Quaternary Deposits of Illinois

revised by
Ardith K. Hansel and W. Hilton Johnson

1996

Hudson and Wisconsin Episodes

Mason Group and Cahokia Fm

Cahokia and Henry Fms; sorted sediment including waterlain river sediment and windblown and beach sand

Equality Fm; fine grained sediment deposited in lakes

—5— Thickness of Peoria and Roxana Silts; silt deposited as loess (5-foot contour interval)

Wedron Group (Tiskilwa, Lemont, and Wadsworth Fms) and Trafalgar Fm; diamicton deposited as till and ice-marginal sediment

End moraine

Ground moraine

Illinois Episode

Winnebago Fm; diamicton deposited as till and ice-marginal sediment

Glasford Fm; diamicton deposited as till and ice-marginal sediment

Teneriffe Silt and Pearl Fm, including Hagarstown Mbr; sorted sediment including river and lake deposits and wind-blown sand

Pre-Illinois Episodes

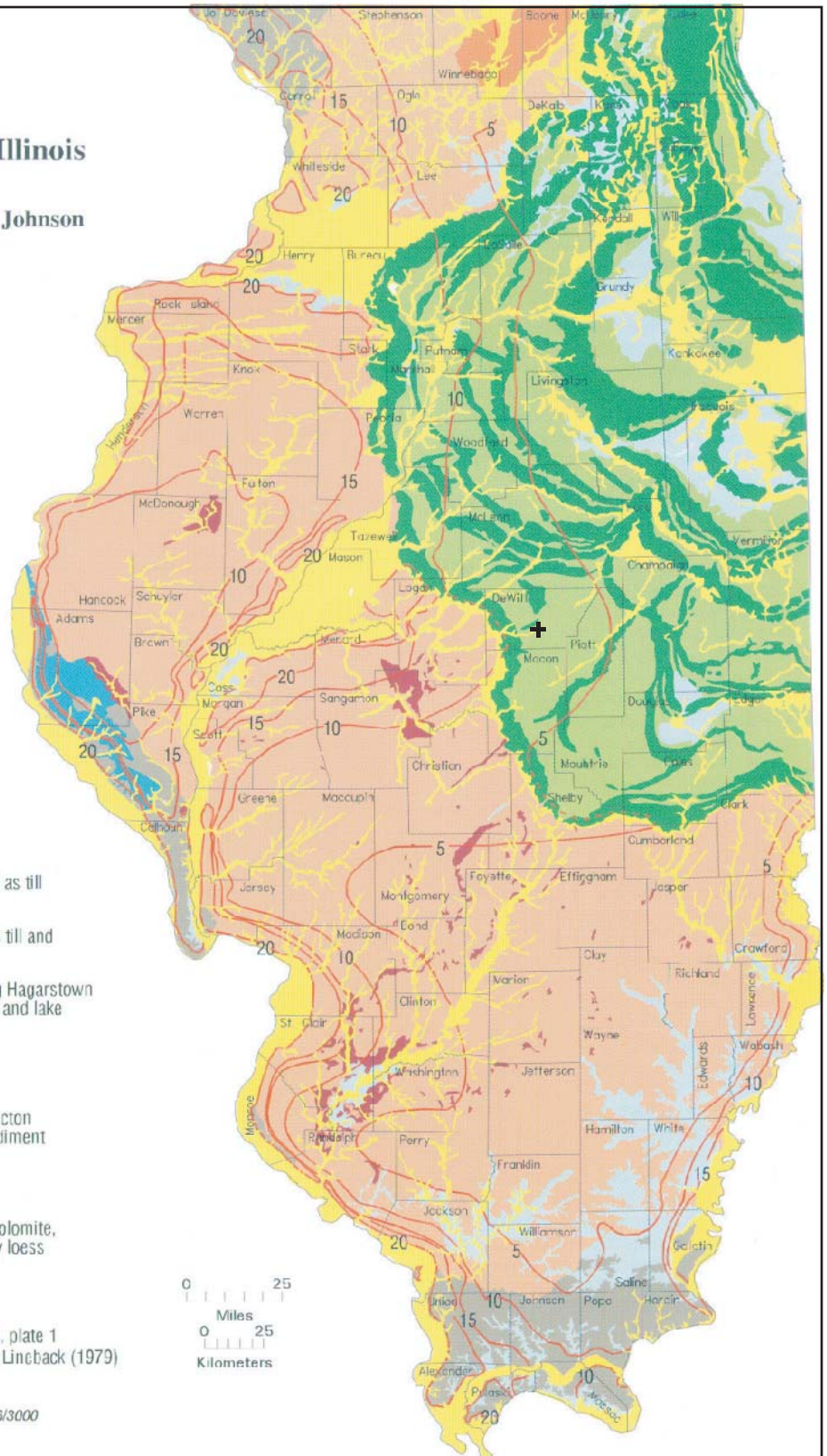Wolf Creek Fm; predominantly diamicton deposited as till and ice-marginal sediment

Paleozoic, Mesozoic, and Cenozoic

Mostly Paleozoic shale, limestone, dolomite, or sandstone; exposed or covered by loess and/or residuum

+ Site

Illinois State Geological Survey Bulletin 104, plate 1
Revised from Willman and Frye (1970) and Lineback (1979)
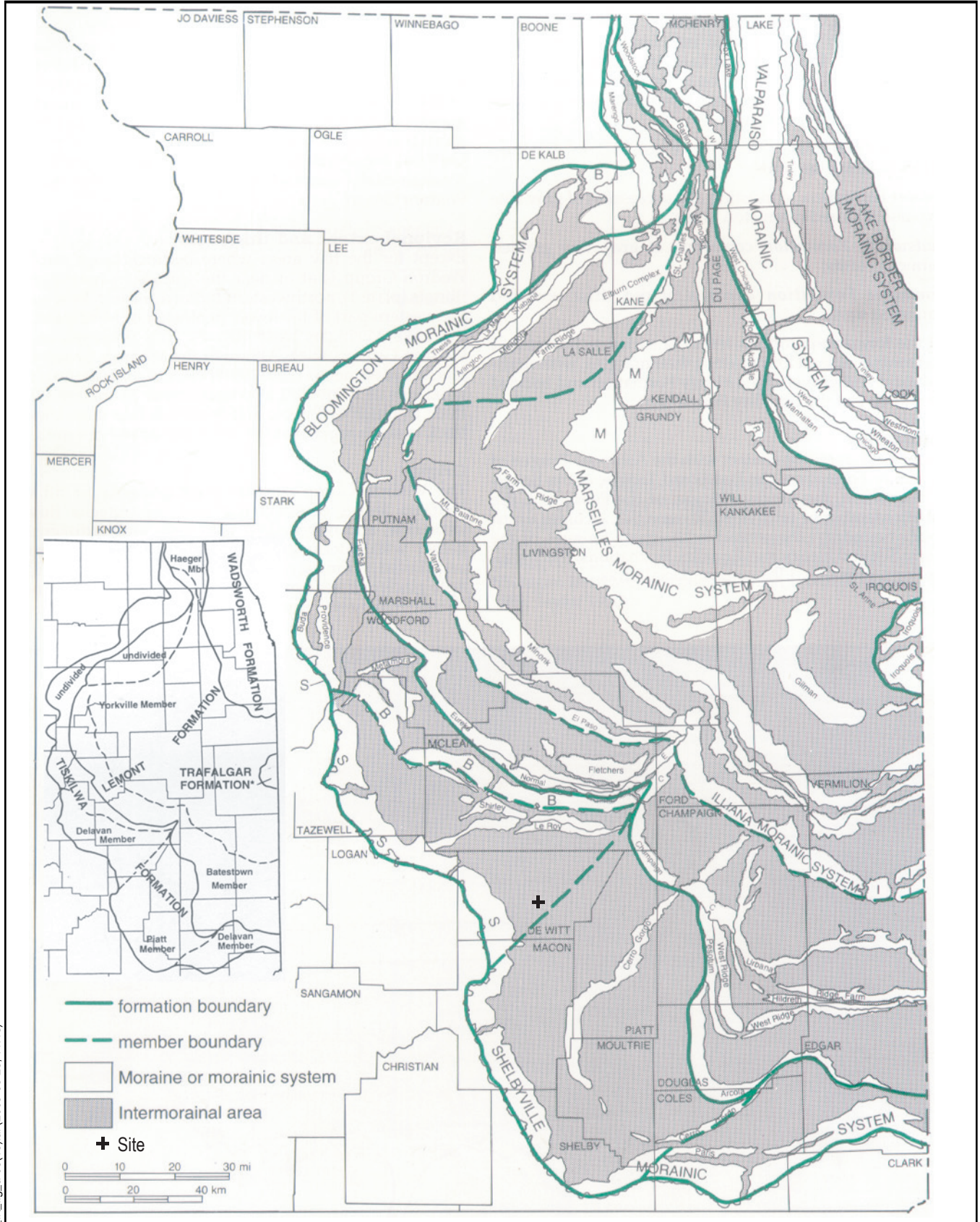Digital compilation by B.J. Stiff

Printed by the authority of the State of Illinois/1996/3000

From: Hansel and Johnson (1996)

Seismic Hazards Report for the EGC ESP Site
**Areal Distribution of the Wedron and Mason Groups
(Wisconsin and Hudson Episodes) and
Deposits of the Illinois and Pre-Illinois Episodes in Illinois**
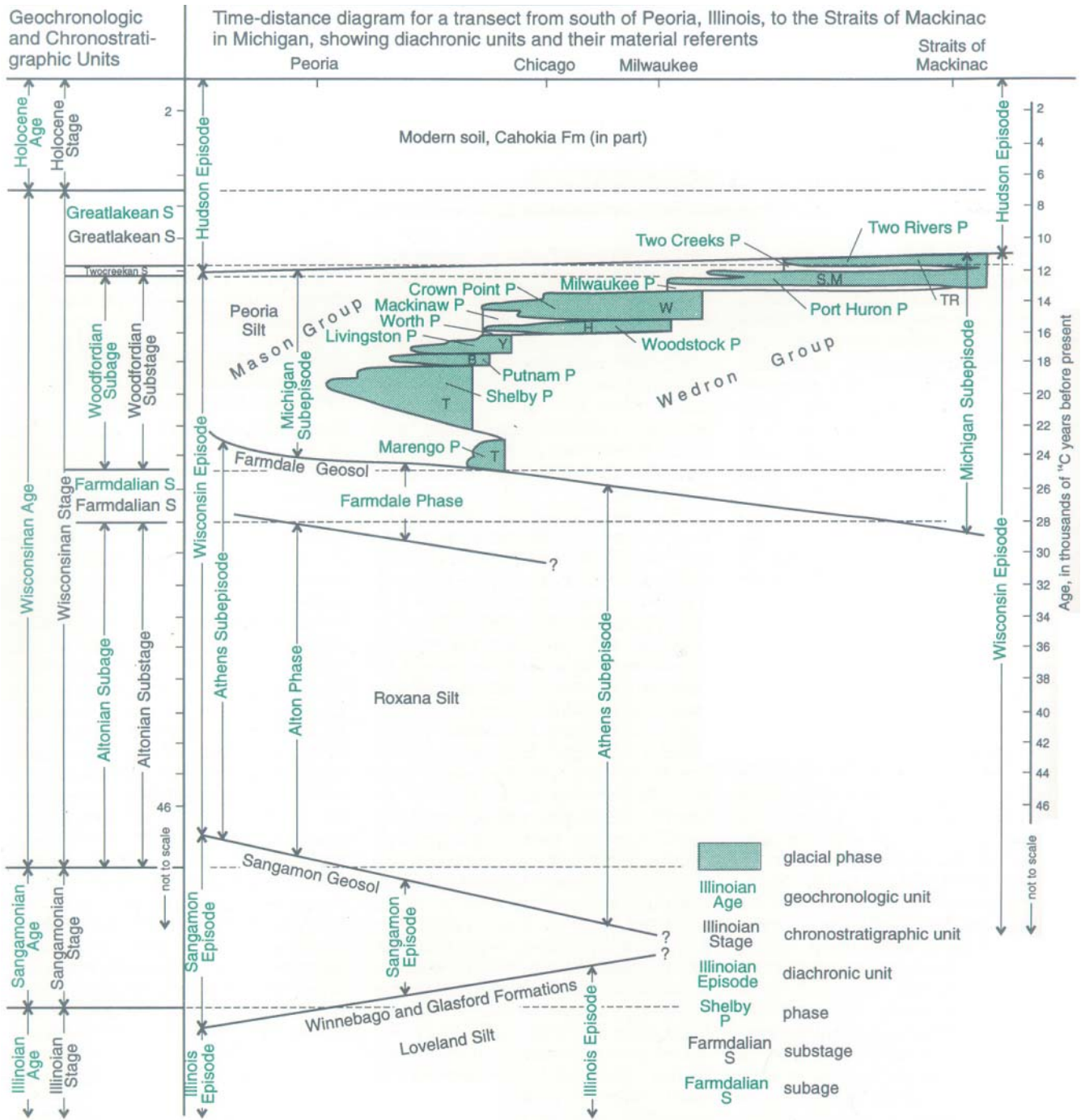
Figure

B-1-7

Modified from: Hansel and Johnson (1996)

Seismic Hazards Report for the EGC ESP Site
Areal distribution of moraines and boundaries of formations
and principal members of the Wedron group
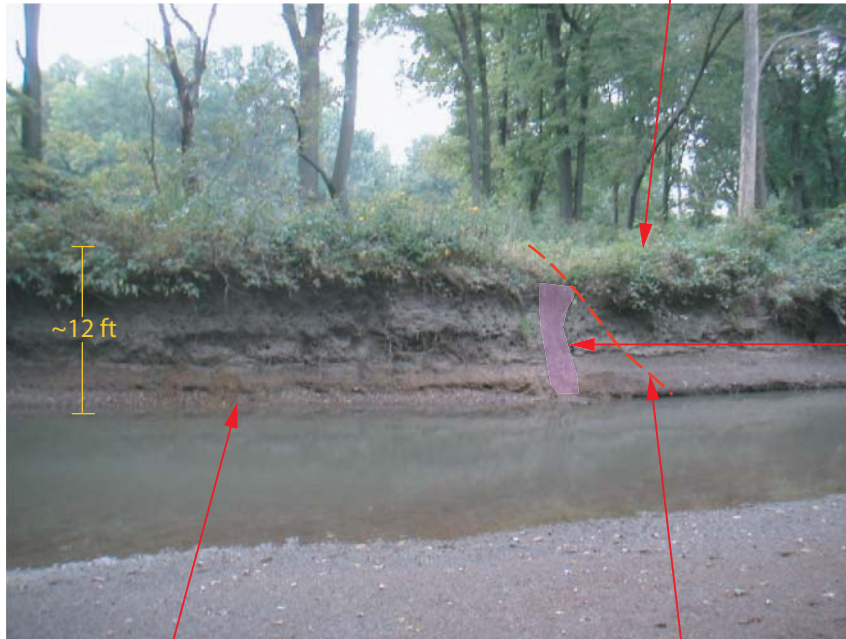
Figure

B-1-8

Time-distance diagram for a transect from south of Peoria, Illinois, to the Straits of Mackinac in Michigan, showing diachronic units and their material referents

From: Hansel and Johnson (1996)

Seismic Hazards Report for the EGC ESP Site
Geochronologic Units, Chronostratigraphic Units and
Diachronic Units in the Lake Michigan Lobe

Figure
B-1-9

Younger soil is developed on lower terrace. Note the lack of oxidation near the water level

~12 ft

Animal trail

Oxidized Pre-hypsithermic soil developed on higher, older terrace

Approximate backedge to younger terrace

Seismic Hazards Report for the EGC ESP Site
Photograph of Riverbank Exposure on Salt Creek Showing
Fluvial Terrace Deposits of Two Ages

Figure
B-1-10

Legend

ec	Carmi Member of Equality Formation
ed	Dolton Member of Equality Formation
hm	Mackinaw Member of Henry Formation
hb	Batavia Member of Henry Formation
hw	Wasco Member of Henry Formation

Lemont Formation

wy	Yorkville Till Member of Wedron Group
ws	Snider Till Member of Wedon Group
wb	Batestown Till Member of Wedron Group

+ Site

— Formation boundary within the Wedron Group (from Hansel and Johnson, 1996; see Figure B-1-8)

Tiskilwa Formation

wp	Platt Till Member of Wedron Group
wt	Tiskilwa Till Member of Wedron Group
wd	Delavan Till Member of Wedron Group
wf	Fairgrange Till Member of Wedron Group

morraine	Moraine
gha	Hagarstown Member of Glasford Formation
gr	Radnor Till Member of Glasford Formation
gv	Vandalia Till Member of Glasford Formation

- - - Member boundary within the Wedron Group (from Hansel and Johnson, 1996; see Figure B-1-8)

Notes

1. Modified from Lineback, 1979

2. More recent studies (Hansel and Johnson, 1996) reassign several members of the Wedron Group to better match moraine morphology. These new formation and member boundaries are shown here and on Figure B-1-8). Therefore, some map units on this figure may not agree with current formation and member boundaries within the Wedron Group.

0 — 10 — 20 Kilometers
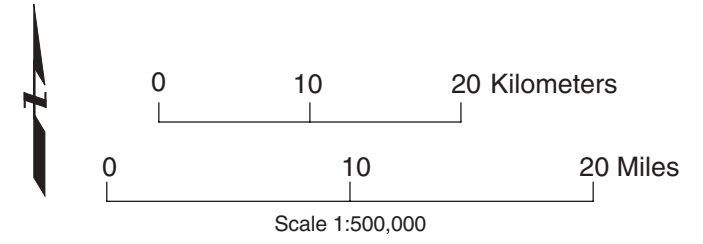
0 — 10 — 20 Miles

Scale 1:500,000

Figure B-1-11

Seismic Hazards Report for the EGC ESP Site
Map Of Quaternary Deposits
In The Site Vicinity