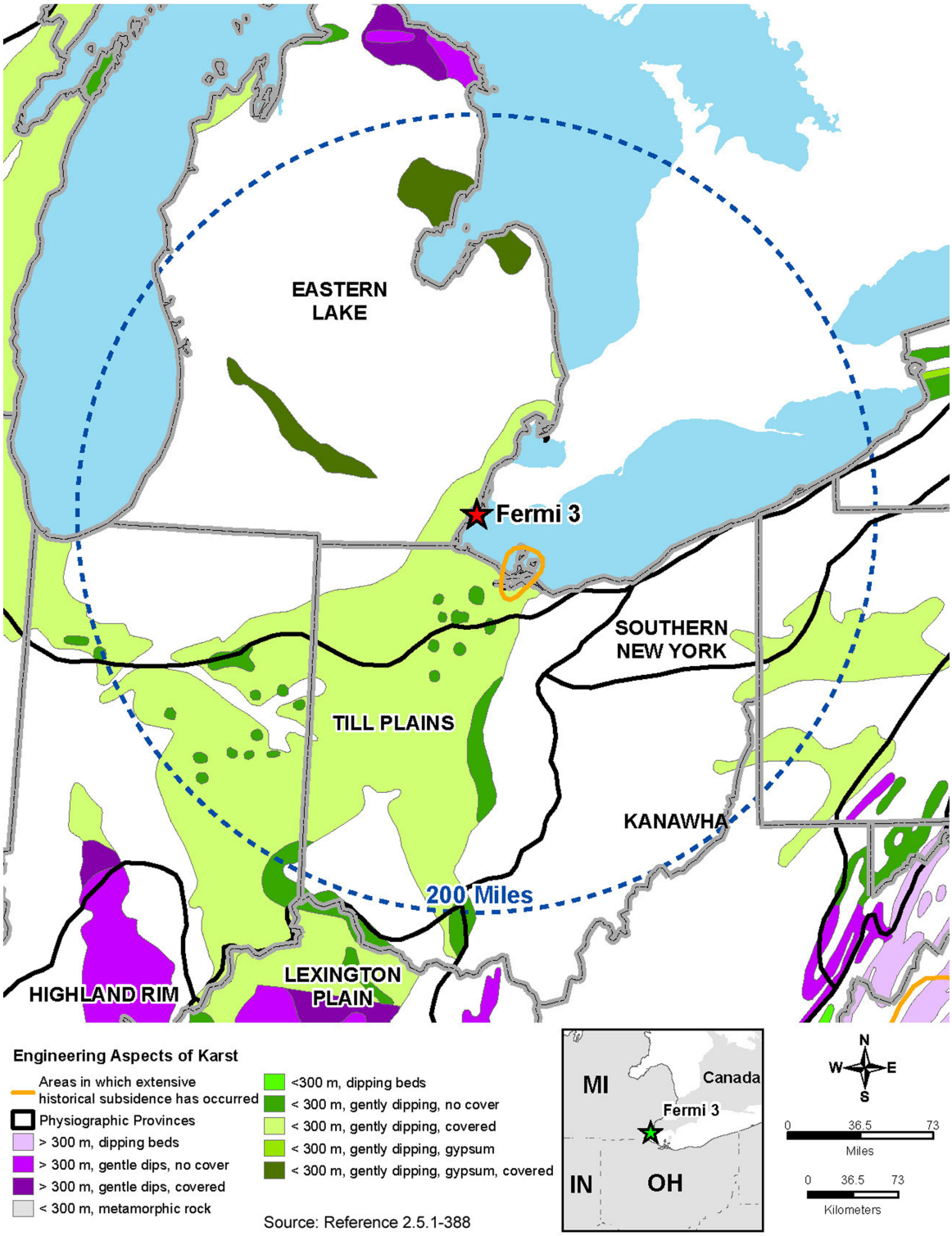
Figure 2.5.1-228 Engineering Aspects of Karst Map for the Fermi 3 Site Region
[EF3 COL 2.0-26-A]



Source: Reference 2.5.1-388

Figure 2.5.1-229 Topography of the Fermi 3 Site Location [EF3 COL 2.0-26-A]

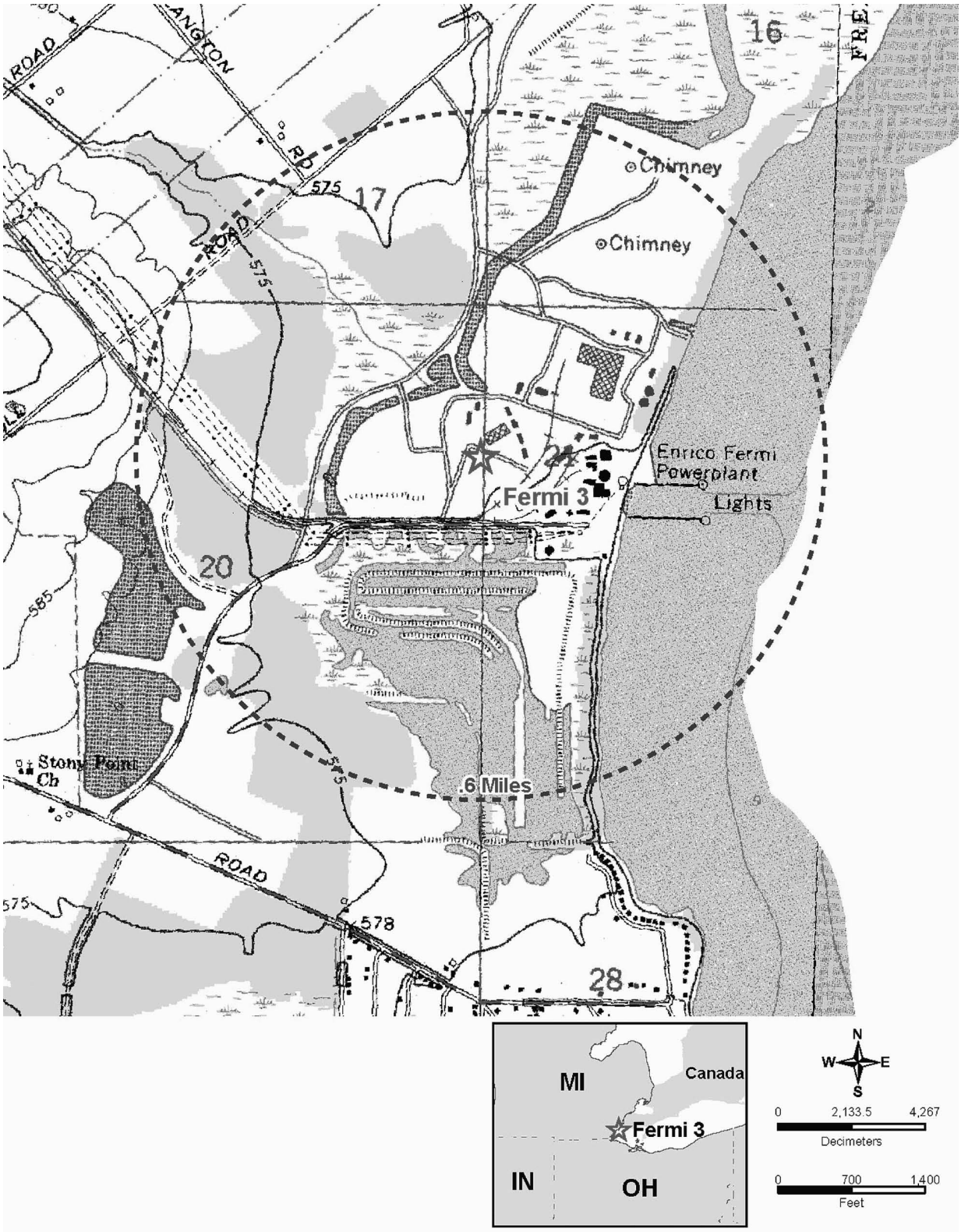
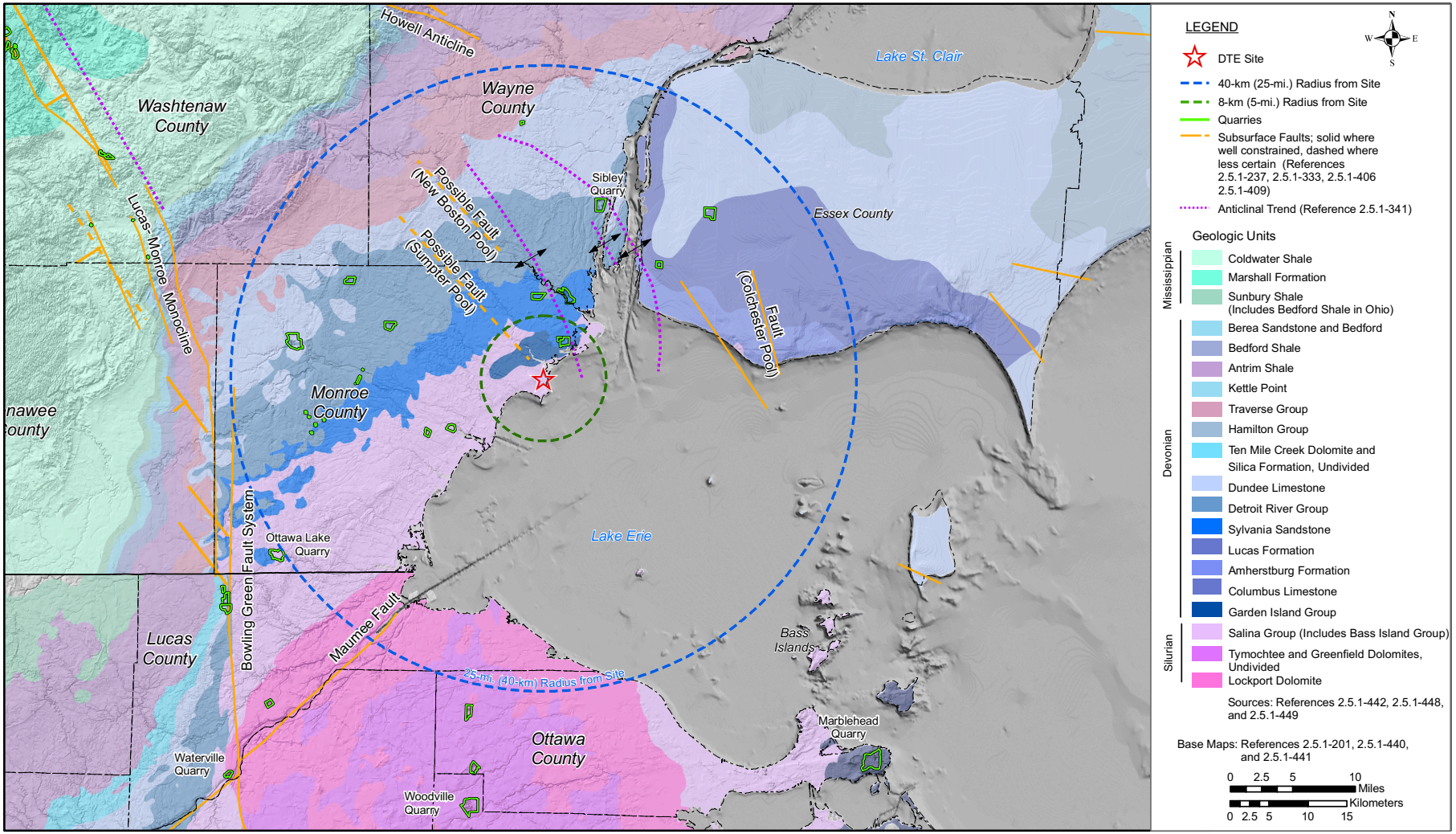


Figure 2.5.1-230 Geologic Map of the Fermi 3 Site Vicinity

[EF3 COL 2.0-26-A]



File path: S:\13300\13356\figures\2.5.1_figures\DTE_FSAR_FIG02_05_01_230.mxd; Date: [07/03/2008]

Figure 2.5.1-231 Geologic Map Showing Quaternary Features of the Fermi 3 Site Vicinity [EF3 COL 2.0-26-A]

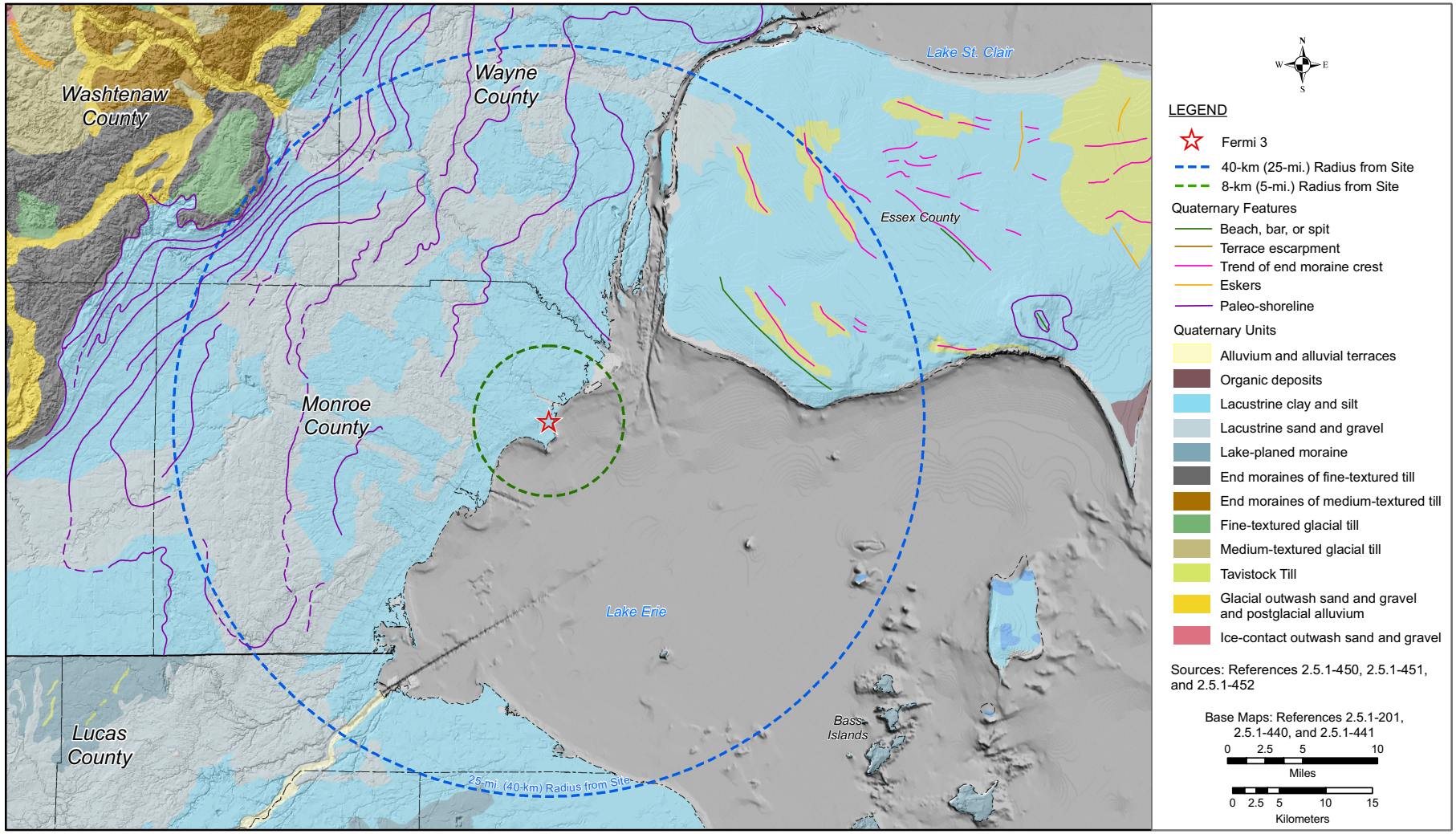
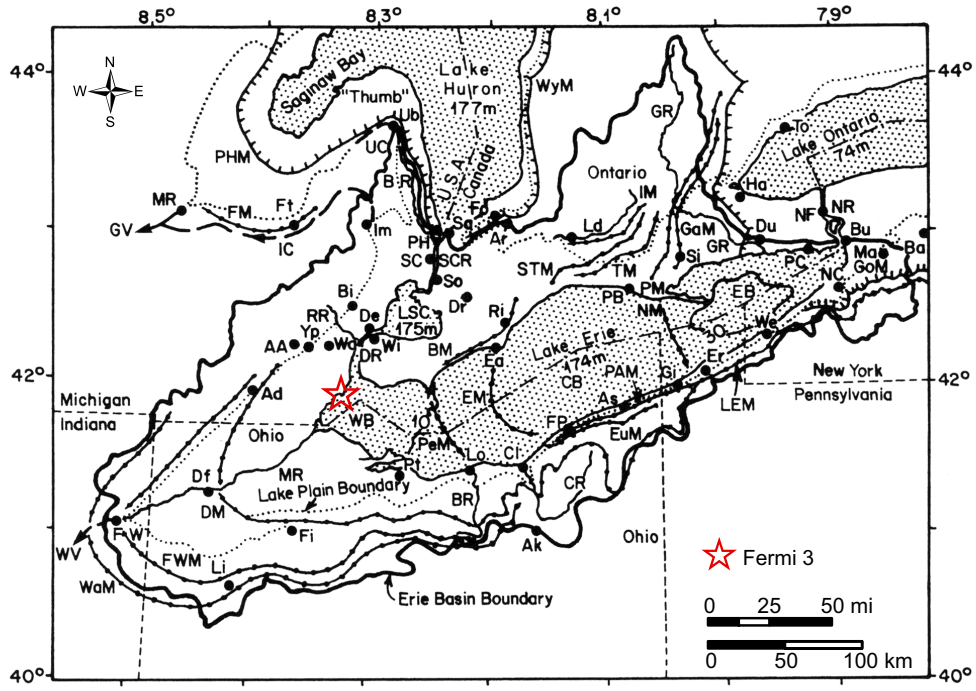


Figure 2.5.1-232 Map Showing Quaternary Features of the Erie Basin [EF3 COL 2.0-26-A]



LEGEND

Towns ●

AA — Ann Arbor
Ad — Adrian
Ar — Arkona
As — Ashtabula
Ba — Batavia
Bi — Birmingham
Bu — Buffalo
Cl — Cleveland
De — Detroit
Df — Defiance
Dr — Dresden
Du — Dunnville
Ea — Erieau
Er — Erie
Fi — Findlay
Fl — Flint
Fo — Forest
FP — Fairport-Painesville
FW — Fort Wayne
Gi — Girard
Ha — Hamilton
Im — Imlay
Ld — London
Li — Lima
Lo — Lorain
Ma — Marilla
MR — Maple Rapids
NC — North Collins
NF — Niagara Falls
PB — Port Burwell
PC — Port Colborne
PH — Port Huron
Pt — Parkertown
Ri — Ridgetown
Sa — Sarnia
SC — St. Clair
Si — Simcoe
So — Sombra
To — Toronto
Ub — Ubly
Wa — Wayne
We — Westfield
Wi — Windsor
Yp — Ypsilanti

LSC — Lake St. Clair

Lake Erie:
CB — Central Basin
EB — Eastern Basin
WB — Western Basin
30 — Depth contour in meters

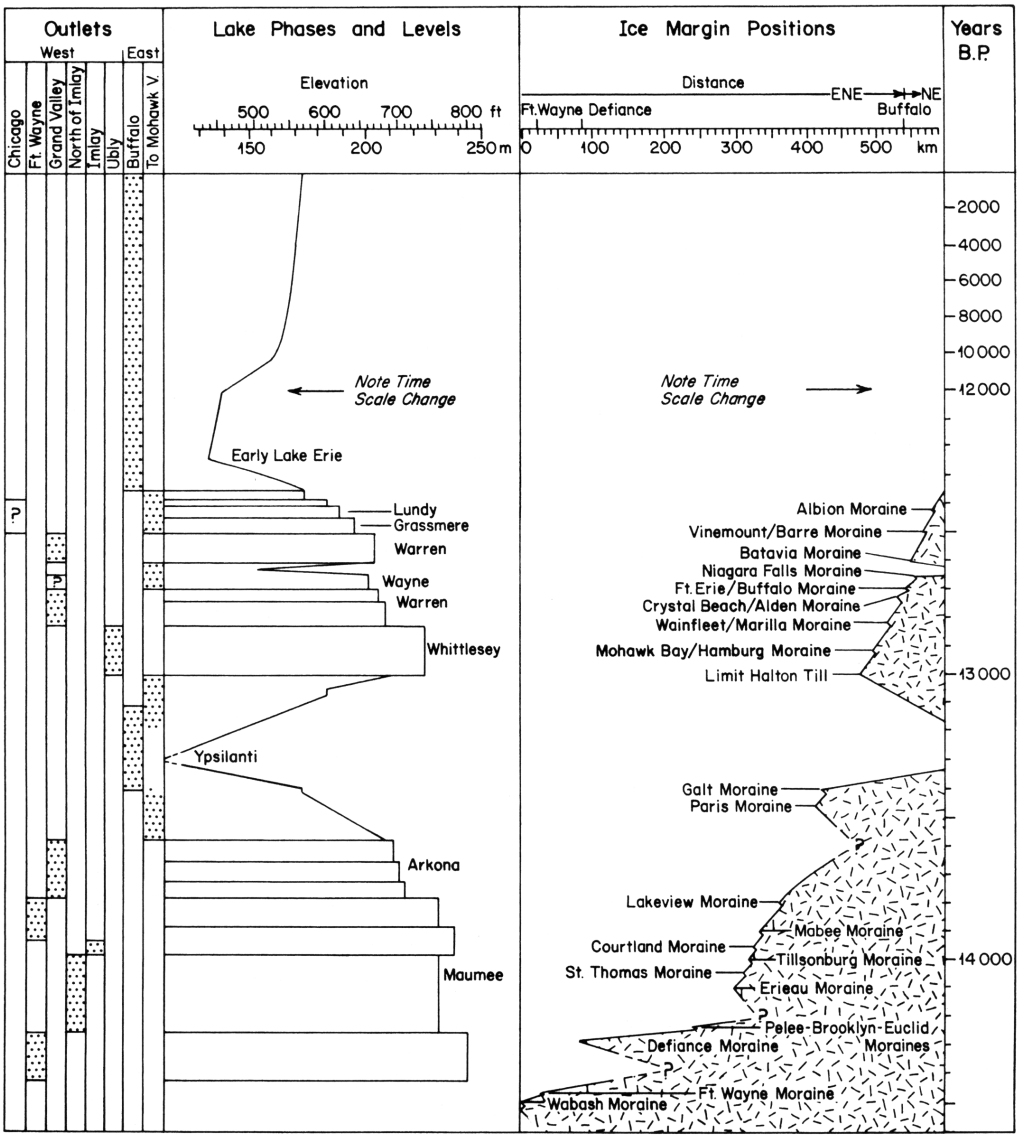
BR — Black River
CR — Cuyahoga River
DR — Detroit River
GR — Grand River
MR — Maumee River
NR — Niagara River
RR — River Rouge
SCR — St. Clair River

— Former Outlet
GV — Grand Valley
IC — Imlay Channel
UC — Ubly Channel
WV — Wabash Valley

Ice Margin Positions:
— Port Bruce Stadial
BM — Blenheim Moraine
DM — Defiance Moraine
EM — Erieau Moraine
EuM — Euclid Moraine
FM — Flint Moraine
FWM — Fort Wayne Moraine
GaM — Galt Moraine
IM — Ingersoll Moraine
LEM — Lake Escarpment Moraine
NM — Norfolk Moraine
PAM — Painesville & Ashtabula M.
PeM — Pelee Moraine
PM — Paris Moraine
STM — St. Thomas Moraine
TM — Tillsonburg Moraine
WaM — Wabash Moraine
— Port Huron Stadial
GoM — Gowanda Moraine
PHM — Port Huron Moraine
WyM — Wyoming Moraine

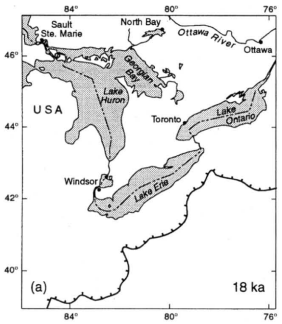
Source: Reference 2.5.1-297

Figure 2.5.1-233 Chart Showing the Lake Phases and Levels and Ice Margin Positions for the Quaternary [EF3 COL 2.0-26-A]

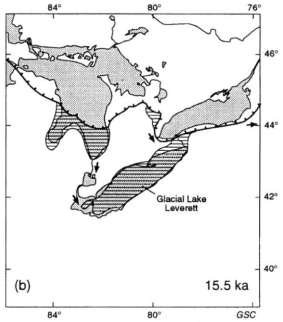


Source: Reference 2.5.1-297

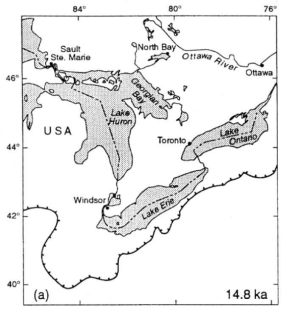
Figure 2.5.1-234 Maps Showing Late Wisconsinan Ice Margins and Proglacial Lake Shorelines (~18 ka to 5ka) [EF3 COL 2.0-26-A]



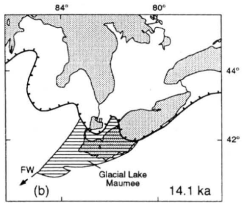
a) Ice margin at the 18,000 BP (Nissouri Stade) maximum position; no lakes are impounded as the margin lies south of the Great Lakes-Gulf of Mexico drainage.



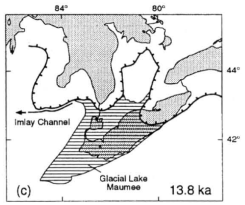
b) Maximum extent of lakes inferred for the Erie Interstade ice position.



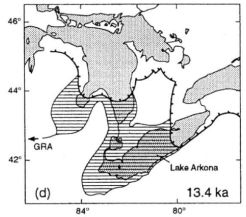
c) Port Bruce ice margin maximum at 14,800 BP drains without impoundments to Gulf of Mexico.



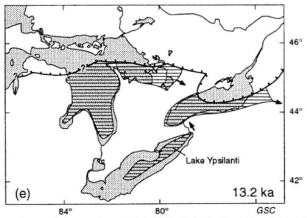
d) Highest Lake Maumee about 14,100 BP, drainage past Fort Wayne (FW) to Mississippi River.



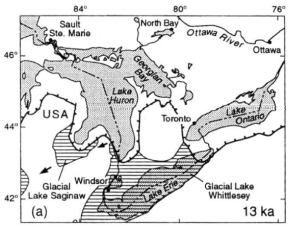
e) Final phase of Lake Maumee about 13,800 BP, drainage to the Michigan basin and Mississippi River via the Imlay channel south of Saginaw Bay.



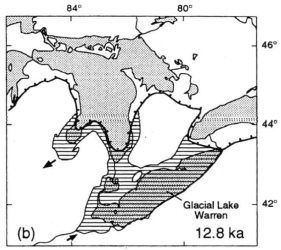
f) Early Lake Arkona about 13,400 BP impounded in the Huron and Erie basins, drainage to the Michigan basin via the Grand River Valley (GRA).



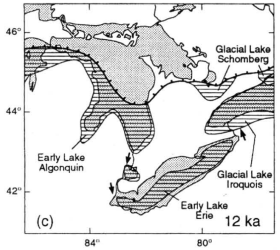
g) Low-level lakes about 13,200 BP during the Mackinaw Interstade.



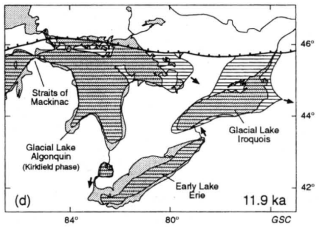
h) Glacial lakes Whittlesey and Saginaw about 13,000 BP draining to the Michigan basin.



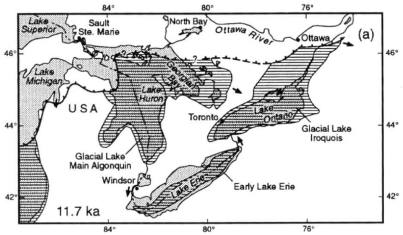
i) Highest Lake Warren about 12,800 BP, drainage to the Michigan basin.



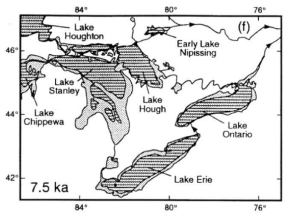
j) Early Lake Algonquin and Lake Schomberg about 12,000 BP.



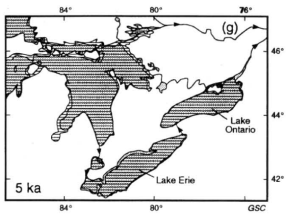
k) Early Kirkfield phase of Lake Algonquin about 11,900 BP.



l) Kirkfield phase of Lake Algonquin in the Huron basin during the Greatlakean Stade about 11,800 BP.



m) Post-Mattawa low or onset of the Nipissing transgression about 7,500 BP.



n) Nipissing Great Lakes about 5,000 BP.

Source: Reference 2.5.1-272

Figure 2.5.1-235 Site Exploration Plan [EF3 COL 2.0-26-A]

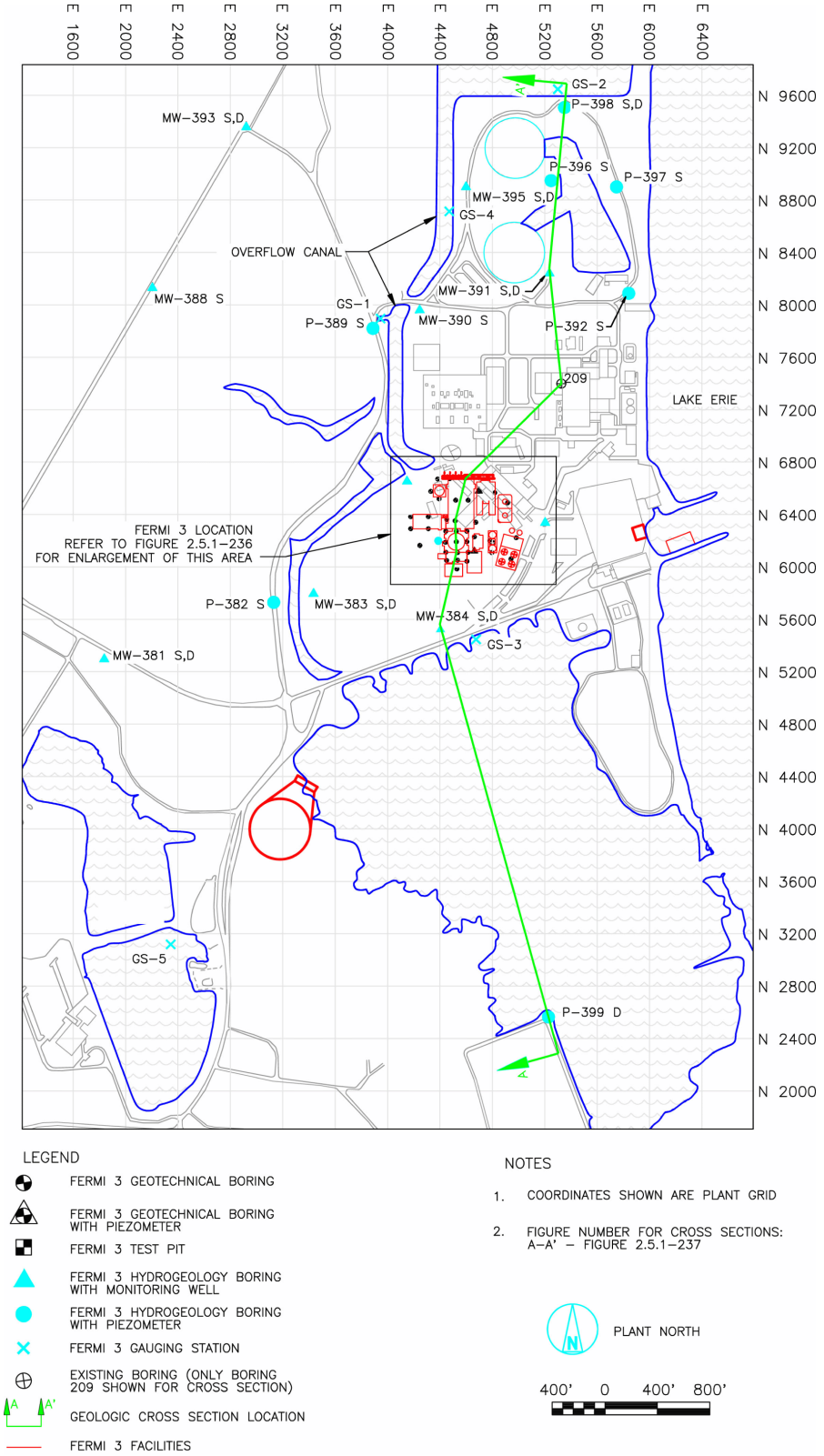


Figure 2.5.1-236 Enlargement of Site Exploration Plan [EF3 COL 2.0-26-A]

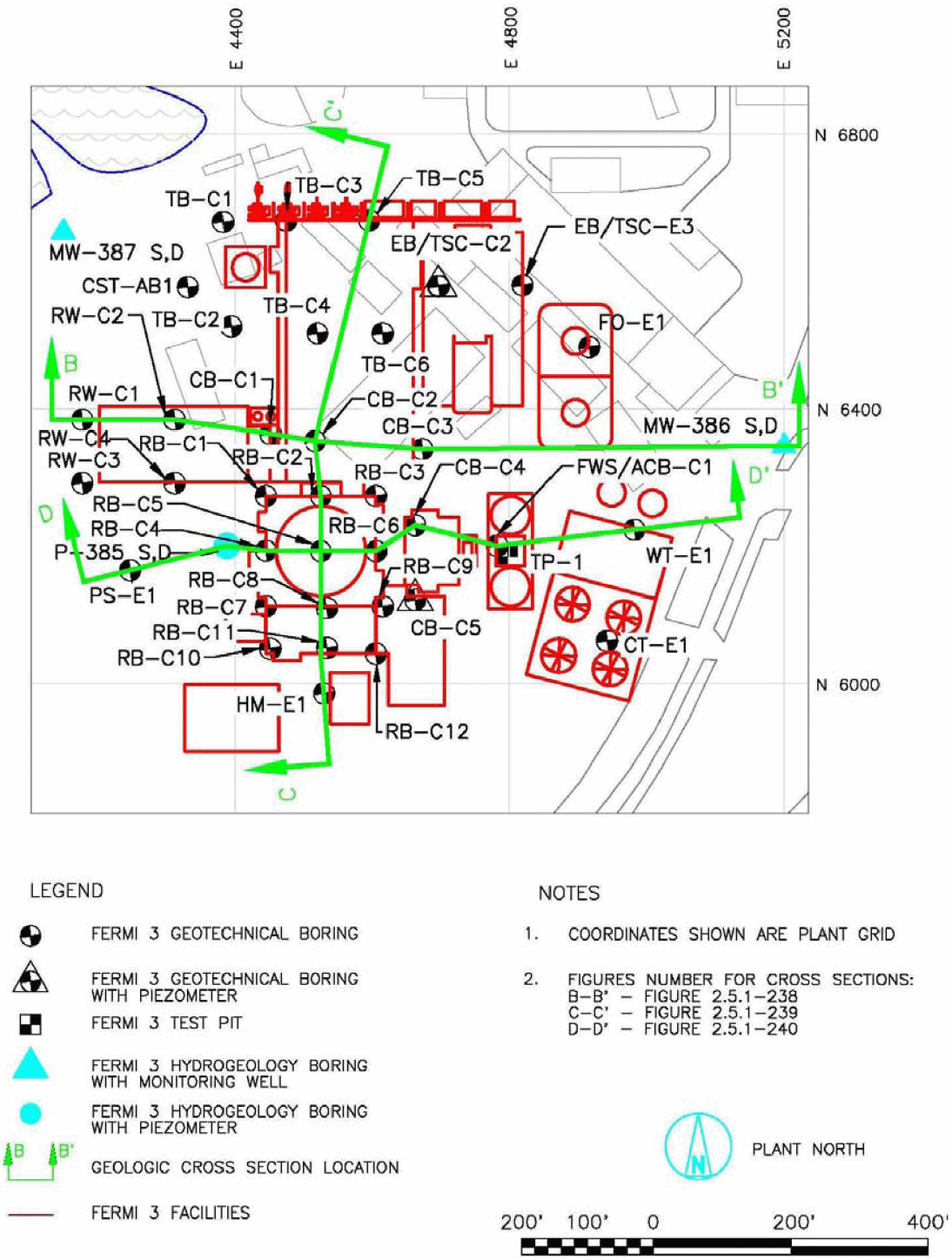


Figure 2.5.1-237 Geologic Cross Section A-A

[EF3 COL 2.0-26-A]'

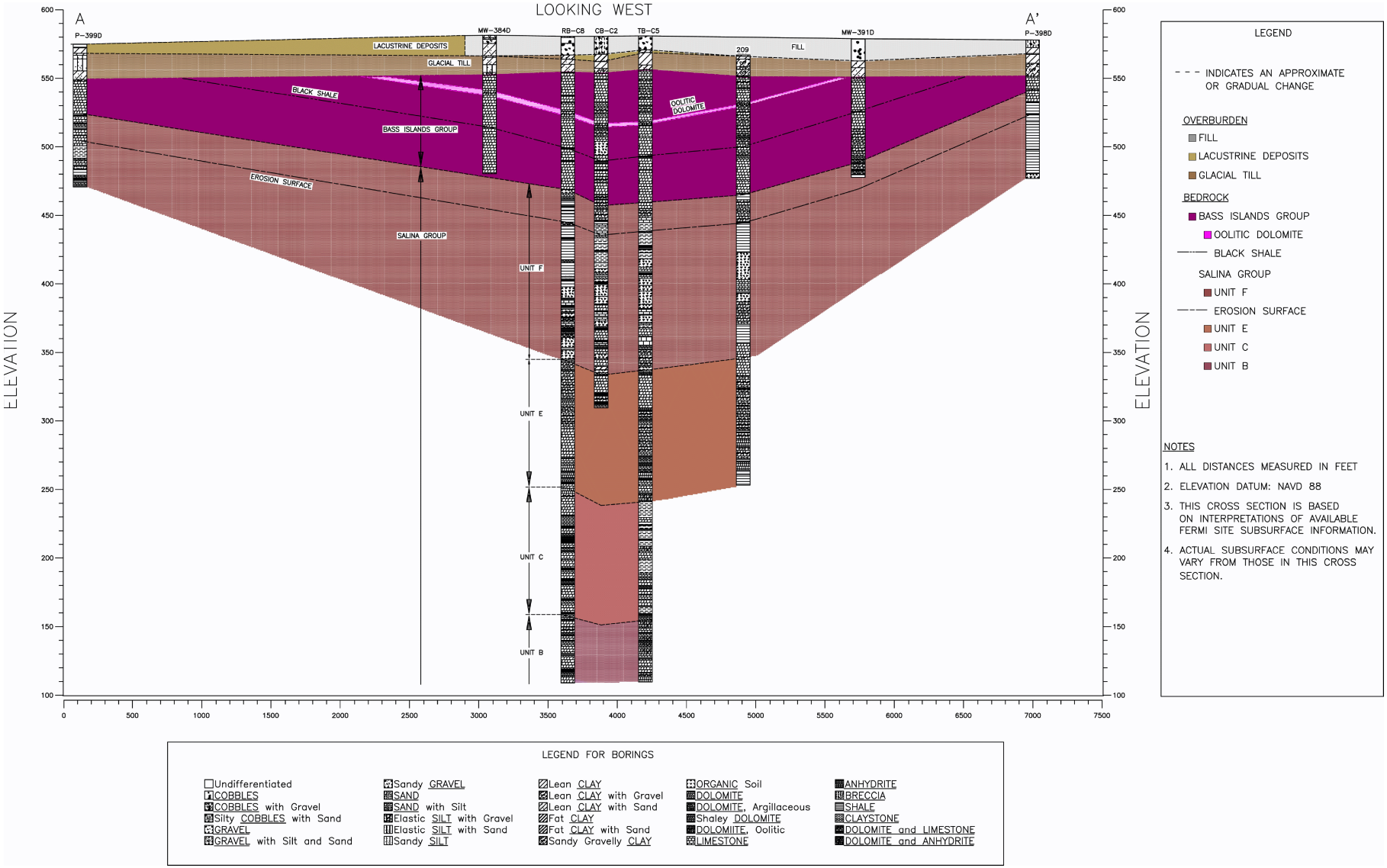


Figure 2.5.1-238 Geologic Cross Section B-B

[EF3 COL 2.0-26-A]'

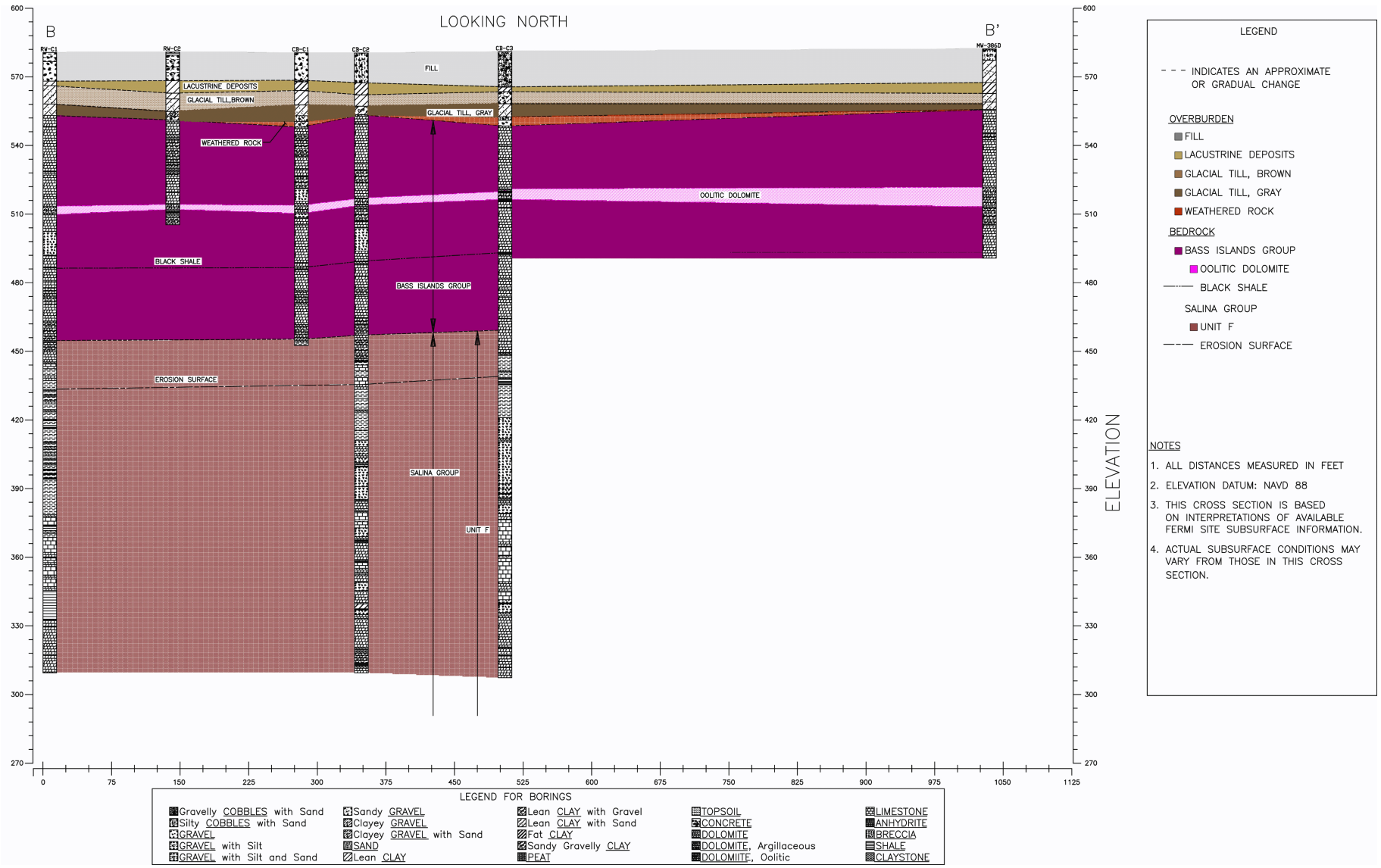


Figure 2.5.1-239 Geologic Cross Section C-C

[EF3 COL 2.0-26-A]'

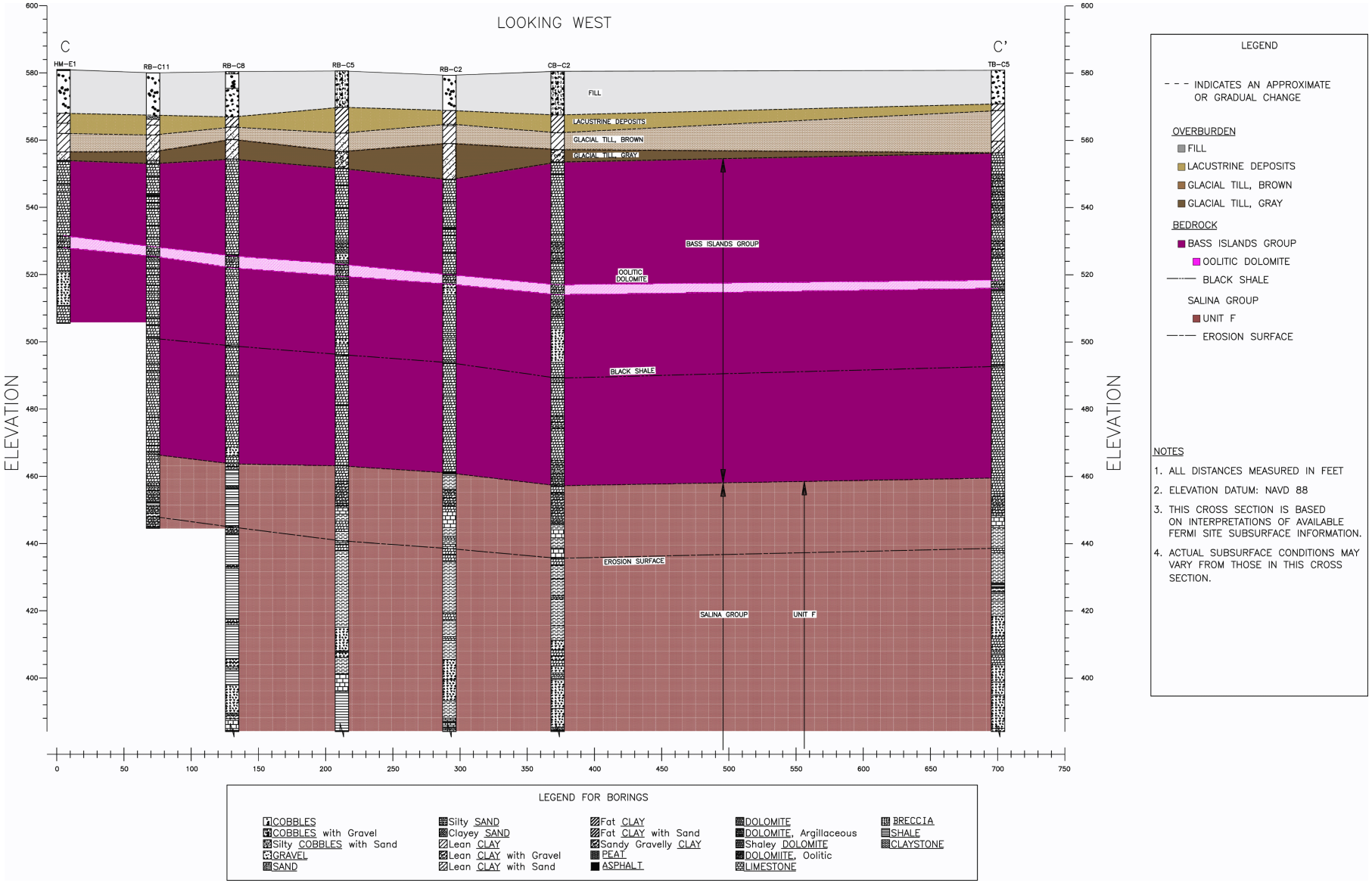


Figure 2.5.1-240 Geologic Cross Section D-D

[EF3 COL 2.0-26-A]'

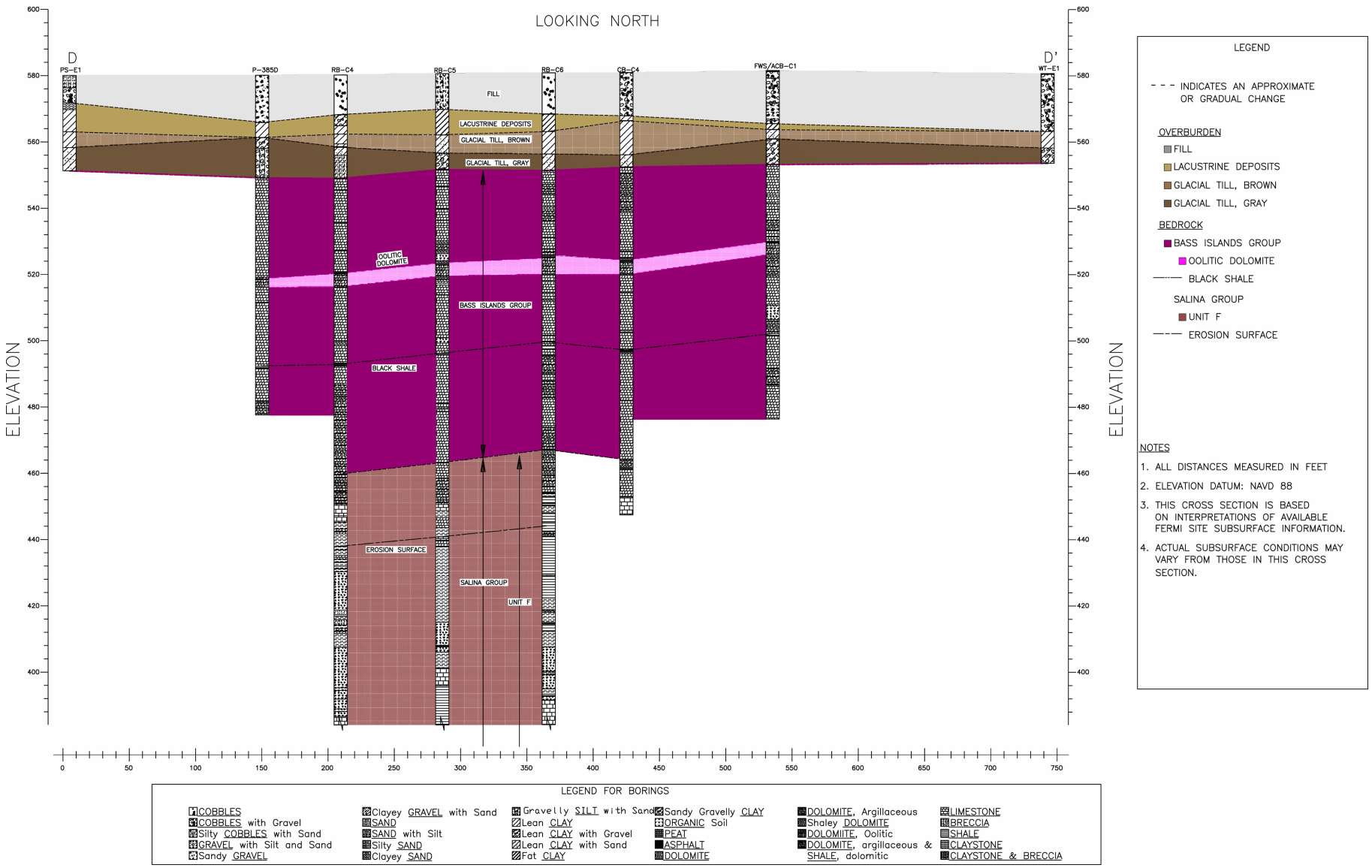


Figure 2.5.1-241 Geologic Map of the Fermi 3 Site Area

[EF3 COL 2.0-26-A]

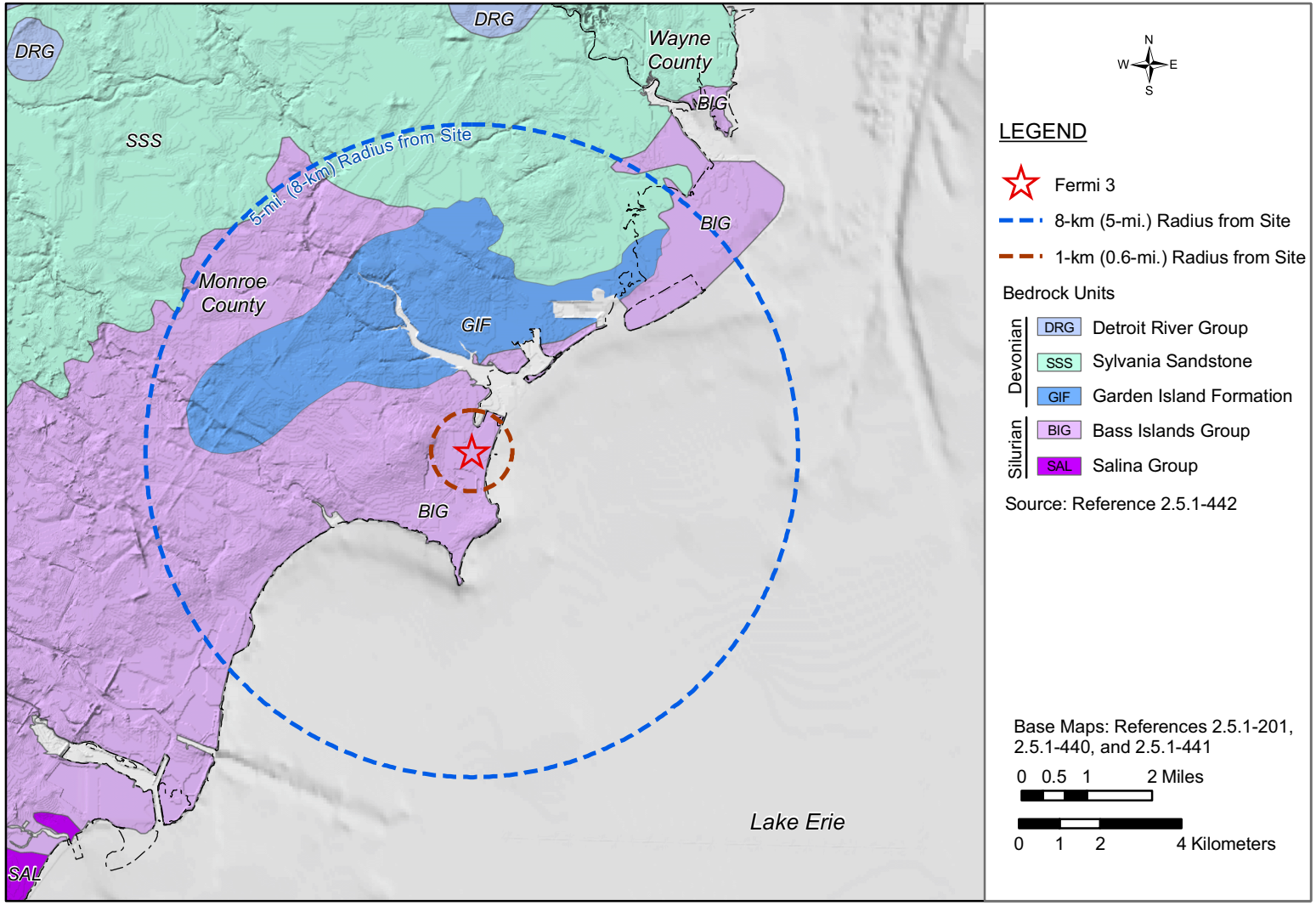


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Figure 2.5.1-242 Natural Gamma Log of Fermi 3 Boring RB-C8 [EF3 COL 2.0-26-A]

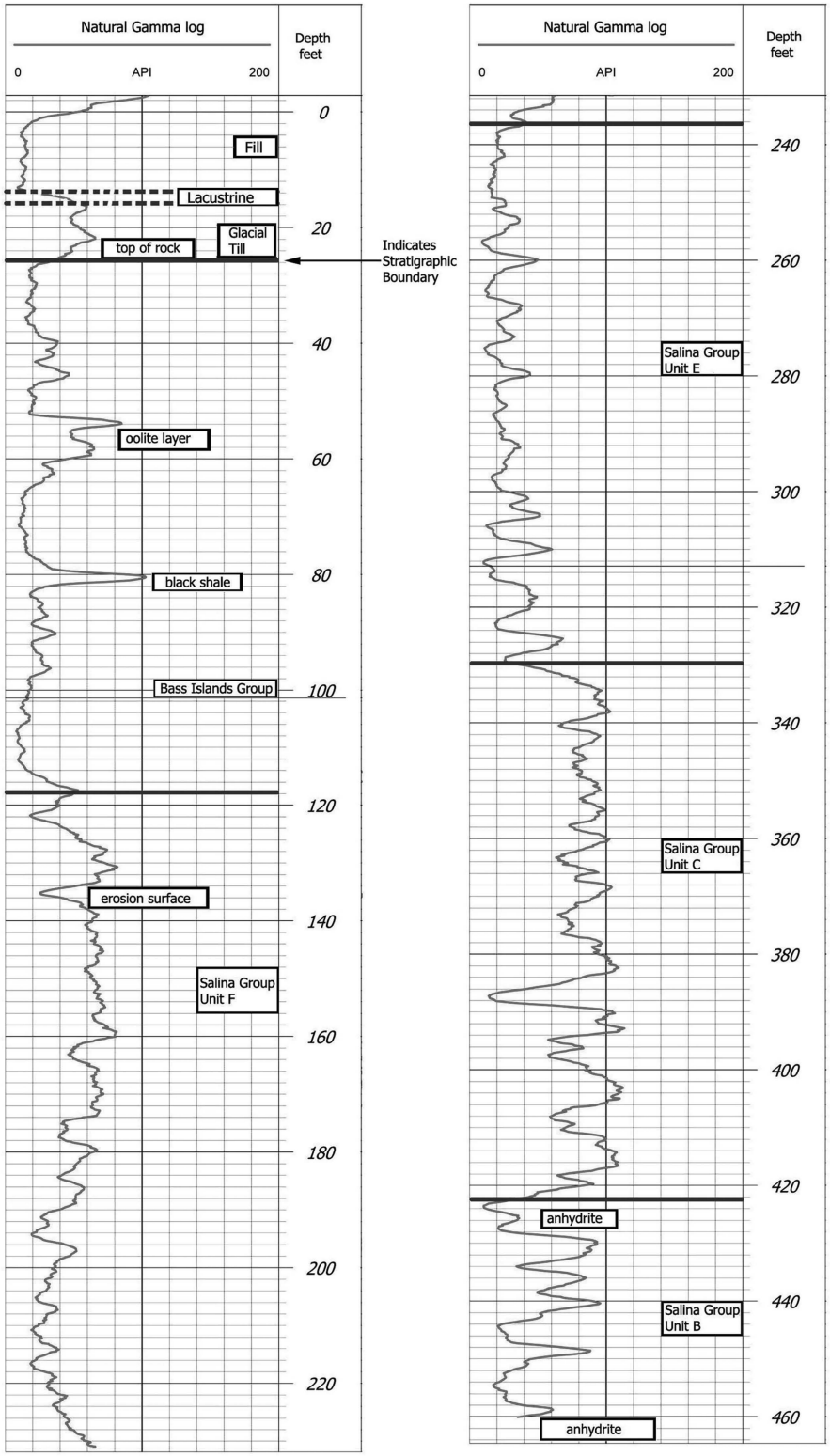
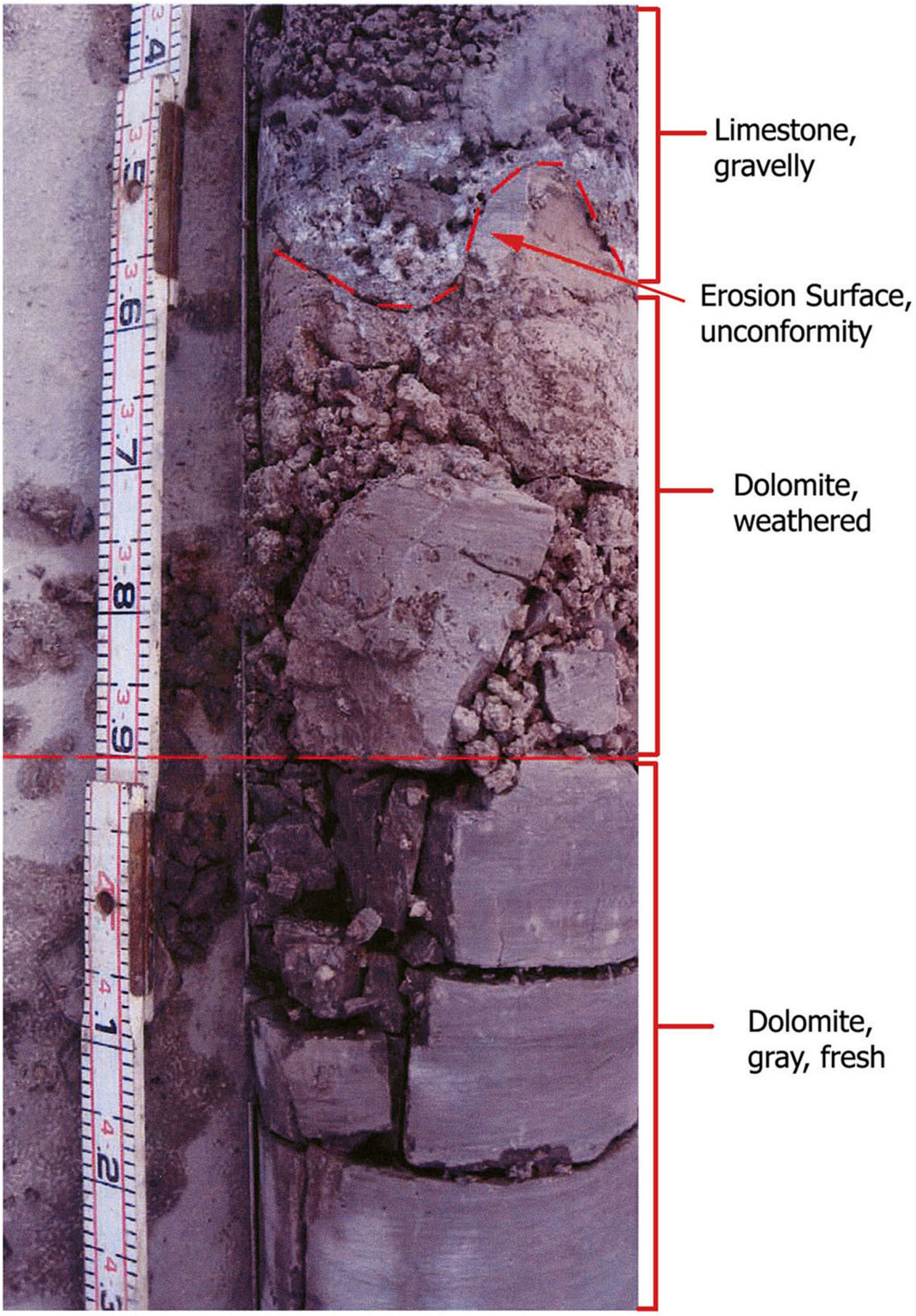


Figure 2.5.1-243 Photograph of Erosion Surface in Salina Unit F, Fermi 3 Boring CB-C2 [EF3 COL 2.0-26-A]



Depth 144.3′ - 145.25′

Figure 2.5.1-244 Quaternary Geologic Map of the Site Area

[EF3 COL 2.0-26-A]

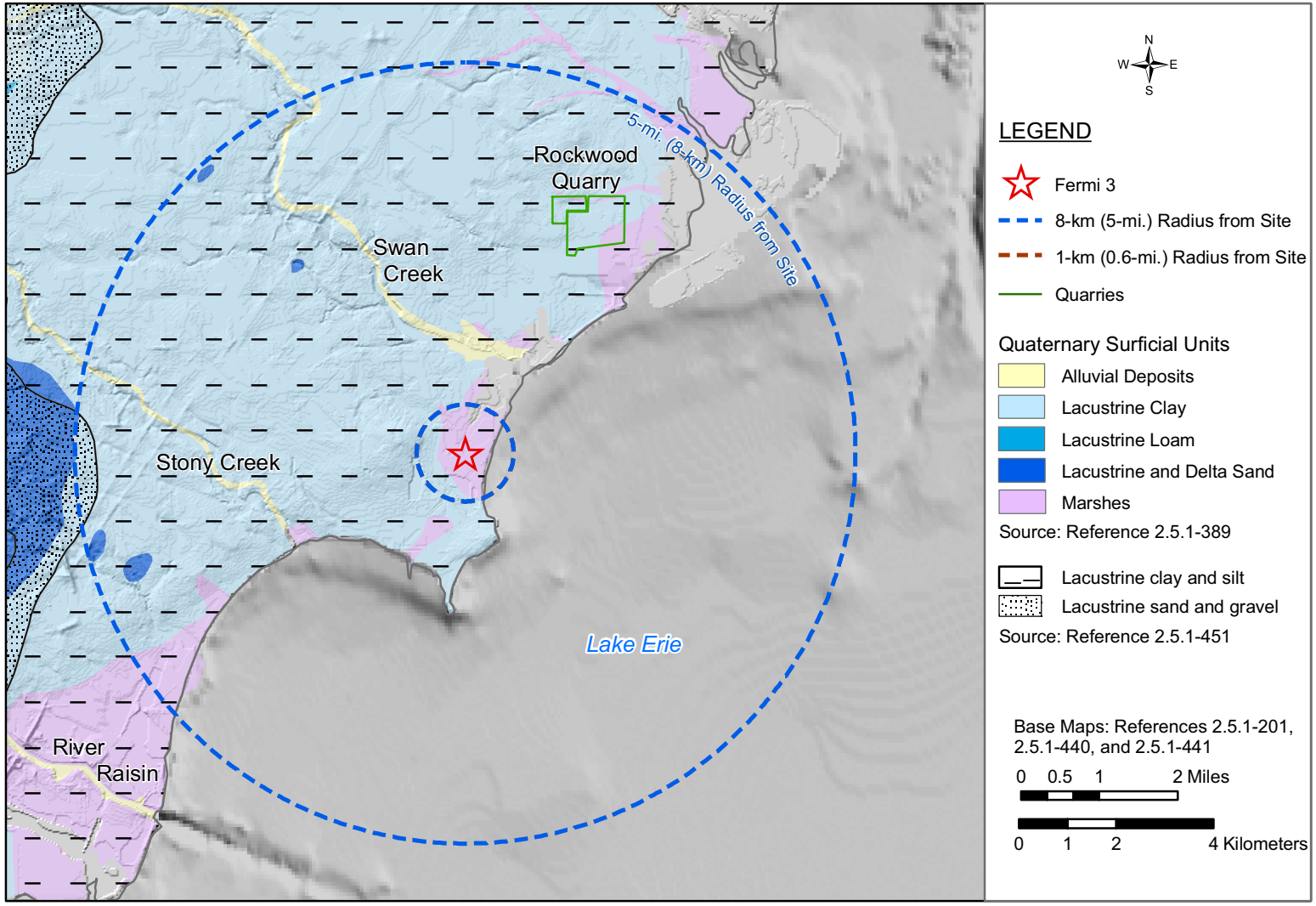


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Figure 2.5.1-245 Map Showing Soils of the Fermi 3 Site Location

[EF3 COL 2.0-26-A]

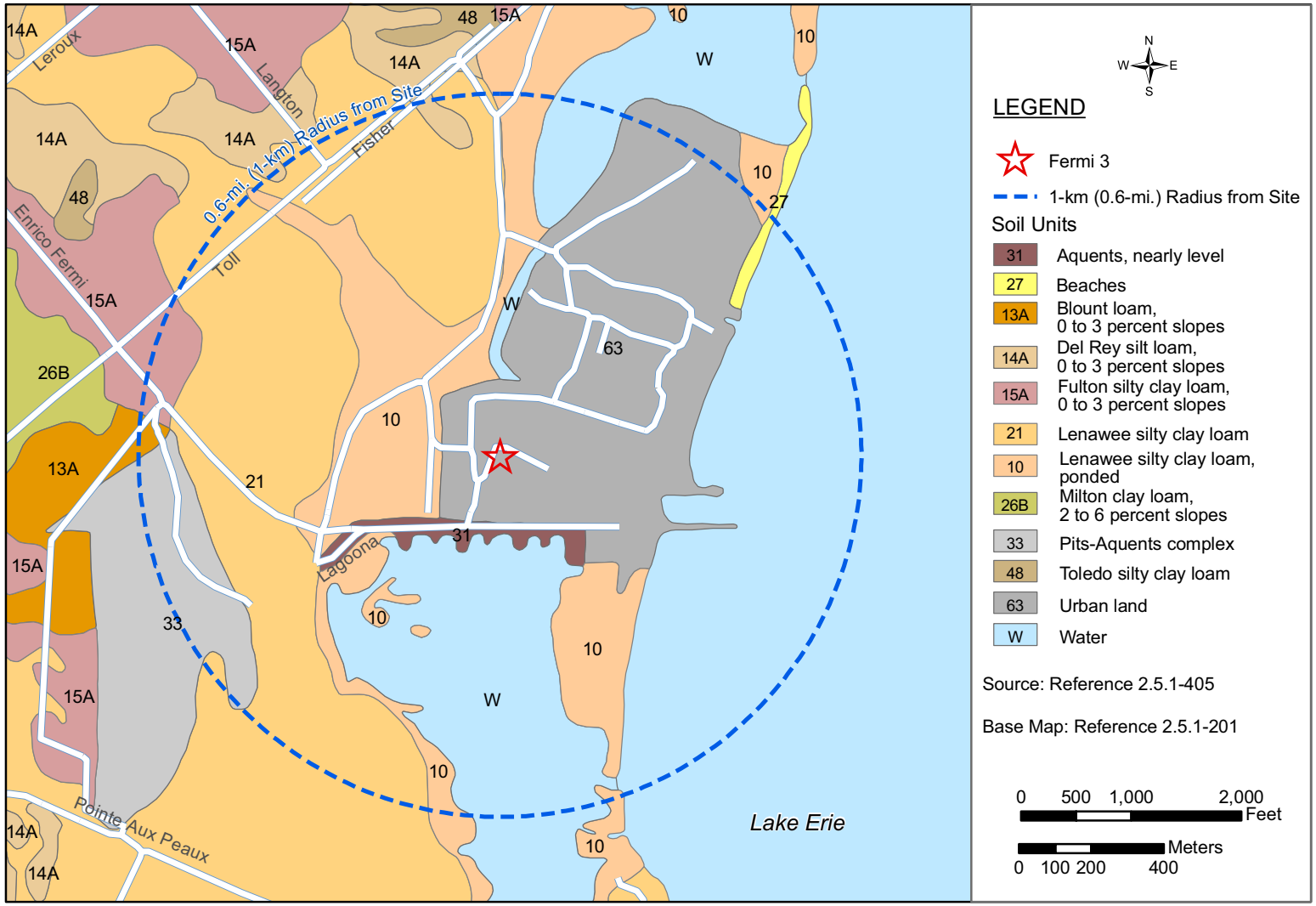

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Figure 2.5.1-246 Tectonic Structures in the Fermi 3 Site Vicinity

[EF3 COL 2.0-26-A]

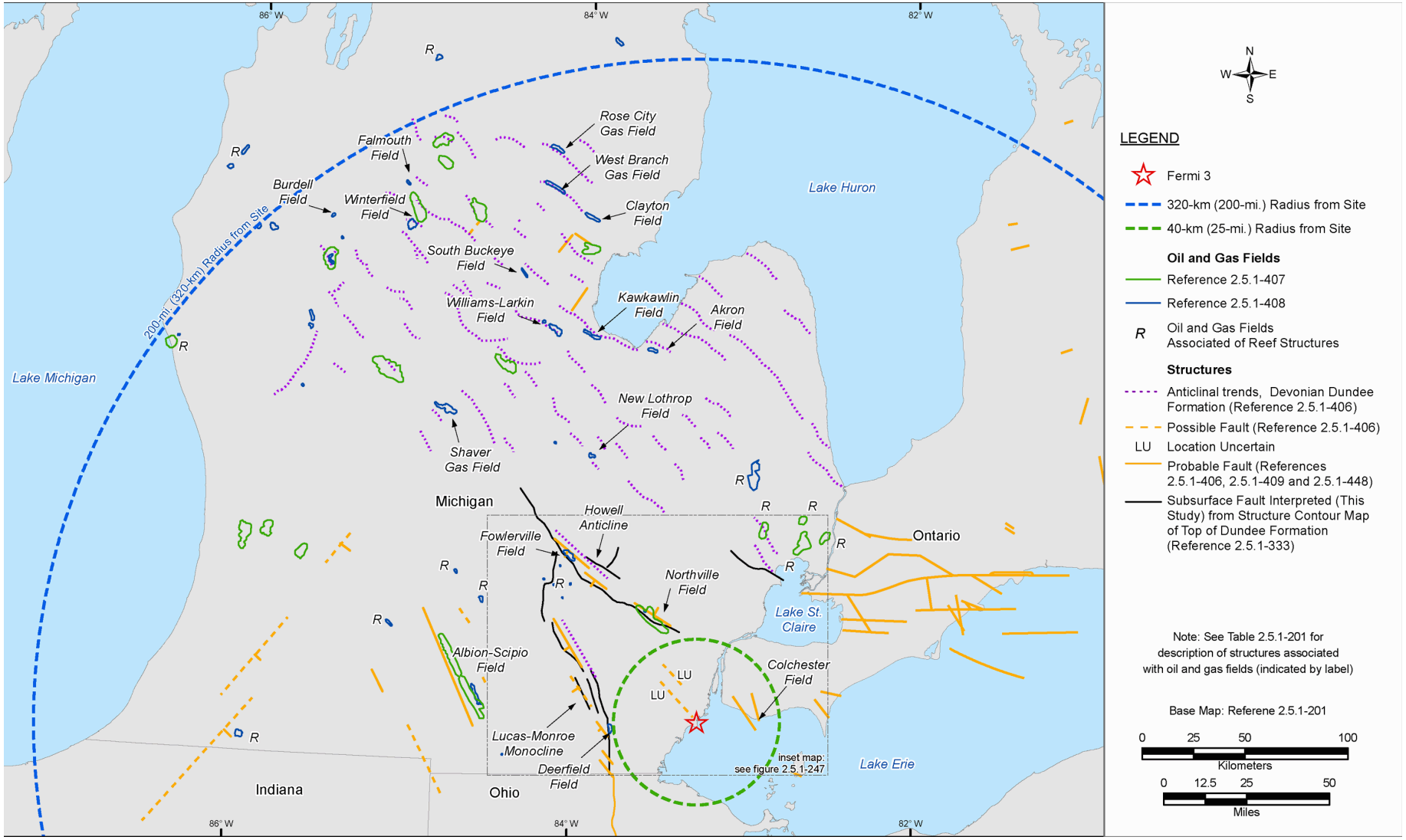


Figure 2.5.1-247 Structure Contour Maps from Monroe County, Michigan

[EF3 COL 2.0-26-A]

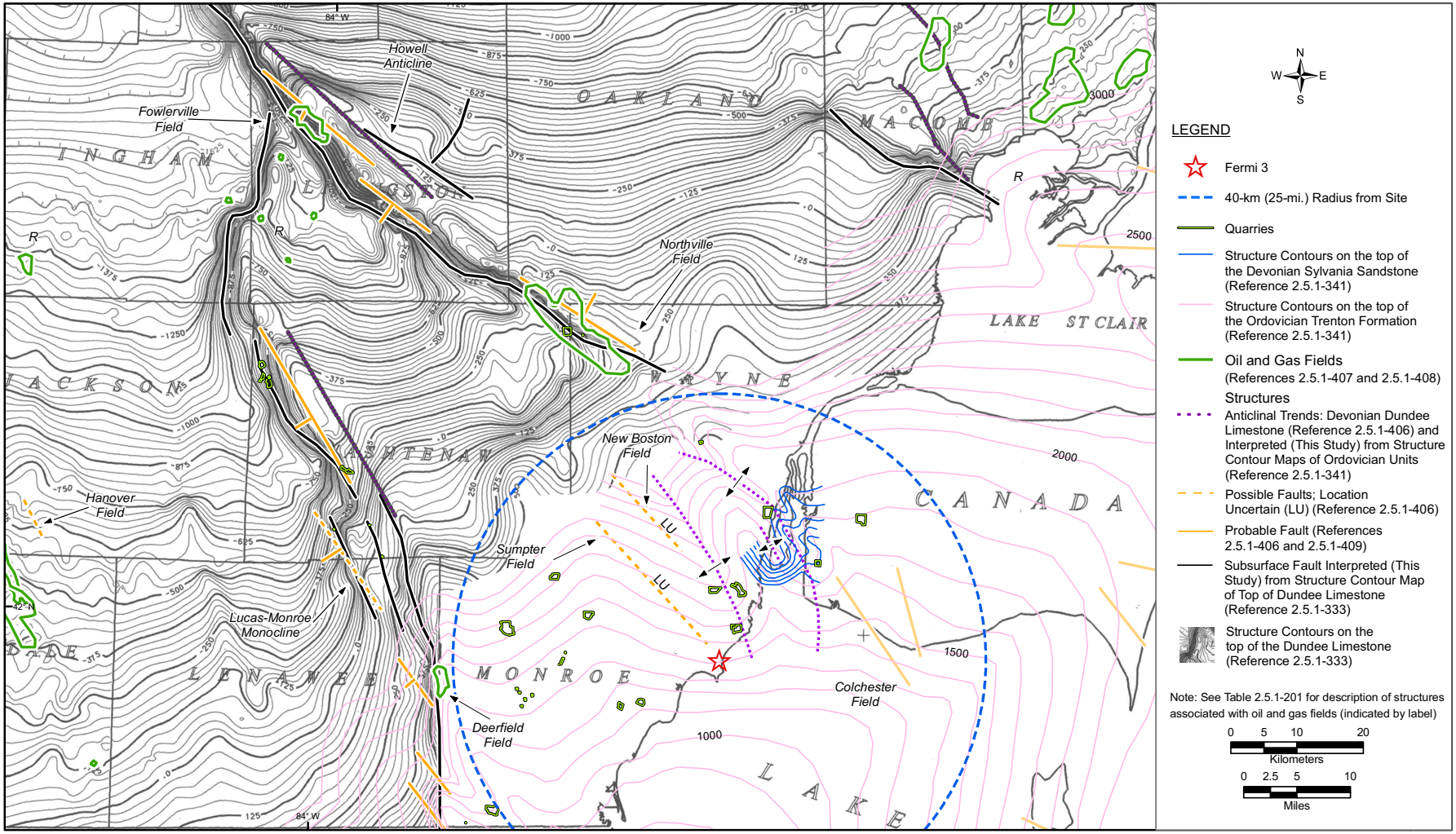
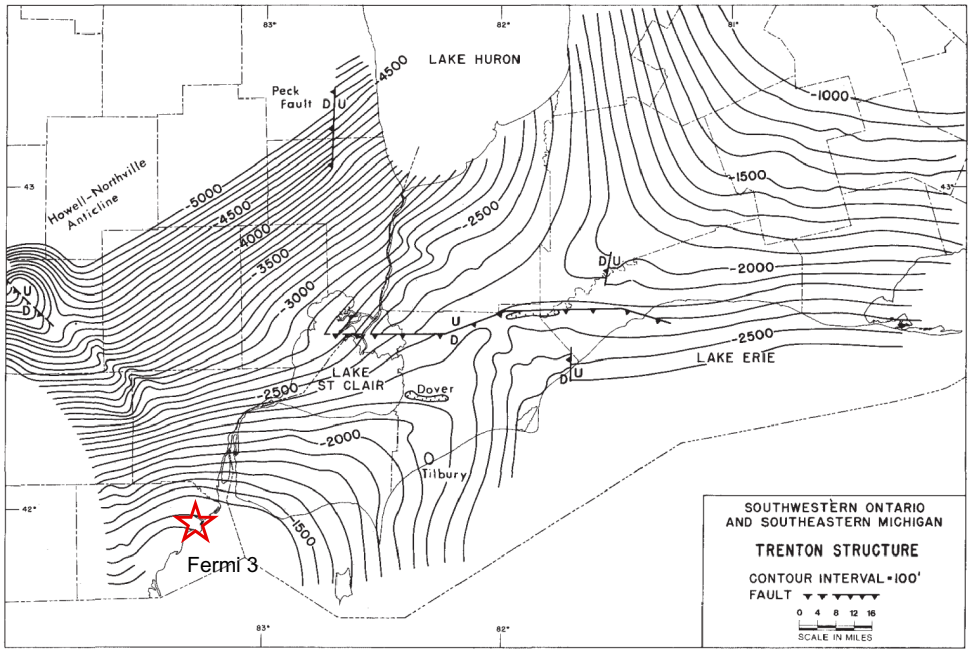
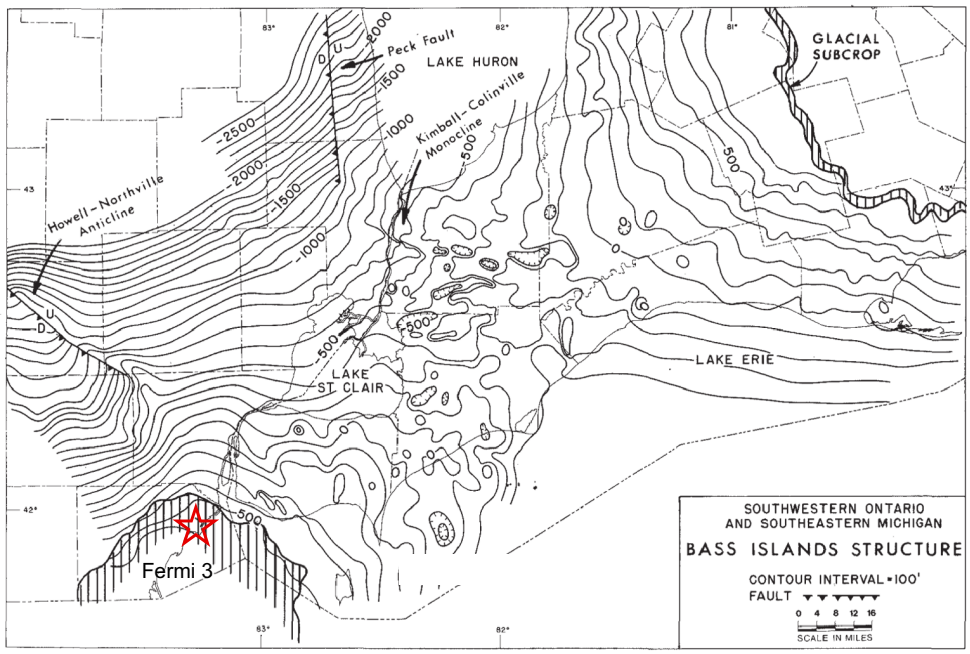


Figure 2.5.1-248 Structural Contour Maps on the Trenton Formation and Bass Islands Group [EF3 COL 2.0-26-A]



a. Structure contour on Ordovician Trenton Group



b. Structure contours on Silurian Bass Islands Formation

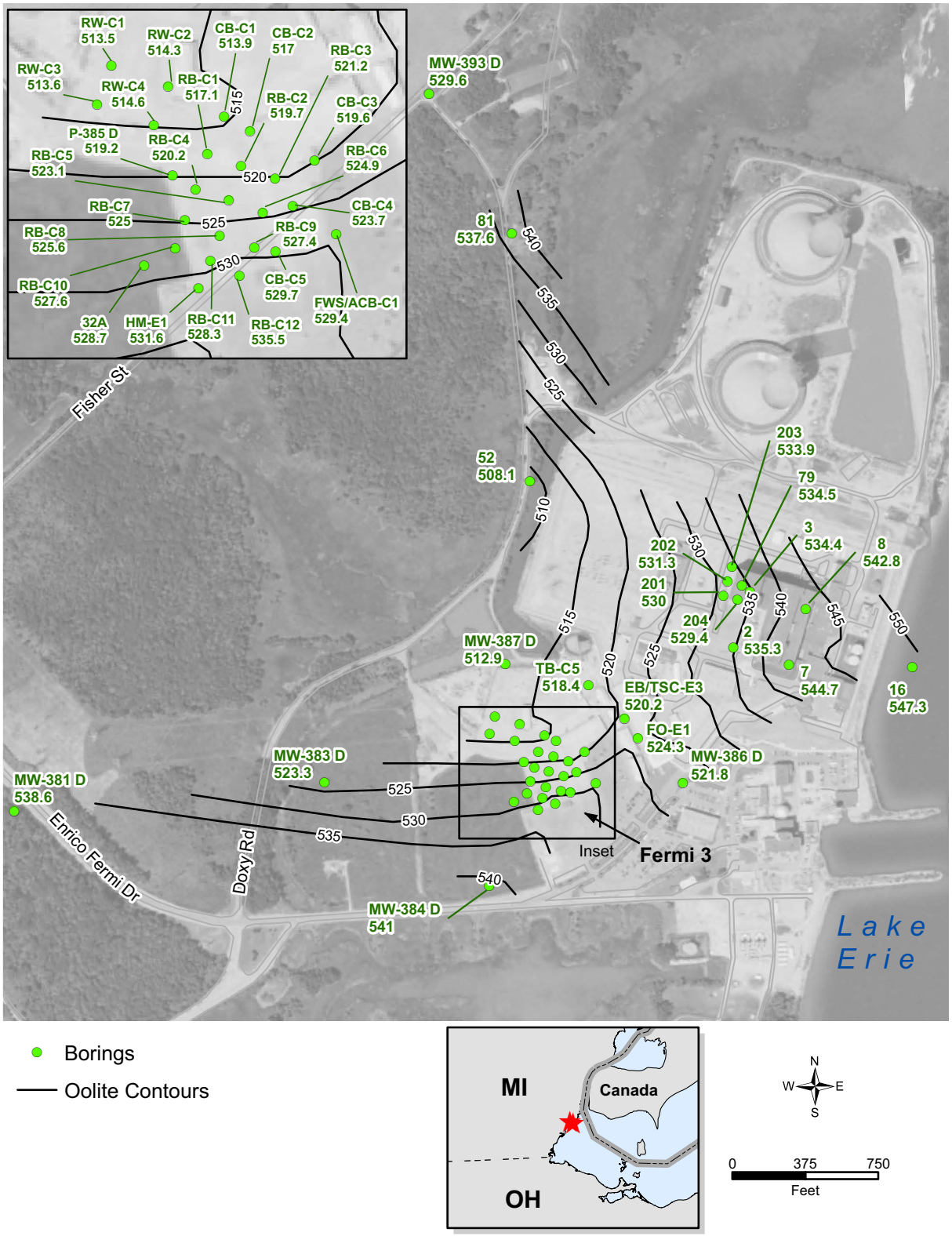



Figure 2.5.1-249 Structural Contour Map on the Top of the Bass Islands Group, Oolitic Dolomite Marker Horizon [EF3 COL 2.0-26-A]