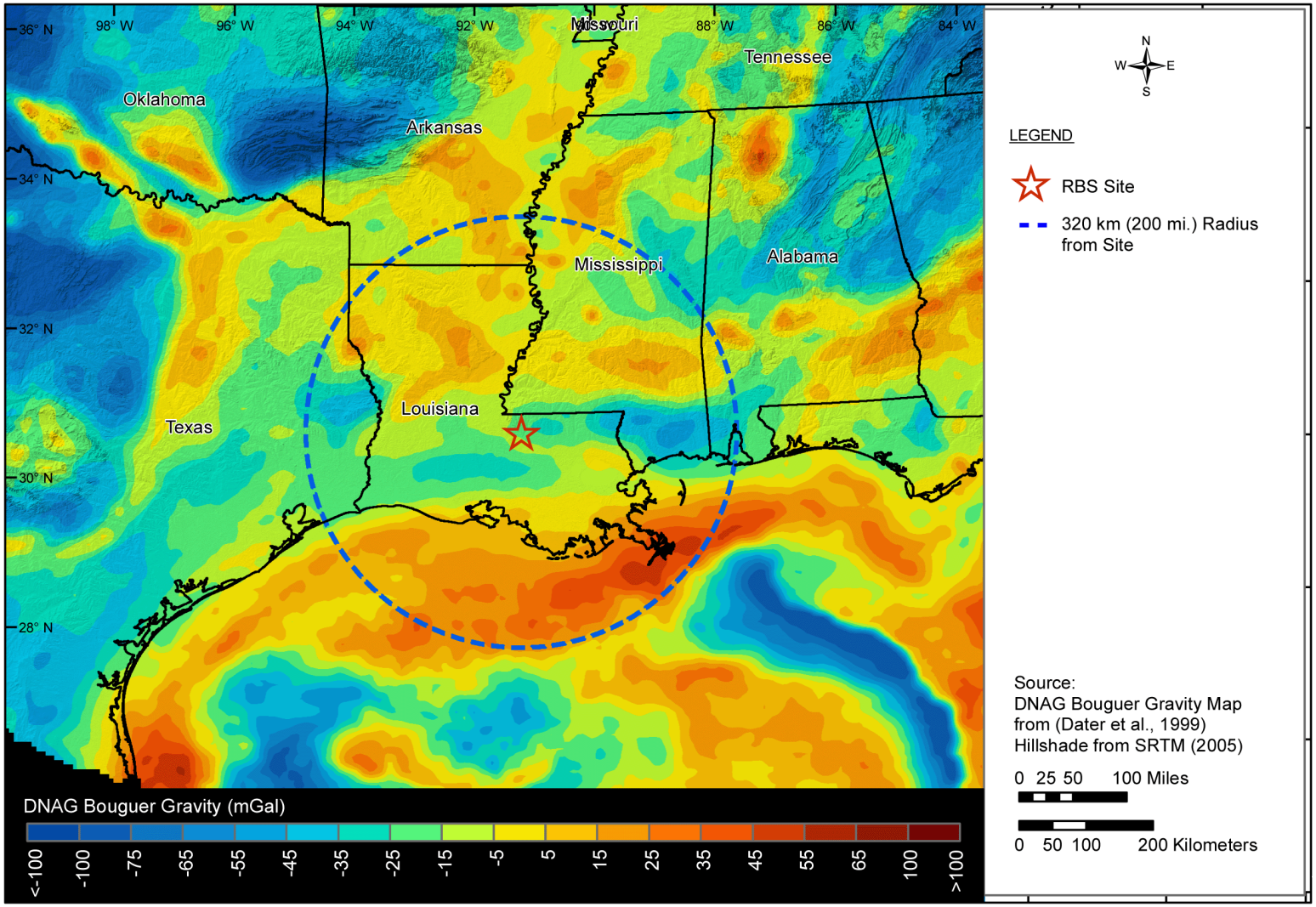


Figure 2.5.1-221. Isostatic Gravity Map

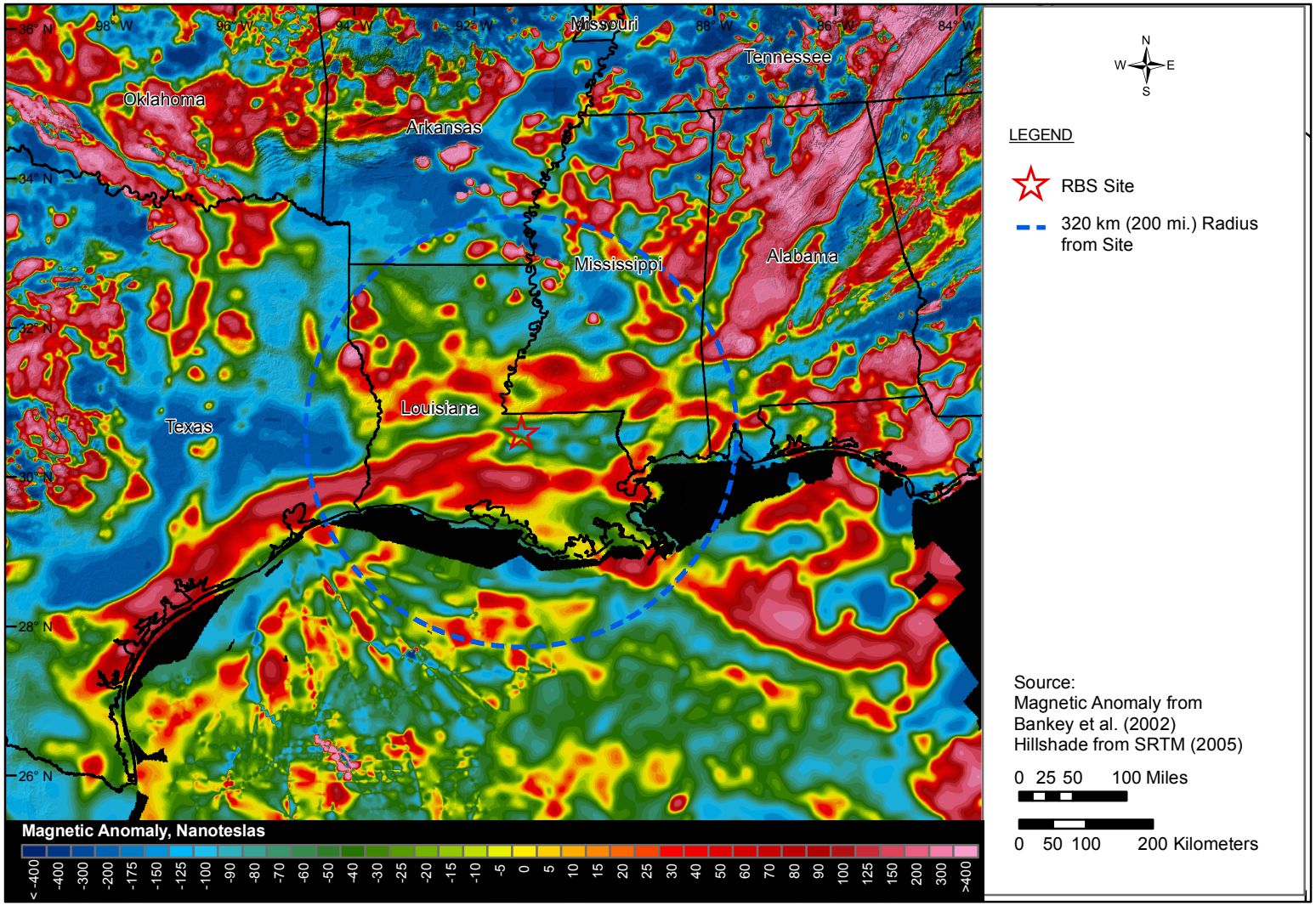


Figure 2.5.1-222. Magnetic Anomaly Map

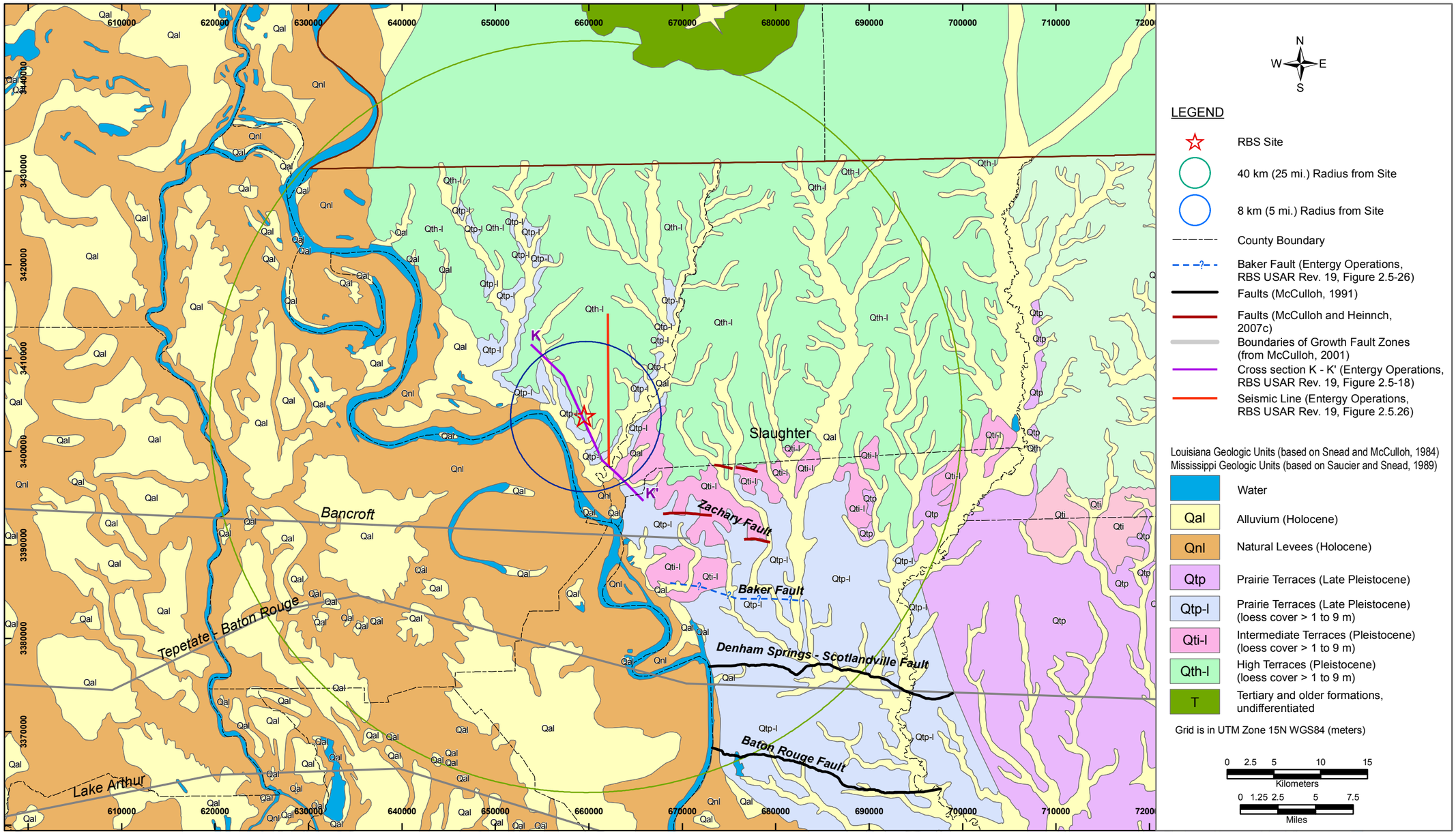


Figure 2.5.1-223. Geologic Map of the Site Vicinity

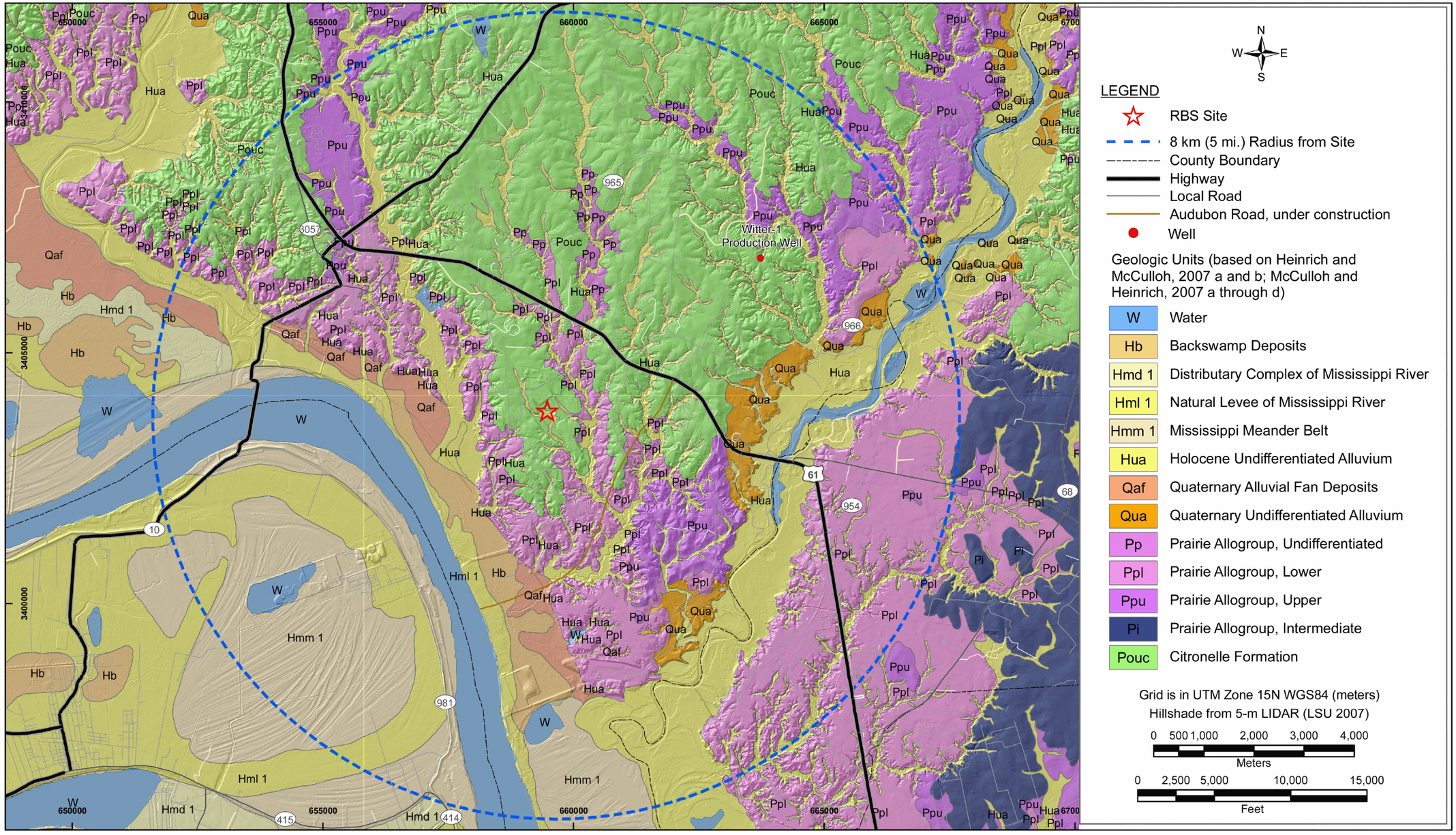


Figure 2.5.1-224. Geologic Map of the Site Area

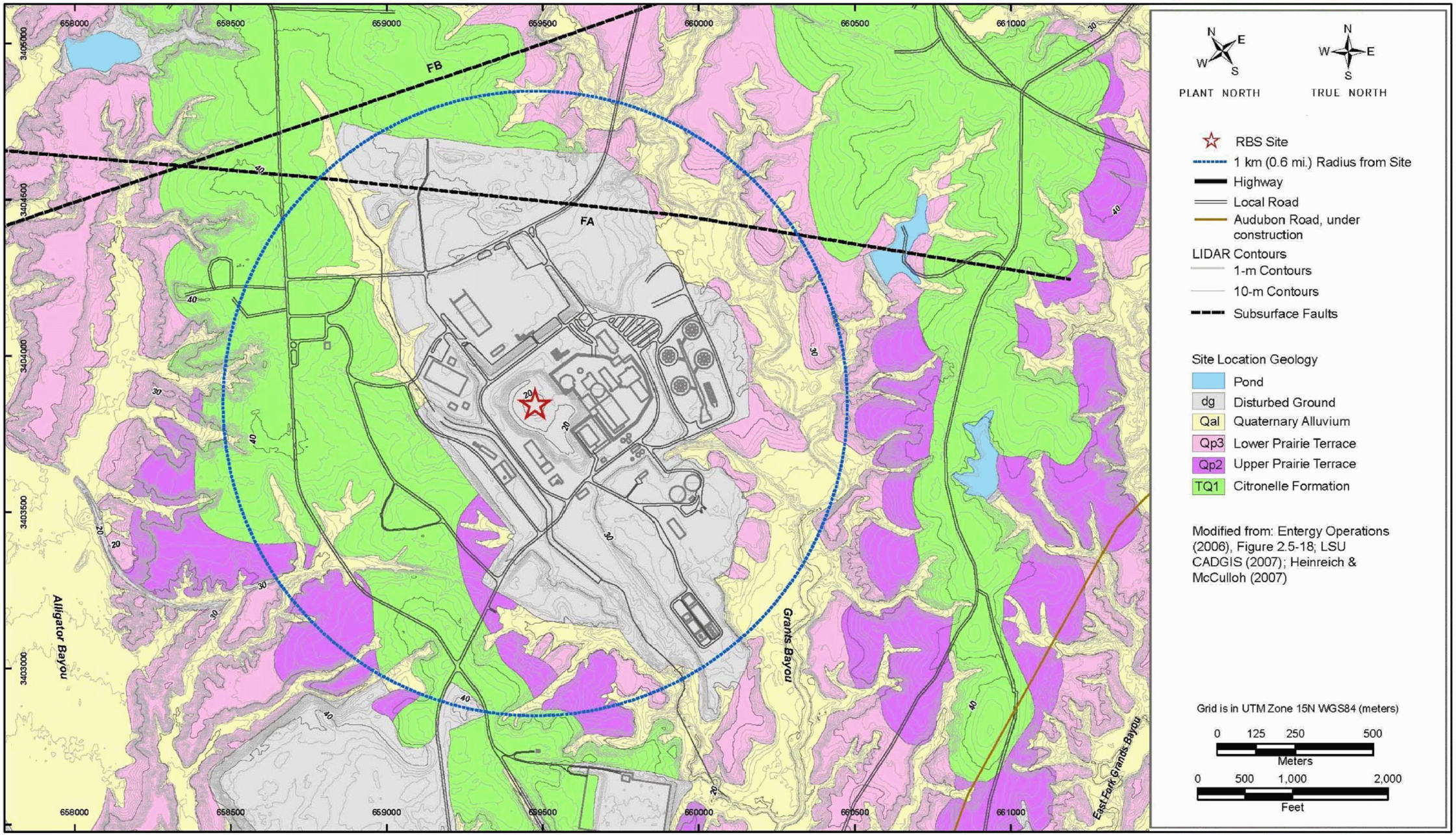


Figure 2.5.1-225. Geologic Map of the Site Location

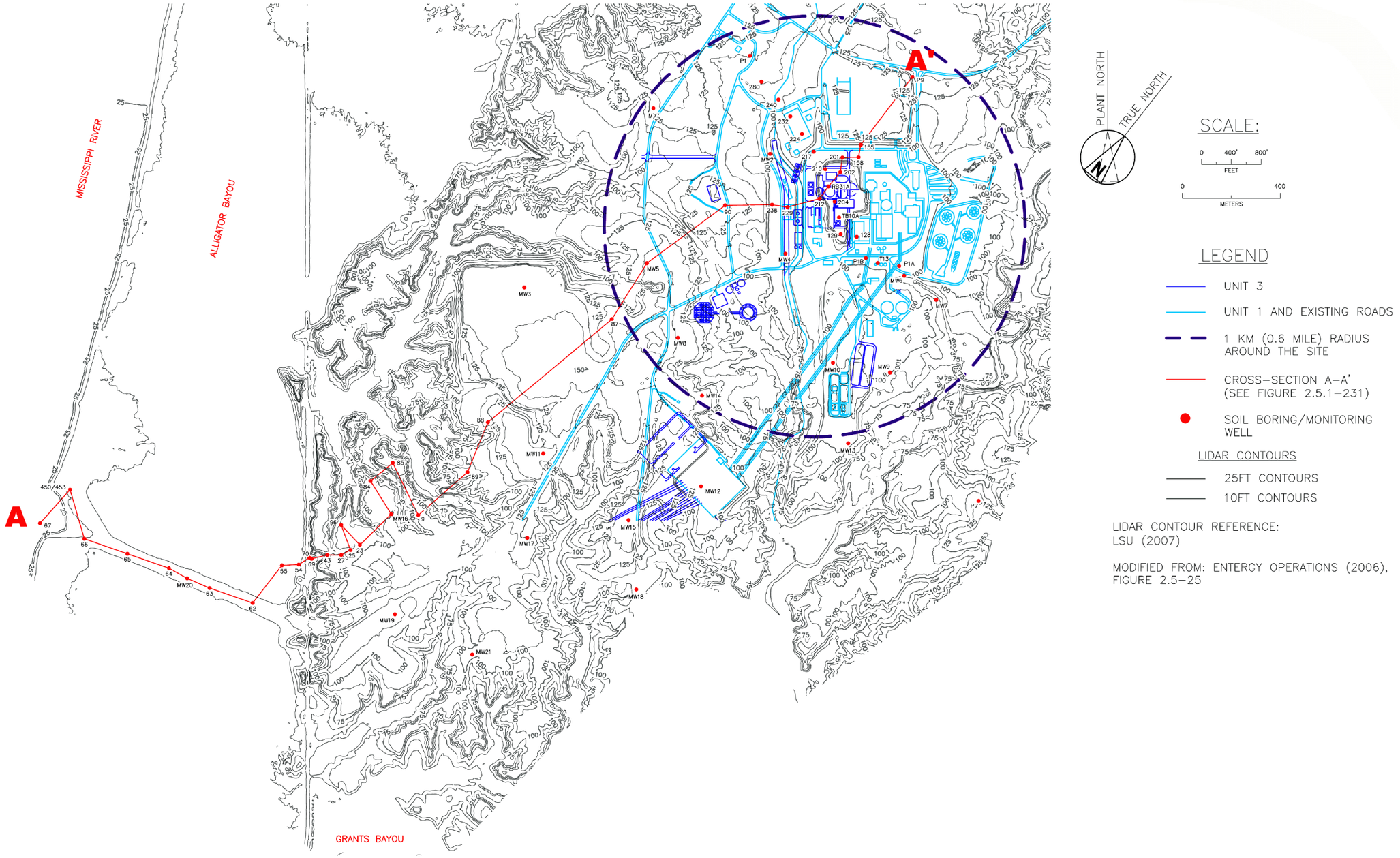


Figure 2.5.1-226. Site Topographic Map at the Site Location

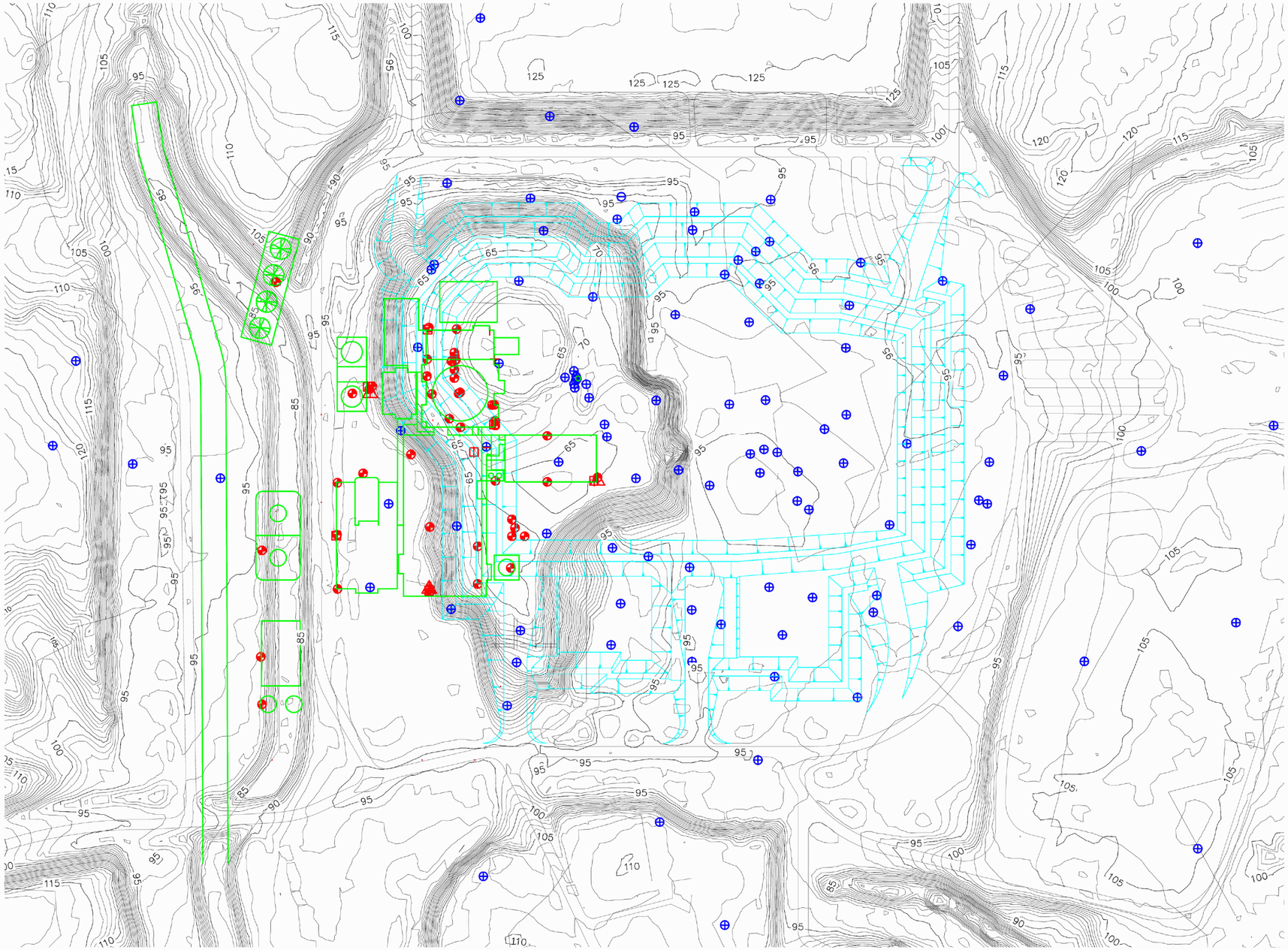
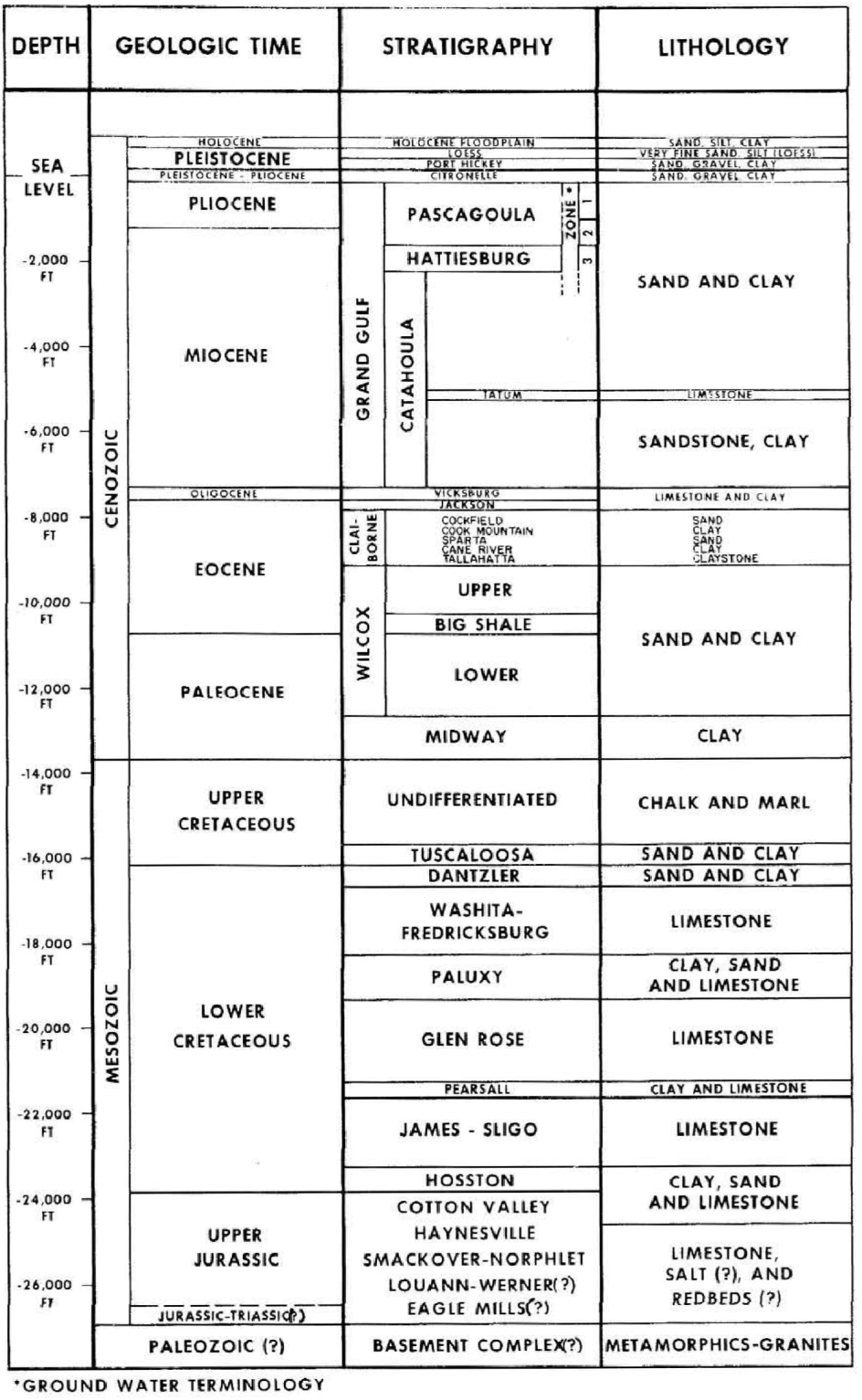
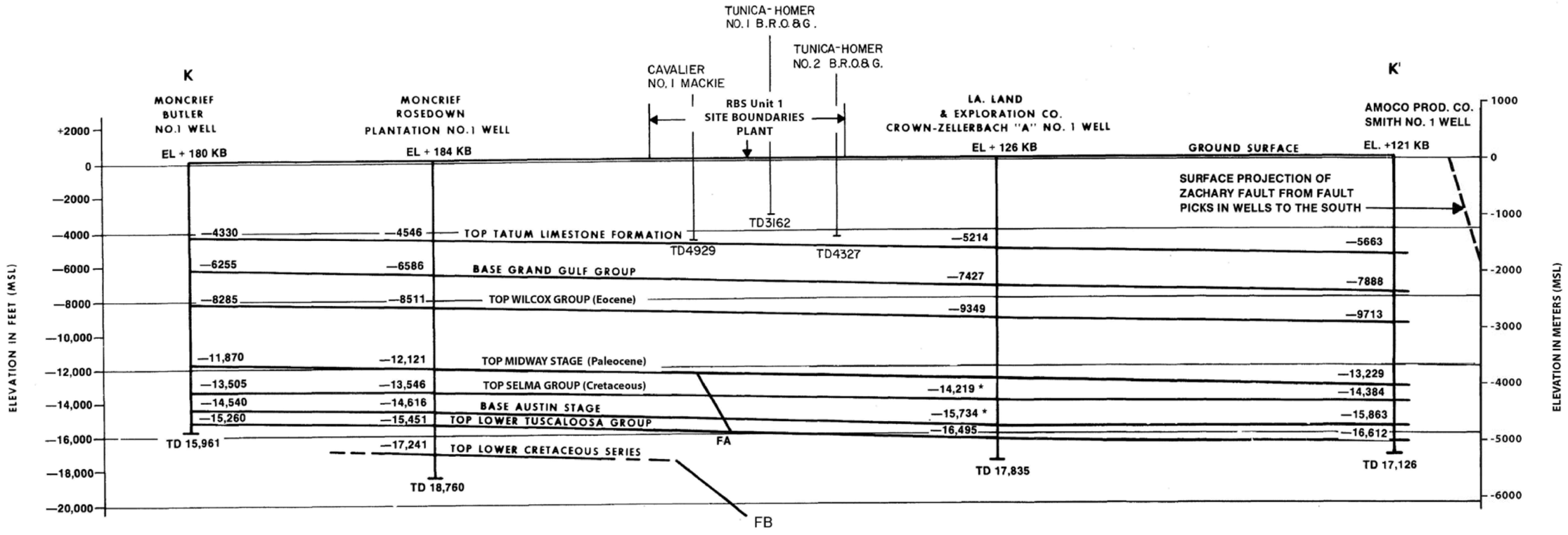


Figure 2.5.1-227. Map of Unit 1 Excavation Extents



Source: Entergy Operations (2006), Figure 2.5-22

Figure 2.5.1-228. Site Stratigraphic Column **Revision 0**



NOTE:

* -LA. LAND & EXPLORATION COMPANY INFORMATION (PERSONAL COMMUNICATION BETWEEN MR. DEMENT, COMPANY GEOLOGIST, AND C.O. DURHAM, FALL 1980)

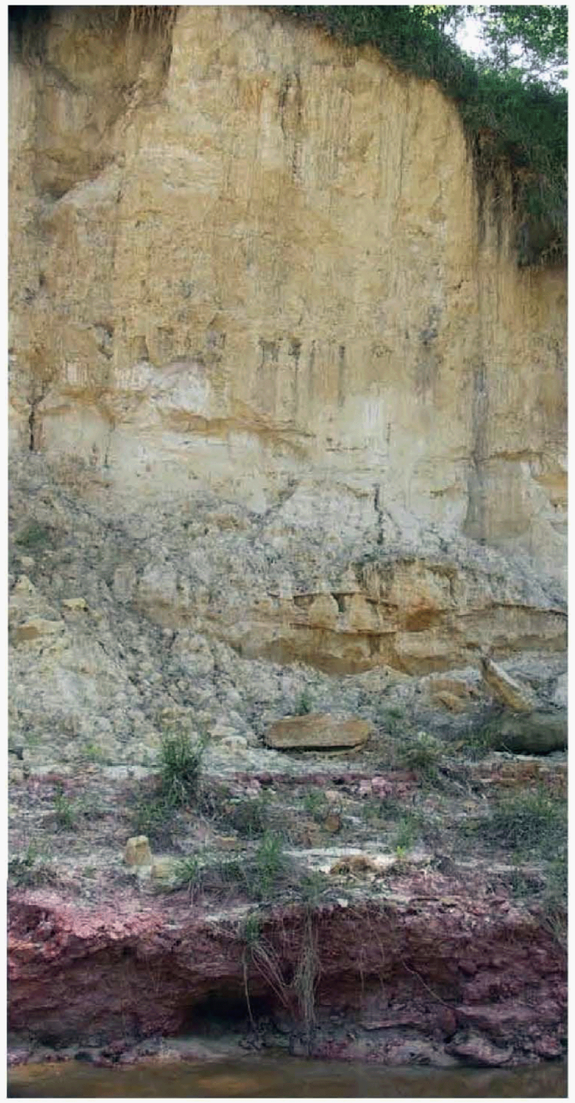
KB = KELLY BUSHING

TD = TOTAL DEPTH

For location of cross-section see Figure 2.5-223

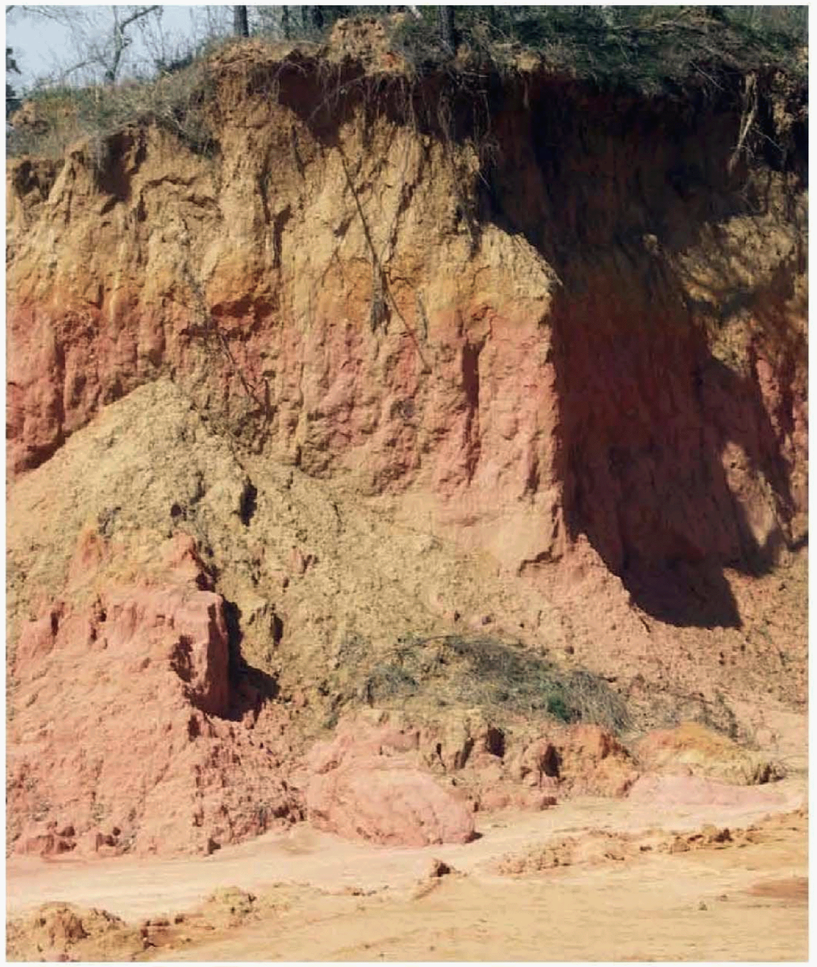
Source: Entergy Operatations (2006), Figure 2.5-23

Figure 2.5.1-229. Geologic Cross Section K-K' through Site Location



(a) Exposure Showing Terrace Deposits over Citronelle Formation

(b) Detail of Citronelle Formation



(c) Exposure Showing Loess over Citronelle Formation

Figure 2.5.1-230. Photos of Citronelle Formation Exposures

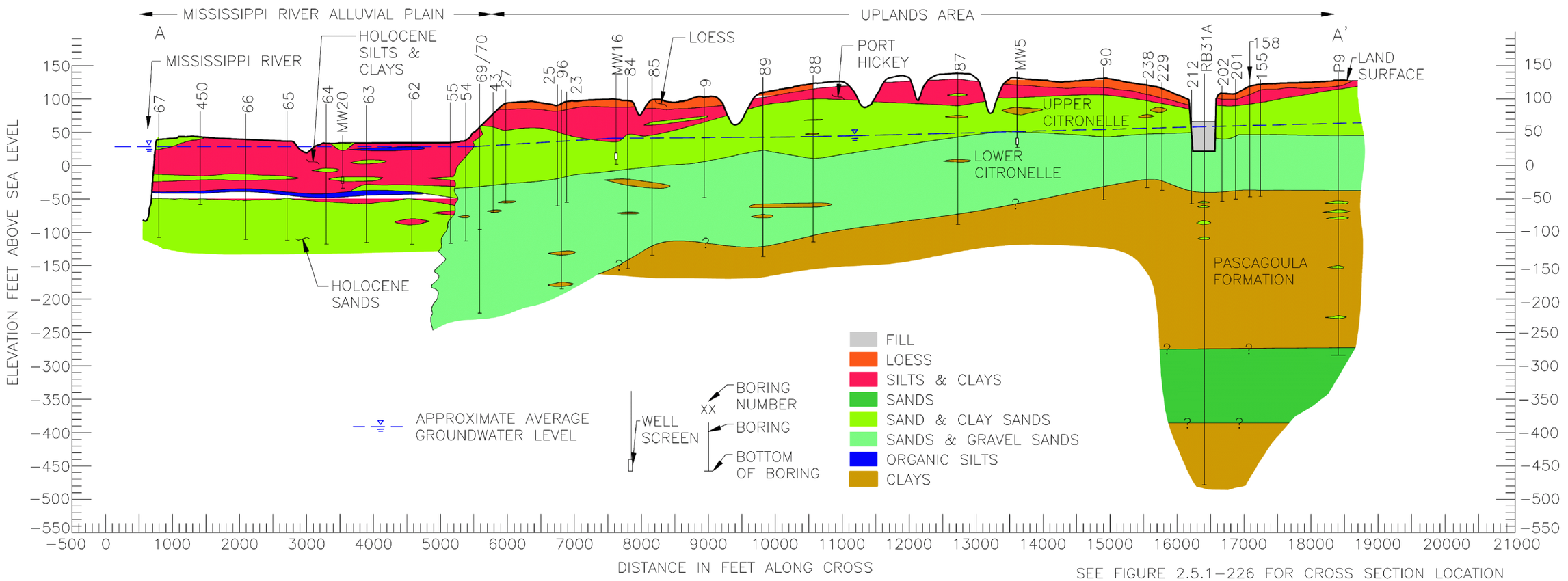


Figure 2.5.1-231. Shallow Geologic Cross Section A-A' through Site Area

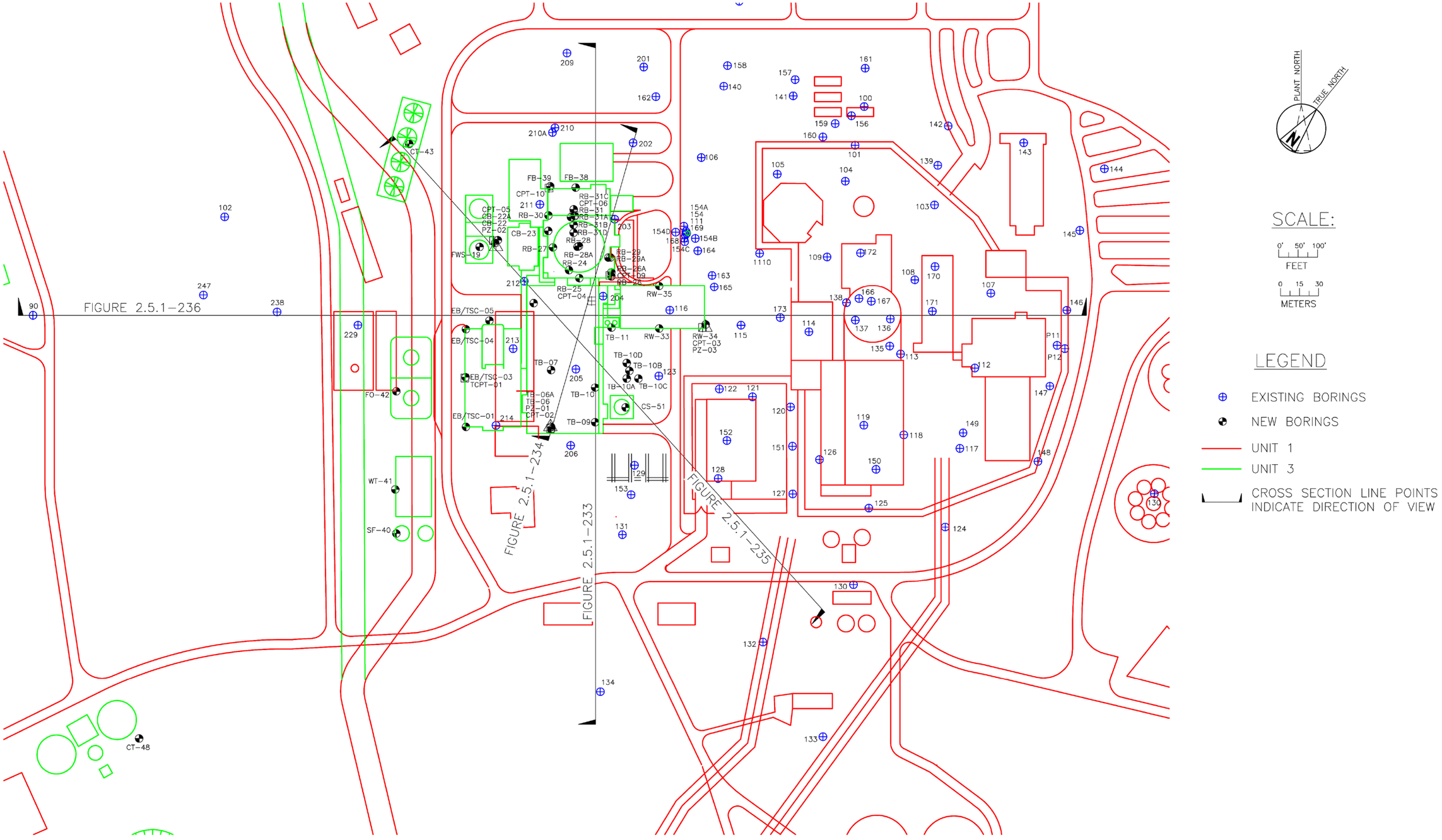
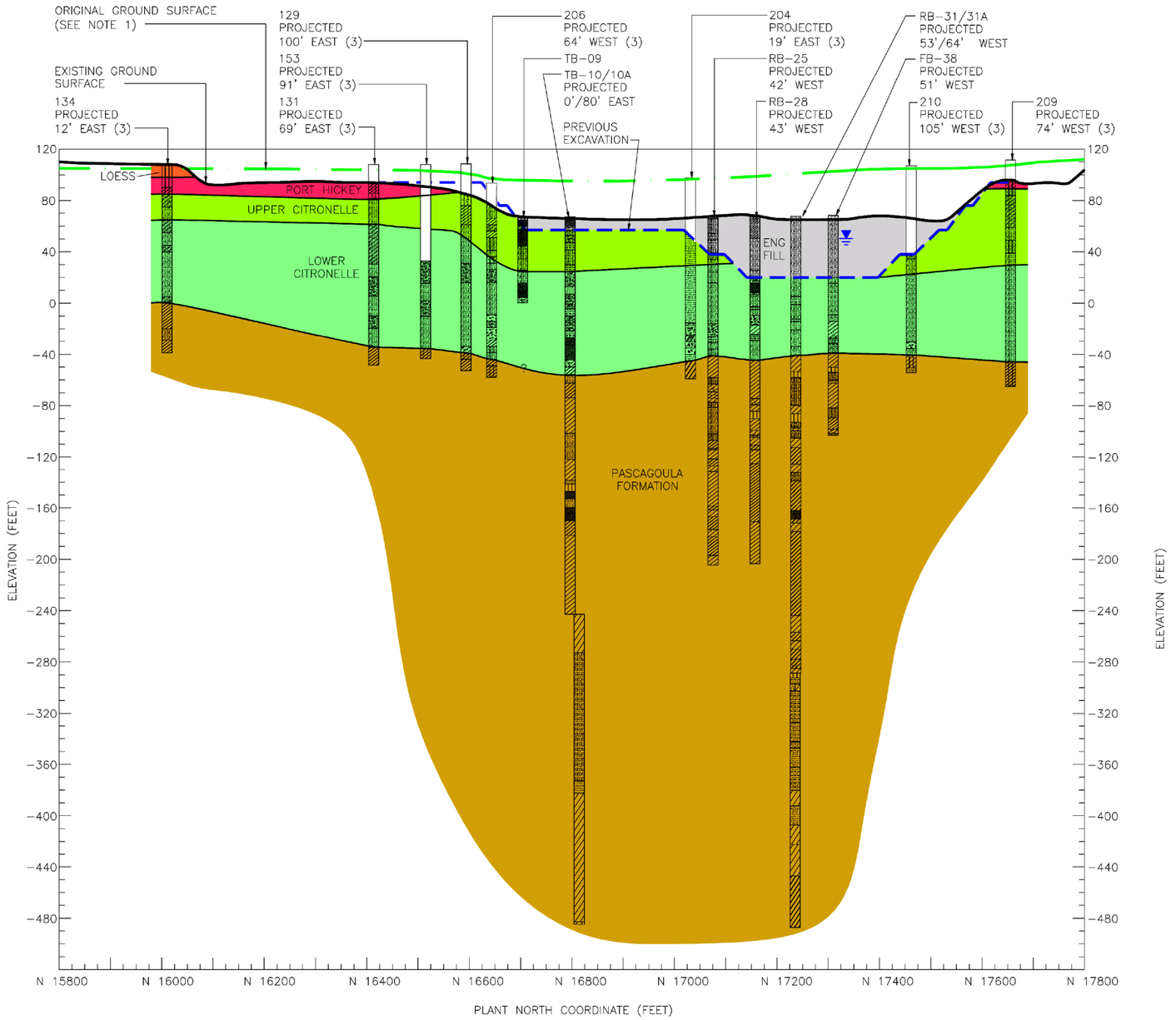


Figure 2.5.1-232. Subsurface Investigation Plan



LEGEND

SAND
CLAY
SILTY CLAY
SANDY GRAVEL
SILT
CLAYEY SAND

EXISTING GROUND SURFACE
ORIGINAL GROUND SURFACE
PREVIOUS EXCAVATION
BOREHOLE FLUID LEVEL MEASURED PRIOR TO GROUTING

NOTES:

1. ORIGINAL GROUND SURFACE IS THE NATURAL GROUND SURFACE AT THE SITE PRIOR TO UNIT 1 CONSTRUCTION.

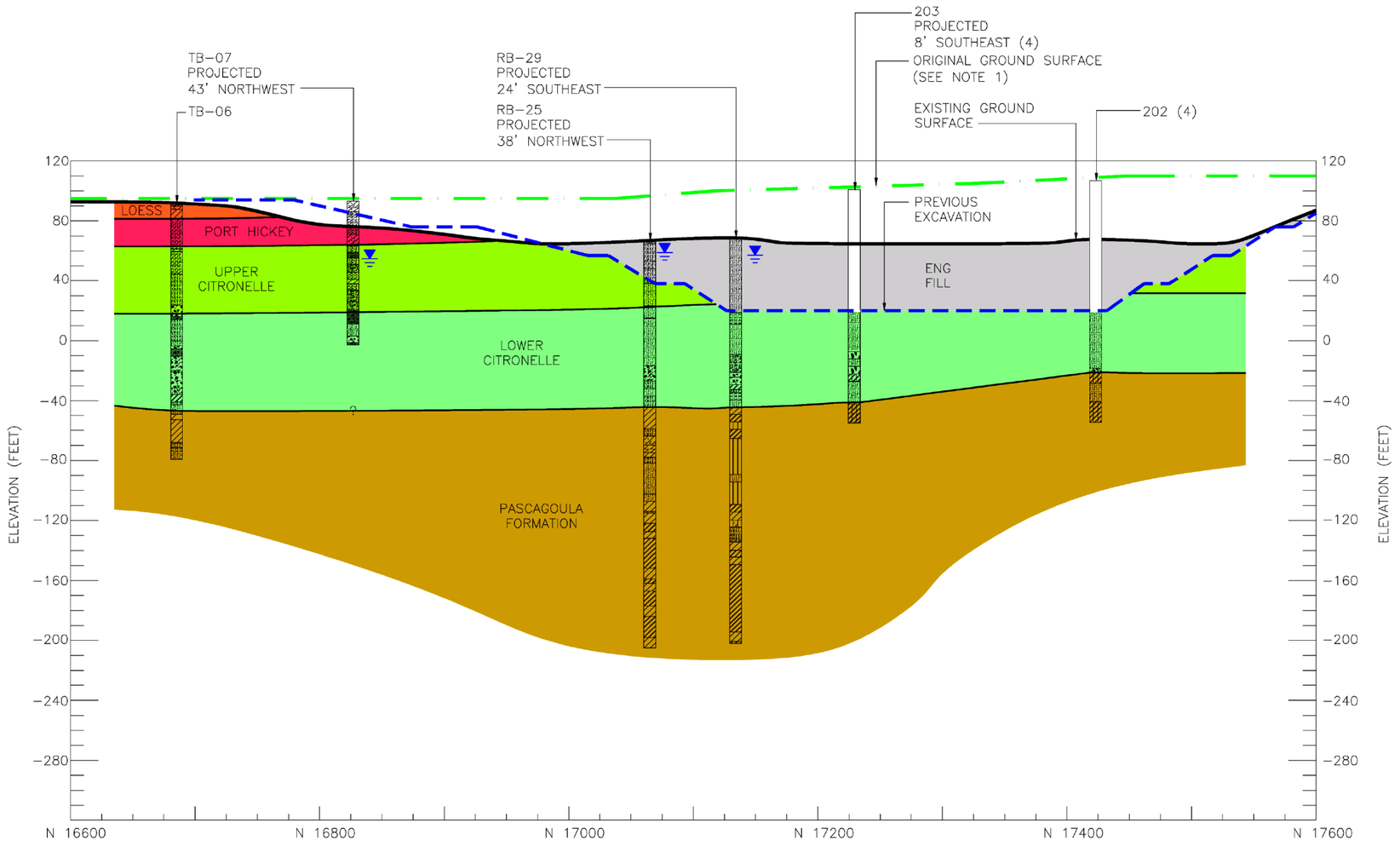
2. SEE FIGURE 2.5.1-232 FOR CROSS SECTION LOCATION.

3. CROSS SECTION INCLUDES BORINGS FROM PREVIOUS INVESTIGATIONS. BORINGS FROM PREVIOUS INVESTIGATIONS WERE MODIFIED (BLANKED) FOR CLARITY WHERE MATERIAL HAS BEEN EXCAVATED/REMOVED.

VERTICAL SCALE:
40' 20' 0 40' 80'

HORIZONTAL SCALE:
100' 50' 0 100' 200'

Figure 2.5.1-233. North-South Cross Section through Unit 3 Site Location



NOTES:

1. ORIGINAL GROUND SURFACE IS THE NATURAL GROUND SURFACE AT THE SITE PRIOR TO UNIT 1 CONSTRUCTION.

2. SEE FIGURE 2.5.1-232 FOR CROSS SECTION LOCATION.

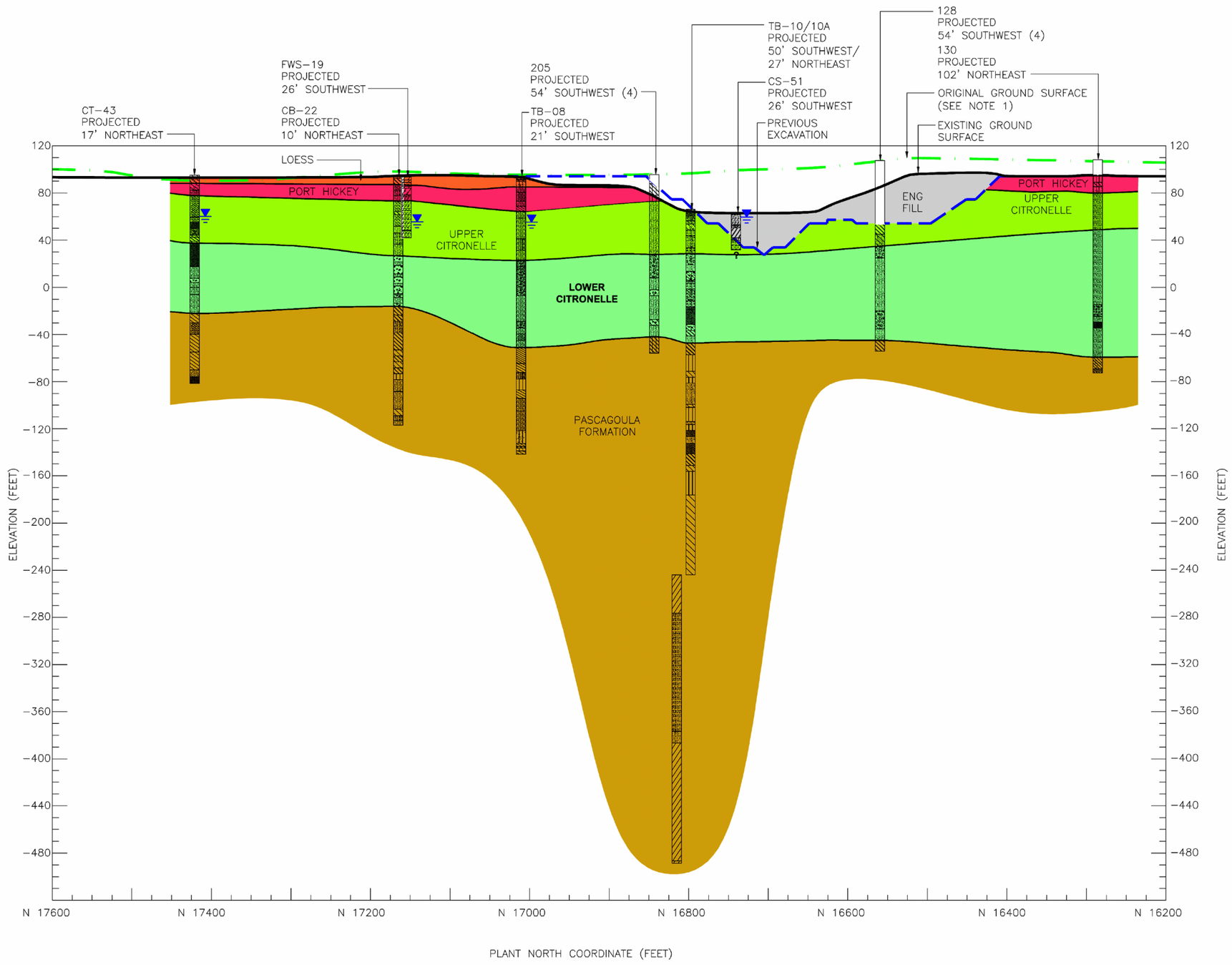
3. SEE FIGURE 2.5.1-233 FOR LEGEND.

4. CROSS SECTION INCLUDES BORINGS FROM PREVIOUS INVESTIGATIONS. BORINGS FROM PREVIOUS INVESTIGATIONS WERE MODIFIED (BLANKED) FOR CLARITY WHERE MATERIAL HAS BEEN EXCAVATED/REMOVED.

VERTICAL SCALE:
40' 20' 0 40' 80'

HORIZONTAL SCALE:
100' 50' 0 100' 200'

Figure 2.5.1-234. Northwest-Southeast Cross Section through Unit 3 Site Location



NOTES:

1. ORIGINAL GROUND SURFACE IS THE NATURAL GROUND SURFACE AT THE SITE PRIOR TO UNIT 1 CONSTRUCTION.

2. SEE FIGURE 2.5.1–232 FOR CROSS SECTION LOCATION.

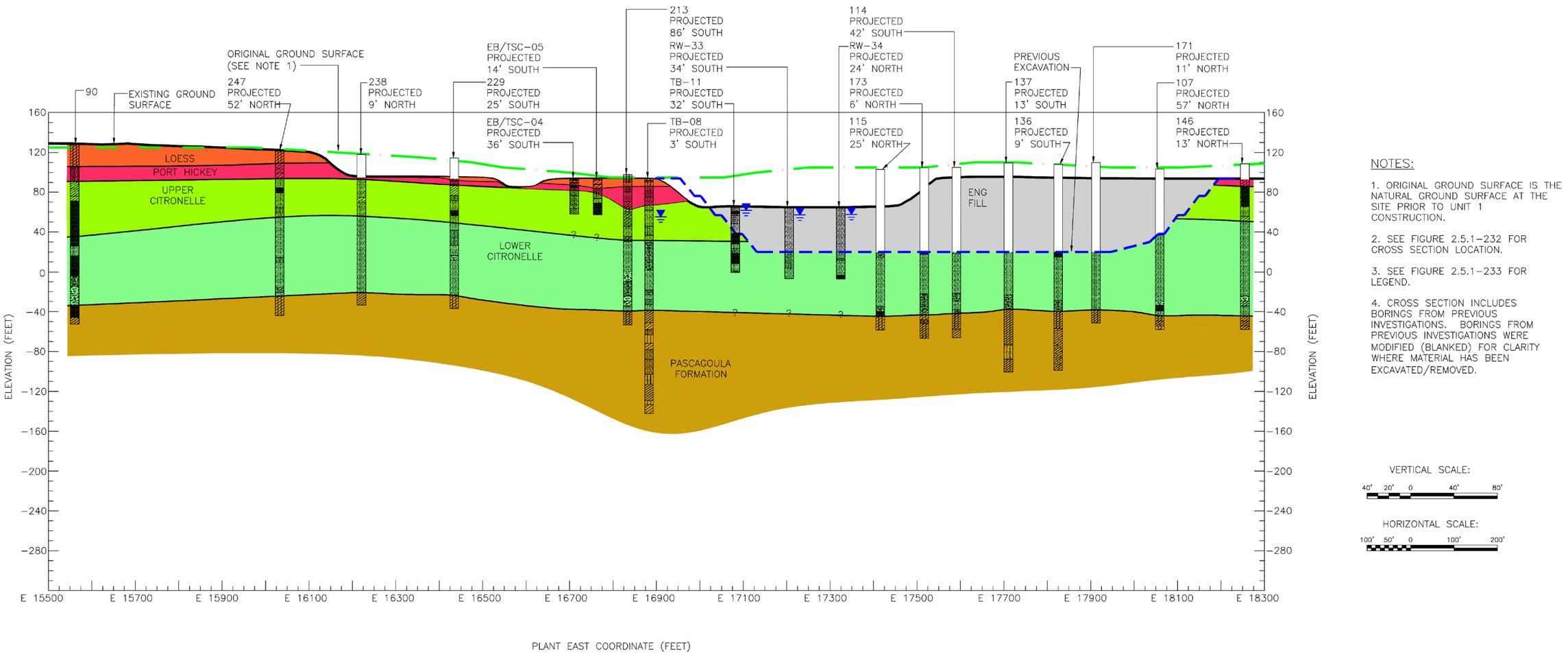
3. SEE FIGURE 2.5.1–233 FOR LEGEND.

4. CROSS SECTION INCLUDES BORINGS FROM PREVIOUS INVESTIGATIONS. BORINGS FROM PREVIOUS INVESTIGATIONS WERE MODIFIED (BLANKED) FOR CLARITY WHERE MATERIAL HAS BEEN EXCAVATED/ REMOVED.

VERTICAL SCALE:
40' 20' 0 40' 80'

HORIZONTAL SCALE:
100' 50' 0 100' 200'

Figure 2.5.1-235. Southwest-Northeast Cross Section through Unit 3 Site Location



NOTES:

1. ORIGINAL GROUND SURFACE IS THE NATURAL GROUND SURFACE AT THE SITE PRIOR TO UNIT 1 CONSTRUCTION.

2. SEE FIGURE 2.5.1-232 FOR CROSS SECTION LOCATION.

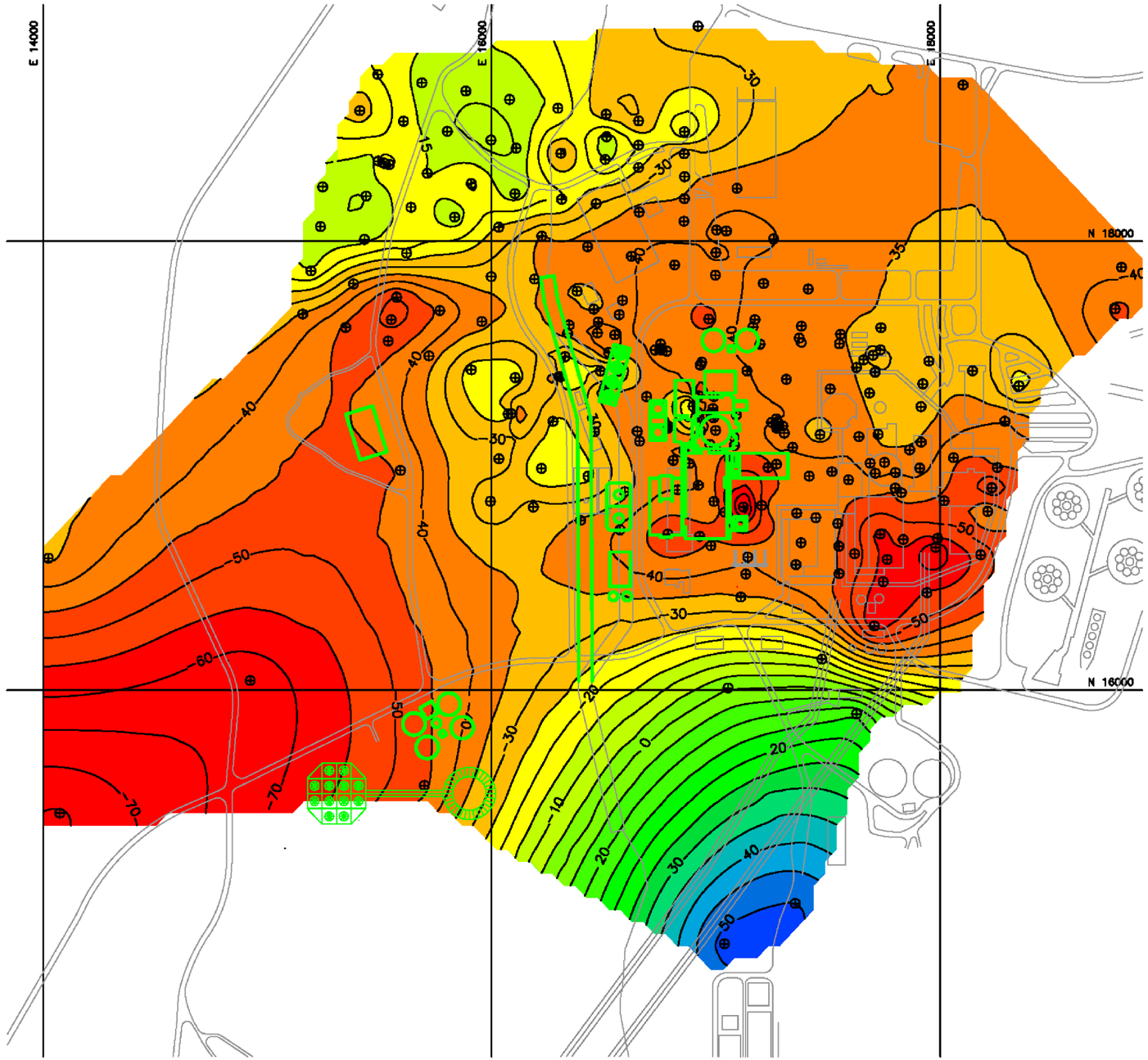
3. SEE FIGURE 2.5.1-233 FOR LEGEND.

4. CROSS SECTION INCLUDES BORINGS FROM PREVIOUS INVESTIGATIONS. BORINGS FROM PREVIOUS INVESTIGATIONS WERE MODIFIED (BLANKED) FOR CLARITY WHERE MATERIAL HAS BEEN EXCAVATED/REMOVED.

VERTICAL SCALE:

HORIZONTAL SCALE:

Figure 2.5.1-236. East-West Cross Section through Unit 3 Site Location



LEGEND:

⊕ BORING USED TO GENERATE CONTOUR MAP

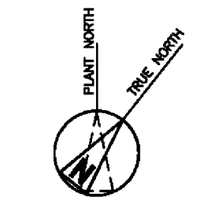
UNIT 3 FACILITY

UNIT 1 FACILITY

NOTES:

1. BORING USED TO GENERATE CONTOUR MAP INCLUDE BORINGS FROM UNIT 3, UNIT 1 (TO THE EAST), UNITS 3 & 4 (TO THE WEST).
2. EXTENT OF CONTOURING WAS LIMITED TO AREA OF AVAILBLE DATA.

SOURCE: ENTERGY OPERATIONS (2006), APPENDIX 2H
STONE & WEBSTER ENGINEERING CORPORATION (1976), APPENDIX 2B



SCALE:

0 500'
FEET

0 100 200
METERS

ELEVATION FEET MSL

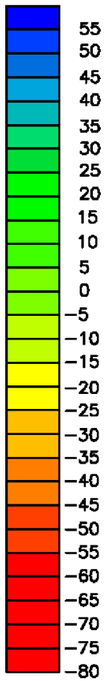
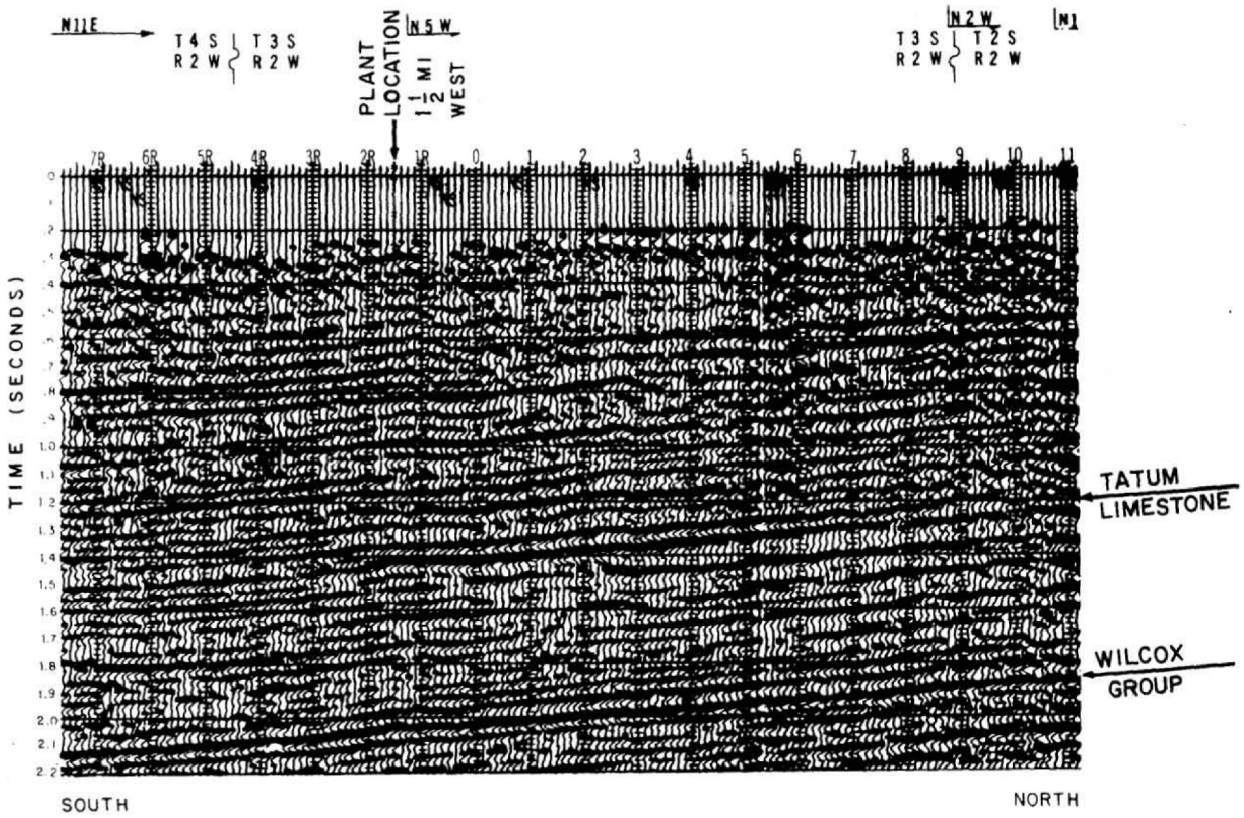


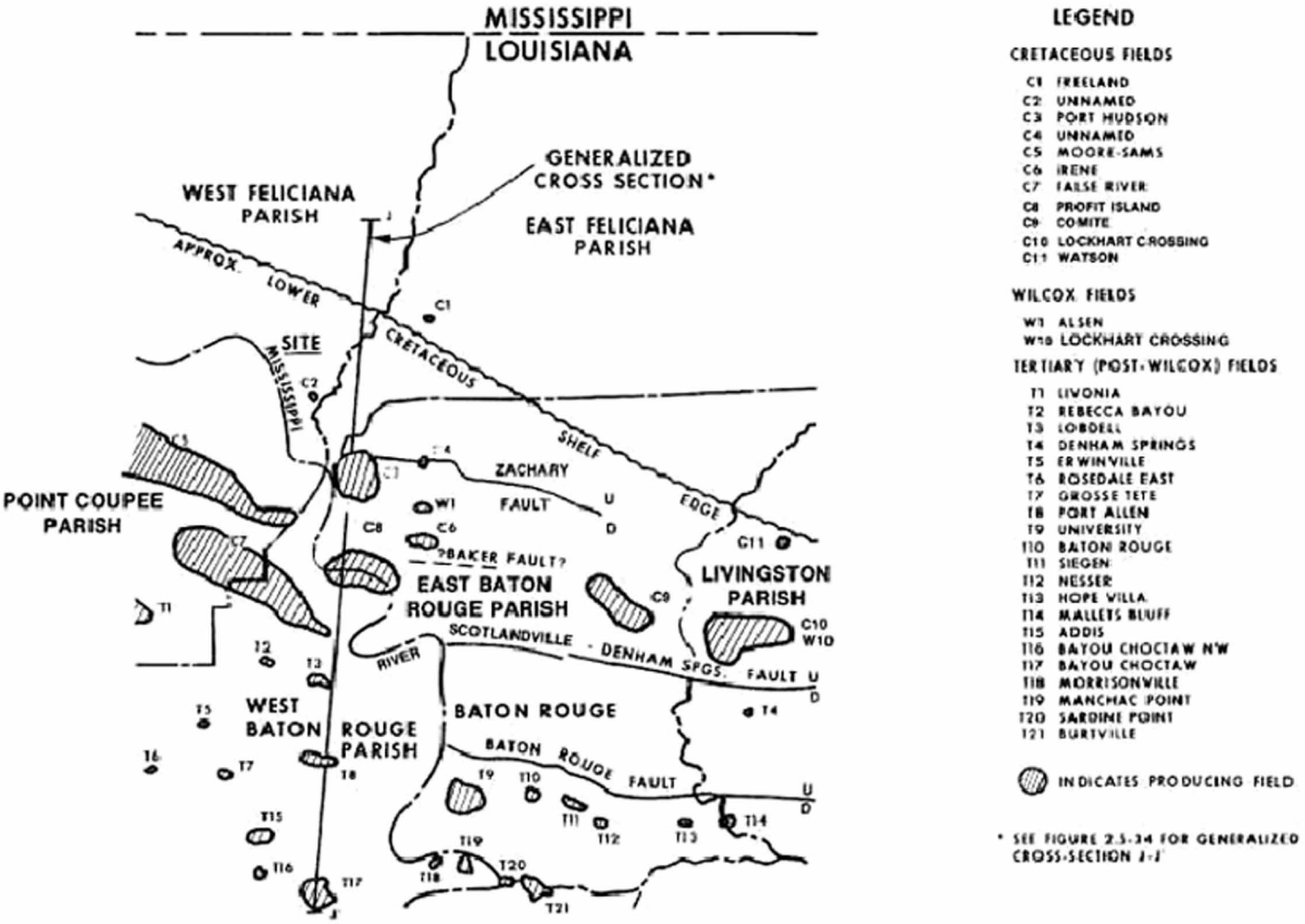
Figure 2.5.1-237. Contour Map of the Pascagoula Formation Surface



Note:
Average vertical velocity (two-way) + 8000feet per second
The location of this section is indicated on Figure 2.5-11

Modified from: Entergy Operations
(RBS USAR Rev. 19, Figure 2.5-35)

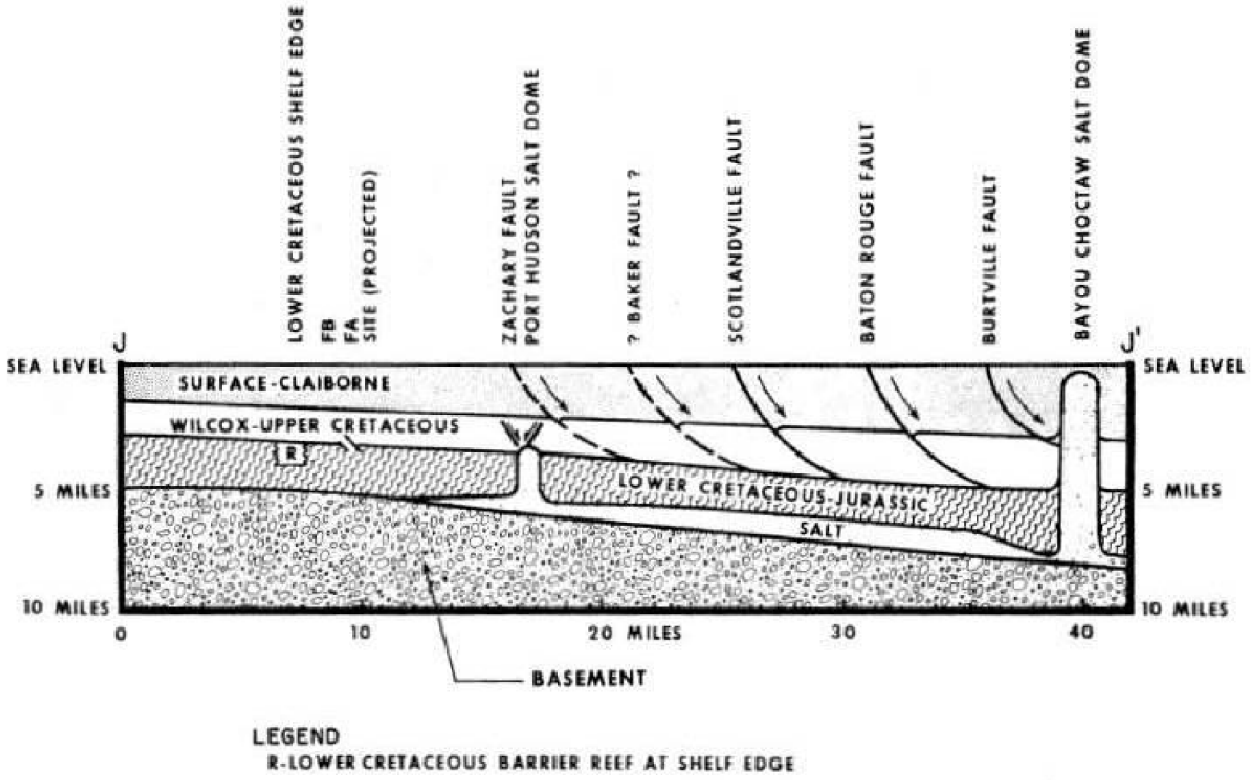
Figure 2.5.1-238. Seismic Reflection Survey Profile



Notes:
1) Faults are shown in mapped surface position only.
2) See Figure 2.5.1-240 for cross section J-J'.

Source: Entergy Operations (2006), Figure 2.5-17

Figure 2.5.1-239. Location of Schematic North-South Cross Section through Site Area



Note:
See Figure 2.5.1-239 for location of cross section

Source: Entergy Operations (2006), Figure 2.5-34

Figure 2.5.1-240. Schematic North-South Cross Section through Site Area

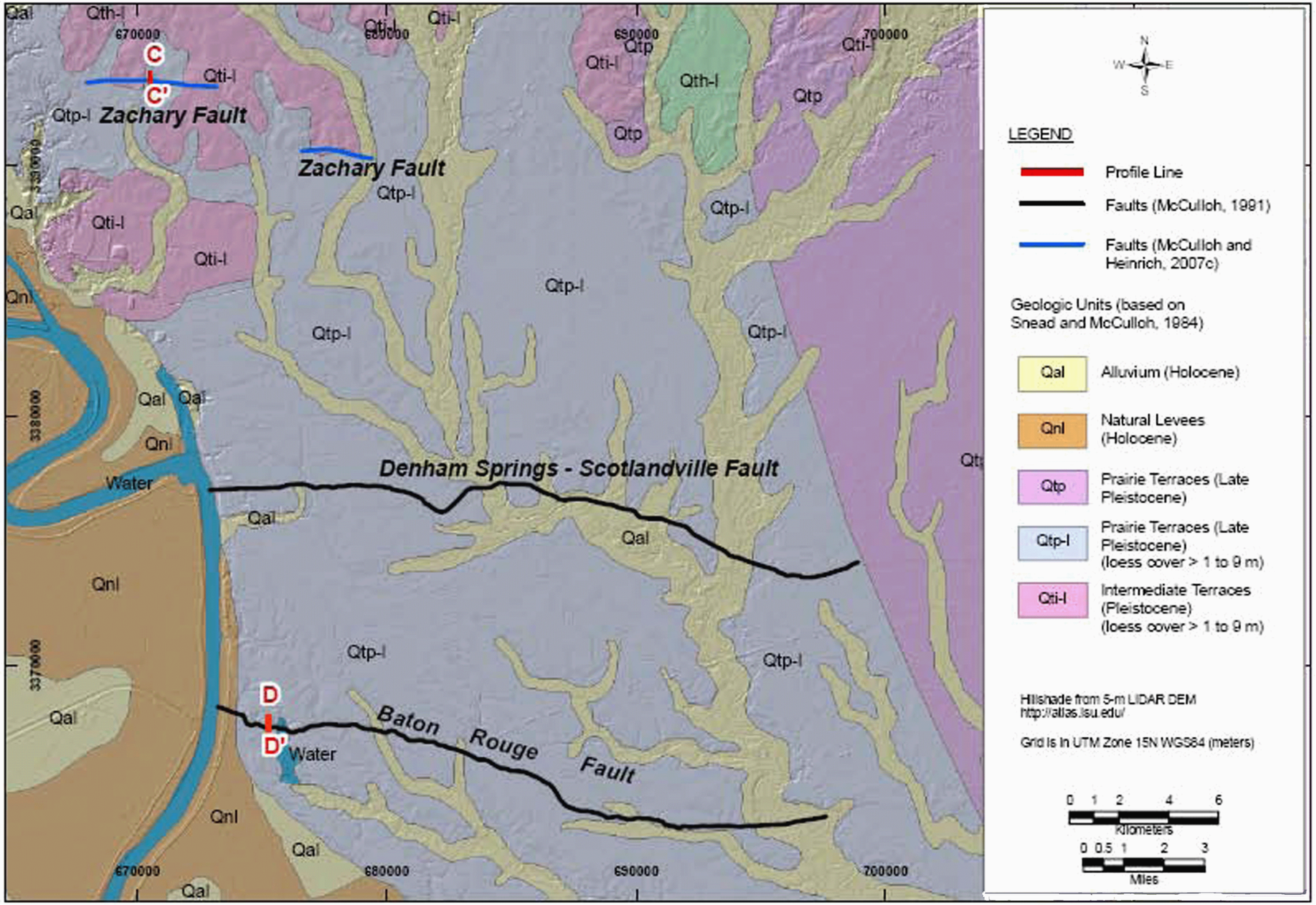
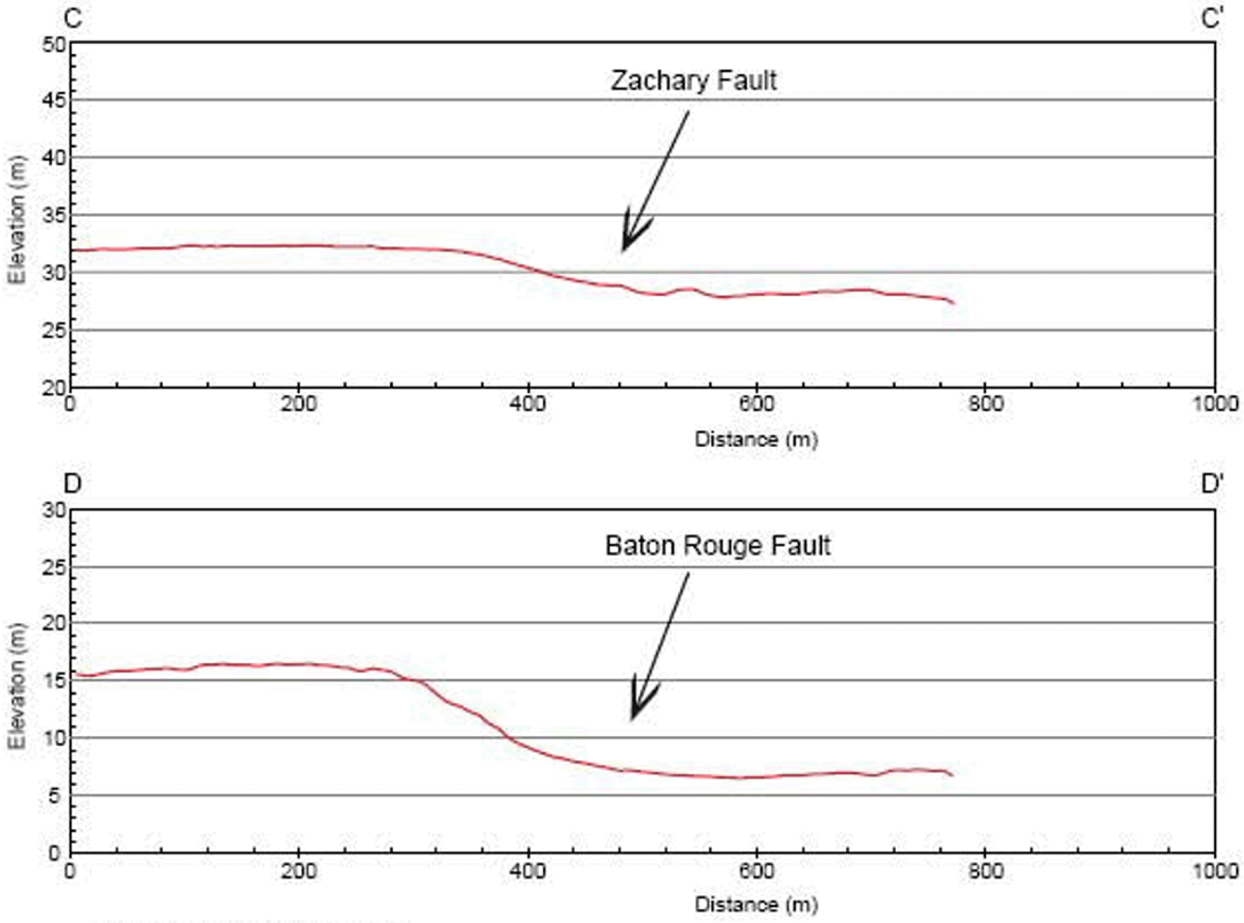


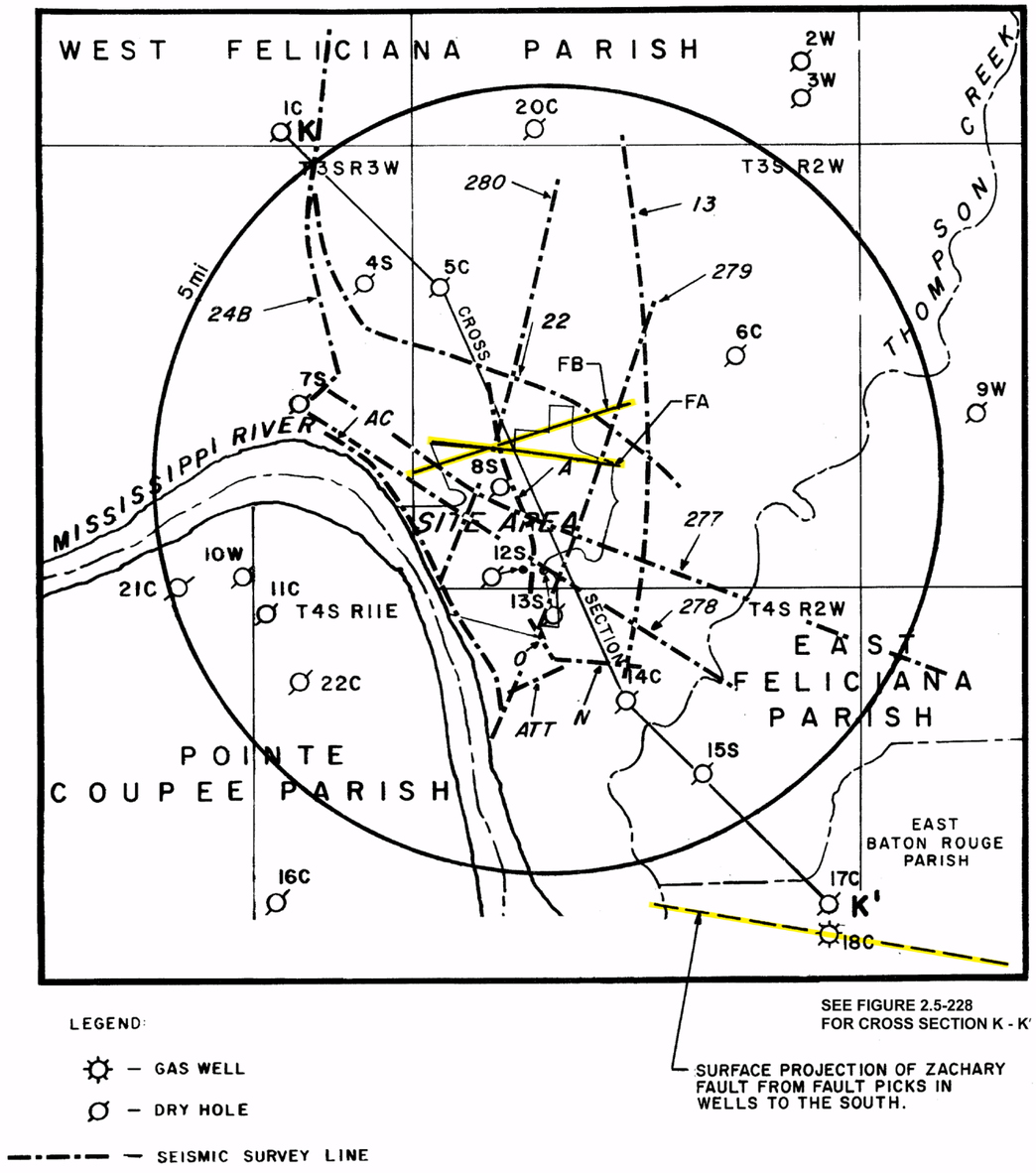
Figure 2.5.1-241. Location of Topographic Profiles on the Baton Rouge and Zachary Faults



Vertical exaggeration = 10x
See Figure 2.5-241 for location of profiles.

Notes:
1. Profiles are on Prairie Terrace surface with > 1 to 9 m loess.
2. Profiles created from 5-m LIDAR data (http://atlas.lsu.edu)
3. Arrows mark mapped trace of fault from McCulloh (1991) and McCulloh and Heinrich (2007c) for the Baton Rouge Fault and Zachary faults, respectively.

Figure 2.5.1-242. Topographic Profiles Across the Baton Rouge and Zachary Faults

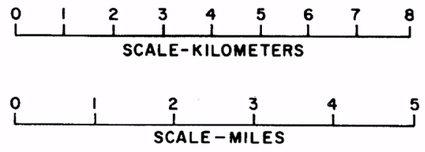


MAP NO.	WELL NAME	TOTAL DEPTH	DATE
1C	MONCRIEF No. 1 BUTLER	15,961	1978
2W	KILLIAM No. 1 JOHNSON	8,204	1956
3W	KILLIAM No. 2 JOHNSON	10,017	1957
4S	ALLAUN No. 1 ROSEDOWN	7,530	1946
5C	MONCRIEF No. 1 ROSEDOWN	18,760	1978
6C	SOUTH LOUISIANA PRODUCTION No. 1 WITTER	17,814	1980
7S	BAYOU SARA No. 1 FAIRGROUNDS	2,364	1931
8S	CAVALIER No. 1 MACKIE	4,529	1937
9W	LA GRANGE No. 1 Mc KOWEN	10,010	1960
10W	PRECISE - DAMSON No. 1 LANGLOIS	12,500	1972
11C	HUNT No. 1 LANGLOIS	16,540	1980
12S	TUNICA - HOMER No. 1 B.R.O. & G.	3,162	1921
13S	TUNICA - HOMER No. 2 B.R.O. & G.	4,327	1924-6
14C	LA. LAND & EXPLORATION No. 1 CROWN ZELLERBACH	17,835	1980
15S	CAVALIER No. 1 MILLS	5,392	1937
16C	WAGNER No. 1 JUMONVILLE	18,131	1981
17C	AMOCO No. 1 SMITH	17,126	1980
18C	AMOCO No. 1 ANDREWS (SIDETRACK SOUTH TO PRODUCTION FROM 17)	17,258	1980
20C	AMOCO No. 1 DANIEL	15,730	1981
21C	AMOCO No. 1 SCHEYNAYDRE	17,573	1982
22C	TATHAM No. 1 CAJUN ELECTRIC	18,085	1981

MAP No. SYMBOLS:

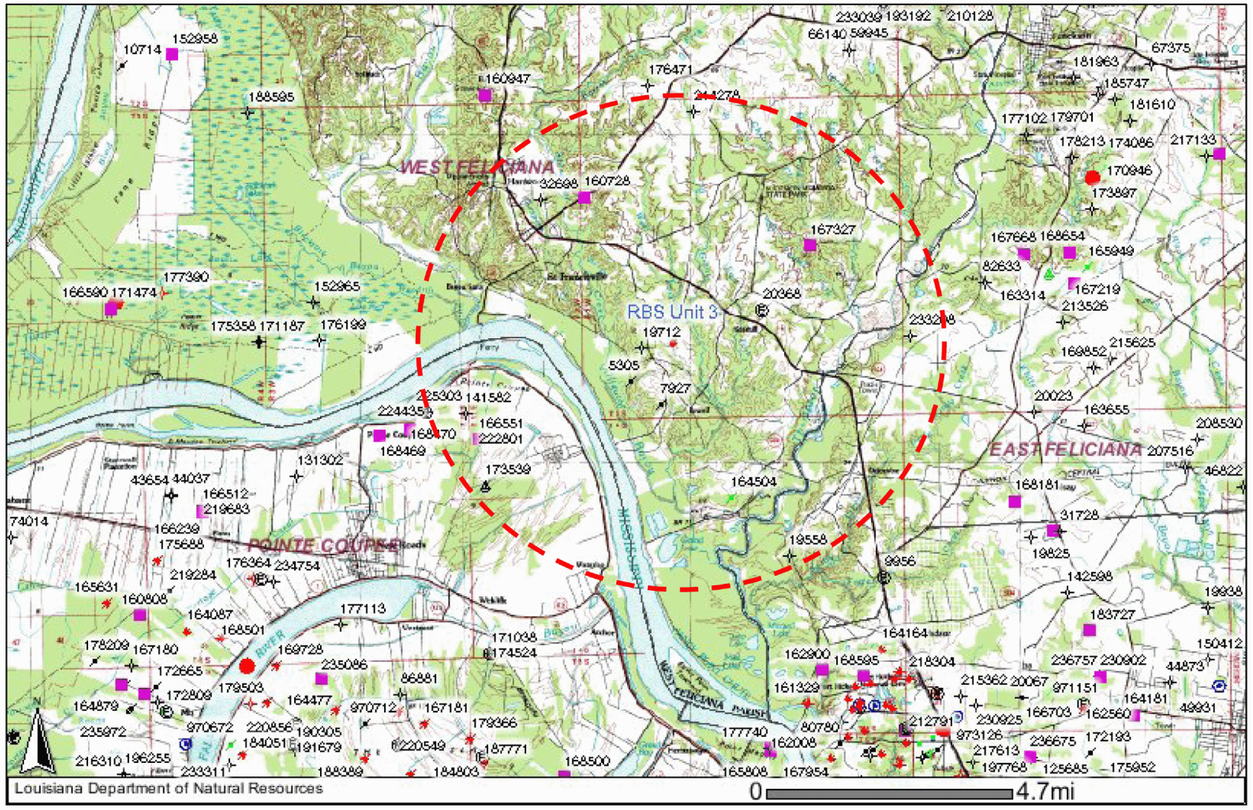
S = SHALLOW (ABOVE WILCOX)
W = WILCOX
C = CRETACEOUS

SEISMIC SURVEY LINE	DATE	REF
22	1976	87
24B	1975	87
A	1951	87
N	1951	87
O	1951	87
AC	1951	87
ATT	1951	87
13	1970	88
277 (AMOCO)	1982	96
278 (AMOCO)	1982	96
279 (AMOCO)	1982	96
280 (AMOCO)	1982	96



Modified from: Entergy Operations (2006), Figure 2.5-18

Figure 2.5.1-243. Location of Test Holes and Seismic Survey Lines



Well ID	Well Name	Total Depth (feet)	Permit Date	Well Status
19712	C.W. Mackie	4,529	1937	Dry & Plugged (1937)
5305	Perkins	3,126	1921	Plugged & Abandoned (1922)
7927	J. Perkins	4,327	1924	Plugged & Abandoned (1925)
20368	Hoffner ETAL	NA	1937	Permit Expired (1937)
164504	Crown Zellerback A.	17,834	1979	Plugged & Abandoned (1980)
167327	P.C. Witter	17,800	1980	Dry & Plugged (1980)
160728	Rosedown Plantation	19,500	1978	Dry & Plugged (1978)
32698	Rosedown Plantation	7,535	1946	Dry & Plugged (1947)
233208	Tusc RB SUA; J&M Mckowen	17,300	2006	Dry & Plugged (2006)
19558	T. L. Miller Jr.	5,392	1936	Dry & Plugged (1936)
141582	Antione R. Langlois	12,500	1972	Dry & Plugged (1972)
166551	Whitney A. Langlois Et Al	16,536	1979	Dry & Plugged (1980)
222801	Whitney A. Langlois Et Al	7,500	1998	Dry & Plugged (1998)
214278	Daniel	4,920	1992	Dry & Plugged (1992)
173539	Cajun Electric Power Co-op	18,085	1981	Unable to Locate (2006)

Legend

- RBS Unit 3 Site
- 5 mi (8 km) radius from the Site
- P&A Oil Producer
- P&A Producer
- Directional - Surface Loc
- Permit Expired
- P&A Dry Hole
- Unable to Locate

Modified from : Louisiana Department of Natural Resources (2006)

Entergy Operations (2006), Figure 2.5-18

Figure 2.5.1-244. Location of Oil and Gas Wells in Site Vicinity