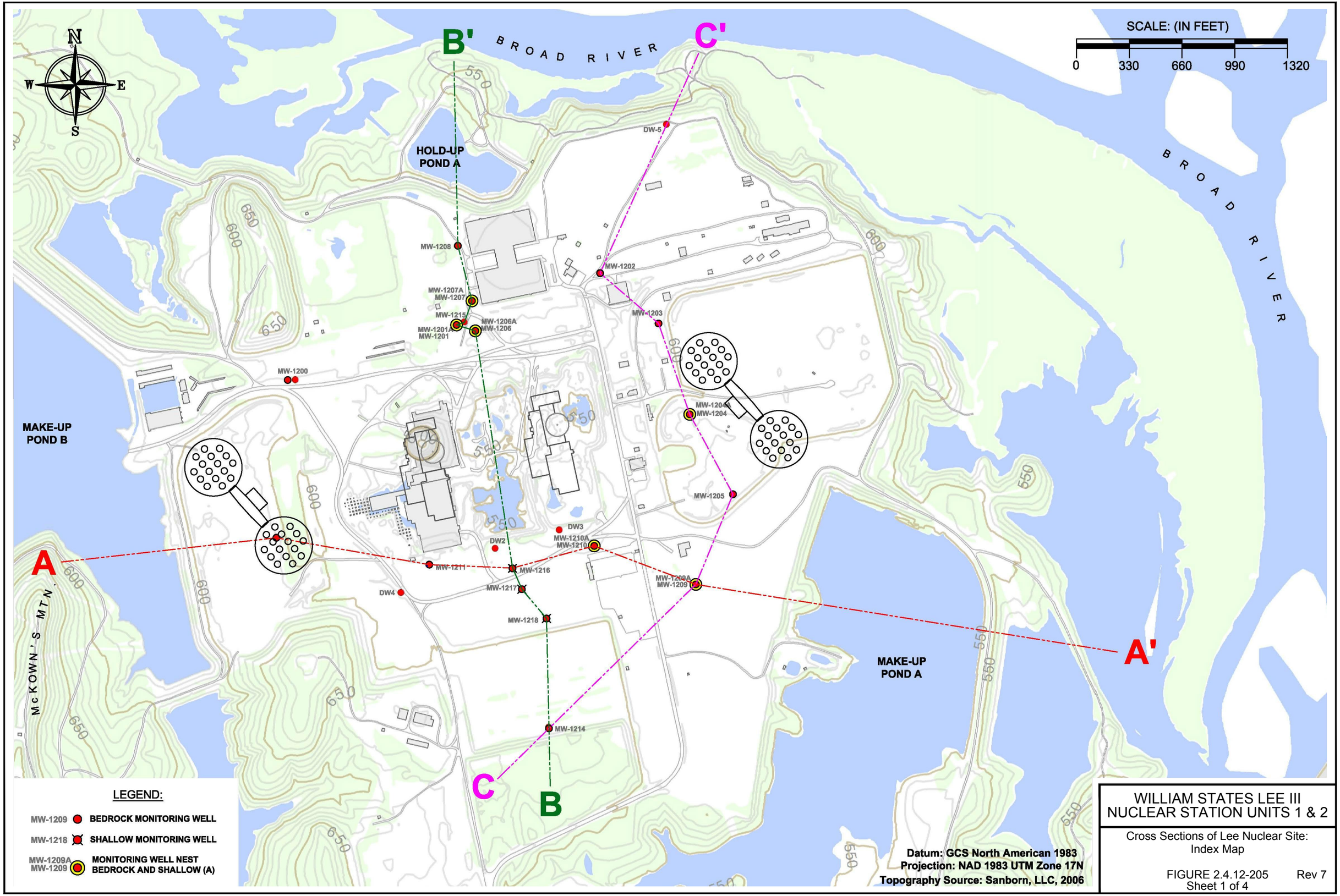


WLS
COL 2.4-4

WILLIAM STATES LEE III
NUCLEAR STATION UNITS 1 & 2

Cross Sections of Lee Nuclear Site:
Index Map

FIGURE 2.4.12-205 Rev 7
Sheet 1 of 4

HISTORICAL TOPOGRAPHIC DATA FROM USGS BLACKSBURG SOUTH SC QUADRANGLE MAP (DATED 1971).
HISTORICAL WATER LEVEL DATA FROM CHEROKEE PSAR AND ER

A

A'

700' ELEVATION AMSL

600'

500'

HISTORIC GROUND SURFACE

CUT

WELLS 1211, 1216, 1210, AND 1209 ARE WITHIN THE FORMER EAST-FLOWING DRAINAGE WAY ON THE ORIGINAL TOPOGRAPHIC SURFACE EAST OF 1209, SECTION FOLLOWS AXIS OF 1971 TOPOGRAPHIC VALLEY, FIRST NE THEN TO SE

1212 1211 1216 1210 1209

1210A 1209A

608 LEVEL

WATER

1973 HISTORIC

2006 GROUND SURFACE

FILL

McKOWN'S MTN. RIDGE

MAKE-UP POND B

569

535

163

476

2930

77

2339

FILL

MAKE-UP POND A

547

495

522

BROAD RIVER

511

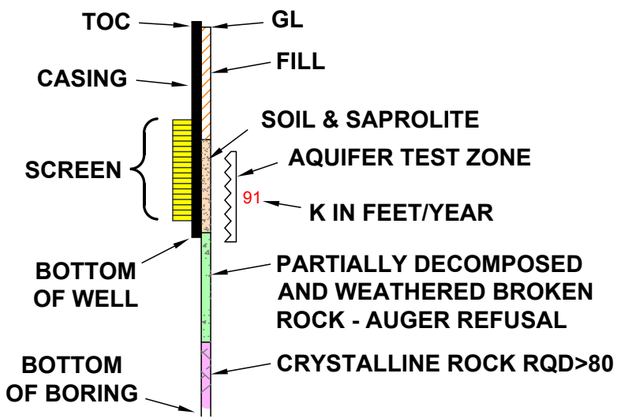
488

1902

870

2618

WELL-BORING KEY



Elevation Units are ft. amsl

511 NOVEMBER 2006 WATER LEVEL DURING SITE DEWATERING

500 1973 HISTORICAL WATER LEVEL

0
25'
50'

Approximate Scale

0 500' 1000' 1500'

THIS FIGURE ILLUSTRATES GENERAL HYDROLOGIC CONDITIONS AT LEE NUCLEAR SITE.

Aquifer Characteristics

Material	K (cm/s)	Effective Porosity
Fill Material	7.0×10^{-5}	9%
Soil and Saprolite	4.5×10^{-4}	20%
Partially Weathered Rock	1.4×10^{-3}	8%

Well construction details are provided in Table 2.4.12-201.

WILLIAM STATES LEE III NUCLEAR STATION UNITS 1 & 2

Cross Sections of Lee Nuclear Site: A - A'

FIGURE 2.4.12-205 Rev 5
Sheet 2 of 4

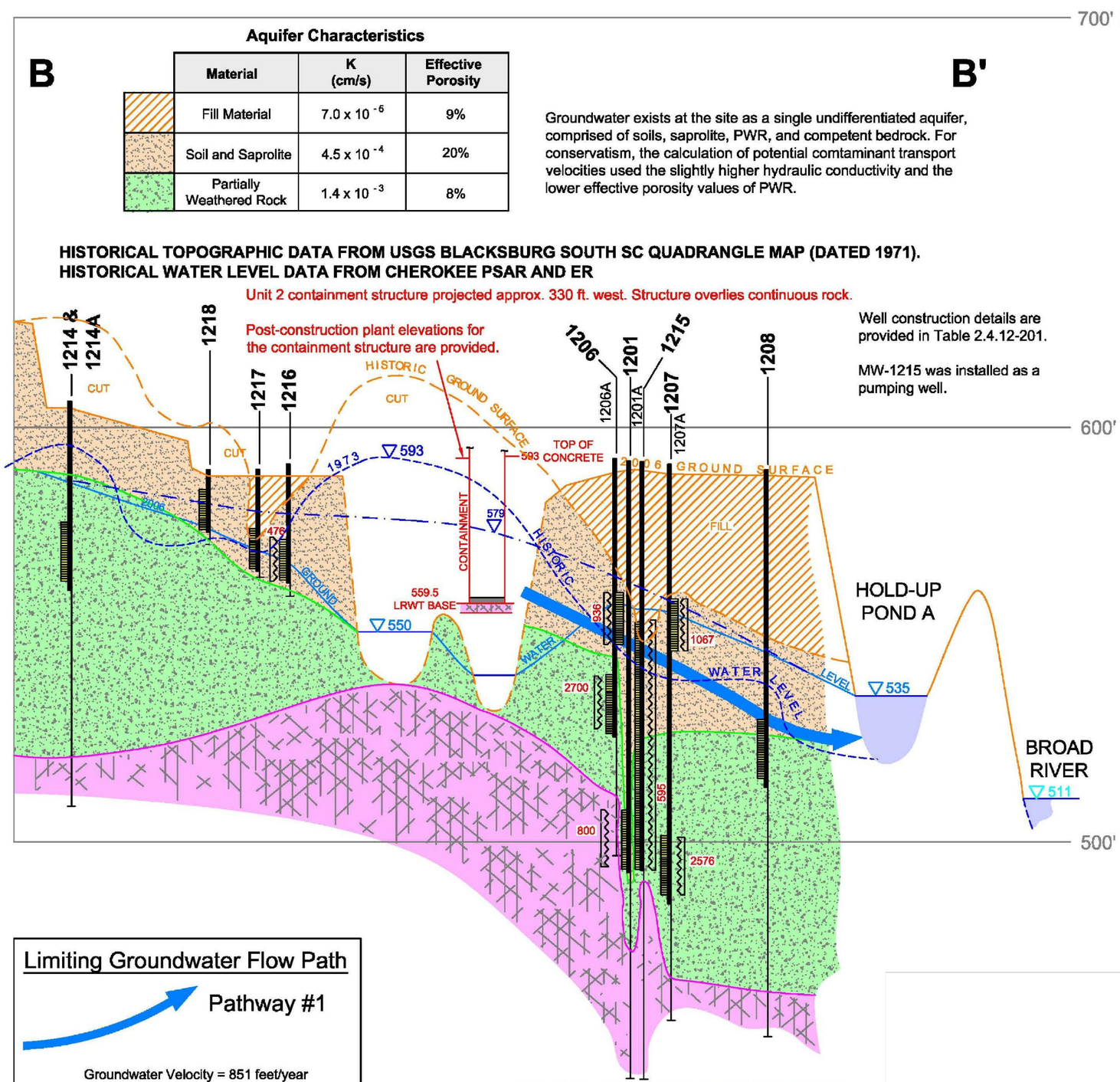
WLS COL 2.4-4

Aquifer Characteristics

Material	K (cm/s)	Effective Porosity
Fill Material	7.0×10^{-6}	9%
Soil and Saprolite	4.5×10^{-4}	20%
Partially Weathered Rock	1.4×10^{-3}	8%

Groundwater exists at the site as a single undifferentiated aquifer, comprised of soils, saprolite, PWR, and competent bedrock. For conservatism, the calculation of potential comtaminant transport velocities used the slightly higher hydraulic conductivity and the lower effective porosity values of PWR.

HISTORICAL TOPOGRAPHIC DATA FROM USGS BLACKSBURG SOUTH SC QUADRANGLE MAP (DATED 1971).
HISTORICAL WATER LEVEL DATA FROM CHEROKEE PSAR AND ER



Limiting Groundwater Flow Path

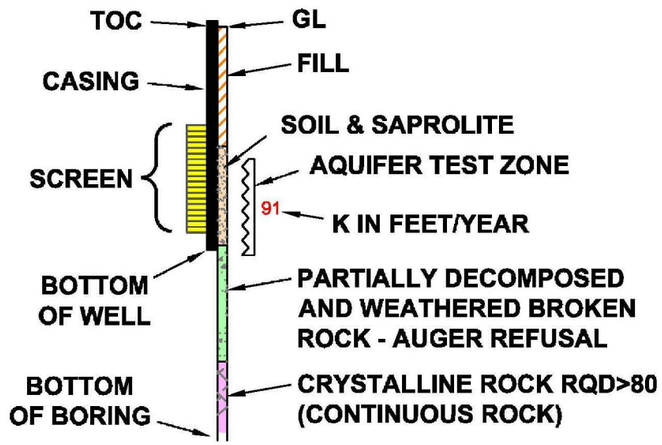
Pathway #1

Groundwater Velocity = 851 feet/year
Travel Time = 1.6 year

WELLS 1206, 1201, 1215, 1207 AND 1208 ARE WITHIN THE FORMER NORTH-FLOWING DRAINAGE WAY ON THE ORIGINAL TOPOGRAPHIC SURFACE

WLS COL 2.4-4

WELL-BORING KEY



Elevation Units are ft. amsl

511 NOVEMBER 2006 WATER LEVEL DURING SITE DEWATERING

593 1973 HISTORICAL WATER LEVEL

579 HIGH WATER MARK IN EXCAVATION TYPICAL WATER LEVEL

Approximate Scale

0 500' 1000'

0
25'
50'

NOTES:

THIS FIGURE ILLUSTRATES GENERAL HYDROLOGIC CONDITIONS AT LEE NUCLEAR SITE.

DIFFERENCE IN VERTICAL AND HORIZONTAL SCALE RESULTS IN EXAGGERATED STRATIGRAPHIC ELEVATION CHANGES, ESPECIALLY IN AREAS OF HIGH DATA DENSITY.

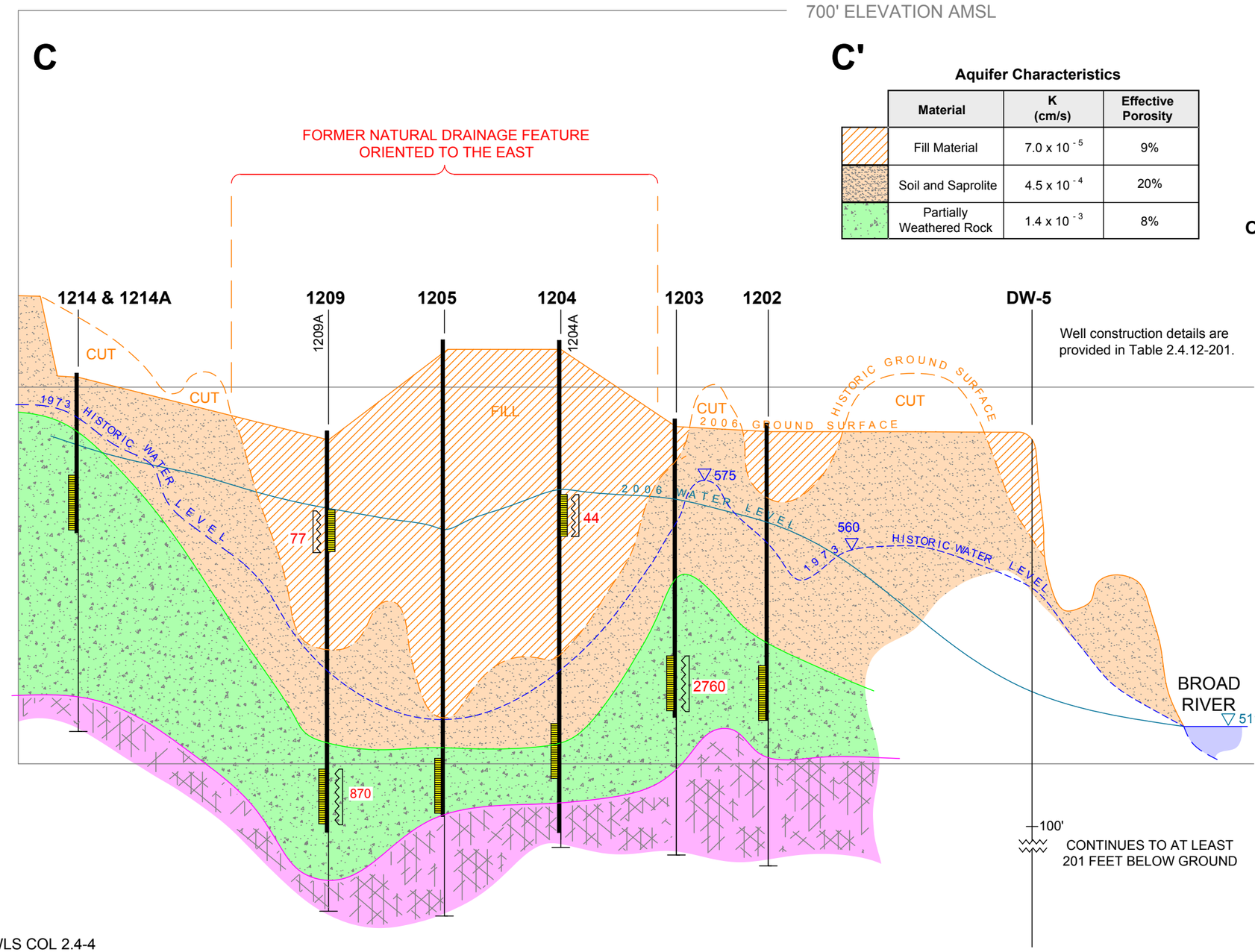
POST-CONSTRUCTION SURFACE TOPOGRAPHY IS SHOWN ON APPENDIX 9.1, FIGURE 4.

WILLIAM STATES LEE III NUCLEAR STATION UNITS 1 & 2

Cross Sections of Lee Nuclear Site:
B - B'

FIGURE 2.4.12-205 Rev 7
Sheet 3 of 4

HISTORICAL TOPOGRAPHIC DATA FROM USGS BLACKSBURG SOUTH SC QUADRANGLE MAP (DATED 1971).
HISTORICAL WATER LEVEL DATA FROM CHEROKEE PSAR AND ER

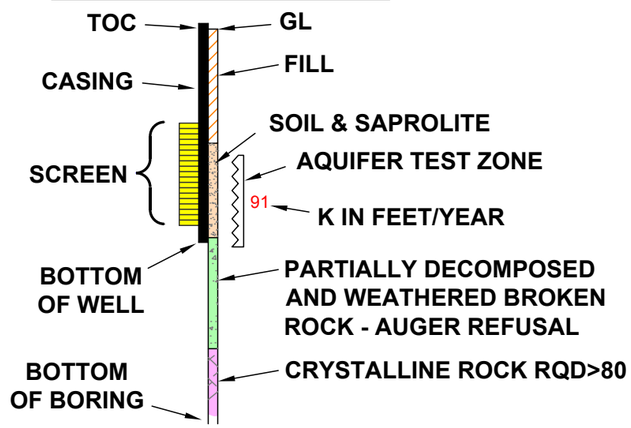


Well construction details are provided in Table 2.4.12-201.

Aquifer Characteristics

Material	K (cm/s)	Effective Porosity
Fill Material	7.0×10^{-5}	9%
Soil and Saprolite	4.5×10^{-4}	20%
Partially Weathered Rock	1.4×10^{-3}	8%

WELL-BORING KEY



Elevation Units are ft. amsl

511 NOVEMBER 2006 WATER LEVEL DURING SITE DEWATERING

500 1973 HISTORICAL WATER LEVEL

Approximate Scale

0 500' 1000' 1500'

0
25'
50'

THIS FIGURE ILLUSTRATES GENERAL HYDROLOGIC CONDITIONS AT LEE NUCLEAR SITE.

WLS COL 2.4-4

WILLIAM STATES LEE III
NUCLEAR STATION UNITS 1 & 2

Cross Sections of Lee Nuclear Site:
C - C'

FIGURE 2.4.12-205 Rev 5
Sheet 4 of 4