Aquifer Zone of UTRA | BGO48C | WELL | 437,929.7 | 3,682,412.0 | 274.7 | 83.9 | 190.8 |
| Lower Aquifer Zone of UTRA | BGO49A | WELL | 438,320.9 | 3,682,435.0 | 269.1 | 77.0 | 192.1 |
| Lower Aquifer Zone of UTRA | BGO49A | WELL | 438,320.9 | 3,682,435.0 | 269.1 | 77.0 | 192.1 |
| Lower Aquifer Zone of UTRA | BGO50A | WELL | 437,588.7 | 3,682,391.0 | 253.5 | 70.0 | 183.5 |
| Lower Aquifer Zone of UTRA | BGO50A | WELL | 437,588.7 | 3,682,391.0 | 253.5 | 70.0 | 183.5 |
| Lower Aquifer Zone of UTRA | BGO51AA | WELL | 438,692.1 | 3,682,785.0 | 287.2 | 93.0 | 194.2 |
| Lower Aquifer Zone of UTRA | BGO51AA | WELL | 438,692.1 | 3,682,785.0 | 287.2 | 93.0 | 194.2 |
| Lower Aquifer Zone of UTRA | BGO52AA | WELL | 438,428.3 | 3,682,790.7 | 281.6 | 85.0 | 196.6 |
| Lower Aquifer Zone of UTRA | BGO52AA | WELL | 438,428.3 | 3,682,790.7 | 281.6 | 85.0 | 196.6 |
| Lower Aquifer Zone of UTRA | BGO53AA | WELL | 437,742.1 | 3,682,829.1 | 288.9 | 73.0 | 215.9 |
| Lower Aquifer Zone of UTRA | BGO53AA | WELL | 437,742.1 | 3,682,829.1 | 288.9 | 74.3 | 214.7 |
| Lower Aquifer Zone of UTRA | BGO5C | WELL | 438,497.4 | 3,683,533.0 | 294.2 | 93.0 | 201.2 |
| Lower Aquifer Zone of UTRA | BGO5C | WELL | 438,497.4 | 3,683,533.0 | 294.2 | 94.8 | 199.4 |
| Lower Aquifer Zone of UTRA | BGO6A | WELL | 438,377.7 | 3,683,450.0 | 283.8 | 89.0 | 194.8 |
| Lower Aquifer Zone of UTRA | BGO6A | WELL | 438,377.7 | 3,683,450.0 | 283.8 | 89.0 | 194.8 |
| Lower Aquifer Zone of UTRA | BGO6B | WELL | 438,373.1 | 3,683,471.0 | 284.5 | 93.0 | 191.5 |
| Lower Aquifer Zone of UTRA | BGO6B | WELL | 438,373.1 | 3,683,471.0 | 284.5 | 93.0 | 191.5 |
| Lower Aquifer Zone of UTRA | BGO8A | WELL | 438,190.8 | 3,683,345.0 | 281.3 | 82.0 | 199.3 |
| Lower Aquifer Zone of UTRA | BGO8A | WELL | 438,190.8 | 3,683,345.0 | 281.3 | 82.0 | 199.3 |
| Lower Aquifer Zone of UTRA | BGO9AA | WELL | 438,057.0 | 3,683,401.0 | 282.8 | 72.0 | 210.8 |
| Lower Aquifer Zone of UTRA | BGO9AA | WELL | 438,057.0 | 3,683,401.0 | 282.8 | 72.0 | 210.8 |
| Lower Aquifer Zone of UTRA | BGSG1 | CONE | 438,103.2 | 3,683,443.2 | 281.7 | 71.7 | 210.0 |
| Lower Aquifer Zone of UTRA | BGSG15 | CONE | 437,619.5 | 3,683,091.5 | 321.8 | 102.2 | 219.7 |
| Lower Aquifer Zone of UTRA | BGSG19 | CONE | 438,477.4 | 3,683,603.6 | 286.2 | 79.6 | 206.6 |
| Lower Aquifer Zone of UTRA | BGSG22 | CONE | 438,554.2 | 3,683,614.7 | 284.6 | 86.2 | 198.5 |
| Lower Aquifer Zone of UTRA | BGSG23 | CONE | 438,710.2 | 3,683,347.1 | 284.6 | 86.6 | 198.0 |
| Lower Aquifer Zone of UTRA | BGSG27 | CONE | 438,867.4 | 3,683,130.3 | 286.3 | 93.1 | 193.2 |
| Lower Aquifer Zone of UTRA | BGSG33 | CONE | 439,011.1 | 3,682,933.4 | 290.5 | 97.4 | 193.1 |
| Lower Aquifer Zone of UTRA | BGSG35 | CONE | 437,883.4 | 3,684,029.6 | 290.8 | 73.6 | 217.2 |
| Lower Aquifer Zone of UTRA | BGSG42 | CONE | 438,476.4 | 3,682,429.4 | 266.0 | 70.8 | 195.2 |
| Lower Aquifer Zone of UTRA | BGSG5 | CONE | 438,247.0 | 3,683,426.5 | 282.7 | 66.8 | 215.9 |
| Lower Aquifer Zone of UTRA | BGSG60 | CONE | 437,509.0 | 3,682,584.5 | 273.9 | 74.2 | 199.7 |
| Lower Aquifer Zone of UTRA | BGSG68 | CONE | 437,548.5 | 3,682,735.2 | 289.6 | 79.2 | 210.4 |
| Lower Aquifer Zone of UTRA | BGSG8 | CONE | 437,885.6 | 3,683,324.4 | 299.9 | 80.6 | 219.3 |
| Lower Aquifer Zone of UTRA | BGT1 | CONE | 438,551.2 | 3,683,657.6 | 282.9 | 71.5 | 211.4 |
| Lower Aquifer Zone of UTRA | BGT1 | CONE | 438,551.2 | 3,683,657.6 | 282.9 | 75.0 | 207.9 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|----------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Lower Aquifer Zone of UTRA | BGT12 | CONE | 438,166.3 | 3,683,600.0 | 284.2 | 70.0 | 214.2 |
| Lower Aquifer Zone of UTRA | BGT12 | CONE | 438,166.3 | 3,683,600.0 | 284.2 | 70.0 | 214.2 |
| Lower Aquifer Zone of UTRA | BGT13 | CONE | 438,137.8 | 3,683,653.7 | 287.8 | 71.8 | 216.0 |
| Lower Aquifer Zone of UTRA | BGT13 | CONE | 438,137.8 | 3,683,653.7 | 287.8 | 72.0 | 215.8 |
| Lower Aquifer Zone of UTRA | BGT14 | CONE | 438,066.1 | 3,683,788.1 | 280.7 | 71.6 | 209.2 |
| Lower Aquifer Zone of UTRA | BGT14 | CONE | 438,066.1 | 3,683,788.1 | 280.7 | 72.0 | 208.7 |
| Lower Aquifer Zone of UTRA | BGT15 | CONE | 437,994.4 | 3,683,922.6 | 277.5 | 77.0 | 200.5 |
| Lower Aquifer Zone of UTRA | BGT15 | CONE | 437,994.4 | 3,683,922.6 | 277.5 | 77.0 | 200.5 |
| Lower Aquifer Zone of UTRA | BGT16 | CONE | 437,923.1 | 3,684,057.2 | 250.7 | 33.5 | 217.2 |
| Lower Aquifer Zone of UTRA | BGT17 | CONE | 437,850.6 | 3,684,191.2 | 240.7 | 40.7 | 200.0 |
| Lower Aquifer Zone of UTRA | BGT18 | CONE | 437,778.1 | 3,684,325.2 | 216.5 | 12.4 | 204.1 |
| Lower Aquifer Zone of UTRA | BGT2 | CONE | 438,610.8 | 3,683,797.8 | 276.4 | 86.4 | 190.0 |
| Lower Aquifer Zone of UTRA | BGT21 | CONE | 437,898.8 | 3,683,401.3 | 294.2 | 78.0 | 216.2 |
| Lower Aquifer Zone of UTRA | BGT21 | CONE | 437,898.8 | 3,683,401.3 | 294.2 | 80.1 | 214.1 |
| Lower Aquifer Zone of UTRA | BGT22 | CONE | 437,831.6 | 3,683,502.9 | 281.0 | 64.4 | 216.6 |
| Lower Aquifer Zone of UTRA | BGT23 | CONE | 437,730.6 | 3,683,655.4 | 270.0 | 60.0 | 210.0 |
| Lower Aquifer Zone of UTRA | BGT23 | CONE | 437,730.6 | 3,683,655.4 | 270.0 | 60.0 | 210.0 |
| Lower Aquifer Zone of UTRA | BGT24 | CONE | 437,646.5 | 3,683,782.4 | 265.8 | 46.0 | 219.8 |
| Lower Aquifer Zone of UTRA | BGT24 | CONE | 437,646.5 | 3,683,782.4 | 265.8 | 46.0 | 219.8 |
| Lower Aquifer Zone of UTRA | BGT25 | CONE | 437,562.4 | 3,683,909.4 | 264.8 | 41.0 | 223.8 |
| Lower Aquifer Zone of UTRA | BGT25 | CONE | 437,562.4 | 3,683,909.4 | 264.8 | 41.0 | 223.8 |
| Lower Aquifer Zone of UTRA | BGT26 | CONE | 437,478.4 | 3,684,036.5 | 250.2 | 30.1 | 220.1 |
| Lower Aquifer Zone of UTRA | BGT27 | CONE | 437,394.2 | 3,684,163.5 | 256.9 | 48.0 | 208.9 |
| Lower Aquifer Zone of UTRA | BGT27 | CONE | 437,394.2 | 3,684,163.5 | 256.9 | 50.0 | 206.9 |
| Lower Aquifer Zone of UTRA | BGT28 | CONE | 437,310.1 | 3,684,290.6 | 258.3 | 53.5 | 204.9 |
| Lower Aquifer Zone of UTRA | BGT29 | CONE | 437,226.1 | 3,684,417.6 | 243.0 | 27.8 | 215.2 |
| Lower Aquifer Zone of UTRA | BGT29 | CONE | 437,226.1 | 3,684,417.6 | 243.0 | 28.0 | 215.0 |
| Lower Aquifer Zone of UTRA | BGT3 | CONE | 438,675.8 | 3,683,935.6 | 275.7 | 76.4 | 199.3 |
| Lower Aquifer Zone of UTRA | BGT3 | CONE | 438,675.8 | 3,683,935.6 | 275.7 | 78.0 | 197.7 |
| Lower Aquifer Zone of UTRA | BGT30 | CONE | 437,150.4 | 3,684,532.0 | 219.0 | 13.3 | 205.7 |
| Lower Aquifer Zone of UTRA | BGT4 | CONE | 438,740.8 | 3,684,073.3 | 259.2 | 50.8 | 208.4 |
| Lower Aquifer Zone of UTRA | BGT4 | CONE | 438,740.8 | 3,684,073.3 | 259.2 | 55.0 | 204.2 |
| Lower Aquifer Zone of UTRA | BGT49 | CONE | 437,597.7 | 3,682,776.3 | 297.3 | 70.0 | 227.2 |
| Lower Aquifer Zone of UTRA | BGT50 | CONE | 437,523.0 | 3,682,780.4 | 296.3 | 81.8 | 214.5 |
| Lower Aquifer Zone of UTRA | BGT50 | CONE | 437,523.0 | 3,682,780.4 | 296.3 | 82.0 | 214.3 |
| Lower Aquifer Zone of UTRA | BGT51 | CONE | 437,611.8 | 3,682,528.7 | 272.6 | 82.1 | 190.5 |
| Lower Aquifer Zone of UTRA | BGT51 | CONE | 437,611.8 | 3,682,528.7 | 272.6 | 87.0 | 185.6 |
| Lower Aquifer Zone of UTRA | BGT56 | CONE | 438,403.8 | 3,682,352.0 | 262.9 | 87.7 | 175.2 |
| Lower Aquifer Zone of UTRA | BGT56 | CONE | 438,403.8 | 3,682,352.0 | 262.9 | 88.0 | 174.9 |
| Lower Aquifer Zone of UTRA | BGT57 | CONE | 438,409.4 | 3,682,260.8 | 259.4 | 96.6 | 162.8 |
| Lower Aquifer Zone of UTRA | BGT58 | CONE | 438,703.7 | 3,682,527.2 | 285.8 | 106.4 | 179.3 |
| Lower Aquifer Zone of UTRA | BGT60 | CONE | 438,917.0 | 3,682,574.6 | 291.4 | 115.0 | 176.4 |
| Lower Aquifer Zone of UTRA | BGT60 | CONE | 438,917.0 | 3,682,574.6 | 291.4 | 115.0 | 176.4 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|----------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Lower Aquifer Zone of UTRA | BGT61 | CONE | 439,061.1 | 3,682,600.7 | 284.3 | 108.0 | 176.3 |
| Lower Aquifer Zone of UTRA | BGT61 | CONE | 439,061.1 | 3,682,600.7 | 284.3 | 108.0 | 176.3 |
| Lower Aquifer Zone of UTRA | BGT62 | CONE | 439,100.7 | 3,682,607.9 | 282.0 | 105.0 | 177.0 |
| Lower Aquifer Zone of UTRA | BGT62 | CONE | 439,100.7 | 3,682,607.9 | 282.0 | 106.0 | 176.0 |
| Lower Aquifer Zone of UTRA | BGT63 | CONE | 439,149.7 | 3,682,818.9 | 293.7 | 105.0 | 188.7 |
| Lower Aquifer Zone of UTRA | BGT63 | CONE | 439,149.7 | 3,682,818.9 | 293.7 | 105.0 | 188.7 |
| Lower Aquifer Zone of UTRA | BGT63A | CONE | 438,997.8 | 3,682,831.6 | 290.8 | 105.0 | 185.8 |
| Lower Aquifer Zone of UTRA | BGT64 | CONE | 439,291.6 | 3,682,807.0 | 283.3 | 95.0 | 188.3 |
| Lower Aquifer Zone of UTRA | BGT64 | CONE | 439,291.6 | 3,682,807.0 | 283.3 | 95.0 | 188.3 |
| Lower Aquifer Zone of UTRA | BGT66 | CONE | 439,160.8 | 3,683,263.0 | 244.0 | 56.0 | 188.0 |
| Lower Aquifer Zone of UTRA | BGT66 | CONE | 439,160.8 | 3,683,263.0 | 244.0 | 56.0 | 188.0 |
| Lower Aquifer Zone of UTRA | BGT67 | CONE | 439,263.6 | 3,683,325.3 | 242.0 | 69.5 | 172.5 |
| Lower Aquifer Zone of UTRA | BGT7 | CONE | 438,309.0 | 3,683,864.6 | 276.4 | 77.0 | 199.4 |
| Lower Aquifer Zone of UTRA | BGT7 | CONE | 438,309.0 | 3,683,864.6 | 276.4 | 77.0 | 199.4 |
| Lower Aquifer Zone of UTRA | BGT8 | CONE | 438,274.5 | 3,684,006.7 | 249.3 | 32.0 | 217.3 |
| Lower Aquifer Zone of UTRA | BGT8 | CONE | 438,274.5 | 3,684,006.7 | 249.3 | 34.0 | 215.3 |
| Lower Aquifer Zone of UTRA | BGT9 | CONE | 438,237.1 | 3,684,160.7 | 226.0 | 27.4 | 198.6 |
| Lower Aquifer Zone of UTRA | BGX11D | WELL | 438,901.5 | 3,683,385.0 | 273.8 | 96.8 | 177.0 |
| Lower Aquifer Zone of UTRA | BGX11D | WELL | 438,901.5 | 3,683,385.0 | 273.8 | 97.0 | 176.8 |
| Lower Aquifer Zone of UTRA | BGX1A | WELL | 438,383.2 | 3,683,584.0 | 289.1 | 86.2 | 202.9 |
| Lower Aquifer Zone of UTRA | BGX1A | WELL | 438,383.2 | 3,683,584.0 | 289.1 | 91.0 | 198.1 |
| Lower Aquifer Zone of UTRA | BGX2B | WELL | 438,233.9 | 3,683,616.1 | 289.2 | 91.0 | 198.2 |
| Lower Aquifer Zone of UTRA | BGX2B | WELL | 438,233.9 | 3,683,616.1 | 289.2 | 91.0 | 198.2 |
| Lower Aquifer Zone of UTRA | BGX4A | WELL | 437,856.3 | 3,683,595.9 | 288.8 | 76.0 | 212.8 |
| Lower Aquifer Zone of UTRA | BGX4A | WELL | 437,856.3 | 3,683,595.9 | 288.8 | 76.0 | 212.8 |
| Lower Aquifer Zone of UTRA | BGX7D | WELL | 438,042.3 | 3,683,908.5 | 277.1 | 66.2 | 210.9 |
| Lower Aquifer Zone of UTRA | BGX8D | WELL | 438,335.2 | 3,683,861.9 | 276.1 | 73.1 | 203.0 |
| Lower Aquifer Zone of UTRA | BGX9D | WELL | 438,593.7 | 3,683,777.2 | 277.4 | 90.3 | 187.1 |
| Lower Aquifer Zone of UTRA | BPSC15 | CONE | 438,597.5 | 3,684,070.1 | 253.0 | 41.8 | 211.2 |
| Lower Aquifer Zone of UTRA | BSE1C1 | WELL | 438,675.5 | 3,682,435.0 | 283.7 | 83.1 | 200.6 |
| Lower Aquifer Zone of UTRA | DRB3 | WELL | 438,181.0 | 3,682,955.0 | 285.4 | 88.2 | 197.2 |
| Lower Aquifer Zone of UTRA | ECP6CP1 | CONE | 437,449.3 | 3,684,072.8 | 256.8 | 30.4 | 226.5 |
| Lower Aquifer Zone of UTRA | ECP8SB1 | BORING | 437,661.1 | 3,683,966.2 | 267.2 | 42.9 | 224.3 |
| Lower Aquifer Zone of UTRA | FC3A | WELL | 437,804.0 | 3,683,877.2 | 269.5 | 47.1 | 222.4 |
| Lower Aquifer Zone of UTRA | HAT-CPT1 | CONE | 439,029.5 | 3,683,633.2 | 255.8 | 56.9 | 198.9 |
| Lower Aquifer Zone of UTRA | HC12A | WELL | 439,261.5 | 3,682,850.4 | 287.3 | 97.0 | 190.3 |
| Lower Aquifer Zone of UTRA | HC12A | WELL | 439,261.5 | 3,682,850.4 | 287.3 | 97.0 | 190.3 |
| Lower Aquifer Zone of UTRA | HC8A | WELL | 438,627.9 | 3,684,007.8 | 262.3 | 45.1 | 217.2 |
| Lower Aquifer Zone of UTRA | HCH4 | BORING | 439,304.1 | 3,682,603.0 | 270.0 | 86.0 | 184.0 |
| Lower Aquifer Zone of UTRA | HCH4 | BORING | 439,304.1 | 3,682,603.0 | 270.0 | 87.0 | 183.0 |
| Lower Aquifer Zone of UTRA | HIW1BD | WELL | 439,087.7 | 3,682,488.0 | 275.8 | 72.0 | 203.8 |
| Lower Aquifer Zone of UTRA | HIW1MC | WELL | 439,130.6 | 3,682,495.0 | 272.3 | 91.0 | 181.3 |
| Lower Aquifer Zone of UTRA | HIW1MC | WELL | 439,130.6 | 3,682,495.0 | 272.3 | 93.0 | 179.3 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|----------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Lower Aquifer Zone of UTRA | HIW2A | WELL | 438,572.6 | 3,682,372.0 | 276.3 | 80.6 | 195.7 |
| Lower Aquifer Zone of UTRA | HIW2A | WELL | 438,572.6 | 3,682,372.0 | 276.3 | 81.0 | 195.3 |
| Lower Aquifer Zone of UTRA | HIW2MC | WELL | 438,563.2 | 3,682,357.0 | 269.0 | 75.5 | 193.5 |
| Lower Aquifer Zone of UTRA | HIW2MC | WELL | 438,563.2 | 3,682,357.0 | 269.0 | 76.0 | 193.0 |
| Lower Aquifer Zone of UTRA | HIW4MC | WELL | 438,543.5 | 3,682,318.0 | 263.4 | 73.0 | 190.4 |
| Lower Aquifer Zone of UTRA | HIW4MC | WELL | 438,543.5 | 3,682,318.0 | 263.4 | 73.0 | 190.4 |
| Lower Aquifer Zone of UTRA | HIW5MC | WELL | 438,454.7 | 3,682,403.0 | 266.1 | 88.0 | 178.1 |
| Lower Aquifer Zone of UTRA | HIW5MC | WELL | 438,454.7 | 3,682,403.0 | 266.1 | 88.0 | 178.1 |
| Lower Aquifer Zone of UTRA | HMD1C | BORING | 437,643.8 | 3,683,762.5 | 262.7 | 37.0 | 225.7 |
| Lower Aquifer Zone of UTRA | HMD1C | BORING | 437,643.8 | 3,683,762.5 | 262.7 | 41.1 | 221.6 |
| Lower Aquifer Zone of UTRA | HMD2C | BORING | 437,549.3 | 3,684,045.8 | 259.3 | 40.1 | 219.2 |
| Lower Aquifer Zone of UTRA | HMD2C | BORING | 437,549.3 | 3,684,045.8 | 259.3 | 43.0 | 216.3 |
| Lower Aquifer Zone of UTRA | HMD3C | BORING | 437,682.6 | 3,684,109.0 | 258.0 | 39.0 | 219.0 |
| Lower Aquifer Zone of UTRA | HMD3C | BORING | 437,682.6 | 3,684,109.0 | 258.0 | 39.8 | 218.2 |
| Lower Aquifer Zone of UTRA | HMD4C | BORING | 437,866.8 | 3,684,086.0 | 249.0 | 27.6 | 221.4 |
| Lower Aquifer Zone of UTRA | HMD4C | BORING | 437,866.8 | 3,684,086.0 | 249.0 | 29.0 | 220.0 |
| Lower Aquifer Zone of UTRA | HPT1A | WELL | 439,230.6 | 3,683,452.7 | 233.8 | 57.7 | 176.1 |
| Lower Aquifer Zone of UTRA | HPT2A | WELL | 439,096.9 | 3,683,437.0 | 257.8 | 76.8 | 181.1 |
| Lower Aquifer Zone of UTRA | HSB116C | WELL | 438,449.5 | 3,682,146.0 | 255.3 | 60.1 | 195.3 |
| Lower Aquifer Zone of UTRA | HSB119A | WELL | 438,442.5 | 3,682,214.0 | 254.8 | 51.9 | 203.0 |
| Lower Aquifer Zone of UTRA | HSB120A | WELL | 438,467.5 | 3,682,350.0 | 266.0 | 70.0 | 196.0 |
| Lower Aquifer Zone of UTRA | HSB120A | WELL | 438,467.5 | 3,682,350.0 | 266.0 | 73.3 | 192.7 |
| Lower Aquifer Zone of UTRA | HSB1TB | WELL | 439,204.7 | 3,682,510.1 | 267.1 | 68.0 | 199.1 |
| Lower Aquifer Zone of UTRA | HSB65A | WELL | 439,133.2 | 3,682,473.0 | 270.7 | 72.0 | 198.7 |
| Lower Aquifer Zone of UTRA | HSB65A | WELL | 439,133.2 | 3,682,473.0 | 270.7 | 72.0 | 198.7 |
| Lower Aquifer Zone of UTRA | HSB85A | WELL | 439,014.9 | 3,682,899.0 | 292.1 | 92.0 | 200.1 |
| Lower Aquifer Zone of UTRA | HSB85A | WELL | 439,014.9 | 3,682,899.0 | 292.1 | 92.0 | 200.1 |
| Lower Aquifer Zone of UTRA | HSBTB | WELL | 439,205.2 | 3,682,509.0 | 267.1 | 80.9 | 186.2 |
| Lower Aquifer Zone of UTRA | HTRANC1 | CONE | 438,241.0 | 3,682,840.7 | 308.6 | 118.6 | 190.0 |
| Lower Aquifer Zone of UTRA | HTRANC8 | CONE | 437,739.4 | 3,682,866.2 | 299.5 | 92.4 | 207.1 |
| Lower Aquifer Zone of UTRA | MBG13 | WELL | 438,027.7 | 3,682,388.3 | 276.0 | 92.5 | 183.5 |
| Lower Aquifer Zone of UTRA | NEP1SB | BORING | 438,775.0 | 3,683,744.1 | 276.2 | 82.3 | 194.0 |
| Lower Aquifer Zone of UTRA | OFS1SB | BORING | 437,594.3 | 3,682,308.0 | 261.6 | 76.0 | 185.6 |
| Lower Aquifer Zone of UTRA | OFS1SB | BORING | 437,594.3 | 3,682,308.0 | 261.6 | 76.0 | 185.6 |
| Lower Aquifer Zone of UTRA | OFS2SB | BORING | 437,602.0 | 3,682,201.7 | 257.5 | 77.0 | 180.5 |
| Lower Aquifer Zone of UTRA | OFS3SB | BORING | 437,854.0 | 3,682,234.0 | 258.1 | 73.0 | 185.1 |
| Lower Aquifer Zone of UTRA | OFS3SB | BORING | 437,854.0 | 3,682,234.0 | 258.1 | 77.6 | 180.5 |
| Lower Aquifer Zone of UTRA | ONBP-4 | CONE | 437,476.2 | 3,684,269.5 | 225.5 | 12.7 | 212.8 |
| Lower Aquifer Zone of UTRA | ONBP-7 | CONE | 437,444.8 | 3,684,209.0 | 229.0 | 11.4 | 217.6 |
| Lower Aquifer Zone of UTRA | ONBP-9 | CONE | 437,408.9 | 3,684,258.3 | 229.7 | 17.1 | 212.6 |
| Lower Aquifer Zone of UTRA | PBE2A | WELL | 438,349.0 | 3,682,453.3 | 248.4 | 56.3 | 192.1 |
| Lower Aquifer Zone of UTRA | SP-10 | CONE | 437,216.0 | 3,684,319.9 | 240.0 | 26.3 | 213.7 |
| Lower Aquifer Zone of UTRA | SP-14 | CONE | 437,215.9 | 3,684,513.0 | 232.5 | 15.3 | 217.2 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|----------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Lower Aquifer Zone of UTRA | SP-15 | CONE | 437,577.2 | 3,684,384.9 | 228.9 | 15.6 | 213.3 |
| Lower Aquifer Zone of UTRA | SWC24 | CONE | 437,602.0 | 3,682,201.7 | 258.0 | 78.0 | 180.0 |
| Lower Aquifer Zone of UTRA | SWC24 | CONE | 437,602.0 | 3,682,201.7 | 258.0 | 78.0 | 180.0 |
| Lower Aquifer Zone of UTRA | SWC25 | CONE | 437,725.7 | 3,682,209.9 | 243.0 | 66.8 | 176.2 |
| Lower Aquifer Zone of UTRA | SWC36ARA | CONE | 437,748.3 | 3,682,339.4 | 257.0 | 75.3 | 181.7 |

Appendix 2 (continued). Variogram and ArcMap settings for elevation model of Lower Aquifer Zone (LAZ).

NameZ:\Bennett\SRNL\E-Area_VadoseZoneHydroModel\EVZ\LB_LAZ_20170315.RwGrd

Spoke Spacing: 90.0 degrees.

Spoke Tolerance: +/- 45.0 degrees

Distance Increment: 71.1

Distance Tolerance: +/- 35.55

Maximum Cutoff Distance: 1,047.28

Best Variogram (i.e. Best Correlation): Gaussian With Nugget

Correlation Coefficient of Best Variogram: 0.87

Variogram That Was Actually Used: Exponential With Nugget

Correlation Coefficient: 0.86

Nugget: 3.26

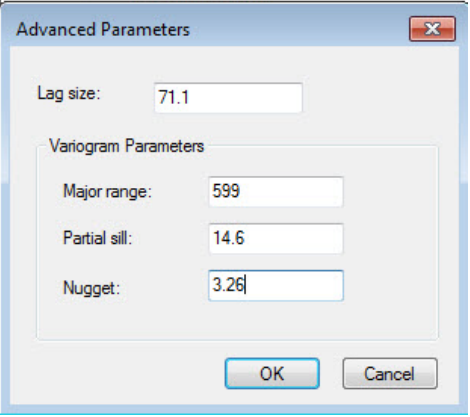
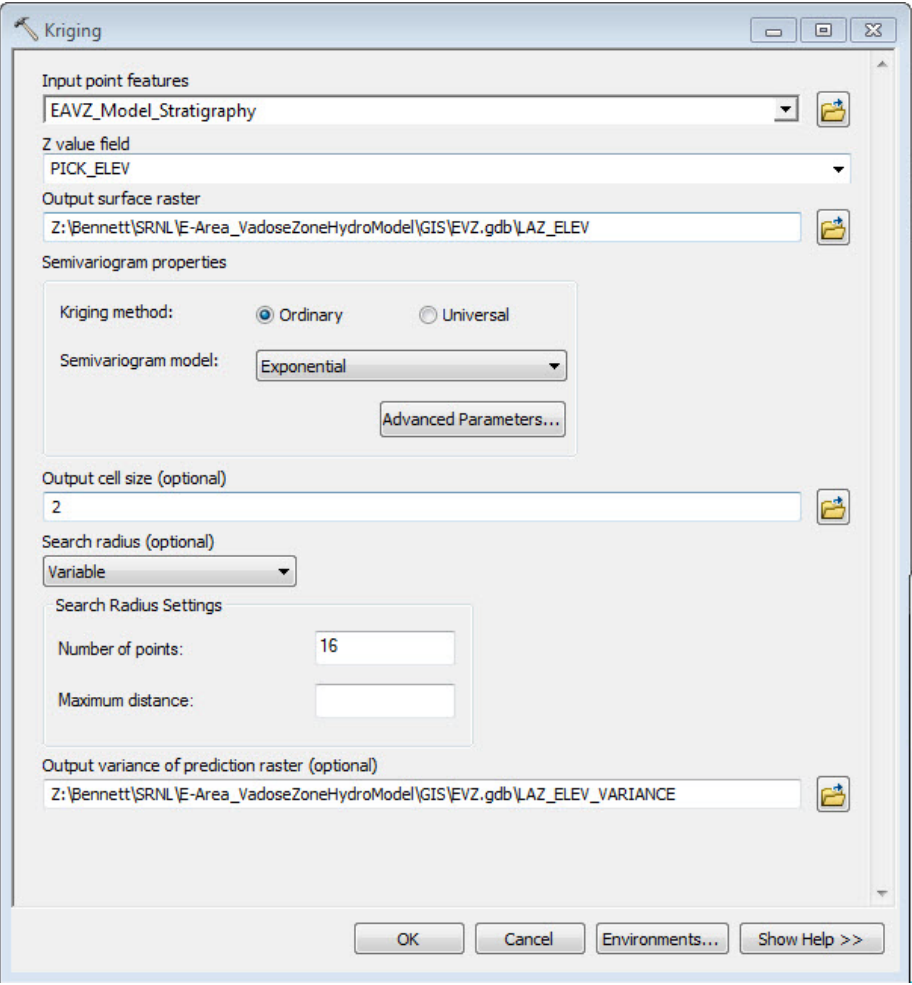
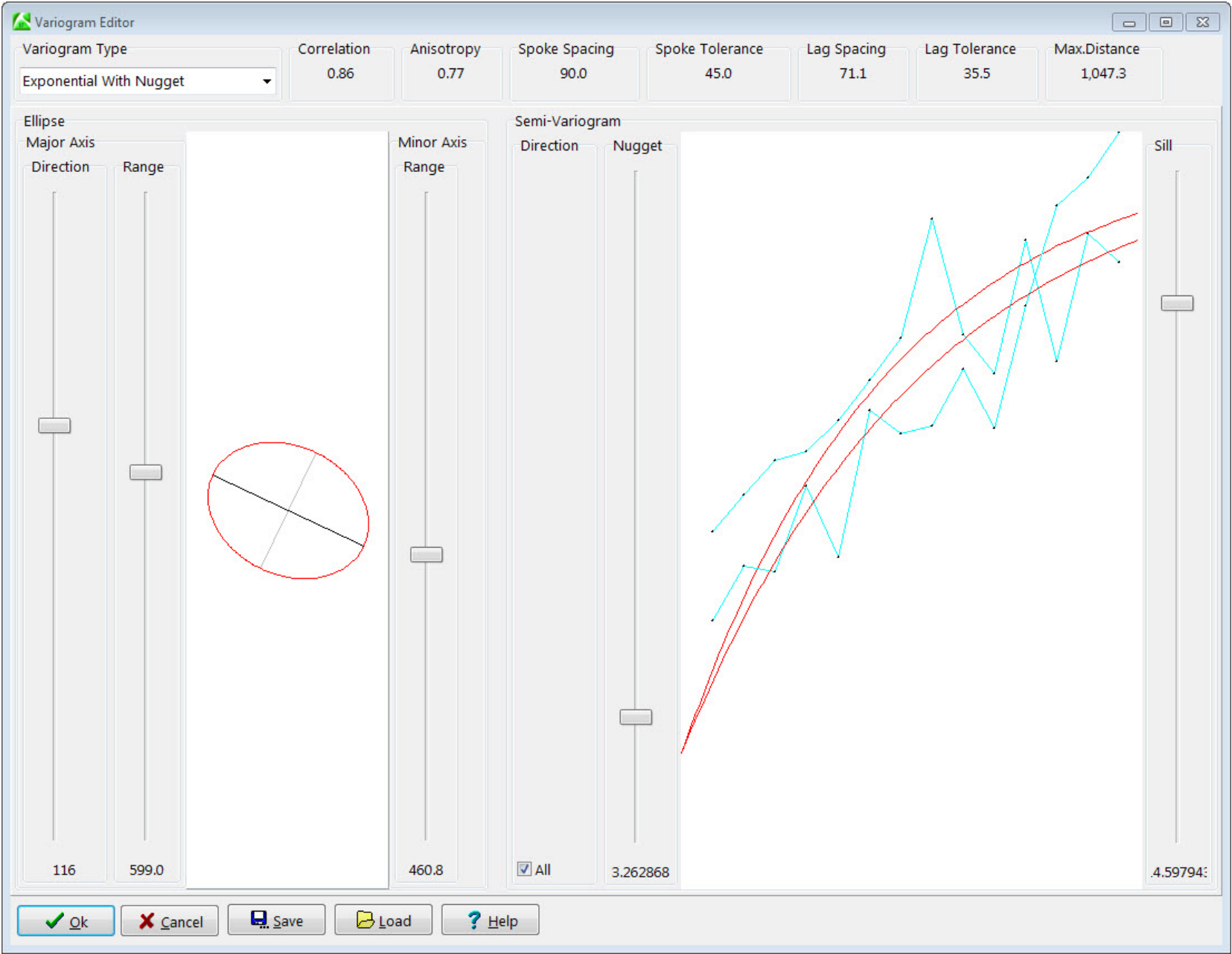
Relative Sill: 14.6

Major Axis Direction: N115.6 degrees.

Major Axis Range: 598.99

Minor Axis Direction: N205.6 degrees.

Minor Axis Range: 460.8



Appendix 3. Control points (n=233) for elevation model of the Tan Clay Confining Zone (TCCZ).

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|-------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tan Clay Confining Zone | BGC1A | WELL | 438,627.7 | 3,682,526.2 | 281.5 | 82.5 | 199.0 |
| Tan Clay Confining Zone | BGC2A | WELL | 438,161.9 | 3,682,488.2 | 273.1 | 73.3 | 199.8 |
| Tan Clay Confining Zone | BGC3A | WELL | 437,737.6 | 3,682,454.9 | 271.1 | 87.3 | 183.8 |
| Tan Clay Confining Zone | BGO10A | WELL | 438,008.9 | 3,683,301.0 | 299.1 | 90.0 | 209.1 |
| Tan Clay Confining Zone | BGO10A | WELL | 438,008.9 | 3,683,301.0 | 299.1 | 90.0 | 209.1 |
| Tan Clay Confining Zone | BGO10AA | WELL | 437,958.9 | 3,683,338.0 | 298.8 | 80.0 | 218.8 |
| Tan Clay Confining Zone | BGO10AA | WELL | 437,958.9 | 3,683,338.0 | 298.8 | 80.0 | 218.8 |
| Tan Clay Confining Zone | BGO12A | WELL | 437,811.5 | 3,683,158.0 | 311.4 | 85.0 | 226.4 |
| Tan Clay Confining Zone | BGO14A | WELL | 437,787.1 | 3,682,978.0 | 300.2 | 80.0 | 220.2 |
| Tan Clay Confining Zone | BGO14A | WELL | 437,787.1 | 3,682,978.0 | 300.2 | 80.0 | 220.2 |
| Tan Clay Confining Zone | BGO16A | WELL | 437,985.8 | 3,682,890.0 | 302.8 | 107.0 | 195.8 |
| Tan Clay Confining Zone | BGO16A | WELL | 437,985.8 | 3,682,890.0 | 302.8 | 107.0 | 195.8 |
| Tan Clay Confining Zone | BGO18A | WELL | 438,137.9 | 3,682,942.0 | 292.9 | 88.7 | 204.2 |
| Tan Clay Confining Zone | BGO20A | WELL | 438,350.3 | 3,682,857.7 | 281.3 | 75.0 | 206.3 |
| Tan Clay Confining Zone | BGO20AA | WELL | 438,350.6 | 3,682,851.6 | 281.3 | 75.0 | 206.3 |
| Tan Clay Confining Zone | BGO20AA | WELL | 438,350.6 | 3,682,851.6 | 281.3 | 75.0 | 206.3 |
| Tan Clay Confining Zone | BGO23D | WELL | 438,735.3 | 3,682,863.0 | 287.0 | 70.3 | 216.7 |
| Tan Clay Confining Zone | BGO25A | WELL | 437,783.7 | 3,682,894.0 | 294.7 | 80.1 | 214.7 |
| Tan Clay Confining Zone | BGO25A | WELL | 437,783.7 | 3,682,894.0 | 294.7 | 83.0 | 211.7 |
| Tan Clay Confining Zone | BGO26A | WELL | 437,625.6 | 3,682,773.0 | 285.1 | 64.9 | 220.2 |
| Tan Clay Confining Zone | BGO26A | WELL | 437,625.6 | 3,682,773.0 | 285.1 | 66.0 | 219.1 |
| Tan Clay Confining Zone | BGO27C | WELL | 437,626.3 | 3,682,594.0 | 273.9 | 75.0 | 198.9 |
| Tan Clay Confining Zone | BGO27C | WELL | 437,626.3 | 3,682,594.0 | 273.9 | 75.0 | 198.9 |
| Tan Clay Confining Zone | BGO29A | WELL | 437,506.3 | 3,682,466.0 | 262.1 | 66.0 | 196.1 |
| Tan Clay Confining Zone | BGO29A | WELL | 437,506.3 | 3,682,466.0 | 262.1 | 66.0 | 196.1 |
| Tan Clay Confining Zone | BGO31C | WELL | 437,785.6 | 3,682,451.0 | 271.1 | 73.0 | 198.1 |
| Tan Clay Confining Zone | BGO31C | WELL | 437,785.6 | 3,682,451.0 | 271.1 | 73.0 | 198.1 |
| Tan Clay Confining Zone | BGO33C | WELL | 438,088.4 | 3,682,483.2 | 277.4 | 74.1 | 203.3 |
| Tan Clay Confining Zone | BGO33C | WELL | 438,088.4 | 3,682,483.2 | 277.4 | 77.0 | 200.4 |
| Tan Clay Confining Zone | BGO35C | WELL | 438,395.9 | 3,682,508.0 | 271.4 | 65.8 | 205.6 |
| Tan Clay Confining Zone | BGO35C | WELL | 438,395.9 | 3,682,508.0 | 271.4 | 67.0 | 204.4 |
| Tan Clay Confining Zone | BGO37C | WELL | 438,657.7 | 3,682,527.0 | 284.3 | 81.6 | 202.7 |
| Tan Clay Confining Zone | BGO37C | WELL | 438,657.7 | 3,682,527.0 | 284.3 | 85.0 | 199.3 |
| Tan Clay Confining Zone | BGO39A | WELL | 438,777.8 | 3,682,644.0 | 293.7 | 86.5 | 207.2 |
| Tan Clay Confining Zone | BGO39A | WELL | 438,777.8 | 3,682,644.0 | 293.7 | 90.0 | 203.7 |
| Tan Clay Confining Zone | BGO3A | WELL | 438,663.4 | 3,683,310.1 | 288.0 | 89.7 | 198.3 |
| Tan Clay Confining Zone | BGO3A | WELL | 438,663.4 | 3,683,310.1 | 288.0 | 91.0 | 197.0 |
| Tan Clay Confining Zone | BGO41A | WELL | 437,662.9 | 3,682,923.0 | 298.3 | 81.0 | 217.3 |
| Tan Clay Confining Zone | BGO41A | WELL | 437,662.9 | 3,682,923.0 | 298.3 | 81.0 | 217.3 |
| Tan Clay Confining Zone | BGO42C | WELL | 437,703.9 | 3,682,928.0 | 295.9 | 79.2 | 216.7 |
| Tan Clay Confining Zone | BGO42C | WELL | 437,703.9 | 3,682,928.0 | 295.9 | 80.0 | 215.9 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|-------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tan Clay Confining Zone | BGO43AA | WELL | 437,769.1 | 3,683,225.0 | 312.2 | 90.2 | 222.1 |
| Tan Clay Confining Zone | BGO44AA | WELL | 438,222.1 | 3,683,438.0 | 283.3 | 61.0 | 222.3 |
| Tan Clay Confining Zone | BGO44AA | WELL | 438,222.1 | 3,683,438.0 | 283.3 | 61.4 | 221.9 |
| Tan Clay Confining Zone | BGO45A | WELL | 437,567.8 | 3,682,613.0 | 276.9 | 70.0 | 206.9 |
| Tan Clay Confining Zone | BGO45A | WELL | 437,567.8 | 3,682,613.0 | 276.9 | 70.0 | 206.9 |
| Tan Clay Confining Zone | BGO46B | WELL | 437,688.3 | 3,682,393.0 | 263.4 | 62.2 | 201.2 |
| Tan Clay Confining Zone | BGO46B | WELL | 437,688.3 | 3,682,393.0 | 263.4 | 64.0 | 199.4 |
| Tan Clay Confining Zone | BGO47A | WELL | 437,854.2 | 3,682,407.0 | 264.8 | 67.0 | 197.8 |
| Tan Clay Confining Zone | BGO47A | WELL | 437,854.2 | 3,682,407.0 | 264.8 | 67.0 | 197.8 |
| Tan Clay Confining Zone | BGO48C | WELL | 437,929.7 | 3,682,412.0 | 274.7 | 75.3 | 199.4 |
| Tan Clay Confining Zone | BGO48C | WELL | 437,929.7 | 3,682,412.0 | 274.7 | 77.0 | 197.7 |
| Tan Clay Confining Zone | BGO49A | WELL | 438,320.9 | 3,682,435.0 | 269.1 | 68.0 | 201.1 |
| Tan Clay Confining Zone | BGO49A | WELL | 438,320.9 | 3,682,435.0 | 269.1 | 68.0 | 201.1 |
| Tan Clay Confining Zone | BGO50A | WELL | 437,588.7 | 3,682,391.0 | 253.5 | 58.4 | 195.1 |
| Tan Clay Confining Zone | BGO50A | WELL | 437,588.7 | 3,682,391.0 | 253.5 | 60.0 | 193.5 |
| Tan Clay Confining Zone | BGO51AA | WELL | 438,692.1 | 3,682,785.0 | 287.2 | 81.3 | 205.9 |
| Tan Clay Confining Zone | BGO51AA | WELL | 438,692.1 | 3,682,785.0 | 287.2 | 82.0 | 205.2 |
| Tan Clay Confining Zone | BGO52AA | WELL | 438,428.3 | 3,682,790.7 | 281.6 | 75.0 | 206.6 |
| Tan Clay Confining Zone | BGO52AA | WELL | 438,428.3 | 3,682,790.7 | 281.6 | 75.0 | 206.6 |
| Tan Clay Confining Zone | BGO53AA | WELL | 437,742.1 | 3,682,829.1 | 288.9 | 66.0 | 222.9 |
| Tan Clay Confining Zone | BGO53AA | WELL | 437,742.1 | 3,682,829.1 | 288.9 | 66.5 | 222.4 |
| Tan Clay Confining Zone | BGO5C | WELL | 438,497.4 | 3,683,533.0 | 294.2 | 74.5 | 219.7 |
| Tan Clay Confining Zone | BGO5C | WELL | 438,497.4 | 3,683,533.0 | 294.2 | 76.0 | 218.2 |
| Tan Clay Confining Zone | BGO6A | WELL | 438,377.7 | 3,683,450.0 | 283.8 | 72.1 | 211.7 |
| Tan Clay Confining Zone | BGO6A | WELL | 438,377.7 | 3,683,450.0 | 283.8 | 74.0 | 209.8 |
| Tan Clay Confining Zone | BGO6B | WELL | 438,373.1 | 3,683,471.0 | 284.5 | 82.0 | 202.5 |
| Tan Clay Confining Zone | BGO6B | WELL | 438,373.1 | 3,683,471.0 | 284.5 | 82.0 | 202.5 |
| Tan Clay Confining Zone | BGO8A | WELL | 438,190.8 | 3,683,345.0 | 281.3 | 68.0 | 213.3 |
| Tan Clay Confining Zone | BGO8A | WELL | 438,190.8 | 3,683,345.0 | 281.3 | 68.0 | 213.3 |
| Tan Clay Confining Zone | BGO9AA | WELL | 438,057.0 | 3,683,401.0 | 282.8 | 59.0 | 223.8 |
| Tan Clay Confining Zone | BGO9AA | WELL | 438,057.0 | 3,683,401.0 | 282.8 | 59.0 | 223.8 |
| Tan Clay Confining Zone | BGSG1 | CONE | 438,103.2 | 3,683,443.2 | 281.7 | 61.1 | 220.7 |
| Tan Clay Confining Zone | BGSG15 | CONE | 437,619.5 | 3,683,091.5 | 321.8 | 97.1 | 224.7 |
| Tan Clay Confining Zone | BGSG19 | CONE | 438,477.4 | 3,683,603.6 | 286.2 | 70.3 | 215.9 |
| Tan Clay Confining Zone | BGSG22 | CONE | 438,554.2 | 3,683,614.7 | 284.6 | 69.3 | 215.3 |
| Tan Clay Confining Zone | BGSG23 | CONE | 438,710.2 | 3,683,347.1 | 284.6 | 80.8 | 203.8 |
| Tan Clay Confining Zone | BGSG27 | CONE | 438,867.4 | 3,683,130.3 | 286.3 | 82.3 | 204.0 |
| Tan Clay Confining Zone | BGSG33 | CONE | 439,011.1 | 3,682,933.4 | 290.5 | 80.3 | 210.2 |
| Tan Clay Confining Zone | BGSG35 | CONE | 437,883.4 | 3,684,029.6 | 290.8 | 71.9 | 218.9 |
| Tan Clay Confining Zone | BGSG42 | CONE | 438,476.4 | 3,682,429.4 | 266.0 | 63.2 | 202.8 |
| Tan Clay Confining Zone | BGSG5 | CONE | 438,247.0 | 3,683,426.5 | 282.7 | 62.6 | 220.1 |
| Tan Clay Confining Zone | BGSG60 | CONE | 437,509.0 | 3,682,584.5 | 273.9 | 67.5 | 206.4 |
| Tan Clay Confining Zone | BGSG68 | CONE | 437,548.5 | 3,682,735.2 | 289.6 | 65.5 | 224.1 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|-------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tan Clay Confining Zone | BGSG8 | CONE | 437,885.6 | 3,683,324.4 | 299.9 | 76.6 | 223.3 |
| Tan Clay Confining Zone | BGT1 | CONE | 438,551.2 | 3,683,657.6 | 282.9 | 61.0 | 221.9 |
| Tan Clay Confining Zone | BGT1 | CONE | 438,551.2 | 3,683,657.6 | 282.9 | 61.5 | 221.5 |
| Tan Clay Confining Zone | BGT12 | CONE | 438,166.3 | 3,683,600.0 | 284.2 | 59.0 | 225.2 |
| Tan Clay Confining Zone | BGT12 | CONE | 438,166.3 | 3,683,600.0 | 284.2 | 59.0 | 225.2 |
| Tan Clay Confining Zone | BGT13 | CONE | 438,137.8 | 3,683,653.7 | 287.8 | 55.3 | 232.5 |
| Tan Clay Confining Zone | BGT14 | CONE | 438,066.1 | 3,683,788.1 | 280.7 | 65.9 | 214.8 |
| Tan Clay Confining Zone | BGT14 | CONE | 438,066.1 | 3,683,788.1 | 280.7 | 66.0 | 214.7 |
| Tan Clay Confining Zone | BGT15 | CONE | 437,994.4 | 3,683,922.6 | 277.5 | 69.0 | 208.5 |
| Tan Clay Confining Zone | BGT15 | CONE | 437,994.4 | 3,683,922.6 | 277.5 | 69.0 | 208.5 |
| Tan Clay Confining Zone | BGT16 | CONE | 437,923.1 | 3,684,057.2 | 250.7 | 20.0 | 230.7 |
| Tan Clay Confining Zone | BGT17 | CONE | 437,850.6 | 3,684,191.2 | 240.7 | 18.1 | 222.6 |
| Tan Clay Confining Zone | BGT18 | CONE | 437,778.1 | 3,684,325.2 | 216.5 | 5.5 | 211.0 |
| Tan Clay Confining Zone | BGT2 | CONE | 438,610.8 | 3,683,797.8 | 276.4 | 63.0 | 213.4 |
| Tan Clay Confining Zone | BGT2 | CONE | 438,610.8 | 3,683,797.8 | 276.4 | 63.0 | 213.4 |
| Tan Clay Confining Zone | BGT21 | CONE | 437,898.8 | 3,683,401.3 | 294.2 | 71.0 | 223.2 |
| Tan Clay Confining Zone | BGT21 | CONE | 437,898.8 | 3,683,401.3 | 294.2 | 71.0 | 223.2 |
| Tan Clay Confining Zone | BGT22 | CONE | 437,831.6 | 3,683,502.9 | 281.0 | 49.7 | 231.3 |
| Tan Clay Confining Zone | BGT23 | CONE | 437,730.6 | 3,683,655.4 | 270.0 | 53.2 | 216.8 |
| Tan Clay Confining Zone | BGT23 | CONE | 437,730.6 | 3,683,655.4 | 270.0 | 54.0 | 216.0 |
| Tan Clay Confining Zone | BGT24 | CONE | 437,646.5 | 3,683,782.4 | 265.8 | 39.0 | 226.8 |
| Tan Clay Confining Zone | BGT24 | CONE | 437,646.5 | 3,683,782.4 | 265.8 | 39.0 | 226.8 |
| Tan Clay Confining Zone | BGT25 | CONE | 437,562.4 | 3,683,909.4 | 264.8 | 36.0 | 228.8 |
| Tan Clay Confining Zone | BGT25 | CONE | 437,562.4 | 3,683,909.4 | 264.8 | 36.0 | 228.8 |
| Tan Clay Confining Zone | BGT26 | CONE | 437,478.4 | 3,684,036.5 | 250.2 | 23.8 | 226.4 |
| Tan Clay Confining Zone | BGT27 | CONE | 437,394.2 | 3,684,163.5 | 256.9 | 40.0 | 216.9 |
| Tan Clay Confining Zone | BGT27 | CONE | 437,394.2 | 3,684,163.5 | 256.9 | 43.5 | 213.4 |
| Tan Clay Confining Zone | BGT28 | CONE | 437,310.1 | 3,684,290.6 | 258.3 | 46.0 | 212.3 |
| Tan Clay Confining Zone | BGT28 | CONE | 437,310.1 | 3,684,290.6 | 258.3 | 46.0 | 212.3 |
| Tan Clay Confining Zone | BGT29 | CONE | 437,226.1 | 3,684,417.6 | 243.0 | 24.0 | 219.0 |
| Tan Clay Confining Zone | BGT29 | CONE | 437,226.1 | 3,684,417.6 | 243.0 | 24.0 | 219.0 |
| Tan Clay Confining Zone | BGT3 | CONE | 438,675.8 | 3,683,935.6 | 275.7 | 64.0 | 211.7 |
| Tan Clay Confining Zone | BGT3 | CONE | 438,675.8 | 3,683,935.6 | 275.7 | 64.0 | 211.7 |
| Tan Clay Confining Zone | BGT30 | CONE | 437,150.4 | 3,684,532.0 | 219.0 | 8.2 | 210.8 |
| Tan Clay Confining Zone | BGT4 | CONE | 438,740.8 | 3,684,073.3 | 259.2 | 40.2 | 219.0 |
| Tan Clay Confining Zone | BGT49 | CONE | 437,597.7 | 3,682,776.3 | 297.3 | 63.8 | 233.4 |
| Tan Clay Confining Zone | BGT50 | CONE | 437,523.0 | 3,682,780.4 | 296.3 | 71.1 | 225.2 |
| Tan Clay Confining Zone | BGT50 | CONE | 437,523.0 | 3,682,780.4 | 296.3 | 75.0 | 221.3 |
| Tan Clay Confining Zone | BGT51 | CONE | 437,611.8 | 3,682,528.7 | 272.6 | 78.4 | 194.3 |
| Tan Clay Confining Zone | BGT51 | CONE | 437,611.8 | 3,682,528.7 | 272.6 | 80.0 | 192.6 |
| Tan Clay Confining Zone | BGT56 | CONE | 438,403.8 | 3,682,352.0 | 262.9 | 81.0 | 181.9 |
| Tan Clay Confining Zone | BGT56 | CONE | 438,403.8 | 3,682,352.0 | 262.9 | 81.0 | 181.9 |
| Tan Clay Confining Zone | BGT57 | CONE | 438,409.4 | 3,682,260.8 | 259.4 | 80.0 | 179.4 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|-------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tan Clay Confining Zone | BGT57 | CONE | 438,409.4 | 3,682,260.8 | 259.4 | 81.3 | 178.0 |
| Tan Clay Confining Zone | BGT58 | CONE | 438,703.7 | 3,682,527.2 | 285.8 | 94.0 | 191.8 |
| Tan Clay Confining Zone | BGT58 | CONE | 438,703.7 | 3,682,527.2 | 285.8 | 94.0 | 191.8 |
| Tan Clay Confining Zone | BGT6 | CONE | 438,345.5 | 3,683,716.7 | 282.2 | 64.0 | 218.2 |
| Tan Clay Confining Zone | BGT6 | CONE | 438,345.5 | 3,683,716.7 | 282.2 | 64.0 | 218.2 |
| Tan Clay Confining Zone | BGT60 | CONE | 438,917.0 | 3,682,574.6 | 291.4 | 105.0 | 186.4 |
| Tan Clay Confining Zone | BGT60 | CONE | 438,917.0 | 3,682,574.6 | 291.4 | 105.0 | 186.4 |
| Tan Clay Confining Zone | BGT61 | CONE | 439,061.1 | 3,682,600.7 | 284.3 | 98.0 | 186.3 |
| Tan Clay Confining Zone | BGT61 | CONE | 439,061.1 | 3,682,600.7 | 284.3 | 100.0 | 184.3 |
| Tan Clay Confining Zone | BGT62 | CONE | 439,100.7 | 3,682,607.9 | 282.0 | 92.0 | 190.0 |
| Tan Clay Confining Zone | BGT62 | CONE | 439,100.7 | 3,682,607.9 | 282.0 | 92.0 | 190.0 |
| Tan Clay Confining Zone | BGT63 | CONE | 439,149.7 | 3,682,818.9 | 293.7 | 94.0 | 199.7 |
| Tan Clay Confining Zone | BGT63A | CONE | 438,997.8 | 3,682,831.6 | 290.8 | 93.0 | 197.8 |
| Tan Clay Confining Zone | BGT63A | CONE | 438,997.8 | 3,682,831.6 | 290.8 | 93.0 | 197.8 |
| Tan Clay Confining Zone | BGT64 | CONE | 439,291.6 | 3,682,807.0 | 283.3 | 88.0 | 195.3 |
| Tan Clay Confining Zone | BGT64 | CONE | 439,291.6 | 3,682,807.0 | 283.3 | 88.0 | 195.3 |
| Tan Clay Confining Zone | BGT66 | CONE | 439,160.8 | 3,683,263.0 | 244.0 | 49.0 | 195.0 |
| Tan Clay Confining Zone | BGT66 | CONE | 439,160.8 | 3,683,263.0 | 244.0 | 49.7 | 194.3 |
| Tan Clay Confining Zone | BGT67 | CONE | 439,263.6 | 3,683,325.3 | 242.0 | 55.5 | 186.6 |
| Tan Clay Confining Zone | BGT7 | CONE | 438,309.0 | 3,683,864.6 | 276.4 | 63.4 | 213.0 |
| Tan Clay Confining Zone | BGT7 | CONE | 438,309.0 | 3,683,864.6 | 276.4 | 64.0 | 212.4 |
| Tan Clay Confining Zone | BGT8 | CONE | 438,274.5 | 3,684,006.7 | 249.3 | 28.0 | 221.3 |
| Tan Clay Confining Zone | BGT8 | CONE | 438,274.5 | 3,684,006.7 | 249.3 | 28.0 | 221.3 |
| Tan Clay Confining Zone | BGT9 | CONE | 438,237.1 | 3,684,160.7 | 226.0 | 4.6 | 221.4 |
| Tan Clay Confining Zone | BGX11D | WELL | 438,901.5 | 3,683,385.0 | 273.8 | 80.2 | 193.6 |
| Tan Clay Confining Zone | BGX11D | WELL | 438,901.5 | 3,683,385.0 | 273.8 | 81.0 | 192.8 |
| Tan Clay Confining Zone | BGX1A | WELL | 438,383.2 | 3,683,584.0 | 289.1 | 77.7 | 211.4 |
| Tan Clay Confining Zone | BGX1A | WELL | 438,383.2 | 3,683,584.0 | 289.1 | 78.0 | 211.1 |
| Tan Clay Confining Zone | BGX2B | WELL | 438,233.9 | 3,683,616.1 | 289.2 | 73.0 | 216.2 |
| Tan Clay Confining Zone | BGX2B | WELL | 438,233.9 | 3,683,616.1 | 289.2 | 73.0 | 216.2 |
| Tan Clay Confining Zone | BGX4A | WELL | 437,856.3 | 3,683,595.9 | 288.8 | 64.0 | 224.8 |
| Tan Clay Confining Zone | BGX4A | WELL | 437,856.3 | 3,683,595.9 | 288.8 | 68.0 | 220.8 |
| Tan Clay Confining Zone | BGX7D | WELL | 438,042.3 | 3,683,908.5 | 277.1 | 49.9 | 227.2 |
| Tan Clay Confining Zone | BGX7D | WELL | 438,042.3 | 3,683,908.5 | 277.1 | 52.0 | 225.1 |
| Tan Clay Confining Zone | BGX8D | WELL | 438,335.2 | 3,683,861.9 | 276.1 | 62.6 | 213.5 |
| Tan Clay Confining Zone | BGX9D | WELL | 438,593.7 | 3,683,777.2 | 277.4 | 70.0 | 207.4 |
| Tan Clay Confining Zone | BGX9D | WELL | 438,593.7 | 3,683,777.2 | 277.4 | 70.4 | 207.0 |
| Tan Clay Confining Zone | BPSC15 | CONE | 438,597.5 | 3,684,070.1 | 253.0 | 26.7 | 226.3 |
| Tan Clay Confining Zone | BSE1C1 | WELL | 438,675.5 | 3,682,435.0 | 283.7 | 76.4 | 207.2 |
| Tan Clay Confining Zone | DRB3 | WELL | 438,181.0 | 3,682,955.0 | 285.4 | 78.2 | 207.2 |
| Tan Clay Confining Zone | EAVZCPT11 | CONE | 438,177.8 | 3,683,643.3 | 288.0 | 64.8 | 223.3 |
| Tan Clay Confining Zone | ECP6CP1 | CONE | 437,449.3 | 3,684,072.8 | 256.8 | 26.9 | 229.9 |
| Tan Clay Confining Zone | ECP8SB1 | BORING | 437,661.1 | 3,683,966.2 | 267.2 | 38.6 | 228.5 |

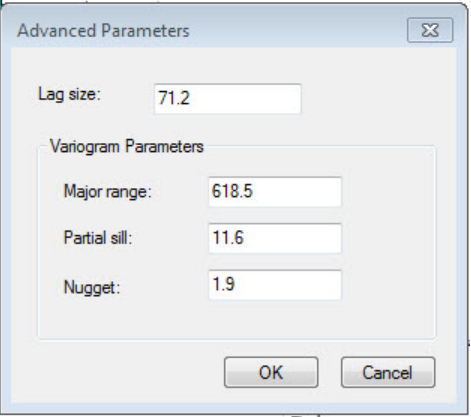
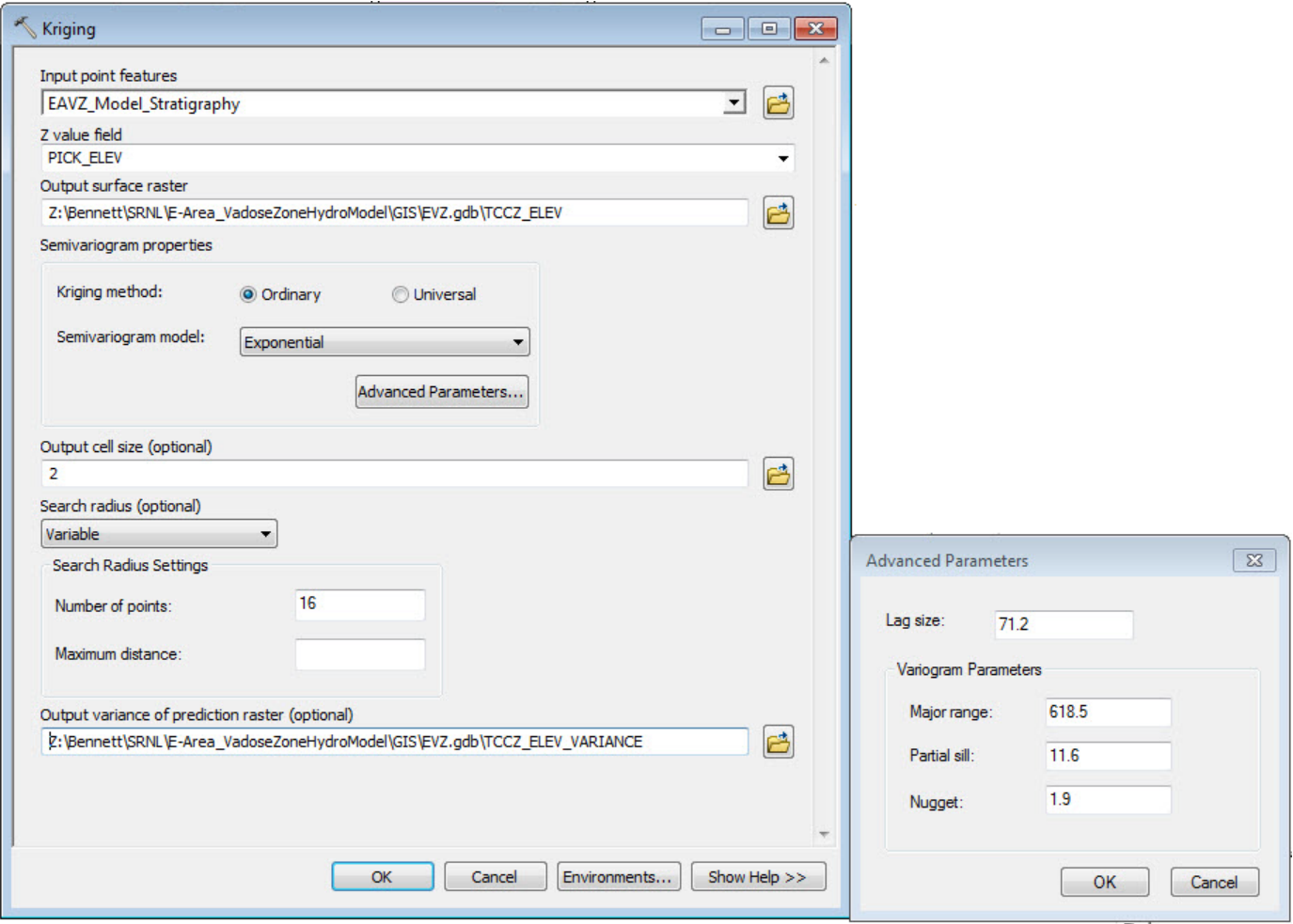
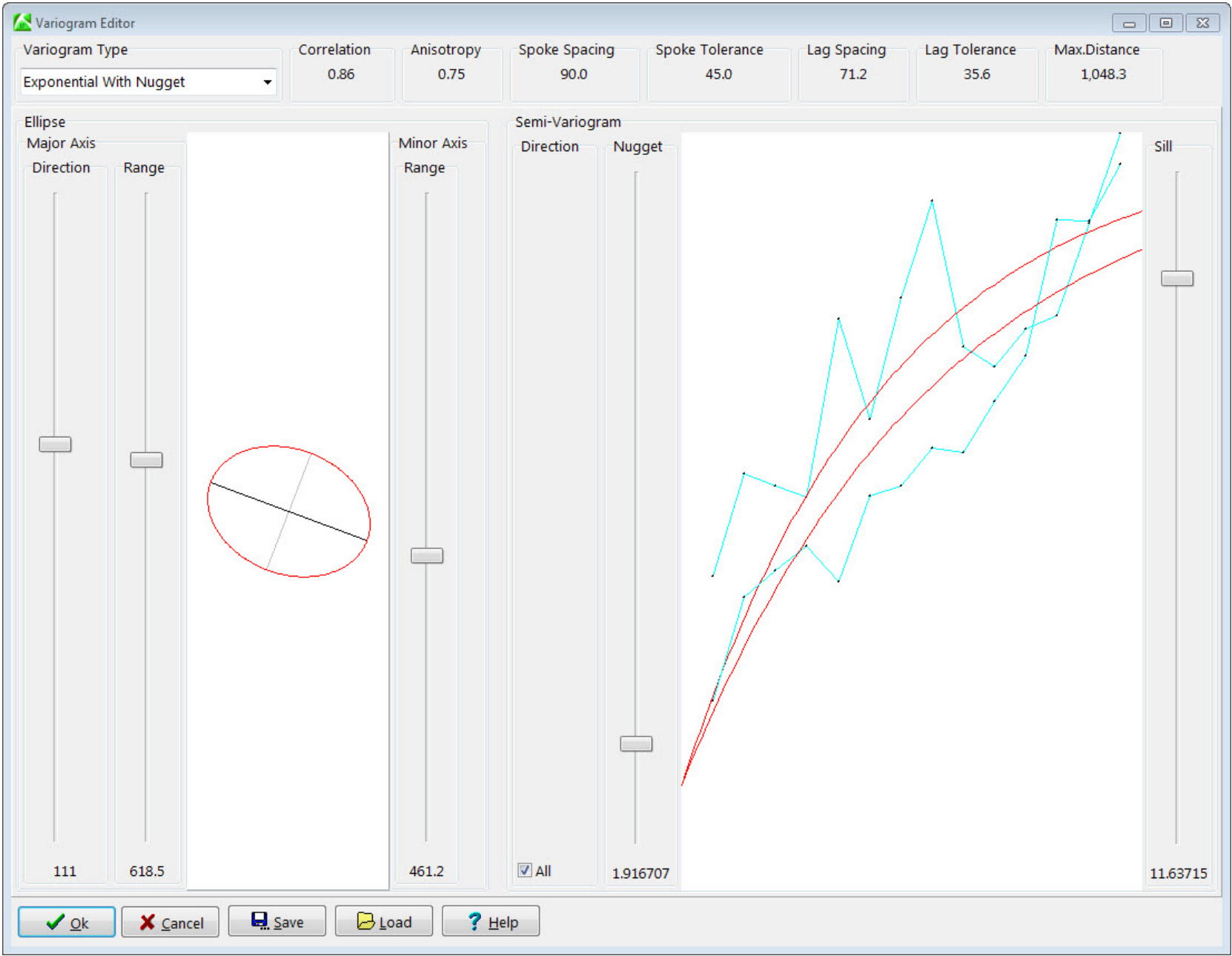
| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|-------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tan Clay Confining Zone | FC3A | WELL | 437,804.0 | 3,683,877.2 | 269.5 | 41.1 | 228.4 |
| Tan Clay Confining Zone | HAT-CPT1 | CONE | 439,029.5 | 3,683,633.2 | 255.8 | 52.7 | 203.1 |
| Tan Clay Confining Zone | HC12A | WELL | 439,261.5 | 3,682,850.4 | 287.3 | 92.0 | 195.3 |
| Tan Clay Confining Zone | HC12A | WELL | 439,261.5 | 3,682,850.4 | 287.3 | 92.0 | 195.3 |
| Tan Clay Confining Zone | HC8A | WELL | 438,627.9 | 3,684,007.8 | 262.3 | 38.5 | 223.8 |
| Tan Clay Confining Zone | HCH4 | BORING | 439,304.1 | 3,682,603.0 | 270.0 | 73.0 | 197.0 |
| Tan Clay Confining Zone | HCH4 | BORING | 439,304.1 | 3,682,603.0 | 270.0 | 77.0 | 193.0 |
| Tan Clay Confining Zone | HIW1BD | WELL | 439,087.7 | 3,682,488.0 | 275.8 | 69.0 | 206.8 |
| Tan Clay Confining Zone | HIW1BD | WELL | 439,087.7 | 3,682,488.0 | 275.8 | 71.0 | 204.8 |
| Tan Clay Confining Zone | HIW1MC | WELL | 439,130.6 | 3,682,495.0 | 272.3 | 75.0 | 197.3 |
| Tan Clay Confining Zone | HIW2A | WELL | 438,572.6 | 3,682,372.0 | 276.3 | 74.1 | 202.2 |
| Tan Clay Confining Zone | HIW2A | WELL | 438,572.6 | 3,682,372.0 | 276.3 | 75.0 | 201.3 |
| Tan Clay Confining Zone | HIW2MC | WELL | 438,563.2 | 3,682,357.0 | 269.0 | 68.0 | 201.0 |
| Tan Clay Confining Zone | HIW2MC | WELL | 438,563.2 | 3,682,357.0 | 269.0 | 70.0 | 199.0 |
| Tan Clay Confining Zone | HIW4MC | WELL | 438,543.5 | 3,682,318.0 | 263.4 | 66.0 | 197.4 |
| Tan Clay Confining Zone | HIW4MC | WELL | 438,543.5 | 3,682,318.0 | 263.4 | 66.0 | 197.4 |
| Tan Clay Confining Zone | HIW5MC | WELL | 438,454.7 | 3,682,403.0 | 266.1 | 82.0 | 184.1 |
| Tan Clay Confining Zone | HIW5MC | WELL | 438,454.7 | 3,682,403.0 | 266.1 | 82.0 | 184.1 |
| Tan Clay Confining Zone | HMD1C | BORING | 437,643.8 | 3,683,762.5 | 262.7 | 30.1 | 232.6 |
| Tan Clay Confining Zone | HMD1C | BORING | 437,643.8 | 3,683,762.5 | 262.7 | 34.0 | 228.7 |
| Tan Clay Confining Zone | HMD2C | BORING | 437,549.3 | 3,684,045.8 | 259.3 | 35.8 | 223.5 |
| Tan Clay Confining Zone | HMD2C | BORING | 437,549.3 | 3,684,045.8 | 259.3 | 37.0 | 222.3 |
| Tan Clay Confining Zone | HMD3C | BORING | 437,682.6 | 3,684,109.0 | 258.0 | 33.9 | 224.1 |
| Tan Clay Confining Zone | HMD3C | BORING | 437,682.6 | 3,684,109.0 | 258.0 | 34.0 | 224.0 |
| Tan Clay Confining Zone | HMD4C | BORING | 437,866.8 | 3,684,086.0 | 249.0 | 23.6 | 225.4 |
| Tan Clay Confining Zone | HMD4C | BORING | 437,866.8 | 3,684,086.0 | 249.0 | 25.0 | 224.0 |
| Tan Clay Confining Zone | HPT1A | WELL | 439,230.6 | 3,683,452.7 | 233.8 | 53.1 | 180.7 |
| Tan Clay Confining Zone | HPT2A | WELL | 439,096.9 | 3,683,437.0 | 257.8 | 70.0 | 187.8 |
| Tan Clay Confining Zone | HSB116C | WELL | 438,449.5 | 3,682,146.0 | 255.3 | 54.7 | 200.7 |
| Tan Clay Confining Zone | HSB119A | WELL | 438,442.5 | 3,682,214.0 | 254.8 | 42.0 | 212.8 |
| Tan Clay Confining Zone | HSB119A | WELL | 438,442.5 | 3,682,214.0 | 254.8 | 45.2 | 209.6 |
| Tan Clay Confining Zone | HSB120A | WELL | 438,467.5 | 3,682,350.0 | 266.0 | 63.0 | 203.0 |
| Tan Clay Confining Zone | HSB120A | WELL | 438,467.5 | 3,682,350.0 | 266.0 | 64.7 | 201.3 |
| Tan Clay Confining Zone | HSB1TB | WELL | 439,204.7 | 3,682,510.1 | 267.1 | 60.0 | 207.1 |
| Tan Clay Confining Zone | HSB65A | WELL | 439,133.2 | 3,682,473.0 | 270.7 | 62.5 | 208.2 |
| Tan Clay Confining Zone | HSB65A | WELL | 439,133.2 | 3,682,473.0 | 270.7 | 67.0 | 203.7 |
| Tan Clay Confining Zone | HSB85A | WELL | 439,014.9 | 3,682,899.0 | 292.1 | 84.7 | 207.4 |
| Tan Clay Confining Zone | HSB85A | WELL | 439,014.9 | 3,682,899.0 | 292.1 | 88.0 | 204.1 |
| Tan Clay Confining Zone | HSBTB | WELL | 439,205.2 | 3,682,509.0 | 267.1 | 60.0 | 207.1 |
| Tan Clay Confining Zone | HSBTB | WELL | 439,205.2 | 3,682,509.0 | 267.1 | 60.0 | 207.1 |
| Tan Clay Confining Zone | HTRANC1 | CONE | 438,241.0 | 3,682,840.7 | 308.6 | 103.5 | 205.1 |
| Tan Clay Confining Zone | HTRANC8 | CONE | 437,739.4 | 3,682,866.2 | 299.5 | 86.1 | 213.4 |
| Tan Clay Confining Zone | MBG13 | WELL | 438,027.7 | 3,682,388.3 | 276.0 | 87.5 | 188.5 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|-------------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tan Clay Confining Zone | MEGACPT4 | CONE | 438,673.2 | 3,683,501.2 | 290.0 | 71.3 | 218.7 |
| Tan Clay Confining Zone | MEGACPT5 | CONE | 438,771.7 | 3,683,572.9 | 278.0 | 64.6 | 213.4 |
| Tan Clay Confining Zone | NEP1SB | BORING | 438,775.0 | 3,683,744.1 | 276.2 | 69.7 | 206.5 |
| Tan Clay Confining Zone | OFS1SB | BORING | 437,594.3 | 3,682,308.0 | 261.6 | 66.0 | 195.6 |
| Tan Clay Confining Zone | OFS1SB | BORING | 437,594.3 | 3,682,308.0 | 261.6 | 66.0 | 195.6 |
| Tan Clay Confining Zone | OFS2SB | BORING | 437,602.0 | 3,682,201.7 | 257.5 | 60.0 | 197.5 |
| Tan Clay Confining Zone | OFS2SB | BORING | 437,602.0 | 3,682,201.7 | 257.5 | 61.1 | 196.4 |
| Tan Clay Confining Zone | OFS3SB | BORING | 437,854.0 | 3,682,234.0 | 258.1 | 62.0 | 196.1 |
| Tan Clay Confining Zone | OFS3SB | BORING | 437,854.0 | 3,682,234.0 | 258.1 | 62.0 | 196.1 |
| Tan Clay Confining Zone | ONBP-4 | CONE | 437,476.2 | 3,684,269.5 | 225.5 | 5.1 | 220.4 |
| Tan Clay Confining Zone | ONBP-7 | CONE | 437,444.8 | 3,684,209.0 | 229.0 | 8.3 | 220.7 |
| Tan Clay Confining Zone | ONBP-9 | CONE | 437,408.9 | 3,684,258.3 | 229.7 | 10.1 | 219.6 |
| Tan Clay Confining Zone | PBE2A | WELL | 438,349.0 | 3,682,453.3 | 248.4 | 50.0 | 198.4 |
| Tan Clay Confining Zone | SP-10 | CONE | 437,216.0 | 3,684,319.9 | 240.0 | 24.0 | 216.1 |
| Tan Clay Confining Zone | SP-14 | CONE | 437,215.9 | 3,684,513.0 | 232.5 | 11.5 | 221.0 |
| Tan Clay Confining Zone | SP-15 | CONE | 437,577.2 | 3,684,384.9 | 228.9 | 12.1 | 216.8 |
| Tan Clay Confining Zone | SWC24 | CONE | 437,602.0 | 3,682,201.7 | 258.0 | 63.0 | 195.0 |
| Tan Clay Confining Zone | SWC24 | CONE | 437,602.0 | 3,682,201.7 | 258.0 | 63.0 | 195.0 |
| Tan Clay Confining Zone | SWC25 | CONE | 437,725.7 | 3,682,209.9 | 243.0 | 50.5 | 192.5 |
| Tan Clay Confining Zone | SWC36ARA | CONE | 437,748.3 | 3,682,339.4 | 257.0 | 67.8 | 189.2 |

Appendix 3 (continued). Variogram and ArcMap settings for elevation model of Tan Clay Confining Zone (TCCZ).

Name: Z:\Bennett\SRNL\E-Area_VadoseZoneHydroModel\EVZ\LB_TCCZ_20170315.RwGrd
Spoke Spacing: 90.0 degrees.
Spoke Tolerance: +/- 45.0 degrees.
Distance Increment: 71.2
Distance Tolerance: +/- 35.6
Maximum Cutoff Distance: 1,048.26
Best Variogram (i.e. Best Correlation): Exponential With Nugget
Correlation Coefficient of Best Variogram: 0.86

Variogram That Was Actually Used: Exponential With Nugget
Correlation Coefficient: 0.86
Nugget: 1.92
Relative Sill: 11.64
Major Axis Direction: N110.6 degrees.
Major Axis Range: 618.48
Minor Axis Direction: N200.6 degrees.
Minor Axis Range: 461.24



Appendix 4. Control points (n=265) for elevation model of the Tobacco Road Sand (TRS).

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|--------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tobacco Road Sand | BGC1A | WELL | 438,627.7 | 3,682,526.2 | 281.5 | 31.2 | 250.3 |
| Tobacco Road Sand | BGO10A | WELL | 438,008.9 | 3,683,301.0 | 299.1 | 29.3 | 269.8 |
| Tobacco Road Sand | BGO10A | WELL | 438,008.9 | 3,683,301.0 | 299.1 | 31.9 | 267.2 |
| Tobacco Road Sand | BGO10AA | WELL | 437,958.9 | 3,683,338.0 | 298.8 | 35.5 | 263.3 |
| Tobacco Road Sand | BGO12A | WELL | 437,811.5 | 3,683,158.0 | 311.4 | 37.1 | 274.3 |
| Tobacco Road Sand | BGO12AR | WELL | 437,814.3 | 3,683,159.0 | 311.3 | 21.0 | 290.3 |
| Tobacco Road Sand | BGO14A | WELL | 437,787.1 | 3,682,978.0 | 300.2 | 20.2 | 280.0 |
| Tobacco Road Sand | BGO14A | WELL | 437,787.1 | 3,682,978.0 | 300.2 | 21.9 | 278.3 |
| Tobacco Road Sand | BGO14AR | WELL | 437,779.5 | 3,682,963.0 | 298.7 | 15.0 | 283.7 |
| Tobacco Road Sand | BGO16A | WELL | 437,985.8 | 3,682,890.0 | 302.8 | 38.0 | 264.8 |
| Tobacco Road Sand | BGO18A | WELL | 438,137.9 | 3,682,942.0 | 292.9 | 38.0 | 254.9 |
| Tobacco Road Sand | BGO1D | WELL | 438,984.8 | 3,682,856.0 | 293.0 | 27.0 | 266.0 |
| Tobacco Road Sand | BGO20AA | WELL | 438,350.6 | 3,682,851.6 | 281.3 | 22.2 | 259.1 |
| Tobacco Road Sand | BGO23D | WELL | 438,735.3 | 3,682,863.0 | 287.0 | 19.0 | 268.0 |
| Tobacco Road Sand | BGO25A | WELL | 437,783.7 | 3,682,894.0 | 294.7 | 20.0 | 274.7 |
| Tobacco Road Sand | BGO26A | WELL | 437,625.6 | 3,682,773.0 | 285.1 | 10.0 | 275.1 |
| Tobacco Road Sand | BGO27C | WELL | 437,626.3 | 3,682,594.0 | 273.9 | 21.0 | 252.9 |
| Tobacco Road Sand | BGO27C | WELL | 437,626.3 | 3,682,594.0 | 273.9 | 21.8 | 252.1 |
| Tobacco Road Sand | BGO29A | WELL | 437,506.3 | 3,682,466.0 | 262.1 | 16.1 | 246.0 |
| Tobacco Road Sand | BGO30C | WELL | 437,674.7 | 3,682,446.0 | 272.6 | 17.0 | 255.6 |
| Tobacco Road Sand | BGO31C | WELL | 437,785.6 | 3,682,451.0 | 271.1 | 21.0 | 250.1 |
| Tobacco Road Sand | BGO31C | WELL | 437,785.6 | 3,682,451.0 | 271.1 | 22.0 | 249.1 |
| Tobacco Road Sand | BGO33C | WELL | 438,088.4 | 3,682,483.2 | 277.4 | 22.7 | 254.7 |
| Tobacco Road Sand | BGO33C | WELL | 438,088.4 | 3,682,483.2 | 277.4 | 23.0 | 254.4 |
| Tobacco Road Sand | BGO35C | WELL | 438,395.9 | 3,682,508.0 | 271.4 | 17.1 | 254.3 |
| Tobacco Road Sand | BGO37C | WELL | 438,657.7 | 3,682,527.0 | 284.3 | 24.0 | 260.3 |
| Tobacco Road Sand | BGO37C | WELL | 438,657.7 | 3,682,527.0 | 284.3 | 25.3 | 259.0 |
| Tobacco Road Sand | BGO39A | WELL | 438,777.8 | 3,682,644.0 | 293.7 | 17.0 | 276.7 |
| Tobacco Road Sand | BGO3A | WELL | 438,663.4 | 3,683,310.1 | 288.0 | 32.0 | 256.0 |
| Tobacco Road Sand | BGO3D | WELL | 438,702.4 | 3,683,259.0 | 290.8 | 44.9 | 245.9 |
| Tobacco Road Sand | BGO41A | WELL | 437,662.9 | 3,682,923.0 | 298.3 | 22.2 | 276.1 |
| Tobacco Road Sand | BGO41A | WELL | 437,662.9 | 3,682,923.0 | 298.3 | 23.0 | 275.3 |
| Tobacco Road Sand | BGO41A | WELL | 437,662.9 | 3,682,923.0 | 298.3 | 23.3 | 275.0 |
| Tobacco Road Sand | BGO42C | WELL | 437,703.9 | 3,682,928.0 | 295.9 | 23.0 | 273.0 |
| Tobacco Road Sand | BGO43A | WELL | 437,766.3 | 3,683,221.0 | 312.9 | 38.0 | 274.9 |
| Tobacco Road Sand | BGO43AA | WELL | 437,769.1 | 3,683,225.0 | 312.2 | 35.2 | 277.0 |
| Tobacco Road Sand | BGO44A | WELL | 438,214.6 | 3,683,433.0 | 283.0 | 21.0 | 262.0 |
| Tobacco Road Sand | BGO44AA | WELL | 438,222.1 | 3,683,438.0 | 283.3 | 35.3 | 248.0 |
| Tobacco Road Sand | BGO45A | WELL | 437,567.8 | 3,682,613.0 | 276.9 | 32.0 | 244.9 |
| Tobacco Road Sand | BGO46B | WELL | 437,688.3 | 3,682,393.0 | 263.4 | 7.0 | 256.4 |
| Tobacco Road Sand | BGO47A | WELL | 437,854.2 | 3,682,407.0 | 264.8 | 7.8 | 257.0 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|--------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tobacco Road Sand | BGO47A | WELL | 437,854.2 | 3,682,407.0 | 264.8 | 12.8 | 252.0 |
| Tobacco Road Sand | BGO48C | WELL | 437,929.7 | 3,682,412.0 | 274.7 | 11.0 | 263.7 |
| Tobacco Road Sand | BGO48C | WELL | 437,929.7 | 3,682,412.0 | 274.7 | 11.1 | 263.7 |
| Tobacco Road Sand | BGO49A | WELL | 438,320.9 | 3,682,435.0 | 269.1 | 30.0 | 239.1 |
| Tobacco Road Sand | BGO50A | WELL | 437,588.7 | 3,682,391.0 | 253.5 | 4.3 | 249.2 |
| Tobacco Road Sand | BGO51AA | WELL | 438,692.1 | 3,682,785.0 | 287.2 | 25.2 | 262.0 |
| Tobacco Road Sand | BGO51AA | WELL | 438,692.1 | 3,682,785.0 | 287.2 | 25.8 | 261.4 |
| Tobacco Road Sand | BGO52AA | WELL | 438,428.3 | 3,682,790.7 | 281.6 | 21.1 | 260.5 |
| Tobacco Road Sand | BGO52AA | WELL | 438,428.3 | 3,682,790.7 | 281.6 | 22.3 | 259.3 |
| Tobacco Road Sand | BGO53AA | WELL | 437,742.1 | 3,682,829.1 | 288.9 | 10.7 | 278.2 |
| Tobacco Road Sand | BGO53AA | WELL | 437,742.1 | 3,682,829.1 | 288.9 | 10.9 | 278.0 |
| Tobacco Road Sand | BGO53AA | WELL | 437,742.1 | 3,682,829.1 | 288.9 | 14.8 | 274.1 |
| Tobacco Road Sand | BGO5C | WELL | 438,497.4 | 3,683,533.0 | 294.2 | 38.0 | 256.2 |
| Tobacco Road Sand | BGO5D | WELL | 438,494.6 | 3,683,532.0 | 294.2 | 24.0 | 270.2 |
| Tobacco Road Sand | BGO6A | WELL | 438,377.7 | 3,683,450.0 | 283.8 | 27.3 | 256.5 |
| Tobacco Road Sand | BGO6B | WELL | 438,373.1 | 3,683,471.0 | 284.5 | 25.0 | 259.5 |
| Tobacco Road Sand | BGO8A | WELL | 438,190.8 | 3,683,345.0 | 281.3 | 16.3 | 265.0 |
| Tobacco Road Sand | BGO8A | WELL | 438,190.8 | 3,683,345.0 | 281.3 | 17.8 | 263.5 |
| Tobacco Road Sand | BGO8A | WELL | 438,190.8 | 3,683,345.0 | 281.3 | 18.5 | 262.8 |
| Tobacco Road Sand | BGO8AR | WELL | 438,185.2 | 3,683,352.0 | 284.6 | 18.0 | 266.6 |
| Tobacco Road Sand | BGO8AR | WELL | 438,185.2 | 3,683,352.0 | 284.6 | 20.9 | 263.7 |
| Tobacco Road Sand | BGO8AR | WELL | 438,185.2 | 3,683,352.0 | 284.6 | 21.1 | 263.5 |
| Tobacco Road Sand | BGO9AA | WELL | 438,057.0 | 3,683,401.0 | 282.8 | 14.0 | 268.8 |
| Tobacco Road Sand | BGSG1 | CONE | 438,103.2 | 3,683,443.2 | 281.7 | 21.0 | 260.7 |
| Tobacco Road Sand | BGSG10 | CONE | 437,819.7 | 3,683,238.0 | 307.9 | 51.1 | 256.8 |
| Tobacco Road Sand | BGSG11 | CONE | 437,581.5 | 3,682,905.4 | 305.0 | 16.5 | 288.5 |
| Tobacco Road Sand | BGSG15 | CONE | 437,619.5 | 3,683,091.5 | 321.8 | 60.4 | 261.4 |
| Tobacco Road Sand | BGSG17 | CONE | 437,658.4 | 3,683,120.5 | 322.1 | 54.1 | 268.0 |
| Tobacco Road Sand | BGSG18 | CONE | 437,694.1 | 3,683,146.6 | 319.5 | 53.1 | 266.4 |
| Tobacco Road Sand | BGSG19 | CONE | 438,477.4 | 3,683,603.6 | 286.2 | 22.6 | 263.6 |
| Tobacco Road Sand | BGSG2 | CONE | 438,133.1 | 3,683,427.8 | 281.6 | 26.1 | 255.6 |
| Tobacco Road Sand | BGSG20 | CONE | 438,511.7 | 3,683,618.4 | 285.3 | 25.6 | 259.7 |
| Tobacco Road Sand | BGSG21 | CONE | 438,536.8 | 3,683,636.0 | 284.0 | 18.2 | 265.8 |
| Tobacco Road Sand | BGSG22 | CONE | 438,554.2 | 3,683,614.7 | 284.6 | 20.6 | 264.1 |
| Tobacco Road Sand | BGSG22 | CONE | 438,554.2 | 3,683,614.7 | 284.6 | 23.2 | 261.4 |
| Tobacco Road Sand | BGSG23 | CONE | 438,710.2 | 3,683,347.1 | 284.6 | 38.2 | 246.4 |
| Tobacco Road Sand | BGSG24 | CONE | 438,713.0 | 3,683,300.3 | 276.6 | 29.9 | 246.7 |
| Tobacco Road Sand | BGSG25 | CONE | 438,725.2 | 3,683,283.1 | 275.5 | 35.3 | 240.2 |
| Tobacco Road Sand | BGSG26 | CONE | 438,764.3 | 3,683,272.7 | 275.2 | 28.0 | 247.2 |
| Tobacco Road Sand | BGSG27 | CONE | 438,867.4 | 3,683,130.3 | 286.3 | 40.0 | 246.3 |
| Tobacco Road Sand | BGSG28 | CONE | 438,898.0 | 3,683,088.6 | 286.4 | 47.1 | 239.3 |
| Tobacco Road Sand | BGSG29 | CONE | 438,922.0 | 3,683,107.0 | 285.0 | 33.5 | 251.5 |
| Tobacco Road Sand | BGSG3 | CONE | 438,169.3 | 3,683,419.8 | 281.9 | 25.9 | 256.0 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|--------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tobacco Road Sand | BGSG30 | CONE | 438,930.9 | 3,683,043.7 | 286.3 | 35.0 | 251.3 |
| Tobacco Road Sand | BGSG31 | CONE | 438,948.9 | 3,683,019.1 | 286.3 | 31.7 | 254.6 |
| Tobacco Road Sand | BGSG32 | CONE | 438,973.6 | 3,683,035.9 | 284.8 | 37.4 | 247.5 |
| Tobacco Road Sand | BGSG33 | CONE | 439,011.1 | 3,682,933.4 | 290.5 | 37.0 | 253.5 |
| Tobacco Road Sand | BGSG34 | CONE | 438,706.0 | 3,682,798.5 | 289.2 | 35.0 | 254.2 |
| Tobacco Road Sand | BGSG35 | CONE | 437,883.4 | 3,684,029.6 | 290.8 | 23.1 | 267.7 |
| Tobacco Road Sand | BGSG36 | CONE | 438,735.2 | 3,682,798.7 | 289.8 | 36.4 | 253.4 |
| Tobacco Road Sand | BGSG37 | CONE | 438,754.1 | 3,682,787.8 | 289.6 | 32.5 | 257.1 |
| Tobacco Road Sand | BGSG38 | CONE | 438,813.7 | 3,682,802.3 | 292.8 | 35.3 | 257.5 |
| Tobacco Road Sand | BGSG39 | CONE | 438,413.5 | 3,682,425.6 | 267.5 | 16.0 | 251.5 |
| Tobacco Road Sand | BGSG39 | CONE | 438,413.5 | 3,682,425.6 | 267.5 | 16.3 | 251.2 |
| Tobacco Road Sand | BGSG4 | CONE | 438,211.2 | 3,683,400.4 | 282.5 | 22.0 | 260.5 |
| Tobacco Road Sand | BGSG40 | CONE | 438,440.5 | 3,682,427.5 | 265.0 | 6.9 | 258.1 |
| Tobacco Road Sand | BGSG40 | CONE | 438,440.5 | 3,682,427.5 | 265.0 | 7.0 | 258.0 |
| Tobacco Road Sand | BGSG41 | CONE | 438,438.3 | 3,682,398.5 | 264.8 | 16.8 | 248.0 |
| Tobacco Road Sand | BGSG41 | CONE | 438,438.3 | 3,682,398.5 | 264.8 | 17.0 | 247.8 |
| Tobacco Road Sand | BGSG42 | CONE | 438,476.4 | 3,682,429.4 | 266.0 | 16.0 | 250.0 |
| Tobacco Road Sand | BGSG42 | CONE | 438,476.4 | 3,682,429.4 | 266.0 | 17.1 | 249.0 |
| Tobacco Road Sand | BGSG43 | CONE | 438,162.7 | 3,682,404.3 | 268.4 | 19.5 | 248.9 |
| Tobacco Road Sand | BGSG44 | CONE | 438,120.3 | 3,682,401.2 | 269.7 | 15.9 | 253.8 |
| Tobacco Road Sand | BGSG45 | CONE | 438,142.3 | 3,682,370.3 | 267.4 | 12.6 | 254.8 |
| Tobacco Road Sand | BGSG47 | CONE | 438,063.7 | 3,682,366.0 | 271.8 | 23.1 | 248.7 |
| Tobacco Road Sand | BGSG5 | CONE | 438,247.0 | 3,683,426.5 | 282.7 | 22.0 | 260.7 |
| Tobacco Road Sand | BGSG53 | CONE | 437,912.0 | 3,682,352.9 | 272.0 | 22.5 | 249.5 |
| Tobacco Road Sand | BGSG54 | CONE | 437,872.1 | 3,682,320.1 | 264.0 | 20.0 | 244.0 |
| Tobacco Road Sand | BGSG55 | CONE | 437,874.5 | 3,682,379.0 | 266.8 | 20.2 | 246.6 |
| Tobacco Road Sand | BGSG56 | CONE | 437,835.5 | 3,682,375.7 | 256.5 | 3.0 | 253.5 |
| Tobacco Road Sand | BGSG57 | CONE | 437,803.4 | 3,682,341.9 | 259.0 | 11.7 | 247.3 |
| Tobacco Road Sand | BGSG58 | CONE | 437,800.3 | 3,682,375.1 | 263.5 | 10.2 | 253.4 |
| Tobacco Road Sand | BGSG59 | CONE | 437,766.7 | 3,682,371.4 | 266.6 | 10.9 | 255.7 |
| Tobacco Road Sand | BGSG6 | CONE | 437,945.4 | 3,683,329.4 | 297.7 | 34.7 | 263.0 |
| Tobacco Road Sand | BGSG60 | CONE | 437,509.0 | 3,682,584.5 | 273.9 | 4.5 | 269.4 |
| Tobacco Road Sand | BGSG61 | CONE | 437,544.4 | 3,682,606.6 | 276.5 | 6.8 | 269.7 |
| Tobacco Road Sand | BGSG62 | CONE | 437,512.0 | 3,682,615.3 | 277.0 | 2.9 | 274.1 |
| Tobacco Road Sand | BGSG63 | CONE | 437,545.7 | 3,682,635.3 | 277.5 | 4.3 | 273.2 |
| Tobacco Road Sand | BGSG64 | CONE | 437,545.0 | 3,682,667.7 | 280.2 | 3.5 | 276.7 |
| Tobacco Road Sand | BGSG65 | CONE | 437,516.0 | 3,682,666.6 | 284.6 | 5.4 | 279.2 |
| Tobacco Road Sand | BGSG67 | CONE | 437,512.8 | 3,682,721.6 | 291.3 | 9.0 | 282.3 |
| Tobacco Road Sand | BGSG68 | CONE | 437,548.5 | 3,682,735.2 | 289.6 | 4.5 | 285.1 |
| Tobacco Road Sand | BGSG69 | CONE | 438,698.2 | 3,682,440.8 | 284.2 | 31.0 | 253.2 |
| Tobacco Road Sand | BGSG69 | CONE | 438,698.2 | 3,682,440.8 | 284.2 | 31.4 | 252.8 |
| Tobacco Road Sand | BGSG7 | CONE | 437,906.4 | 3,683,301.2 | 300.8 | 41.3 | 259.5 |
| Tobacco Road Sand | BGSG70 | CONE | 438,725.6 | 3,682,443.5 | 284.1 | 30.0 | 254.1 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|--------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tobacco Road Sand | BGSG70 | CONE | 438,725.6 | 3,682,443.5 | 284.1 | 30.4 | 253.7 |
| Tobacco Road Sand | BGSG70 | CONE | 438,725.6 | 3,682,443.5 | 284.1 | 30.5 | 253.6 |
| Tobacco Road Sand | BGSG71 | CONE | 438,758.3 | 3,682,447.1 | 283.3 | 38.7 | 244.6 |
| Tobacco Road Sand | BGSG71 | CONE | 438,758.3 | 3,682,447.1 | 283.3 | 38.8 | 244.5 |
| Tobacco Road Sand | BGSG71 | CONE | 438,758.3 | 3,682,447.1 | 283.3 | 39.0 | 244.3 |
| Tobacco Road Sand | BGSG72 | CONE | 438,726.9 | 3,682,420.4 | 285.2 | 31.9 | 253.3 |
| Tobacco Road Sand | BGSG72 | CONE | 438,726.9 | 3,682,420.4 | 285.2 | 32.0 | 253.2 |
| Tobacco Road Sand | BGSG72 | CONE | 438,726.9 | 3,682,420.4 | 285.2 | 32.0 | 253.2 |
| Tobacco Road Sand | BGSG73 | CONE | 437,672.4 | 3,683,093.9 | 320.9 | 56.3 | 264.6 |
| Tobacco Road Sand | BGSG74 | CONE | 437,709.6 | 3,683,031.4 | 306.1 | 36.6 | 269.5 |
| Tobacco Road Sand | BGSG75 | CONE | 437,663.1 | 3,682,891.8 | 298.1 | 21.8 | 276.3 |
| Tobacco Road Sand | BGSG8 | CONE | 437,885.6 | 3,683,324.4 | 299.9 | 37.9 | 262.0 |
| Tobacco Road Sand | BGSG9 | CONE | 437,865.4 | 3,683,271.0 | 303.4 | 36.7 | 266.7 |
| Tobacco Road Sand | BGT1 | CONE | 438,551.2 | 3,683,657.6 | 282.9 | 19.7 | 263.2 |
| Tobacco Road Sand | BGT12 | CONE | 438,166.3 | 3,683,600.0 | 284.2 | 6.3 | 277.9 |
| Tobacco Road Sand | BGT13 | CONE | 438,137.8 | 3,683,653.7 | 287.8 | 10.1 | 277.7 |
| Tobacco Road Sand | BGT14 | CONE | 438,066.1 | 3,683,788.1 | 280.7 | 26.6 | 254.1 |
| Tobacco Road Sand | BGT15 | CONE | 437,994.4 | 3,683,922.6 | 277.5 | 19.2 | 258.3 |
| Tobacco Road Sand | BGT2 | CONE | 438,610.8 | 3,683,797.8 | 276.4 | 22.2 | 254.2 |
| Tobacco Road Sand | BGT21 | CONE | 437,898.8 | 3,683,401.3 | 294.2 | 16.9 | 277.3 |
| Tobacco Road Sand | BGT22 | CONE | 437,831.6 | 3,683,502.9 | 281.0 | 16.0 | 265.0 |
| Tobacco Road Sand | BGT23 | CONE | 437,730.6 | 3,683,655.4 | 270.0 | 1.5 | 268.5 |
| Tobacco Road Sand | BGT28 | CONE | 437,310.1 | 3,684,290.6 | 258.3 | 8.0 | 250.3 |
| Tobacco Road Sand | BGT28 | CONE | 437,310.1 | 3,684,290.6 | 258.3 | 8.0 | 250.3 |
| Tobacco Road Sand | BGT28 | CONE | 437,310.1 | 3,684,290.6 | 258.3 | 8.3 | 250.0 |
| Tobacco Road Sand | BGT3 | CONE | 438,675.8 | 3,683,935.6 | 275.7 | 8.6 | 267.1 |
| Tobacco Road Sand | BGT49 | CONE | 437,597.7 | 3,682,776.3 | 297.3 | 10.2 | 287.1 |
| Tobacco Road Sand | BGT50 | CONE | 437,523.0 | 3,682,780.4 | 296.3 | 5.9 | 290.4 |
| Tobacco Road Sand | BGT51 | CONE | 437,611.8 | 3,682,528.7 | 272.6 | 20.5 | 252.1 |
| Tobacco Road Sand | BGT56 | CONE | 438,403.8 | 3,682,352.0 | 262.9 | 22.0 | 240.9 |
| Tobacco Road Sand | BGT56 | CONE | 438,403.8 | 3,682,352.0 | 262.9 | 22.3 | 240.7 |
| Tobacco Road Sand | BGT57 | CONE | 438,409.4 | 3,682,260.8 | 259.4 | 18.7 | 240.7 |
| Tobacco Road Sand | BGT58 | CONE | 438,703.7 | 3,682,527.2 | 285.8 | 26.9 | 258.9 |
| Tobacco Road Sand | BGT58 | CONE | 438,703.7 | 3,682,527.2 | 285.8 | 28.0 | 257.8 |
| Tobacco Road Sand | BGT6 | CONE | 438,345.5 | 3,683,716.7 | 282.2 | 13.7 | 268.5 |
| Tobacco Road Sand | BGT60 | CONE | 438,917.0 | 3,682,574.6 | 291.4 | 41.0 | 250.4 |
| Tobacco Road Sand | BGT60 | CONE | 438,917.0 | 3,682,574.6 | 291.4 | 41.1 | 250.3 |
| Tobacco Road Sand | BGT61 | CONE | 439,061.1 | 3,682,600.7 | 284.3 | 28.0 | 256.3 |
| Tobacco Road Sand | BGT62 | CONE | 439,100.7 | 3,682,607.9 | 282.0 | 34.0 | 248.0 |
| Tobacco Road Sand | BGT62 | CONE | 439,100.7 | 3,682,607.9 | 282.0 | 34.4 | 247.6 |
| Tobacco Road Sand | BGT63 | CONE | 439,149.7 | 3,682,818.9 | 293.7 | 43.7 | 250.0 |
| Tobacco Road Sand | BGT63A | CONE | 438,997.8 | 3,682,831.6 | 290.8 | 36.1 | 254.7 |
| Tobacco Road Sand | BGT64 | CONE | 439,291.6 | 3,682,807.0 | 283.3 | 39.1 | 244.2 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|--------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tobacco Road Sand | BGT67 | CONE | 439,263.6 | 3,683,325.3 | 242.0 | 10.0 | 232.0 |
| Tobacco Road Sand | BGT67 | CONE | 439,263.6 | 3,683,325.3 | 242.0 | 10.0 | 232.0 |
| Tobacco Road Sand | BGT67 | CONE | 439,263.6 | 3,683,325.3 | 242.0 | 10.0 | 232.0 |
| Tobacco Road Sand | BGT7 | CONE | 438,309.0 | 3,683,864.6 | 276.4 | 22.3 | 254.1 |
| Tobacco Road Sand | BGX11D | WELL | 438,901.5 | 3,683,385.0 | 273.8 | 30.0 | 243.8 |
| Tobacco Road Sand | BGX12C | WELL | 439,081.2 | 3,683,186.8 | 273.1 | 18.0 | 255.1 |
| Tobacco Road Sand | BGX1A | WELL | 438,383.2 | 3,683,584.0 | 289.1 | 33.1 | 256.0 |
| Tobacco Road Sand | BGX2B | WELL | 438,233.9 | 3,683,616.1 | 289.2 | 20.0 | 269.2 |
| Tobacco Road Sand | BGX4A | WELL | 437,856.3 | 3,683,595.9 | 288.8 | 30.8 | 258.0 |
| Tobacco Road Sand | BGX7D | WELL | 438,042.3 | 3,683,908.5 | 277.1 | 24.1 | 253.0 |
| Tobacco Road Sand | BGX8D | WELL | 438,335.2 | 3,683,861.9 | 276.1 | 41.8 | 234.3 |
| Tobacco Road Sand | BGX8DR | WELL | 438,333.7 | 3,683,834.3 | 276.1 | 12.0 | 264.1 |
| Tobacco Road Sand | BGX9D | WELL | 438,593.7 | 3,683,777.2 | 277.4 | 20.0 | 257.4 |
| Tobacco Road Sand | BPSC1 | CONE | 438,835.4 | 3,683,641.2 | 280.9 | 8.3 | 272.6 |
| Tobacco Road Sand | BPSC2 | CONE | 438,765.2 | 3,683,779.7 | 274.9 | 12.7 | 262.2 |
| Tobacco Road Sand | BPSC9 | CONE | 437,725.6 | 3,683,169.4 | 317.2 | 38.9 | 278.3 |
| Tobacco Road Sand | BSE1C1 | WELL | 438,675.5 | 3,682,435.0 | 283.7 | 18.0 | 265.7 |
| Tobacco Road Sand | BSE2C1 | WELL | 438,599.3 | 3,682,409.6 | 279.8 | 26.4 | 253.4 |
| Tobacco Road Sand | BSE2C1 | WELL | 438,599.3 | 3,682,409.6 | 279.8 | 26.6 | 253.2 |
| Tobacco Road Sand | BSE2C1 | WELL | 438,599.3 | 3,682,409.6 | 279.8 | 27.0 | 252.8 |
| Tobacco Road Sand | DCCPT1 | CONE | 438,836.5 | 3,682,640.1 | 297.0 | 36.4 | 260.6 |
| Tobacco Road Sand | DCCPT2 | CONE | 438,821.0 | 3,682,625.1 | 297.0 | 44.0 | 253.0 |
| Tobacco Road Sand | DRB5 | WELL | 438,803.0 | 3,683,426.0 | 286.0 | 26.8 | 259.2 |
| Tobacco Road Sand | EAVZCPT1 | CONE | 438,235.3 | 3,683,773.4 | 281.0 | 18.2 | 262.8 |
| Tobacco Road Sand | EAVZCPT11 | CONE | 438,177.8 | 3,683,643.3 | 288.0 | 16.2 | 271.8 |
| Tobacco Road Sand | EAVZCPT2 | CONE | 438,230.8 | 3,683,765.6 | 282.0 | 16.2 | 265.8 |
| Tobacco Road Sand | EAVZCPT3 | CONE | 438,236.7 | 3,683,763.8 | 282.0 | 19.8 | 262.2 |
| Tobacco Road Sand | EAVZCPT4 | CONE | 438,213.7 | 3,683,770.5 | 281.0 | 10.2 | 270.8 |
| Tobacco Road Sand | EAVZCPT5 | CONE | 438,209.7 | 3,683,728.4 | 284.0 | 10.1 | 273.9 |
| Tobacco Road Sand | EAVZCPT7B | CONE | 438,220.5 | 3,683,639.0 | 288.0 | 18.7 | 269.3 |
| Tobacco Road Sand | EAVZCPT8 | CONE | 438,233.8 | 3,683,693.1 | 286.0 | 11.2 | 274.8 |
| Tobacco Road Sand | EAVZCPT9A | CONE | 438,235.0 | 3,683,729.8 | 285.0 | 18.8 | 266.2 |
| Tobacco Road Sand | HCH4 | BORING | 439,304.1 | 3,682,603.0 | 270.0 | 13.8 | 256.2 |
| Tobacco Road Sand | HIN5 | WELL | 439,202.1 | 3,682,470.0 | 268.0 | 30.5 | 237.5 |
| Tobacco Road Sand | HIN6 | WELL | 438,531.0 | 3,682,384.0 | 272.4 | 15.6 | 256.8 |
| Tobacco Road Sand | HIN6 | WELL | 438,531.0 | 3,682,384.0 | 272.4 | 15.7 | 256.7 |
| Tobacco Road Sand | HIN7 | WELL | 438,563.0 | 3,682,382.0 | 275.5 | 19.4 | 256.1 |
| Tobacco Road Sand | HIN7 | WELL | 438,563.0 | 3,682,382.0 | 275.5 | 19.9 | 255.7 |
| Tobacco Road Sand | HIW1MC | WELL | 439,130.6 | 3,682,495.0 | 272.3 | 36.6 | 235.7 |
| Tobacco Road Sand | HIW1MD | WELL | 439,126.0 | 3,682,510.0 | 272.7 | 38.0 | 234.8 |
| Tobacco Road Sand | HIW2A | WELL | 438,572.6 | 3,682,372.0 | 276.3 | 19.5 | 256.8 |
| Tobacco Road Sand | HIW2MC | WELL | 438,563.2 | 3,682,357.0 | 269.0 | 13.6 | 255.4 |
| Tobacco Road Sand | HIW2MC | WELL | 438,563.2 | 3,682,357.0 | 269.0 | 14.9 | 254.1 |

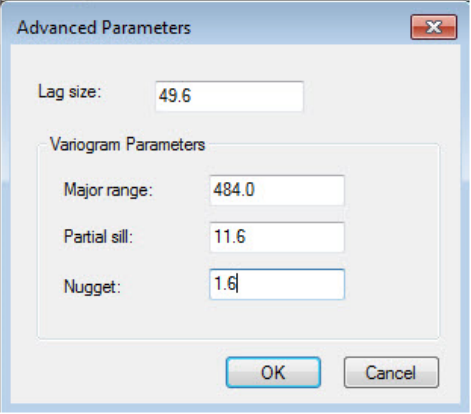
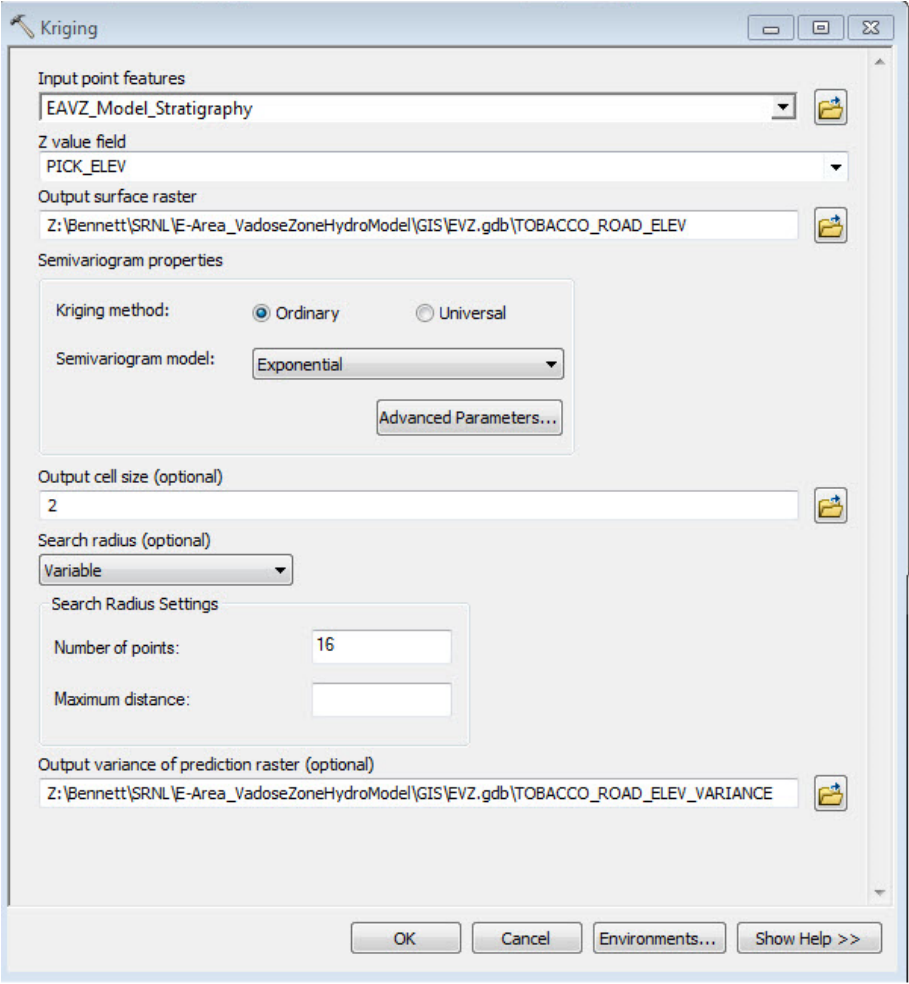
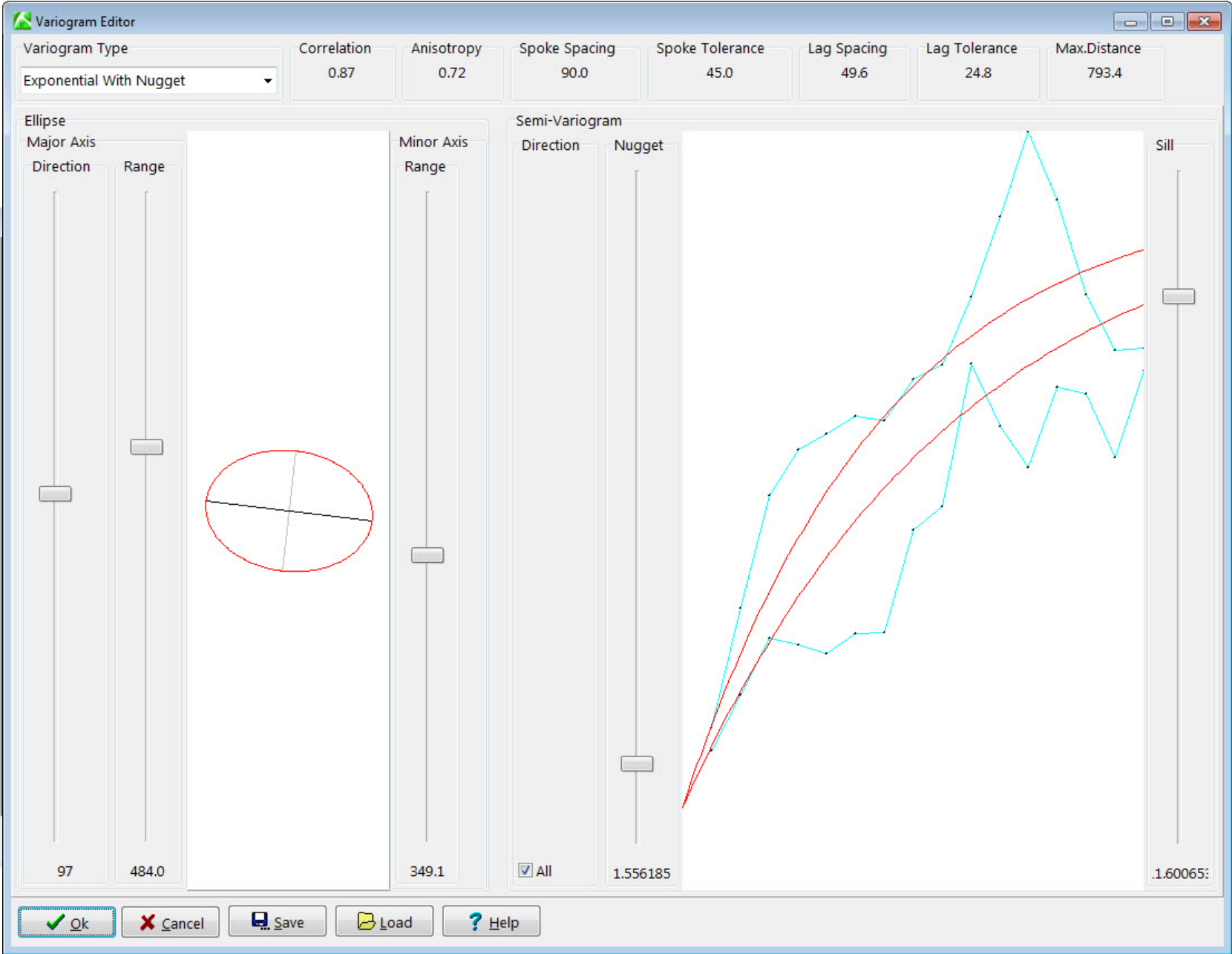
| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|--------------------|---------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tobacco Road Sand | HIW2MC | WELL | 438,563.2 | 3,682,357.0 | 269.0 | 15.0 | 254.0 |
| Tobacco Road Sand | HIW3MC | WELL | 438,527.3 | 3,682,381.0 | 272.1 | 14.9 | 257.2 |
| Tobacco Road Sand | HIW3MC | WELL | 438,527.3 | 3,682,381.0 | 272.1 | 15.0 | 257.1 |
| Tobacco Road Sand | HIW4MC | WELL | 438,543.5 | 3,682,318.0 | 263.4 | 16.3 | 247.1 |
| Tobacco Road Sand | HIW5MC | WELL | 438,454.7 | 3,682,403.0 | 266.1 | 15.9 | 250.2 |
| Tobacco Road Sand | HMD3C | BORING | 437,682.6 | 3,684,109.0 | 258.0 | 18.0 | 240.0 |
| Tobacco Road Sand | HPT2A | WELL | 439,096.9 | 3,683,437.0 | 257.8 | 15.1 | 242.7 |
| Tobacco Road Sand | HSB120A | WELL | 438,467.5 | 3,682,350.0 | 266.0 | 20.0 | 246.0 |
| Tobacco Road Sand | HSB65A | WELL | 439,133.2 | 3,682,473.0 | 270.7 | 16.7 | 254.0 |
| Tobacco Road Sand | HSB85A | WELL | 439,014.9 | 3,682,899.0 | 292.1 | 24.0 | 268.1 |
| Tobacco Road Sand | HSBCPT1 | CONE | 439,131.2 | 3,682,503.4 | 272.5 | 19.2 | 253.3 |
| Tobacco Road Sand | HSBCPT11 | CONE | 438,802.3 | 3,682,444.5 | 286.3 | 36.3 | 250.0 |
| Tobacco Road Sand | HSBCPT11 | CONE | 438,802.3 | 3,682,444.5 | 286.3 | 36.8 | 249.5 |
| Tobacco Road Sand | HSBCPT11 | CONE | 438,802.3 | 3,682,444.5 | 286.3 | 36.9 | 249.4 |
| Tobacco Road Sand | HSBCPT2 | CONE | 439,128.8 | 3,682,505.7 | 272.7 | 18.9 | 253.8 |
| Tobacco Road Sand | HSBCPT21 | CONE | 438,880.8 | 3,682,435.5 | 275.6 | 31.5 | 244.1 |
| Tobacco Road Sand | HSBCPT3 | CONE | 438,563.4 | 3,682,374.0 | 275.0 | 19.3 | 255.7 |
| Tobacco Road Sand | HSBCPT3 | CONE | 438,563.4 | 3,682,374.0 | 275.0 | 21.1 | 253.9 |
| Tobacco Road Sand | HSBCPT3 | CONE | 438,563.4 | 3,682,374.0 | 275.0 | 21.2 | 253.8 |
| Tobacco Road Sand | HSBCPT4 | CONE | 438,565.8 | 3,682,370.1 | 275.4 | 19.3 | 256.1 |
| Tobacco Road Sand | HSBCPT4 | CONE | 438,565.8 | 3,682,370.1 | 275.4 | 20.8 | 254.7 |
| Tobacco Road Sand | HSBCPT5 | CONE | 439,184.5 | 3,682,466.5 | 268.4 | 21.3 | 247.1 |
| Tobacco Road Sand | HSBTB | WELL | 439,205.2 | 3,682,509.0 | 267.1 | 18.2 | 248.9 |
| Tobacco Road Sand | HSC5 | WELL | 439,265.9 | 3,682,548.7 | 266.1 | 16.7 | 249.4 |
| Tobacco Road Sand | HTRANC1 | CONE | 438,241.0 | 3,682,840.7 | 308.6 | 45.1 | 263.5 |
| Tobacco Road Sand | HTRANC1 | CONE | 438,241.0 | 3,682,840.7 | 308.6 | 48.2 | 260.4 |
| Tobacco Road Sand | HTRANC13 | CONE | 439,011.1 | 3,682,797.0 | 291.2 | 39.0 | 252.2 |
| Tobacco Road Sand | HTRANC13 | CONE | 439,011.1 | 3,682,797.0 | 291.2 | 39.2 | 252.0 |
| Tobacco Road Sand | HTRANC13 | CONE | 439,011.1 | 3,682,797.0 | 291.2 | 40.0 | 251.2 |
| Tobacco Road Sand | HTRANC8 | CONE | 437,739.4 | 3,682,866.2 | 299.5 | 40.1 | 259.5 |
| Tobacco Road Sand | MEGACPT1 | CONE | 438,817.4 | 3,683,523.2 | 277.0 | 34.6 | 242.4 |
| Tobacco Road Sand | MEGACPT2 | CONE | 438,749.6 | 3,683,473.9 | 281.0 | 41.5 | 239.5 |
| Tobacco Road Sand | MEGACPT3 | CONE | 438,663.4 | 3,683,411.1 | 287.0 | 48.7 | 238.3 |
| Tobacco Road Sand | MEGACPT4 | CONE | 438,673.2 | 3,683,501.2 | 290.0 | 48.1 | 242.0 |
| Tobacco Road Sand | MEGACPT5 | CONE | 438,771.7 | 3,683,572.9 | 278.0 | 30.1 | 247.9 |
| Tobacco Road Sand | MEGACPT6 | CONE | 438,756.3 | 3,683,516.4 | 280.0 | 27.2 | 252.8 |
| Tobacco Road Sand | MEGACPT7 | CONE | 438,670.1 | 3,683,453.7 | 285.0 | 38.4 | 246.6 |
| Tobacco Road Sand | MEGACPTEAST | CONE | 438,800.6 | 3,683,544.3 | 277.0 | 24.8 | 252.2 |
| Tobacco Road Sand | MEGACPTNORTH | CONE | 438,744.8 | 3,683,549.9 | 281.4 | 26.3 | 255.2 |
| Tobacco Road Sand | MEGACPTSOUTH | CONE | 438,789.4 | 3,683,496.8 | 278.7 | 26.3 | 252.4 |
| Tobacco Road Sand | NEP1SB | BORING | 438,775.0 | 3,683,744.1 | 276.2 | 16.2 | 260.0 |
| Tobacco Road Sand | NEP1SB | BORING | 438,775.0 | 3,683,744.1 | 276.2 | 20.5 | 255.7 |
| Tobacco Road Sand | OFS1SB | BORING | 437,594.3 | 3,682,308.0 | 261.6 | 6.6 | 255.0 |

| Stratigraphic Unit | Borehole Name | Borehole Type | UTME (m) | UTMN (m) | Ground Elevation (ft) | Pick Depth (ft) | Pick Elevation (ft) |
|--------------------|-----------------|---------------|-----------|-------------|-----------------------|-----------------|---------------------|
| Tobacco Road Sand | OFS2SB | BORING | 437,602.0 | 3,682,201.7 | 257.5 | 20.0 | 237.5 |
| Tobacco Road Sand | SCGS-Aiken #502 | BORING | 438,602.1 | 3,684,085.6 | 253.0 | 4.0 | 249.0 |
| Tobacco Road Sand | | CONE | 437,971.5 | 3,683,678.2 | 285.7 | 27.6 | 258.1 |
| Tobacco Road Sand | ST8VL2_CPT | CONE | 437,965.8 | 3,683,700.4 | 285.8 | 22.9 | 263.0 |
| Tobacco Road Sand | ST8VL3_CPT | CONE | 437,966.8 | 3,683,687.2 | 285.7 | 22.7 | 263.0 |
| Tobacco Road Sand | SWC24 | CONE | 437,602.0 | 3,682,201.7 | 258.0 | 16.0 | 242.0 |
| Tobacco Road Sand | SWC26 | CONE | 437,854.0 | 3,682,234.0 | 258.0 | 4.7 | 253.4 |
| Tobacco Road Sand | SWC31 | CONE | 437,837.7 | 3,682,331.4 | 253.0 | 6.4 | 246.6 |
| Tobacco Road Sand | SWC35 | CONE | 437,597.3 | 3,682,312.8 | 262.0 | 4.8 | 257.2 |

Appendix 4 (continued). Variogram and ArcMap settings for elevation model of Tobacco Road Sand (TRS).

Name: Z:\Bennett\SRNL\E-Area_VadoseZoneHydroModel\EVZ\LB_TobRoad_20170315.RwGrd
Spoke Spacing: 90.0 degrees.
Spoke Tolerance: +/- 45.0 degrees.
Distance Increment: 49.59
Distance Tolerance: +/- 24.79
Maximum Cutoff Distance: 793.41
Best Variogram (i.e. Best Correlation): Exponential With Nugget
Correlation Coefficient of Best Variogram: 0.87

Variogram That Was Actually Used: Exponential With Nugget
Correlation Coefficient: 0.87
Nugget: 1.56
Relative Sill: 11.6
Major Axis Direction: N96.5 degrees.
Major Axis Range: 483.98
Minor Axis Direction: N186.5 degrees.
Minor Axis Range: 349.1



Appendix 5 (10 pages). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. (Table is split across 10 pages. See notes on page A35. To preserve legibility, Rev.1 mark-up not shown.)

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Water Table (WT) | | | | | | Lower Aquifer Zone (LAZ) | | | |
|---------------------|---|------------|--------------|-------------|--|--|------------------------------------|--------------------------|--|--------------------------------|---|---|-------------------------------------|-------------------|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | | Depth (by subtraction from 2009 LiDAR) | | | Elevation | | Depth | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | WT Elevation (ft) from kriged dataset | WT Elevation Delta (ft) at this DU | WT Elevation Observation | Depth (ft) to WT (highlighted where <55') | WT Depth Delta (ft) at this DU | WT Depth Observation | LAZ Elevation (ft) from kriged dataset | LAZ Elevation Delta (ft) at this DU | Depth (ft) to LAZ | LAZ Depth Delta (ft) at this DU |
| 643-26E NRCDA | 57652.37 | 78292.43 | 437889.810 | 3683776.057 | 279.69 | 204.3 | | | 75.4 | | | 213.9 | | 65.8 | |
| | 57675.10 | 78152.40 | 437920.521 | 3683745.637 | 280.77 | 205.4 | | | 75.4 | | | 213.1 | | 67.7 | |
| | 57504.90 | 78241.60 | 437862.595 | 3683737.090 | 280.58 | 205.1 | 1.9 | | 75.4 | 1.5 | | 214.3 | 3.2 | 66.3 | 6.1 |
| | 57598.20 | 78434.50 | 437850.987 | 3683801.343 | 277.36 | 203.5 | | | 73.9 | | | 215.7 | | 61.6 | |
| | 57819.60 | 78327.40 | 437924.736 | 3683814.662 | 278.02 | 203.5 | | | 74.5 | | | 212.5 | | 65.5 | |
| 643-7E NRCDA | 58396.52 | 74356.67 | 438778.929 | 3682939.925 | 306.33 | 231.7 | | | 74.6 | | | 192.6 | | 113.7 | |
| | 58333.30 | 74311.60 | 438771.438 | 3682917.486 | 290.29 | 231.8 | | | 58.5 | | | 192.2 | | 98.1 | |
| | 58425.00 | 74310.50 | 438794.225 | 3682933.660 | 290.35 | 231.9 | | | 58.4 | 16.2 | | 192.3 | 0.4 | 98.1 | 15.7 |
| | 58426.60 | 74418.90 | 438775.180 | 3682960.651 | 291.37 | 231.6 | 0.4 | | 59.8 | | | 192.3 | | 99.1 | |
| | 58396.40 | 74424.00 | 438766.826 | 3682956.492 | 292.49 | 231.5 | | | 61.0 | | | 192.3 | | 100.2 | |
| | 58370.60 | 74347.90 | 438774.117 | 3682933.118 | 296.29 | 231.7 | | | 64.6 | | | 192.6 | | 103.7 | |
| CIG Trench 1 | 58920.00 | 77083.65 | 438418.861 | 3683705.596 | 280.54 | 216.3 | | | 64.2 | | | 202.4 | | 78.1 | |
| | 59110.00 | 77362.30 | 438415.698 | 3683808.315 | 275.33 | 209.2 | | | 66.1 | | | 201.8 | | 73.5 | |
| | 59215.60 | 77246.10 | 438462.551 | 3683798.626 | 275.36 | 213.1 | 14.2 | UAZ/LAZ transition here | 62.3 | 3.8 | | 200.6 | 2.6 | 74.7 | 11.0 |
| | 58730.00 | 76805.00 | 438422.025 | 3683602.878 | 286.35 | 223.4 | | | 62.9 | | | 203.2 | | 83.2 | |
| | 58624.40 | 76921.20 | 438375.172 | 3683612.567 | 287.11 | 221.1 | | | 66.0 | | | 202.6 | | 84.5 | |
| CIG Trench 2 | 59037.50 | 76964.10 | 438469.247 | 3683697.216 | 280.31 | 218.8 | | | 61.5 | | | 202.8 | | 77.5 | |
| | 59333.50 | 77125.70 | 438513.187 | 3683790.108 | 275.46 | 216.9 | | | 58.6 | | | 198.3 | | 77.2 | |
| | 59228.30 | 77242.20 | 438466.379 | 3683799.943 | 275.00 | 213.3 | 10.7 | UAZ/LAZ transition here | 61.7 | 4.0 | | 200.5 | 6.0 | 74.5 | 8.1 |
| | 58846.70 | 76686.00 | 438472.114 | 3683594.490 | 285.30 | 224.0 | | | 61.3 | | | 204.3 | | 81.0 | |
| | 58741.50 | 76802.50 | 438425.306 | 3683604.325 | 285.93 | 223.3 | | | 62.6 | | | 203.3 | | 82.6 | |
| Engineered Trench 1 | 59266.19 | 75919.39 | 438712.932 | 3683480.860 | 286.45 | 226.2 | | | 60.3 | | less variability here because ET1 was mostly filled/covered except for sump | 193.8 | | 92.6 | |
| | 58944.70 | 75995.20 | 438620.137 | 3683441.885 | 286.06 | 226.3 | | | 59.7 | | | 195.5 | | 90.5 | |
| | 58943.80 | 75845.20 | 438646.815 | 3683404.771 | 288.16 | 227.0 | 2.1 | | 61.1 | 9.3 | | 194.5 | 4.4 | 93.6 | 7.1 |
| | 59590.30 | 75845.10 | 438806.099 | 3683520.683 | 277.66 | 225.8 | | | 51.8 | | | 191.1 | | 86.5 | |
| | 59590.30 | 75992.10 | 438779.737 | 3683556.896 | 280.12 | 224.9 | | | 55.2 | | | 192.8 | | 87.3 | |
| Engineered Trench 2 | 59272.80 | 76206.68 | 438663.040 | 3683552.822 | 261.52 | 224.9 | | | 36.6 | | artifact of LiDAR; trench partially filled/covered | 196.3 | | 65.2 | |
| | 58946.30 | 76286.70 | 438568.257 | 3683513.983 | 288.29 | 225.5 | | | 62.8 | | | 198.3 | | 90.0 | |
| | 58946.00 | 76127.60 | 438596.714 | 3683474.735 | 287.53 | 225.9 | 2.4 | | 61.7 | 26.2 | | 196.6 | 4.4 | 90.9 | 25.8 |
| | 59601.90 | 76129.00 | 438758.045 | 3683592.702 | 263.35 | 224.1 | | | 39.2 | | | 193.9 | | 69.5 | |
| | 59603.70 | 76283.30 | 438730.818 | 3683631.037 | 262.50 | 223.5 | | | 39.0 | | | 195.1 | | 67.4 | |
| Engineered Trench 3 | 57688.28 | 78547.16 | 437852.975 | 3683845.251 | 274.74 | 202.5 | | | 72.2 | | | 216.5 | | 58.2 | |
| | 57528.30 | 78727.80 | 437781.170 | 3683861.062 | 273.62 | 202.0 | | | 71.6 | | | 220.6 | | 53.1 | |
| | 57934.50 | 78522.90 | 437917.983 | 3683883.428 | 273.06 | 201.8 | | | 71.3 | 1.5 | | 212.2 | 8.5 | 60.9 | 10.1 |
| | 57899.40 | 78443.20 | 437923.628 | 3683857.500 | 274.57 | 202.5 | 1.4 | | 72.1 | | | 212.0 | | 62.5 | |
| | 57817.60 | 78378.90 | 437915.007 | 3683826.990 | 275.95 | 203.2 | | | 72.8 | | | 212.8 | | 63.2 | |
| | 57448.60 | 78564.70 | 437790.784 | 3683806.590 | 275.89 | 203.1 | | | 72.7 | | | 218.3 | | 57.6 | |
| Engineered Trench 4 | 57359.86 | 78201.70 | 437834.020 | 3683701.252 | 281.53 | 206.0 | | | 75.5 | | | 214.0 | | 67.5 | |
| | 57147.30 | 77943.50 | 437827.958 | 3683599.524 | 286.19 | 210.1 | | | 76.1 | | | 213.3 | | 72.9 | |
| | 57283.80 | 77865.00 | 437875.662 | 3683604.664 | 286.94 | 209.3 | 6.8 | | 77.6 | 4.3 | | 213.2 | 4.7 | 73.8 | 15.0 |
| | 57574.40 | 78465.60 | 437839.547 | 3683804.736 | 276.67 | 203.3 | | | 73.4 | | | 216.4 | | 60.3 | |
| | 57433.50 | 78533.80 | 437792.606 | 3683796.270 | 276.64 | 203.3 | | | 73.3 | | | 217.8 | | 58.8 | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Water Table (WT) | | | | | Lower Aquifer Zone (LAZ) | | | |
|--------------------|---|------------|--------------|-------------|--|--|------------------------------------|--------------------------|--|--------------------------------|--|---|-------------------------------------|-------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | | Depth (by subtraction from 2009 LiDAR) | | Elevation | | Depth | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | WT Elevation (ft) from kriged dataset | WT Elevation Delta (ft) at this DU | WT Elevation Observation | Depth (ft) to WT (highlighted where <55') | WT Depth Delta (ft) at this DU | WT Depth Observation | LAZ Elevation (ft) from kriged dataset | LAZ Elevation Delta (ft) at this DU | Depth (ft) to LAZ |
| Future Plot 6-1 | 57252.63 | 81057.82 | 437295.416 | 3684385.631 | 252.36 | 14.0 | natural WT slope | 167.9 | 84.5 | 11.4 | | 212.2 | 40.2 | 18.9 |
| | 57196.90 | 80849.75 | 437319.001 | 3684324.378 | 258.76 | | | 174.7 | 84.0 | | | 209.4 | 49.3 | |
| | 57355.77 | 80868.72 | 437354.737 | 3684357.542 | 253.48 | | | 172.8 | 80.6 | | | 211.0 | 42.5 | |
| | 57308.35 | 81265.90 | 437271.830 | 3684446.884 | 252.76 | | | 160.7 | 92.0 | | | 214.0 | 38.7 | |
| | 57149.48 | 81246.93 | 437236.094 | 3684413.721 | 244.65 | | | 162.5 | 82.1 | | | 214.2 | 30.5 | |
| | | | | | | | | | | | | | | |
| Future Plot 6-2 | 57451.10 | 80594.73 | 437427.356 | 3684307.139 | 228.22 | 20.7 | natural WT slope | 179.5 | 48.7 | 28.4 | artifact of LiDAR; former North Borrow Pit excavation | 212.1 | 16.1 | 20.5 |
| | 57152.99 | 80507.96 | 437369.477 | 3684232.304 | 240.16 | | | 187.8 | 52.3 | | | 211.0 | 29.2 | |
| | 57235.78 | 80371.04 | 437414.426 | 3684213.420 | 230.22 | | | 189.9 | 40.3 | | | 213.4 | 16.8 | |
| | 57749.21 | 80681.51 | 437485.234 | 3684381.978 | 221.06 | | | 171.1 | 50.0 | | | 212.4 | 8.6 | |
| | 57666.42 | 80818.42 | 437440.287 | 3684400.859 | 237.99 | | | 169.2 | 68.8 | | | 212.1 | 25.9 | |
| | | | | | | | | | | | | | | |
| Future Plot 6-3 | 57611.51 | 80329.46 | 437514.444 | 3684270.556 | 223.59 | 20.9 | natural WT slope | 184.9 | 38.7 | 14.4 | artifact of LiDAR; former North Borrow Pit excavation | 213.8 | 9.8 | 22.0 |
| | 57313.40 | 80242.69 | 437456.565 | 3684195.720 | 229.04 | | | 191.8 | 37.2 | | | 216.0 | 13.0 | |
| | 57396.19 | 80105.77 | 437501.514 | 3684176.836 | 246.39 | | | 194.8 | 51.6 | | | 216.9 | 29.5 | |
| | 57909.62 | 80416.23 | 437572.324 | 3684345.392 | 220.34 | | | 175.8 | 44.5 | | | 212.9 | 7.5 | |
| | 57826.83 | 80553.15 | 437527.375 | 3684364.275 | 221.10 | | | 173.9 | 47.2 | | | 212.7 | 8.4 | |
| | | | | | | | | | | | | | | |
| Future Plot 6-4 | 57771.91 | 80064.19 | 437601.531 | 3684233.971 | 219.46 | 19.0 | natural WT slope | 189.9 | 29.5 | 26.4 | artifact of LiDAR; former North Borrow Pit excavation | 214.1 | 5.3 | 28.7 |
| | 57473.80 | 79977.41 | 437543.652 | 3684159.132 | 251.38 | | | 195.5 | 55.9 | | | 217.4 | 34.0 | |
| | 57556.59 | 79840.50 | 437588.600 | 3684140.251 | 249.31 | | | 196.0 | 53.3 | | | 217.6 | 31.8 | |
| | 58070.02 | 80150.96 | 437659.409 | 3684308.806 | 221.75 | | | 183.4 | 38.3 | | | 211.0 | 10.8 | |
| | 57987.23 | 80287.88 | 437614.460 | 3684327.690 | 219.42 | | | 177.0 | 42.4 | | | 212.2 | 7.2 | |
| | | | | | | | | | | | | | | |
| Future Plot 6-5 | 57932.32 | 79798.91 | 437688.619 | 3684197.384 | 235.04 | 13.9 | natural WT slope | 192.3 | 42.8 | 24.3 | artifact of LiDAR; former North Borrow Pit excavation | 213.1 | 21.9 | 28.2 |
| | 57634.21 | 79712.14 | 437630.740 | 3684122.549 | 259.51 | | | 196.8 | 62.8 | | | 217.8 | 41.7 | |
| | 57717.00 | 79575.22 | 437675.689 | 3684103.665 | 257.51 | | | 197.0 | 60.5 | | | 218.5 | 39.0 | |
| | 58230.43 | 79885.69 | 437746.497 | 3684272.223 | 222.54 | | | 183.1 | 39.4 | | | 207.9 | 14.6 | |
| | 58147.64 | 80022.60 | 437701.550 | 3684291.104 | 223.03 | | | 184.5 | 38.5 | | | 209.5 | 13.5 | |
| | | | | | | | | | | | | | | |
| Future Plot 8-1 | 57245.76 | 79318.88 | 437605.567 | 3683956.007 | 261.91 | 4.8 | | 199.8 | 62.1 | 15.3 | | 222.7 | 39.2 | 18.1 |
| | 57190.90 | 79013.28 | 437646.856 | 3683870.885 | 274.48 | | | 202.3 | 72.2 | | | 222.5 | 52.0 | |
| | 57350.35 | 79026.54 | 437683.759 | 3683902.746 | 274.11 | | | 201.4 | 72.7 | | | 222.5 | 51.6 | |
| | 57300.61 | 79624.48 | 437564.277 | 3684041.129 | 259.15 | | | 197.5 | 61.6 | | | 220.1 | 39.0 | |
| | 57141.16 | 79611.21 | 437527.376 | 3684009.266 | 254.86 | | | 197.5 | 57.4 | | | 221.0 | 33.9 | |
| | | | | | | | | | | | | | | |
| Future Plot 8-2 | 57559.66 | 79284.78 | 437689.014 | 3684003.900 | 263.48 | 3.7 | | 198.9 | 64.6 | 7.0 | | 221.5 | 41.9 | 7.9 |
| | 57504.81 | 78979.18 | 437730.303 | 3683918.778 | 270.70 | | | 200.9 | 69.8 | | | 221.9 | 48.9 | |
| | 57664.26 | 78992.45 | 437767.204 | 3683950.641 | 265.91 | | | 200.1 | 65.8 | | | 220.8 | 45.1 | |
| | 57614.52 | 79590.38 | 437647.725 | 3684089.022 | 259.97 | | | 197.2 | 62.8 | | | 219.1 | 40.9 | |
| | 57455.07 | 79577.12 | 437610.822 | 3684057.161 | 261.58 | | | 197.6 | 64.0 | | | 220.1 | 41.5 | |
| | | | | | | | | | | | | | | |
| Future Plot 8-3 | 57876.89 | 79210.83 | 437780.423 | 3684042.568 | 258.23 | 3.1 | | 198.3 | 60.0 | 6.5 | | 218.8 | 39.4 | 6.0 |
| | 57822.03 | 78905.23 | 437821.712 | 3683957.447 | 261.48 | | | 200.0 | 61.5 | | | 218.9 | 42.6 | |
| | 57981.48 | 78918.49 | 437858.615 | 3683989.308 | 256.86 | | | 199.2 | 57.7 | | | 217.4 | 39.5 | |
| | 57931.74 | 79516.43 | 437739.134 | 3684127.691 | 251.84 | | | 196.9 | 55.0 | | | 215.3 | 36.6 | |
| | 57772.29 | 79503.16 | 437702.233 | 3684095.828 | 257.32 | | | 197.2 | 60.1 | | | 218.1 | 39.2 | |
| | | | | | | | | | | | | | | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Water Table (WT) | | | | | | Lower Aquifer Zone (LAZ) | | | |
|--------------------|---|------------|--------------|-------------|---------------------------------------|---------------------------------------|------------------------------------|--------------------------|---|--------------------------------|----------------------|--|-------------------------------------|-------------------|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | | Depth (by subtraction from 2009 LiDAR) | | | Elevation | | Depth | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | WT Elevation (ft) from kriged dataset | WT Elevation Delta (ft) at this DU | WT Elevation Observation | Depth (ft) to WT (highlighted where <55') | WT Depth Delta (ft) at this DU | WT Depth Observation | LAZ Elevation (ft) from kriged dataset | LAZ Elevation Delta (ft) at this DU | Depth (ft) to LAZ | LAZ Depth Delta (ft) at this DU |
| IL Vault | 57792.85 | 77702.91 | 438030.135 | 3683656.019 | 285.93 | 208.8 | | | 77.1 | | | 212.9 | | 73.0 | |
| | 57679.70 | 77790.40 | 437986.571 | 3683657.283 | 286.06 | 208.7 | | | 77.4 | | | 212.8 | | 73.2 | |
| | 57657.00 | 77748.10 | 437988.564 | 3683642.791 | 286.06 | 209.1 | 0.8 | | 76.9 | 1.8 | | 212.9 | 0.3 | 73.1 | 1.7 |
| | 57928.40 | 77658.10 | 438071.564 | 3683669.290 | 284.48 | 208.4 | | | 76.1 | | | 212.6 | | 71.8 | |
| | 57905.60 | 77615.40 | 438073.604 | 3683654.682 | 284.51 | 208.9 | | | 75.6 | | | 213.0 | | 71.5 | |
| LAW Vault | 59267.65 | 75402.50 | 438805.985 | 3683353.787 | 277.00 | 229.5 | | | 47.5 | | | 188.7 | | 88.3 | |
| | 59589.30 | 75475.00 | 438872.222 | 3683429.329 | 277.43 | 229.6 | | | 47.8 | | | 184.7 | | 92.7 | |
| | 59589.30 | 75330.00 | 438898.225 | 3683393.608 | 275.16 | 230.9 | 2.3 | | 44.3 | 4.5 | | 181.1 | 11.6 | 94.1 | 10.1 |
| | 58946.00 | 75330.00 | 438739.748 | 3683278.245 | 275.52 | 229.2 | | | 46.4 | | | 191.5 | | 84.0 | |
| | 58946.00 | 75475.00 | 438713.745 | 3683313.966 | 277.36 | 228.6 | | | 48.8 | | | 192.7 | | 84.7 | |
| Slit Trench 1 | 58453.70 | 77596.08 | 438212.094 | 3683748.212 | 283.76 | 205.8 | | | 78.0 | | | 206.6 | | 77.2 | |
| | 58157.10 | 77434.50 | 438168.002 | 3683655.218 | 286.38 | 208.1 | | | 78.3 | | | 210.8 | | 75.6 | |
| | 58263.60 | 77318.40 | 438215.059 | 3683645.716 | 286.81 | 207.9 | 5.6 | | 78.9 | 5.8 | | 205.4 | 6.3 | 81.4 | 12.2 |
| | 58750.00 | 77757.80 | 438256.087 | 3683841.188 | 275.52 | 202.4 | | | 73.1 | | | 204.5 | | 71.0 | |
| | 58644.90 | 77874.20 | 438209.321 | 3683851.016 | 275.82 | 202.5 | | | 73.3 | | | 206.6 | | 69.2 | |
| Slit Trench 10 | 58200.95 | 77978.65 | 438081.223 | 3683797.134 | 280.68 | 204.3 | | | 76.3 | | | 209.4 | | 71.3 | |
| | 58271.60 | 78278.60 | 438044.838 | 3683883.697 | 286.12 | 202.0 | | | 84.1 | | | 208.7 | | 77.4 | |
| | 58410.20 | 78204.90 | 438092.199 | 3683890.396 | 273.95 | 201.8 | 5.4 | | 72.1 | 12.0 | | 208.8 | 3.2 | 65.2 | 12.2 |
| | 57991.70 | 77752.40 | 438070.247 | 3683703.872 | 283.53 | 207.3 | | | 76.3 | | | 212.0 | | 71.6 | |
| | 58130.30 | 77678.70 | 438117.608 | 3683710.571 | 283.30 | 206.8 | | | 76.5 | | | 211.1 | | 72.2 | |
| Slit Trench 11 | 58330.29 | 77729.41 | 438157.781 | 3683758.927 | 280.84 | 205.2 | | | 75.6 | | | 208.6 | | 72.2 | |
| | 58085.50 | 77622.10 | 438116.721 | 3683688.594 | 284.32 | 207.5 | | | 76.8 | | | 212.1 | | 72.2 | |
| | 58188.00 | 77503.10 | 438163.313 | 3683677.659 | 285.30 | 207.5 | 4.5 | | 77.8 | 4.4 | | 210.5 | 5.2 | 74.8 | 6.4 |
| | 58472.60 | 77955.70 | 438152.260 | 3683840.195 | 276.48 | 203.0 | | | 73.5 | | | 208.0 | | 68.4 | |
| | 58575.10 | 77836.80 | 438198.833 | 3683829.285 | 276.61 | 203.2 | | | 73.4 | | | 206.8 | | 69.8 | |
| Slit Trench 14 | 59272.80 | 75752.40 | 438744.506 | 3683440.909 | 282.97 | 227.0 | | | 55.9 | | | 192.4 | | 90.5 | |
| | 58944.80 | 75830.90 | 438649.626 | 3683401.427 | 287.89 | 227.1 | | | 60.8 | | | 194.4 | | 93.4 | |
| | 58944.80 | 75673.90 | 438677.781 | 3683362.750 | 286.06 | 227.7 | 1.8 | | 58.3 | 12.1 | | 193.9 | 5.8 | 92.2 | 7.0 |
| | 59600.80 | 75673.90 | 438839.387 | 3683480.390 | 276.08 | 227.4 | | | 48.7 | | | 188.6 | | 87.5 | |
| | 59600.80 | 75830.90 | 438811.232 | 3683519.068 | 277.36 | 225.9 | | | 51.4 | | | 191.0 | | 86.4 | |
| Slit Trench 15 | 59273.53 | 75581.11 | 438775.402 | 3683398.842 | 281.04 | 228.5 | | | 52.5 | | | 190.7 | | 90.3 | |
| | 58945.40 | 75659.60 | 438680.493 | 3683359.335 | 285.89 | 227.8 | | | 58.1 | | | 193.8 | | 92.0 | |
| | 58945.90 | 75502.60 | 438708.771 | 3683320.748 | 276.87 | 228.5 | 1.8 | | 48.4 | 11.8 | | 193.0 | 8.5 | 83.9 | 8.2 |
| | 59601.40 | 75502.60 | 438870.254 | 3683438.298 | 275.69 | 229.4 | | | 46.3 | | | 185.4 | | 90.3 | |
| | 59601.40 | 75659.60 | 438842.099 | 3683476.975 | 276.25 | 227.6 | | | 48.7 | | | 188.4 | | 87.9 | |
| Slit Trench 16 | 59265.40 | 75242.50 | 438834.123 | 3683313.968 | 273.82 | 230.2 | | | 43.6 | | | 187.6 | | 86.2 | |
| | 58941.50 | 75315.00 | 438741.329 | 3683273.743 | 274.34 | 229.2 | | | 45.1 | | | 191.4 | | 82.9 | |
| | 58941.50 | 75170.00 | 438767.332 | 3683238.022 | 283.04 | 229.7 | 1.9 | | 53.3 | 9.7 | | 190.9 | 10.6 | 92.2 | 11.0 |
| | 59589.30 | 75170.00 | 438926.918 | 3683354.192 | 275.98 | 231.2 | | | 44.8 | | | 182.3 | | 93.7 | |
| | 59589.30 | 75315.00 | 438900.915 | 3683389.913 | 274.77 | 231.0 | | | 43.8 | | | 180.8 | | 93.9 | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Water Table (WT) | | | | | Lower Aquifer Zone (LAZ) | | | | |
|--------------------|---|------------|--------------|-------------|--|--|------------------------------------|--------------------------|--|--------------------------------|--------------------------|---|-------------------------------------|-------------------|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | | Depth (by subtraction from 2009 LiDAR) | | | Elevation | | Depth | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | WT Elevation (ft) from kriged dataset | WT Elevation Delta (ft) at this DU | WT Elevation Observation | Depth (ft) to WT (highlighted where <55') | WT Depth Delta (ft) at this DU | WT Depth Observation | LAZ Elevation (ft) from kriged dataset | LAZ Elevation Delta (ft) at this DU | Depth (ft) to LAZ | LAZ Depth Delta (ft) at this DU |
| Slit Trench 17 | 59265.40 | 75082.50 | 438862.816 | 3683274.551 | 280.38 | 1.6 | | 230.8 | 49.6 | 17.4 | | 187.6 | 8.3 | 92.8 | 9.6 |
| | 58941.50 | 75155.00 | 438770.022 | 3683234.327 | 285.83 | | | 229.8 | 56.0 | | | 190.9 | | 94.9 | |
| | 58941.50 | 75010.00 | 438796.025 | 3683198.606 | 286.25 | | | 230.3 | 56.0 | | | 190.8 | | 95.4 | |
| | 59589.30 | 75010.00 | 438955.611 | 3683314.776 | 270.05 | | | 231.4 | 38.6 | | | 184.2 | | 85.8 | |
| | 59589.30 | 75155.00 | 438929.608 | 3683350.497 | 276.87 | | | 231.2 | 45.7 | | | 182.6 | | 94.3 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 18 | 59265.40 | 74922.50 | 438891.509 | 3683235.135 | 281.10 | 1.6 | | 231.2 | 49.9 | 17.1 | | 188.4 | 7.2 | 92.7 | 9.3 |
| | 58941.50 | 74995.00 | 438798.714 | 3683194.911 | 286.09 | | | 230.3 | 55.8 | | | 190.9 | | 95.2 | |
| | 58941.50 | 74850.00 | 438824.717 | 3683159.190 | 286.25 | | | 230.7 | 55.5 | | | 191.5 | | 94.7 | |
| | 59589.30 | 74850.00 | 438984.303 | 3683275.360 | 272.70 | | | 232.0 | 40.8 | | | 185.7 | | 87.0 | |
| | 59589.30 | 74995.00 | 438958.301 | 3683311.081 | 270.21 | | | 231.5 | 38.7 | | | 184.3 | | 85.9 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 19 | 59265.40 | 74762.50 | 438920.202 | 3683195.719 | 280.87 | 2.0 | | 231.8 | 49.1 | 12.5 | | 189.3 | 6.3 | 91.6 | 5.5 |
| | 58941.50 | 74835.00 | 438827.407 | 3683155.495 | 286.22 | | | 230.7 | 55.5 | | | 191.6 | | 94.6 | |
| | 58941.50 | 74690.00 | 438853.410 | 3683119.774 | 286.15 | | | 231.1 | 55.0 | | | 192.2 | | 94.0 | |
| | 59589.30 | 74690.00 | 439012.996 | 3683235.944 | 276.74 | | | 232.7 | 44.0 | | | 186.9 | | 89.8 | |
| | 59589.30 | 74835.00 | 438986.993 | 3683271.664 | 275.00 | | | 232.0 | 43.0 | | | 185.8 | | 89.2 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 2 | 58569.68 | 77468.49 | 438263.546 | 3683737.579 | 289.07 | 8.8 | UAZ/LAZ transition here | 206.9 | 82.2 | 9.3 | | 204.8 | 2.6 | 84.3 | 12.8 |
| | 58273.70 | 77307.10 | 438219.573 | 3683644.743 | 286.78 | | | 207.9 | 78.9 | | | 204.9 | | 81.8 | |
| | 58379.20 | 77190.10 | 438266.545 | 3683634.839 | 286.78 | | | 211.1 | 75.6 | | | 202.5 | | 84.3 | |
| | 58865.80 | 77630.40 | 438307.461 | 3683830.569 | 275.16 | | | 202.3 | 72.8 | | | 202.4 | | 72.8 | |
| | 58760.60 | 77746.90 | 438260.653 | 3683840.404 | 275.85 | | | 202.4 | 73.4 | | | 204.3 | | 71.6 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 20 | 59265.40 | 74602.50 | 438948.894 | 3683156.303 | 281.40 | 2.4 | | 232.3 | 49.1 | 13.9 | | 190.1 | 5.1 | 91.3 | 7.3 |
| | 58941.50 | 74675.00 | 438856.100 | 3683116.079 | 286.15 | | | 231.2 | 55.0 | | | 192.2 | | 94.0 | |
| | 58941.50 | 74530.00 | 438882.103 | 3683080.358 | 285.93 | | | 231.6 | 54.3 | | | 192.0 | | 93.9 | |
| | 59589.30 | 74530.00 | 439041.689 | 3683196.527 | 274.67 | | | 233.5 | 41.1 | | | 188.0 | | 86.7 | |
| | 59589.30 | 74675.00 | 439015.686 | 3683232.248 | 276.71 | | | 232.7 | 44.0 | | | 187.0 | | 89.7 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 21 | 59166.37 | 74327.47 | 438973.821 | 3683070.790 | 282.64 | 2.4 | | 233.0 | 49.7 | 9.4 | | 191.4 | 3.3 | 91.3 | 5.4 |
| | 58941.50 | 74515.00 | 438884.793 | 3683076.662 | 286.15 | | | 231.7 | 54.5 | | | 192.0 | | 94.2 | |
| | 58941.50 | 74140.00 | 438952.041 | 3682984.281 | 286.45 | | | 233.7 | 52.8 | | | 192.7 | | 93.7 | |
| | 59391.50 | 74140.00 | 439062.899 | 3683064.979 | 279.17 | | | 234.1 | 45.1 | | | 190.4 | | 88.8 | |
| | 59391.00 | 74515.00 | 438995.527 | 3683157.271 | 279.76 | | | 233.0 | 46.8 | | | 189.4 | | 90.3 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 3 | 58685.70 | 77341.65 | 438314.874 | 3683727.138 | 283.17 | 13.5 | UAZ/LAZ transition here | 209.2 | 74.0 | 4.2 | | 203.0 | 0.7 | 80.2 | 11.2 |
| | 58389.50 | 77179.90 | 438270.912 | 3683634.173 | 286.58 | | | 211.5 | 75.1 | | | 202.4 | | 84.1 | |
| | 58495.10 | 77063.70 | 438317.764 | 3683624.485 | 286.78 | | | 215.8 | 70.9 | | | 202.5 | | 84.3 | |
| | 58981.90 | 77503.40 | 438358.837 | 3683820.103 | 276.15 | | | 204.5 | 71.6 | | | 202.4 | | 73.8 | |
| | 58876.30 | 77619.60 | 438311.984 | 3683829.792 | 275.39 | | | 202.4 | 73.0 | | | 202.3 | | 73.1 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 4 | 58801.22 | 77214.29 | 438366.174 | 3683716.479 | 281.27 | 15.8 | UAZ/LAZ transition here | 212.7 | 68.6 | 5.5 | | 202.5 | 0.7 | 78.8 | 10.8 |
| | 58505.10 | 77052.60 | 438322.219 | 3683623.543 | 286.65 | | | 216.5 | 70.2 | | | 202.5 | | 84.1 | |
| | 58610.70 | 76936.40 | 438369.071 | 3683613.855 | 286.88 | | | 220.7 | 66.2 | | | 202.5 | | 84.3 | |
| | 59097.20 | 77375.80 | 438410.124 | 3683809.345 | 275.46 | | | 209.0 | 66.5 | | | 201.9 | | 73.6 | |
| | 58991.90 | 77492.30 | 438363.291 | 3683819.162 | 276.57 | | | 205.0 | 71.6 | | | 202.3 | | 74.3 | |
| | | | | | | | | | | | | | | | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Water Table (WT) | | | | | Lower Aquifer Zone (LAZ) | | | | |
|--------------------|---|------------|--------------|-------------|--|--|------------------------------------|--------------------------|--|--------------------------------|--------------------------|---|-------------------------------------|-------------------|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | | Depth (by subtraction from 2009 LiDAR) | | | Elevation | | Depth | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | WT Elevation (ft) from kriged dataset | WT Elevation Delta (ft) at this DU | WT Elevation Observation | Depth (ft) to WT (highlighted where <55') | WT Depth Delta (ft) at this DU | WT Depth Observation | LAZ Elevation (ft) from kriged dataset | LAZ Elevation Delta (ft) at this DU | Depth (ft) to LAZ | LAZ Depth Delta (ft) at this DU |
| Slit Trench 5 | 59152.73 | 76836.46 | 438520.524 | 3683686.436 | 282.78 | 221.2 | | | 61.6 | | | 203.6 | | 79.2 | |
| | 58856.70 | 76674.90 | 438476.568 | 3683593.549 | 285.50 | 224.1 | | | 61.4 | | | 204.2 | | 81.3 | |
| | 58961.90 | 76558.40 | 438523.376 | 3683583.714 | 287.20 | 224.4 | 7.2 | | 62.8 | 8.2 | | 202.1 | 10.2 | 85.1 | 7.6 |
| | 59448.80 | 76998.10 | 438564.474 | 3683779.350 | 276.02 | 221.4 | | | 54.6 | | | 194.0 | | 82.0 | |
| | 59343.60 | 77114.50 | 438517.683 | 3683789.160 | 275.52 | 217.2 | | | 58.3 | | | 198.0 | | 77.5 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 6 | 59266.98 | 76709.91 | 438571.364 | 3683675.748 | 280.58 | 222.8 | | | 57.8 | | | 202.7 | | 77.9 | |
| | 58971.00 | 76548.40 | 438527.411 | 3683582.883 | 286.71 | 224.4 | | | 62.3 | | | 201.9 | | 84.8 | |
| | 59076.20 | 76431.80 | 438574.237 | 3683573.024 | 289.07 | 224.6 | 2.8 | | 64.5 | 12.2 | artifact of LiDAR | 200.1 | 10.8 | 89.0 | 11.1 |
| | 59563.00 | 76871.50 | 438615.310 | 3683768.642 | 275.49 | 223.2 | | | 52.3 | | | 191.9 | | 83.6 | |
| | 59457.80 | 76988.00 | 438568.502 | 3683778.476 | 276.02 | 221.7 | | | 54.3 | | | 193.6 | | 82.4 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 7 | 59383.36 | 76581.21 | 438623.114 | 3683664.913 | 281.20 | 223.4 | | | 57.8 | | | 198.9 | | 82.3 | |
| | 59087.30 | 76419.60 | 438579.160 | 3683572.009 | 289.14 | 224.6 | | | 64.6 | | | 199.4 | | 89.8 | |
| | 59192.50 | 76303.10 | 438625.968 | 3683562.174 | 274.48 | 224.8 | 2.7 | | 49.7 | 14.9 | artifact of LiDAR | 197.6 | 7.2 | 76.9 | 12.9 |
| | 59679.40 | 76742.70 | 438667.083 | 3683757.786 | 274.84 | 222.1 | | | 52.8 | | | 193.9 | | 80.9 | |
| | 59574.10 | 76859.30 | 438620.232 | 3683767.627 | 275.49 | 223.0 | | | 52.5 | | | 192.1 | | 83.4 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 8 | 57894.30 | 78130.45 | 437978.457 | 3683779.539 | 279.63 | 204.7 | | | 74.9 | | | 211.4 | | 68.3 | |
| | 57809.60 | 77804.00 | 438016.133 | 3683683.928 | 284.65 | 207.9 | | | 76.7 | | | 212.5 | | 72.2 | |
| | 57671.00 | 77877.70 | 437968.772 | 3683677.229 | 283.99 | 207.8 | 5.9 | | 76.2 | 8.3 | | 212.8 | 4.9 | 71.2 | 11.1 |
| | 57979.00 | 78456.90 | 437940.781 | 3683875.149 | 273.52 | 202.1 | | | 71.5 | | | 210.7 | | 62.8 | |
| | 58117.60 | 78383.20 | 437988.142 | 3683881.848 | 281.76 | 202.0 | | | 79.7 | | | 207.9 | | 73.9 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 9 | 58045.30 | 78050.15 | 438030.056 | 3683786.835 | 279.13 | 204.6 | | | 74.6 | | | 210.1 | | 69.0 | |
| | 57822.00 | 77797.40 | 438020.371 | 3683684.526 | 284.68 | 207.9 | | | 76.8 | | | 212.5 | | 72.2 | |
| | 57960.60 | 77723.70 | 438067.732 | 3683691.225 | 284.25 | 207.7 | 6.0 | | 76.6 | 7.1 | | 212.4 | 4.7 | 71.9 | 5.9 |
| | 58130.00 | 78376.60 | 437992.380 | 3683882.446 | 282.64 | 202.0 | | | 80.7 | | | 207.8 | | 74.8 | |
| | 58268.60 | 78302.90 | 438039.741 | 3683889.145 | 283.53 | 201.9 | | | 81.6 | | | 208.7 | | 74.9 | |
| | | | | | | | | | | | | | | | |

Rev.1 note:
The elevation (outlined in red) at the vertex of Slit Trench 6 is corrected to repair a data assembly/keystroke error.
Other changes throughout Appendix 5 are due to correction of a GIS transformation error that affected the entire project except for the water table elevation and the vertices & centroids of the disposal units.

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Tan Clay Confining Zone (TCCZ) | | | | Tobacco Road Sand (TRS; ~boundary between UVZ & LVZ) | | | | |
|---------------------|---|------------|--------------|-------------|---------------------------------------|---|--------------------------------------|--------------------|----------------------------------|--|-------------------------------------|--|---|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | Depth | | Elevation | | Depth | | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | TCCZ Elevation (ft) from kriged dataset | TCCZ Elevation Delta (ft) at this DU | Depth (ft) to TCCZ | TCCZ Depth Delta (ft) at this DU | TRS elevation (ft) from kriged dataset | TRS Elevation Delta (ft) at this DU | Depth (ft) to TRS (<i>negative where TRS modeled absent</i>) | Depth (ft) to TRS (<i>negative depths set to 0</i>) | TRS Depth Delta (ft) at this DU |
| 643-26E NRCDA | 57652.37 | 78292.43 | 437889.810 | 3683776.057 | 279.69 | 222.0 | | 57.7 | | 262.0 | | 17.7 | 17.7 | |
| | 57675.10 | 78152.40 | 437920.521 | 3683745.637 | 280.77 | 221.8 | | 59.0 | | 261.5 | | 19.3 | 19.3 | |
| | 57504.90 | 78241.60 | 437862.595 | 3683737.090 | 280.58 | 222.6 | 2.8 | 58.0 | 4.8 | 262.8 | 2.1 | 17.8 | 17.8 | 3.0 |
| | 57598.20 | 78434.50 | 437850.987 | 3683801.343 | 277.36 | 223.2 | | 54.1 | | 261.1 | | 16.2 | 16.2 | |
| | 57819.60 | 78327.40 | 437924.736 | 3683814.662 | 278.02 | 220.4 | | 57.6 | | 260.7 | | 17.4 | 17.4 | |
| | | | | | | | | | | | | | | |
| 643-7E NRCDA | 58396.52 | 74356.67 | 438778.929 | 3682939.925 | 306.33 | 209.8 | | 96.5 | | 259.0 | | 47.3 | 47.3 | |
| | 58333.30 | 74311.60 | 438771.438 | 3682917.486 | 290.29 | 210.7 | | 79.6 | | 260.5 | | 29.8 | 29.8 | |
| | 58425.00 | 74310.50 | 438794.225 | 3682933.660 | 290.35 | 209.5 | 1.6 | 80.8 | 16.9 | 258.9 | 2.6 | 31.4 | 31.4 | 17.6 |
| | 58426.60 | 74418.90 | 438775.180 | 3682960.651 | 291.37 | 209.0 | | 82.3 | | 257.9 | | 33.5 | 33.5 | |
| | 58396.40 | 74424.00 | 438766.826 | 3682956.492 | 292.49 | 209.4 | | 83.0 | | 258.4 | | 34.1 | 34.1 | |
| | 58370.60 | 74347.90 | 438774.117 | 3682933.118 | 296.29 | 210.1 | | 86.1 | | 259.6 | | 36.7 | 36.7 | |
| CIG Trench 1 | 58920.00 | 77083.65 | 438418.861 | 3683705.596 | 280.54 | 215.9 | | 64.6 | | 262.8 | | 17.7 | 17.7 | |
| | 59110.00 | 77362.30 | 438415.698 | 3683808.315 | 275.33 | 215.2 | | 60.1 | | 257.6 | | 17.8 | 17.8 | |
| | 59215.60 | 77246.10 | 438462.551 | 3683798.626 | 275.36 | 215.1 | 2.2 | 60.2 | 13.3 | 257.7 | 5.2 | 17.7 | 17.7 | 8.9 |
| | 58730.00 | 76805.00 | 438422.025 | 3683602.878 | 286.35 | 214.2 | | 72.2 | | 260.5 | | 25.8 | 25.8 | |
| | 58624.40 | 76921.20 | 438375.172 | 3683612.567 | 287.11 | 213.7 | | 73.4 | | 260.5 | | 26.6 | 26.6 | |
| CIG Trench 2 | 59037.50 | 76964.10 | 438469.247 | 3683697.216 | 280.31 | 216.1 | | 64.2 | | 261.7 | | 18.7 | 18.7 | |
| | 59333.50 | 77125.70 | 438513.187 | 3683790.108 | 275.46 | 214.1 | | 61.3 | | 258.3 | | 17.1 | 17.1 | |
| | 59228.30 | 77242.20 | 438466.379 | 3683799.943 | 275.00 | 215.1 | 2.0 | 59.9 | 11.6 | 257.5 | 5.0 | 17.5 | 17.5 | 8.0 |
| | 58846.70 | 76686.00 | 438472.114 | 3683594.490 | 285.30 | 215.9 | | 69.4 | | 262.5 | | 22.8 | 22.8 | |
| | 58741.50 | 76802.50 | 438425.306 | 3683604.325 | 285.93 | 214.4 | | 71.6 | | 260.8 | | 25.1 | 25.1 | |
| Engineered Trench 1 | 59266.19 | 75919.39 | 438712.932 | 3683480.860 | 286.45 | 212.8 | | 73.7 | | 244.4 | | 42.1 | 42.1 | |
| | 58944.70 | 75995.20 | 438620.137 | 3683441.885 | 286.06 | 212.3 | | 73.8 | | 247.2 | | 38.9 | 38.9 | |
| | 58943.80 | 75845.20 | 438646.815 | 3683404.771 | 288.16 | 208.7 | 4.6 | 79.4 | 10.7 | 243.7 | 7.6 | 44.5 | 44.5 | 15.6 |
| | 59590.30 | 75845.10 | 438806.099 | 3683520.683 | 277.66 | 208.2 | | 69.4 | | 248.1 | | 29.5 | 29.5 | |
| | 59590.30 | 75992.10 | 438779.737 | 3683556.896 | 280.12 | 211.4 | | 68.7 | | 251.3 | | 28.8 | 28.8 | |
| Engineered Trench 2 | 59272.80 | 76206.68 | 438663.040 | 3683552.822 | 261.52 | 216.2 | | 45.3 | | 251.0 | | 10.5 | 10.5 | |
| | 58946.30 | 76286.70 | 438568.257 | 3683513.983 | 288.29 | 216.1 | | 72.1 | | 255.4 | | 32.8 | 32.8 | |
| | 58946.00 | 76127.60 | 438596.714 | 3683474.735 | 287.53 | 214.3 | 3.7 | 73.2 | 27.9 | 250.9 | 6.5 | 36.6 | 36.6 | 31.6 |
| | 59601.90 | 76129.00 | 438758.045 | 3683592.702 | 263.35 | 212.6 | | 50.8 | | 254.1 | | 9.3 | 9.3 | |
| | 59603.70 | 76283.30 | 438730.818 | 3683631.037 | 262.50 | 212.6 | | 49.9 | | 257.5 | | 5.0 | 5.0 | |
| Engineered Trench 3 | 57688.28 | 78547.16 | 437852.975 | 3683845.251 | 274.74 | 223.5 | | 51.2 | | 260.7 | | 14.0 | 14.0 | |
| | 57528.30 | 78727.80 | 437781.170 | 3683861.062 | 273.62 | 226.9 | | 46.7 | | 260.6 | | 13.0 | 13.0 | |
| | 57934.50 | 78522.90 | 437917.983 | 3683883.428 | 273.06 | 219.4 | 7.5 | 53.7 | 8.7 | 259.9 | 2.1 | 13.2 | 13.2 | 2.1 |
| | 57899.40 | 78443.20 | 437923.628 | 3683857.500 | 274.57 | 219.6 | | 55.0 | | 260.6 | | 14.0 | 14.0 | |
| | 57817.60 | 78378.90 | 437915.007 | 3683826.990 | 275.95 | 220.5 | | 55.4 | | 260.9 | | 15.1 | 15.1 | |
| | 57448.60 | 78564.70 | 437790.784 | 3683806.590 | 275.89 | 225.2 | | 50.7 | | 261.9 | | 13.9 | 13.9 | |
| Engineered Trench 4 | 57359.86 | 78201.70 | 437834.020 | 3683701.252 | 281.53 | 222.7 | | 58.9 | | 263.0 | | 18.5 | 18.5 | |
| | 57147.30 | 77943.50 | 437827.958 | 3683599.524 | 286.19 | 224.4 | | 61.8 | | 261.3 | | 24.9 | 24.9 | |
| | 57283.80 | 77865.00 | 437875.662 | 3683604.664 | 286.94 | 224.7 | 2.2 | 62.2 | 10.4 | 260.2 | 2.8 | 26.7 | 26.7 | 12.2 |
| | 57574.40 | 78465.60 | 437839.547 | 3683804.736 | 276.67 | 223.7 | | 53.0 | | 261.2 | | 15.4 | 15.4 | |
| | 57433.50 | 78533.80 | 437792.606 | 3683796.270 | 276.64 | 224.8 | | 51.8 | | 262.1 | | 14.5 | 14.5 | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Tan Clay Confining Zone (TCCZ) | | | | Tobacco Road Sand (TRS; ~boundary between UVZ & LVZ) | | | | | |
|--------------------|---|------------|--------------|-------------|---------------------------------------|---|--------------------------------------|--------------------|----------------------------------|--|-------------------------------------|--|---|-----------------------------|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | Depth | | Elevation | | Depth | | | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | TCCZ Elevation (ft) from kriged dataset | TCCZ Elevation Delta (ft) at this DU | Depth (ft) to TCCZ | TCCZ Depth Delta (ft) at this DU | TRS elevation (ft) from kriged dataset | TRS Elevation Delta (ft) at this DU | Depth (ft) to TRS (<i>negative where TRS modeled absent</i>) | Depth (ft) to TRS (<i>negative depths set to 0</i>) | Depth (ft) to TRS (>0 only) | TRS Depth Delta (ft) at this DU |
| Future Plot 6-1 | 57252.63 | 81057.82 | 437295.416 | 3684385.631 | 252.36 | 217.0 | | 35.3 | | 254.6 | | -2.2 | 0.0 | | |
| | 57196.90 | 80849.75 | 437319.001 | 3684324.378 | 258.76 | 215.2 | | 43.5 | | 252.6 | | 6.1 | 6.1 | 6.1 | |
| | 57355.77 | 80868.72 | 437354.737 | 3684357.542 | 253.48 | 216.7 | 3.2 | 36.8 | 17.1 | 253.8 | 3.5 | -0.3 | 0.0 | | 17.3 |
| | 57308.35 | 81265.90 | 437271.830 | 3684446.884 | 252.76 | 218.5 | | 34.3 | | 256.1 | | -3.3 | 0.0 | | |
| | 57149.48 | 81246.93 | 437236.094 | 3684413.721 | 244.65 | 218.3 | | 26.4 | | 255.8 | | -11.2 | 0.0 | | |
| | | | | | | | | | | | | | | | |
| Future Plot 6-2 | 57451.10 | 80594.73 | 437427.356 | 3684307.139 | 228.22 | 218.5 | | 9.7 | | 253.8 | | -25.6 | 0.0 | | |
| | 57152.99 | 80507.96 | 437369.477 | 3684232.304 | 240.16 | 217.4 | | 22.7 | | 253.4 | | -13.2 | 0.0 | | |
| | 57235.78 | 80371.04 | 437414.426 | 3684213.420 | 230.22 | 219.2 | 1.8 | 11.0 | 19.6 | 253.5 | 1.1 | -23.3 | 0.0 | | 19.7 |
| | 57749.21 | 80681.51 | 437485.234 | 3684381.978 | 221.06 | 217.9 | | 3.2 | | 254.0 | | -32.9 | 0.0 | | |
| | 57666.42 | 80818.42 | 437440.287 | 3684400.859 | 237.99 | 217.8 | | 20.2 | | 254.5 | | -16.5 | 0.0 | | |
| | | | | | | | | | | | | | | | |
| Future Plot 6-3 | 57611.51 | 80329.46 | 437514.444 | 3684270.556 | 223.59 | 219.9 | | 3.7 | | 253.6 | | -30.0 | 0.0 | | |
| | 57313.40 | 80242.69 | 437456.565 | 3684195.720 | 229.04 | 220.9 | | 8.1 | | 253.4 | | -24.4 | 0.0 | | |
| | 57396.19 | 80105.77 | 437501.514 | 3684176.836 | 246.39 | 222.1 | 4.3 | 24.3 | 21.7 | 252.7 | 1.1 | -6.3 | 0.0 | | 26.9 |
| | 57909.62 | 80416.23 | 437572.324 | 3684345.392 | 220.34 | 217.8 | | 2.6 | | 253.5 | | -33.2 | 0.0 | | |
| | 57826.83 | 80553.15 | 437527.375 | 3684364.275 | 221.10 | 217.9 | | 3.2 | | 253.8 | | -32.7 | 0.0 | | |
| | | | | | | | | | | | | | | | |
| Future Plot 6-4 | 57771.91 | 80064.19 | 437601.531 | 3684233.971 | 219.46 | 220.1 | | -0.6 | | 251.2 | | -31.7 | 0.0 | | |
| | 57473.80 | 79977.41 | 437543.652 | 3684159.132 | 251.38 | 222.6 | | 28.8 | | 251.6 | | -0.2 | 0.0 | | |
| | 57556.59 | 79840.50 | 437588.600 | 3684140.251 | 249.31 | 222.9 | 5.7 | 26.5 | 29.4 | 249.7 | 3.0 | -0.4 | 0.0 | | 33.1 |
| | 58070.02 | 80150.96 | 437659.409 | 3684308.806 | 221.75 | 217.1 | | 4.6 | | 252.5 | | -30.7 | 0.0 | | |
| | 57987.23 | 80287.88 | 437614.460 | 3684327.690 | 219.42 | 217.6 | | 1.8 | | 252.7 | | -33.3 | 0.0 | | |
| | | | | | | | | | | | | | | | |
| Future Plot 6-5 | 57932.32 | 79798.91 | 437688.619 | 3684197.384 | 235.04 | 220.5 | | 14.5 | | 249.3 | | -14.3 | 0.0 | | |
| | 57634.21 | 79712.14 | 437630.740 | 3684122.549 | 259.51 | 223.2 | | 36.3 | | 247.1 | | 12.4 | 12.4 | 12.4 | |
| | 57717.00 | 79575.22 | 437675.689 | 3684103.665 | 257.51 | 224.0 | 7.4 | 33.5 | 30.3 | 243.7 | 9.1 | 13.8 | 13.8 | 13.8 | 44.0 |
| | 58230.43 | 79885.69 | 437746.497 | 3684272.223 | 222.54 | 216.5 | | 6.0 | | 252.7 | | -30.2 | 0.0 | | |
| | 58147.64 | 80022.60 | 437701.550 | 3684291.104 | 223.03 | 216.6 | | 6.4 | | 252.4 | | -29.4 | 0.0 | | |
| | | | | | | | | | | | | | | | |
| Future Plot 8-1 | 57245.76 | 79318.88 | 437605.567 | 3683956.007 | 261.91 | 227.6 | | 34.3 | | 256.0 | | 5.9 | 5.9 | 5.9 | |
| | 57190.90 | 79013.28 | 437646.856 | 3683870.885 | 274.48 | 228.3 | | 46.2 | | 259.2 | | 15.3 | 15.3 | 15.3 | |
| | 57350.35 | 79026.54 | 437683.759 | 3683902.746 | 274.11 | 228.0 | 3.6 | 46.2 | 17.3 | 258.5 | 6.7 | 15.7 | 15.7 | 15.7 | 16.2 |
| | 57300.61 | 79624.48 | 437564.277 | 3684041.129 | 259.15 | 224.7 | | 34.5 | | 252.4 | | 6.7 | 6.7 | 6.7 | |
| | 57141.16 | 79611.21 | 437527.376 | 3684009.266 | 254.86 | 226.0 | | 28.9 | | 255.4 | | -0.5 | 0.0 | | |
| | | | | | | | | | | | | | | | |
| Future Plot 8-2 | 57559.66 | 79284.78 | 437689.014 | 3684003.900 | 263.48 | 226.4 | | 37.1 | | 252.9 | | 10.5 | 10.5 | 10.5 | |
| | 57504.81 | 78979.18 | 437730.303 | 3683918.778 | 270.70 | 227.3 | | 43.4 | | 258.6 | | 12.1 | 12.1 | 12.1 | |
| | 57664.26 | 78992.45 | 437767.204 | 3683950.641 | 265.91 | 226.0 | 3.0 | 39.9 | 7.7 | 258.8 | 12.3 | 7.2 | 7.2 | 7.2 | 6.4 |
| | 57614.52 | 79590.38 | 437647.725 | 3684089.022 | 259.97 | 224.2 | | 35.7 | | 246.5 | | 13.5 | 13.5 | 13.5 | |
| | 57455.07 | 79577.12 | 437610.822 | 3684057.161 | 261.58 | 224.9 | | 36.7 | | 250.2 | | 11.4 | 11.4 | 11.4 | |
| | | | | | | | | | | | | | | | |
| Future Plot 8-3 | 57876.89 | 79210.83 | 437780.423 | 3684042.568 | 258.23 | 224.3 | | 34.0 | | 256.1 | | 2.2 | 2.2 | 2.2 | |
| | 57822.03 | 78905.23 | 437821.712 | 3683957.447 | 261.48 | 224.0 | | 37.5 | | 260.8 | | 0.7 | 0.7 | 0.7 | |
| | 57981.48 | 78918.49 | 437858.615 | 3683989.308 | 256.86 | 222.1 | 2.1 | 34.7 | 8.7 | 262.7 | 17.0 | -5.9 | 0.0 | | 17.4 |
| | 57931.74 | 79516.43 | 437739.134 | 3684127.691 | 251.84 | 223.0 | | 28.8 | | 249.4 | | 2.5 | 2.5 | 2.5 | |
| | 57772.29 | 79503.16 | 437702.233 | 3684095.828 | 257.32 | 224.0 | | 33.3 | | 245.8 | | 11.5 | 11.5 | 11.5 | |
| | | | | | | | | | | | | | | | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Tan Clay Confining Zone (TCCZ) | | | | Tobacco Road Sand (TRS; ~boundary between UVZ & LVZ) | | | | | |
|--------------------|---|------------|--------------|-------------|---------------------------------------|---|--------------------------------------|--------------------|----------------------------------|--|-------------------------------------|--|---|-----------------------------|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | Depth | | Elevation | | Depth | | | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | TCCZ Elevation (ft) from kriged dataset | TCCZ Elevation Delta (ft) at this DU | Depth (ft) to TCCZ | TCCZ Depth Delta (ft) at this DU | TRS elevation (ft) from kriged dataset | TRS Elevation Delta (ft) at this DU | Depth (ft) to TRS (<i>negative where TRS modeled absent</i>) | Depth (ft) to TRS (<i>negative depths set to 0</i>) | Depth (ft) to TRS (>0 only) | TRS Depth Delta (ft) at this DU |
| IL Vault | 57792.85 | 77702.91 | 438030.135 | 3683656.019 | 285.93 | 224.3 | | 61.6 | | 264.5 | | 21.4 | 21.4 | 21.4 | |
| | 57679.70 | 77790.40 | 437986.571 | 3683657.283 | 286.06 | 223.7 | | 62.4 | | 261.7 | | 24.3 | 24.3 | 24.3 | |
| | 57657.00 | 77748.10 | 437988.564 | 3683642.791 | 286.06 | 224.0 | 1.9 | 62.0 | 3.5 | 262.7 | 7.4 | 23.3 | 23.3 | 23.3 | 8.9 |
| | 57928.40 | 77658.10 | 438071.564 | 3683669.290 | 284.48 | 225.0 | | 59.5 | | 268.1 | | 16.3 | 16.3 | 16.3 | |
| | 57905.60 | 77615.40 | 438073.604 | 3683654.682 | 284.51 | 225.6 | | 58.9 | | 269.1 | | 15.4 | 15.4 | 15.4 | |
| | | | | | | | | | | | | | | | |
| LAW Vault | 59267.65 | 75402.50 | 438805.985 | 3683353.787 | 277.00 | 200.8 | | 76.2 | | 249.0 | | 28.0 | 28.0 | 28.0 | |
| | 59589.30 | 75475.00 | 438872.222 | 3683429.329 | 277.43 | 199.2 | | 78.2 | | 248.6 | | 28.9 | 28.9 | 28.9 | |
| | 59589.30 | 75330.00 | 438898.225 | 3683393.608 | 275.16 | 195.7 | 6.0 | 79.5 | 5.5 | 245.4 | 4.6 | 29.8 | 29.8 | 29.8 | 3.2 |
| | 58946.00 | 75330.00 | 438739.748 | 3683278.245 | 275.52 | 201.5 | | 74.0 | | 244.3 | | 31.2 | 31.2 | 31.2 | |
| | 58946.00 | 75475.00 | 438713.745 | 3683313.966 | 277.36 | 201.7 | | 75.7 | | 246.8 | | 30.6 | 30.6 | 30.6 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 1 | 58453.70 | 77596.08 | 438212.094 | 3683748.212 | 283.76 | 219.6 | | 64.1 | | 269.4 | | 14.3 | 14.3 | 14.3 | |
| | 58157.10 | 77434.50 | 438168.002 | 3683655.218 | 286.38 | 225.1 | | 61.2 | | 273.7 | | 12.7 | 12.7 | 12.7 | |
| | 58263.60 | 77318.40 | 438215.059 | 3683645.716 | 286.81 | 220.1 | 8.5 | 66.7 | 9.1 | 270.8 | 15.1 | 16.0 | 16.0 | 16.0 | 4.3 |
| | 58750.00 | 77757.80 | 438256.087 | 3683841.188 | 275.52 | 216.6 | | 58.9 | | 258.6 | | 17.0 | 17.0 | 17.0 | |
| | 58644.90 | 77874.20 | 438209.321 | 3683851.016 | 275.82 | 218.2 | | 57.6 | | 259.1 | | 16.7 | 16.7 | 16.7 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 10 | 58200.95 | 77978.65 | 438081.223 | 3683797.134 | 280.68 | 217.7 | | 63.0 | | 257.3 | | 23.4 | 23.4 | 23.4 | |
| | 58271.60 | 78278.60 | 438044.838 | 3683883.697 | 286.12 | 221.0 | | 65.1 | | 255.1 | | 31.0 | 31.0 | 31.0 | |
| | 58410.20 | 78204.90 | 438092.199 | 3683890.396 | 273.95 | 221.2 | 5.8 | 52.8 | 12.4 | 255.5 | 13.6 | 18.5 | 18.5 | 18.5 | 16.4 |
| | 57991.70 | 77752.40 | 438070.247 | 3683703.872 | 283.53 | 223.2 | | 60.4 | | 265.4 | | 18.2 | 18.2 | 18.2 | |
| | 58130.30 | 77678.70 | 438117.608 | 3683710.571 | 283.30 | 223.5 | | 59.8 | | 268.7 | | 14.6 | 14.6 | 14.6 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 11 | 58330.29 | 77729.41 | 438157.781 | 3683758.927 | 280.84 | 220.5 | | 60.4 | | 267.2 | | 13.7 | 13.7 | 13.7 | |
| | 58085.50 | 77622.10 | 438116.721 | 3683688.594 | 284.32 | 225.3 | | 59.0 | | 270.7 | | 13.6 | 13.6 | 13.6 | |
| | 58188.00 | 77503.10 | 438163.313 | 3683677.659 | 285.30 | 224.9 | 6.8 | 60.4 | 3.2 | 273.3 | 13.9 | 12.0 | 12.0 | 12.0 | 5.1 |
| | 58472.60 | 77955.70 | 438152.260 | 3683840.195 | 276.48 | 219.2 | | 57.3 | | 259.4 | | 17.1 | 17.1 | 17.1 | |
| | 58575.10 | 77836.80 | 438198.833 | 3683829.285 | 276.61 | 218.5 | | 58.1 | | 261.1 | | 15.5 | 15.5 | 15.5 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 14 | 59272.80 | 75752.40 | 438744.506 | 3683440.909 | 282.97 | 208.1 | | 74.9 | | 245.9 | | 37.1 | 37.1 | 37.1 | |
| | 58944.80 | 75830.90 | 438649.626 | 3683401.427 | 287.89 | 208.3 | | 79.6 | | 243.5 | | 44.4 | 44.4 | 44.4 | |
| | 58944.80 | 75673.90 | 438677.781 | 3683362.750 | 286.06 | 204.6 | 4.3 | 81.5 | 11.7 | 246.3 | 6.6 | 39.7 | 39.7 | 39.7 | 18.4 |
| | 59600.80 | 75673.90 | 438839.387 | 3683480.390 | 276.08 | 204.0 | | 72.1 | | 250.1 | | 26.0 | 26.0 | 26.0 | |
| | 59600.80 | 75830.90 | 438811.232 | 3683519.068 | 277.36 | 207.7 | | 69.7 | | 247.3 | | 30.1 | 30.1 | 30.1 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 15 | 59273.53 | 75581.11 | 438775.402 | 3683398.842 | 281.04 | 203.9 | | 77.1 | | 250.6 | | 30.5 | 30.5 | 30.5 | |
| | 58945.40 | 75659.60 | 438680.493 | 3683359.335 | 285.89 | 204.3 | | 81.6 | | 246.7 | | 39.2 | 39.2 | 39.2 | |
| | 58945.90 | 75502.60 | 438708.771 | 3683320.748 | 276.87 | 201.9 | 4.4 | 75.0 | 9.0 | 247.3 | 3.9 | 29.6 | 29.6 | 29.6 | 13.5 |
| | 59601.40 | 75502.60 | 438870.254 | 3683438.298 | 275.69 | 199.9 | | 75.8 | | 250.0 | | 25.7 | 25.7 | 25.7 | |
| | 59601.40 | 75659.60 | 438842.099 | 3683476.975 | 276.25 | 203.6 | | 72.6 | | 250.3 | | 26.0 | 26.0 | 26.0 | |
| | | | | | | | | | | | | | | | |
| Slit Trench 16 | 59265.40 | 75242.50 | 438834.123 | 3683313.968 | 273.82 | 199.5 | | 74.3 | | 247.5 | | 26.3 | 26.3 | 26.3 | |
| | 58941.50 | 75315.00 | 438741.329 | 3683273.743 | 274.34 | 201.5 | | 72.8 | | 244.6 | | 29.8 | 29.8 | 29.8 | |
| | 58941.50 | 75170.00 | 438767.332 | 3683238.022 | 283.04 | 201.6 | 6.2 | 81.4 | 8.6 | 246.1 | 2.9 | 37.0 | 37.0 | 37.0 | 10.7 |
| | 59589.30 | 75170.00 | 438926.918 | 3683354.192 | 275.98 | 195.4 | | 80.6 | | 245.8 | | 30.2 | 30.2 | 30.2 | |
| | 59589.30 | 75315.00 | 438900.915 | 3683389.913 | 274.77 | 195.5 | | 79.3 | | 245.1 | | 29.6 | 29.6 | 29.6 | |
| | | | | | | | | | | | | | | | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Tan Clay Confining Zone (TCCZ) | | | | Tobacco Road Sand (TRS; ~boundary between UVZ & LVZ) | | | | |
|--------------------|---|------------|--------------|-------------|---------------------------------------|---|--------------------------------------|--------------------|----------------------------------|--|-------------------------------------|--|---|---------------------------------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | Depth | | Elevation | | Depth | | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | TCCZ Elevation (ft) from kriged dataset | TCCZ Elevation Delta (ft) at this DU | Depth (ft) to TCCZ | TCCZ Depth Delta (ft) at this DU | TRS elevation (ft) from kriged dataset | TRS Elevation Delta (ft) at this DU | Depth (ft) to TRS (<i>negative where TRS modeled absent</i>) | Depth (ft) to TRS (<i>negative depths set to 0</i>) | TRS Depth Delta (ft) at this DU |
| Slit Trench 17 | 59265.40 | 75082.50 | 438862.816 | 3683274.551 | 280.38 | 199.5 | | 80.9 | | 247.5 | | 32.9 | 32.9 | 32.9 |
| | 58941.50 | 75155.00 | 438770.022 | 3683234.327 | 285.83 | 201.7 | | 84.1 | | 246.1 | | 39.7 | 39.7 | 39.7 |
| | 58941.50 | 75010.00 | 438796.025 | 3683198.606 | 286.25 | 202.2 | 6.7 | 84.1 | 10.0 | 246.2 | 1.6 | 40.0 | 40.0 | 16.9 |
| | 59589.30 | 75010.00 | 438955.611 | 3683314.776 | 270.05 | 196.0 | | 74.1 | | 246.9 | | 23.1 | 23.1 | 23.1 |
| | 59589.30 | 75155.00 | 438929.608 | 3683350.497 | 276.87 | 195.5 | | 81.4 | | 245.9 | | 31.0 | 31.0 | 31.0 |
| | | | | | | | | | | | | | | |
| Slit Trench 18 | 59265.40 | 74922.50 | 438891.509 | 3683235.135 | 281.10 | 199.9 | | 81.2 | | 247.9 | | 33.2 | 33.2 | 33.2 |
| | 58941.50 | 74995.00 | 438798.714 | 3683194.911 | 286.09 | 202.3 | | 83.8 | | 246.2 | | 39.9 | 39.9 | 39.9 |
| | 58941.50 | 74850.00 | 438824.717 | 3683159.190 | 286.25 | 203.1 | 7.0 | 83.2 | 9.7 | 246.6 | 1.7 | 39.7 | 39.7 | 16.7 |
| | 59589.30 | 74850.00 | 438984.303 | 3683275.360 | 272.70 | 196.8 | | 75.9 | | 247.7 | | 25.0 | 25.0 | 25.0 |
| | 59589.30 | 74995.00 | 438958.301 | 3683311.081 | 270.21 | 196.1 | | 74.1 | | 247.1 | | 23.2 | 23.2 | 23.2 |
| | | | | | | | | | | | | | | |
| Slit Trench 19 | 59265.40 | 74762.50 | 438920.202 | 3683195.719 | 280.87 | 200.8 | | 80.1 | | 248.7 | | 32.1 | 32.1 | 32.1 |
| | 58941.50 | 74835.00 | 438827.407 | 3683155.495 | 286.22 | 203.0 | | 83.2 | | 246.6 | | 39.7 | 39.7 | 39.7 |
| | 58941.50 | 74690.00 | 438853.410 | 3683119.774 | 286.15 | 204.1 | 7.2 | 82.0 | 5.1 | 245.9 | 3.6 | 40.3 | 40.3 | 13.1 |
| | 59589.30 | 74690.00 | 439012.996 | 3683235.944 | 276.74 | 197.4 | | 79.3 | | 249.5 | | 27.3 | 27.3 | 27.3 |
| | 59589.30 | 74835.00 | 438986.993 | 3683271.664 | 275.00 | 196.9 | | 78.1 | | 247.9 | | 27.1 | 27.1 | 27.1 |
| | | | | | | | | | | | | | | |
| Slit Trench 2 | 58569.68 | 77468.49 | 438263.546 | 3683737.579 | 289.07 | 218.2 | | 70.9 | | 266.3 | | 22.8 | 22.8 | 22.8 |
| | 58273.70 | 77307.10 | 438219.573 | 3683644.743 | 286.78 | 219.8 | | 67.0 | | 270.5 | | 16.3 | 16.3 | 16.3 |
| | 58379.20 | 77190.10 | 438266.545 | 3683634.839 | 286.78 | 216.9 | 4.8 | 69.9 | 11.5 | 267.7 | 12.3 | 19.1 | 19.1 | 6.5 |
| | 58865.80 | 77630.40 | 438307.461 | 3683830.569 | 275.16 | 214.9 | | 60.2 | | 258.2 | | 16.9 | 16.9 | 16.9 |
| | 58760.60 | 77746.90 | 438260.653 | 3683840.404 | 275.85 | 216.5 | | 59.4 | | 258.7 | | 17.2 | 17.2 | 17.2 |
| | | | | | | | | | | | | | | |
| Slit Trench 20 | 59265.40 | 74602.50 | 438948.894 | 3683156.303 | 281.40 | 201.5 | | 79.9 | | 249.8 | | 31.6 | 31.6 | 31.6 |
| | 58941.50 | 74675.00 | 438856.100 | 3683116.079 | 286.15 | 204.2 | | 82.0 | | 245.8 | | 40.3 | 40.3 | 40.3 |
| | 58941.50 | 74530.00 | 438882.103 | 3683080.358 | 285.93 | 204.8 | 7.3 | 81.1 | 5.7 | 244.9 | 6.9 | 41.0 | 41.0 | 18.1 |
| | 59589.30 | 74530.00 | 439041.689 | 3683196.527 | 274.67 | 198.4 | | 76.3 | | 251.8 | | 22.9 | 22.9 | 22.9 |
| | 59589.30 | 74675.00 | 439015.686 | 3683232.248 | 276.71 | 197.6 | | 79.2 | | 249.7 | | 27.0 | 27.0 | 27.0 |
| | | | | | | | | | | | | | | |
| Slit Trench 21 | 59166.37 | 74327.47 | 438973.821 | 3683070.790 | 282.64 | 203.8 | | 78.9 | | 249.8 | | 32.9 | 32.9 | 32.9 |
| | 58941.50 | 74515.00 | 438884.793 | 3683076.662 | 286.15 | 204.9 | | 81.2 | | 245.1 | | 41.1 | 41.1 | 41.1 |
| | 58941.50 | 74140.00 | 438952.041 | 3682984.281 | 286.45 | 206.7 | 6.1 | 79.7 | 4.1 | 254.5 | 9.4 | 31.9 | 31.9 | 12.8 |
| | 59391.50 | 74140.00 | 439062.899 | 3683064.979 | 279.17 | 202.1 | | 77.1 | | 250.9 | | 28.2 | 28.2 | 28.2 |
| | 59391.00 | 74515.00 | 438995.527 | 3683157.271 | 279.76 | 200.7 | | 79.1 | | 250.7 | | 29.1 | 29.1 | 29.1 |
| | | | | | | | | | | | | | | |
| Slit Trench 3 | 58685.70 | 77341.65 | 438314.874 | 3683727.138 | 283.17 | 217.4 | | 65.8 | | 266.5 | | 16.6 | 16.6 | 16.6 |
| | 58389.50 | 77179.90 | 438270.912 | 3683634.173 | 286.58 | 216.8 | | 69.8 | | 267.4 | | 19.2 | 19.2 | 19.2 |
| | 58495.10 | 77063.70 | 438317.764 | 3683624.485 | 286.78 | 215.2 | 2.7 | 71.6 | 11.1 | 264.5 | 9.7 | 22.2 | 22.2 | 5.6 |
| | 58981.90 | 77503.40 | 438358.837 | 3683820.103 | 276.15 | 214.8 | | 61.4 | | 257.7 | | 18.5 | 18.5 | 18.5 |
| | 58876.30 | 77619.60 | 438311.984 | 3683829.792 | 275.39 | 214.9 | | 60.5 | | 258.6 | | 16.8 | 16.8 | 16.8 |
| | | | | | | | | | | | | | | |
| Slit Trench 4 | 58801.22 | 77214.29 | 438366.174 | 3683716.479 | 281.27 | 216.8 | | 64.4 | | 265.5 | | 15.7 | 15.7 | 15.7 |
| | 58505.10 | 77052.60 | 438322.219 | 3683623.543 | 286.65 | 215.0 | | 71.6 | | 264.2 | | 22.5 | 22.5 | 22.5 |
| | 58610.70 | 76936.40 | 438369.071 | 3683613.855 | 286.88 | 213.8 | 3.0 | 73.0 | 12.7 | 260.9 | 8.0 | 26.0 | 26.0 | 10.2 |
| | 59097.20 | 77375.80 | 438410.124 | 3683809.345 | 275.46 | 215.1 | | 60.4 | | 257.6 | | 17.9 | 17.9 | 17.9 |
| | 58991.90 | 77492.30 | 438363.291 | 3683819.162 | 276.57 | 214.8 | | 61.8 | | 257.6 | | 19.0 | 19.0 | 19.0 |
| | | | | | | | | | | | | | | |

Appendix 5 (continued). Coordinates, ground surface elevations, and subsurface elevations at vertices and centroids of disposal units. *(To preserve legibility, Rev.1 mark-up not shown.)*

| Disposal Unit (DU) | Disposal Unit Vertices & Centroids -- Coordinate & Elevation Data | | | | | Tan Clay Confining Zone (TCCZ) | | | | Tobacco Road Sand (TRS; ~boundary between UVZ & LVZ) | | | | | | |
|--------------------|---|------------|--------------|-------------|---|---|--|--|-----------------------|--|---|---|--|--------------------------------|---------------------------------------|------|
| | SRS | | UTM NAD 1927 | | Ground Elevation (ft) from 2009 LiDAR | Elevation | | Depth | | Elevation | | Depth | | | | |
| | SRS E (ft) | SRS N (ft) | NAD27 X | NAD27 Y | | TCCZ Elevation (ft) from kriged dataset | TCCZ Elevation Delta (ft) at this DU | TCCZ Depth Delta (ft) at this DU | Depth (ft) to TCCZ | TRS elevation (ft) from kriged dataset | TRS Elevation Delta (ft) at this DU | Depth (ft) to TRS (<i>negative where TRS modeled absent</i>) | Depth (ft) to TRS (<i>negative depths set to 0</i>) | Depth (ft) to TRS (>0 only) | TRS Depth Delta (ft) at this DU | |
| Slit Trench 5 | 59152.73 | 76836.46 | 438520.524 | 3683686.436 | 282.78 | 217.1 | | | 65.7 | | 262.0 | | 20.8 | 20.8 | 20.8 | |
| | 58856.70 | 76674.90 | 438476.568 | 3683593.549 | 285.50 | 216.1 | | | 69.4 | | 262.5 | | 23.0 | 23.0 | 23.0 | |
| | 58961.90 | 76558.40 | 438523.376 | 3683583.714 | 287.20 | 217.1 | 5.1 | | 70.1 | 8.6 | 261.6 | 4.7 | 25.6 | 25.6 | 25.6 | 8.4 |
| | 59448.80 | 76998.10 | 438564.474 | 3683779.350 | 276.02 | 212.0 | | | 64.0 | | 257.8 | | 18.2 | 18.2 | 18.2 | |
| | 59343.60 | 77114.50 | 438517.683 | 3683789.160 | 275.52 | 214.0 | | | 61.5 | | 258.3 | | 17.2 | 17.2 | 17.2 | |
| | | | | | | | | | | | | | | | | |
| Slit Trench 6 | 59266.98 | 76709.91 | 438571.364 | 3683675.748 | 280.58 | 217.2 | | | 63.3 | | 261.5 | | 19.1 | 19.1 | 19.1 | |
| | 58971.00 | 76548.40 | 438527.411 | 3683582.883 | 286.71 | 217.1 | | | 69.6 | | 261.5 | | 25.2 | 25.2 | 25.2 | |
| | 59076.20 | 76431.80 | 438574.237 | 3683573.024 | 289.07 | 216.8 | 6.2 | | 72.3 | 9.0 | 258.9 | 4.3 | 30.2 | 30.2 | 30.2 | 11.9 |
| | 59563.00 | 76871.50 | 438615.310 | 3683768.642 | 275.49 | 211.1 | | | 64.4 | | 257.2 | | 18.3 | 18.3 | 18.3 | |
| | 59457.80 | 76988.00 | 438568.502 | 3683778.476 | 276.02 | 211.8 | | | 64.2 | | 257.7 | | 18.3 | 18.3 | 18.3 | |
| | | | | | | | | | | | | | | | | |
| Slit Trench 7 | 59383.36 | 76581.21 | 438623.114 | 3683664.913 | 281.20 | 215.0 | | | 66.2 | | 259.3 | | 21.9 | 21.9 | 21.9 | |
| | 59087.30 | 76419.60 | 438579.160 | 3683572.009 | 289.14 | 216.7 | | | 72.4 | | 258.4 | | 30.7 | 30.7 | 30.7 | |
| | 59192.50 | 76303.10 | 438625.968 | 3683562.174 | 274.48 | 216.5 | 5.7 | | 57.9 | 14.5 | 254.0 | 5.3 | 20.5 | 20.5 | 20.5 | 14.4 |
| | 59679.40 | 76742.70 | 438667.083 | 3683757.786 | 274.84 | 211.1 | | | 63.8 | | 258.6 | | 16.3 | 16.3 | 16.3 | |
| | 59574.10 | 76859.30 | 438620.232 | 3683767.627 | 275.49 | 211.2 | | | 64.3 | | 257.3 | | 18.2 | 18.2 | 18.2 | |
| | | | | | | | | | | | | | | | | |
| Slit Trench 8 | 57894.30 | 78130.45 | 437978.457 | 3683779.539 | 279.63 | 219.8 | | | 59.8 | | 258.9 | | 20.7 | 20.7 | 20.7 | |
| | 57809.60 | 77804.00 | 438016.133 | 3683683.928 | 284.65 | 223.1 | | | 61.5 | | 263.0 | | 21.7 | 21.7 | 21.7 | |
| | 57671.00 | 77877.70 | 437968.772 | 3683677.229 | 283.99 | 223.1 | 6.1 | | 60.9 | 9.7 | 260.6 | 5.3 | 23.3 | 23.3 | 23.3 | 10.6 |
| | 57979.00 | 78456.90 | 437940.781 | 3683875.149 | 273.52 | 218.4 | | | 55.1 | | 260.1 | | 13.5 | 13.5 | 13.5 | |
| | 58117.60 | 78383.20 | 437988.142 | 3683881.848 | 281.76 | 217.0 | | | 64.8 | | 257.7 | | 24.1 | 24.1 | 24.1 | |
| | | | | | | | | | | | | | | | | |
| Slit Trench 9 | 58045.30 | 78050.15 | 438030.056 | 3683786.835 | 279.13 | 218.3 | | | 60.9 | | 257.3 | | 21.9 | 21.9 | 21.9 | |
| | 57822.00 | 77797.40 | 438020.371 | 3683684.526 | 284.68 | 223.2 | | | 61.5 | | 263.2 | | 21.5 | 21.5 | 21.5 | |
| | 57960.60 | 77723.70 | 438067.732 | 3683691.225 | 284.25 | 223.7 | 6.6 | | 60.5 | 5.0 | 266.3 | 11.3 | 17.9 | 17.9 | 17.9 | 10.6 |
| | 58130.00 | 78376.60 | 437992.380 | 3683882.446 | 282.64 | 217.2 | | | 65.5 | | 257.4 | | 25.2 | 25.2 | 25.2 | |
| | 58268.60 | 78302.90 | 438039.741 | 3683889.145 | 283.53 | 221.2 | | | 62.4 | | 255.0 | | 28.5 | 28.5 | 28.5 | |
| | | | | | | | | | | | | | | | | |

Rev.1 note:
The elevation (outlined in red) at the vertex of Slit Trench 6 is corrected to repair a data assembly/keystroke error.
Other changes throughout Appendix 5 are due to correction of a GIS transformation error that affected the entire project except for the water table elevation and the vertices & centroids of the disposal units.

Appendix 5 of this report (SRNL-STI-2017-00301, Revision 10) is a controlled dataset. A revision summary and a change log worksheet are included with the electronic data table.

Notes on Appendix 5.

1. Depth to water table: Values less than 55' are highlighted for PA considerations; standard trench depth is 20' and PA assumes 35' between bottom of waste and water table.
2. Depth to TRS: This information is provided in three slightly different ways to accommodate areas where the TRS is eroded (absent). Data in column "TRS elevation (ft) from kriged dataset" correspond to data illustrated in Figure 9A.
3. For all subsurfaces modeled (water table, LAZ, TCCZ, and TRS), the average depth and average elevation – across the footprint of each disposal unit – are provided.
4. Observations regarding the depth and elevation of the water table are included where appropriate.