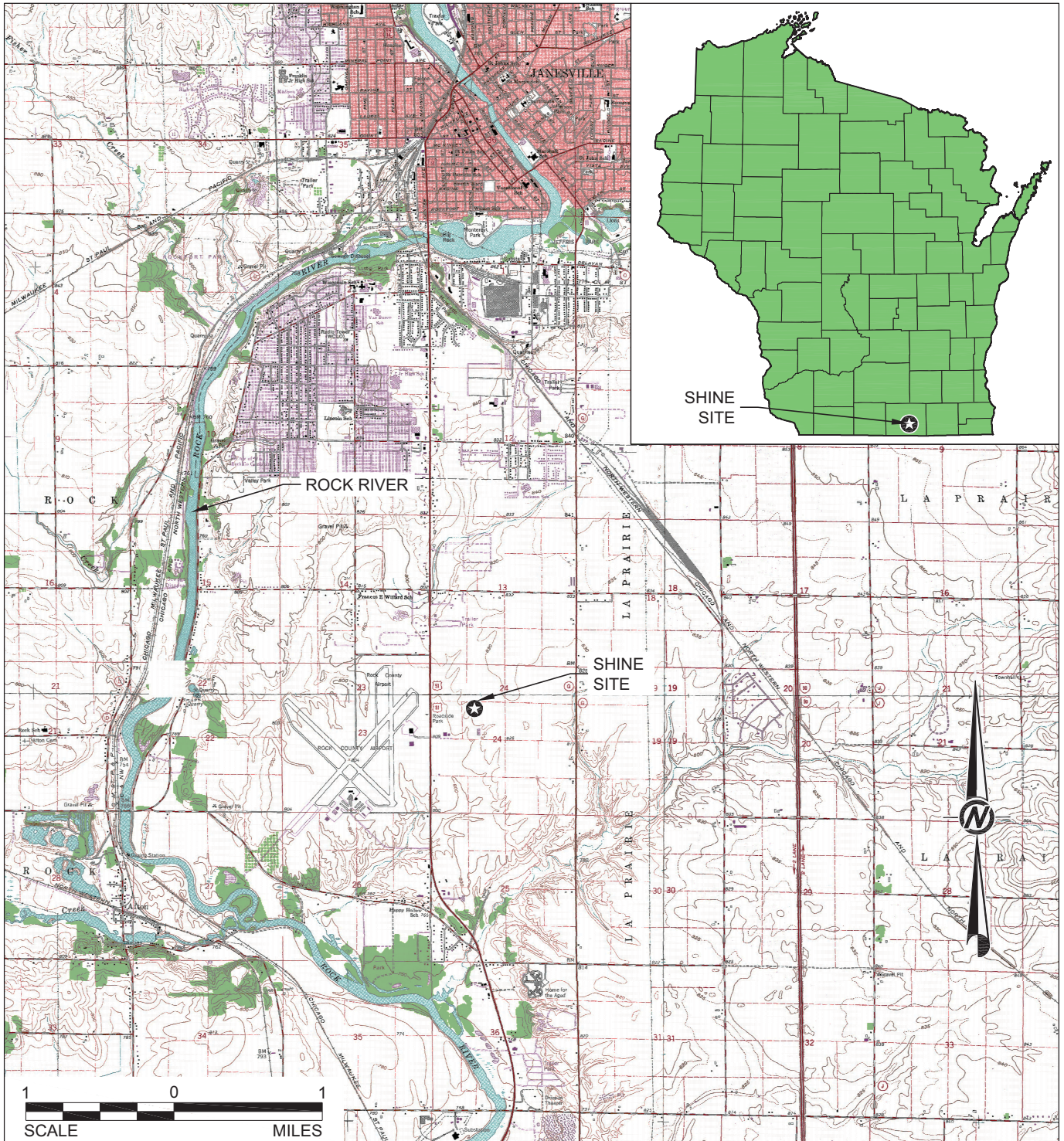


Figure 2.5-1 – Site Vicinity Map



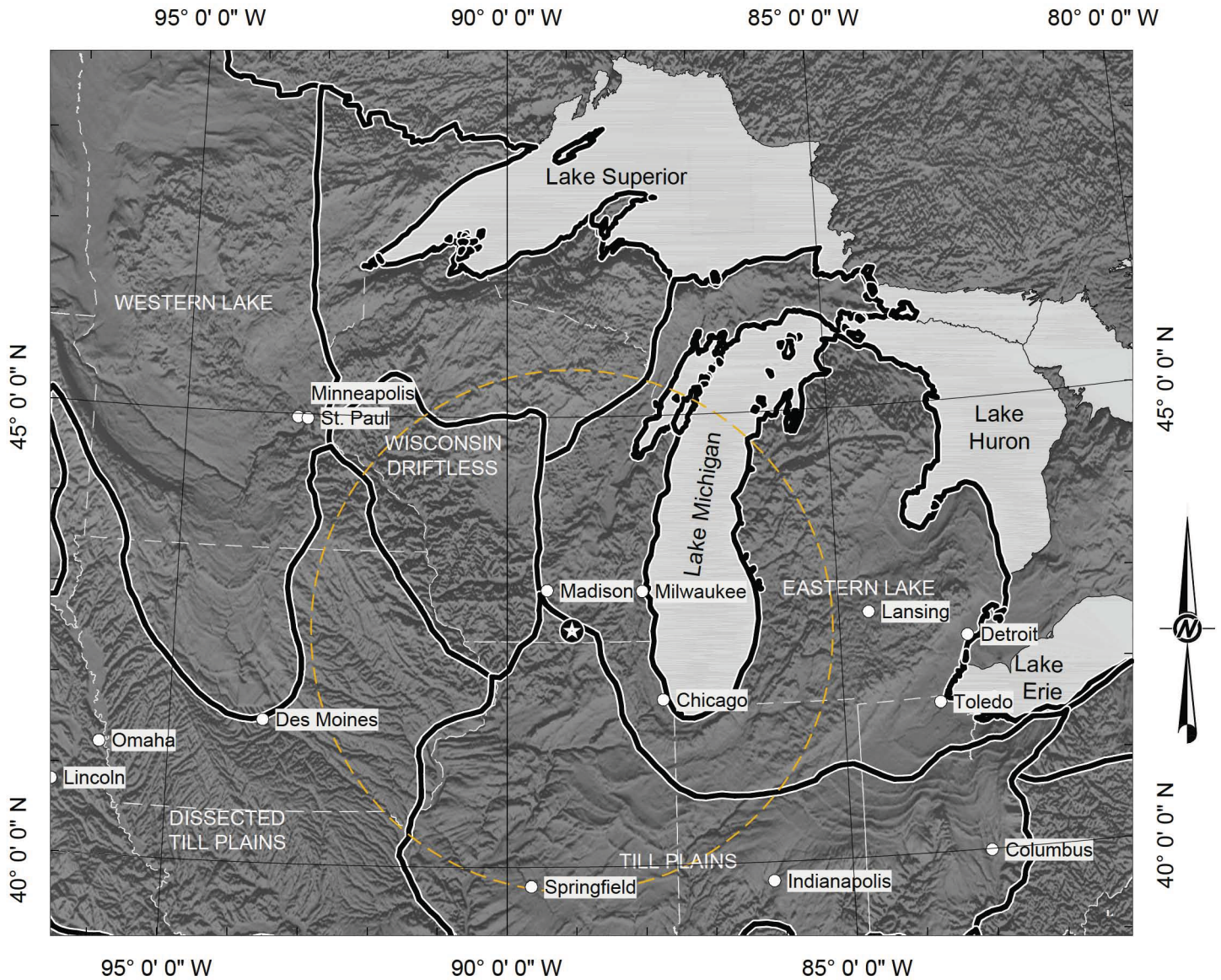
LEGEND

★ SHINE SITE





REFERENCES

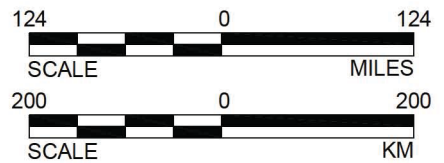
WDNR, 1997a; WDNR, 1997b; WDNR, 1997c; WDNR, 1997d

Figure 2.5-2 – Map of Physiographic Sections



LEGEND

-  SHINE SITE
-  200 MILE (322 KM) RADIUS
-  BOUNDARY OF PHYSIOGRAPHIC SECTION
-  STATE BOUNDARY

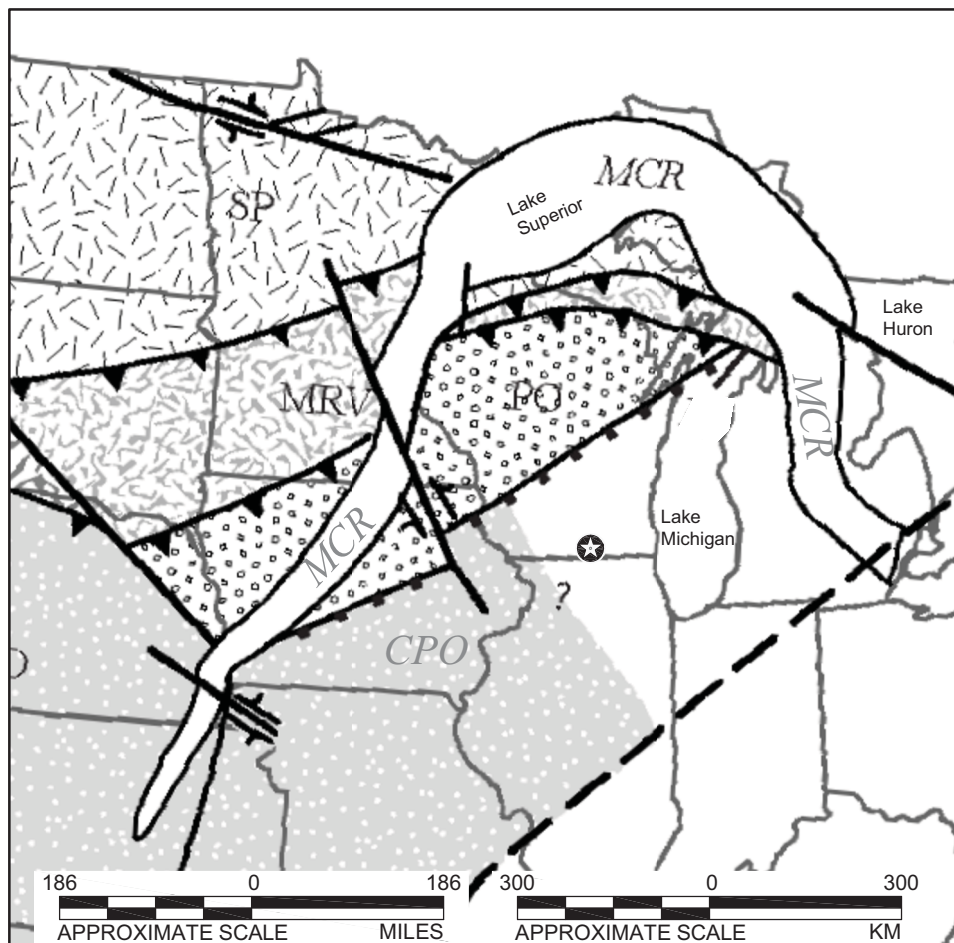


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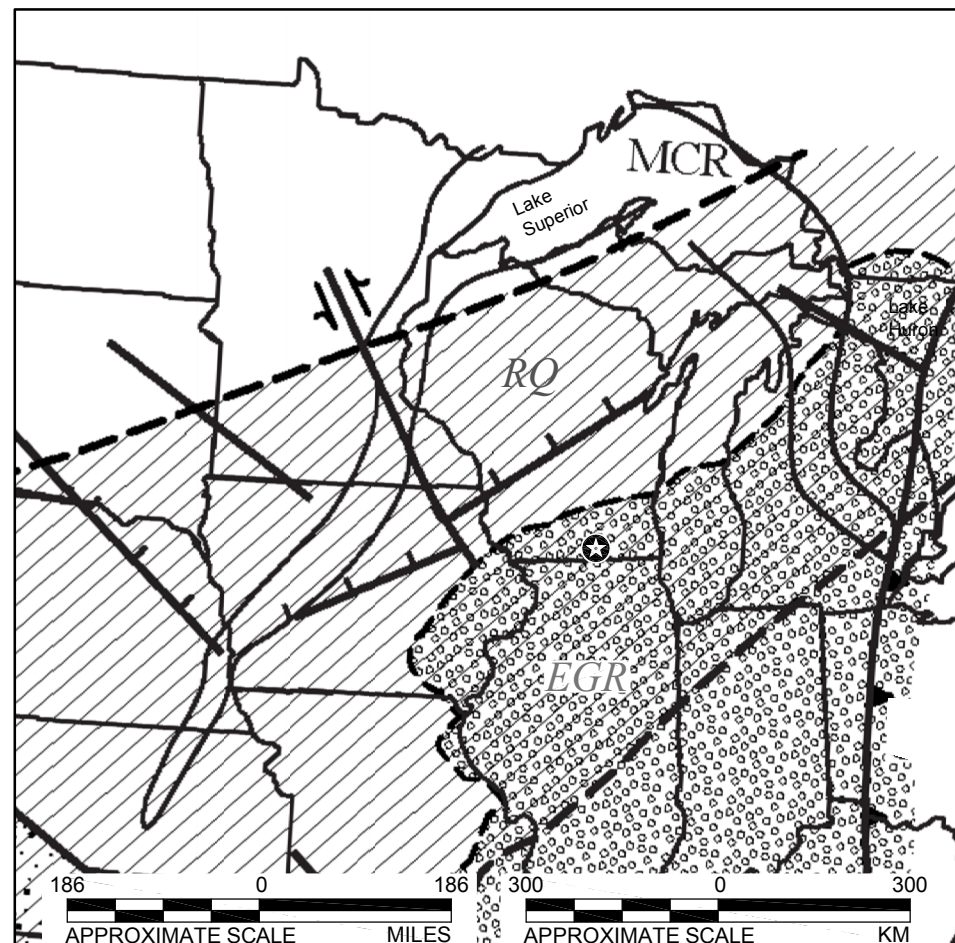
- 1.) USGS, 2010.
- 2.) CGIAR-CSI, 2012.

Figure 2.5-3 – Tectonic Provinces Map















ARCHEAN AND PALEOPROTEROZOIC GEOLOGIC PROVINCES



LATE PROTEROZOIC AND MESOPROTEROZOIC GEOLOGIC PROVINCES



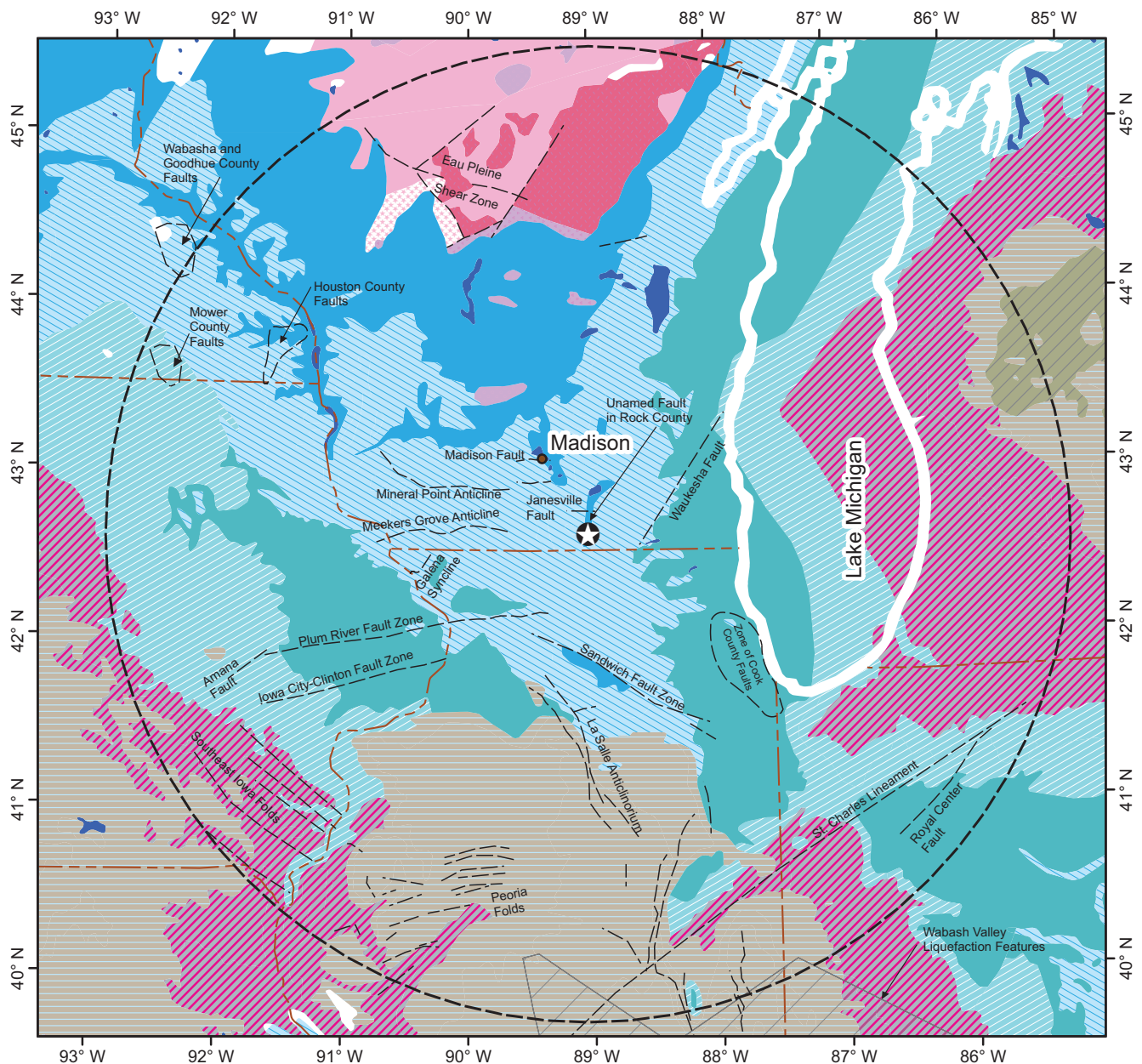
LEGEND

 CENTRAL PLAINS OROGEN (INCLUDES YAVAPAI AND MAZATZAL PROVINCES)	 STRATIGRAPHIC CONTACT (DASHED WHERE APPROXIMATED)	 SHINE SITE
 SUPERIOR PROVINCE	 HIGH-ANGLE FAULT	
 MINNESOTA RIVER PROVINCE	 STRIKE-SLIP FAULT	
 PENOKEAN OROGEN (INCLUDES PEMBRINE-WAUSAU AND MARSHFIELD TERRANES)	 PREDOMINANT RELATIVE DISPLACEMENT	
 MIDCONTINENT RIFT	 THRUST FAULT	
 SOUTHERN GRANITE RHYOLITE PROVINCE		
 EASTERN GRANITE RHYOLITE PROVINCE		
 RHYOLITE-QUARTZ ARENITE BELT		

REFERENCE

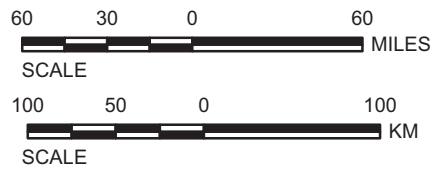
1.) SIMS ET AL., 2005.

Figure 2.5-4 – Generalized Regional Geologic Map



LEGEND

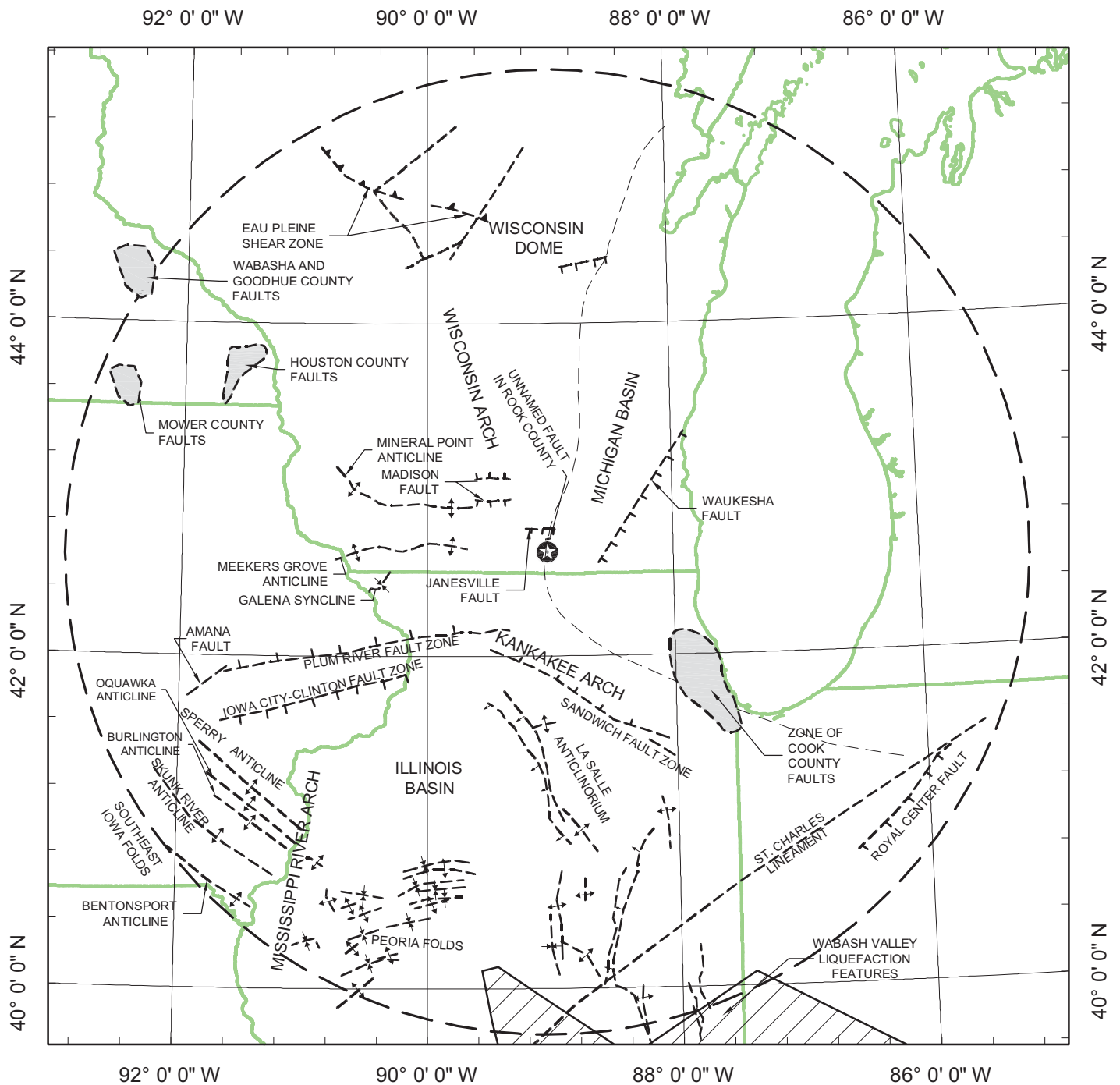
	SHINE SITE		State Boundary		Open Water
	200 Mile (322 KM) Radius		Fault and Fold Trend		
<u>Geologic Time</u>		<u>Generalized Geologic Units</u>			
	Jurassic	Mudstone, shale			
	Pennsylvanian	Coal, limestone, sandstone, shale or clay shale			
	Mississippian	Limestone, shale or clay shale			
	Devonian	Carbonate, sandstone			
	Silurian	Dolomite, silty limestone			
	Ordovician	Conglomerate, dolomite, limestone, sandstone, shale			
	Cambrian	Dolomite, sandstone, shale			
	Early Proterozoic	Quartzite	} Wolf River Batholith		
	Early Proterozoic	Felsic Rocks			
	Early Proterozoic	Volcanic Rocks			
	Early and Middle Proterozoic	Granitic Rocks			
	Late Archean	Orthogneiss			



REFERENCE
 GARRITY, C.P., AND SOLLER, D.R., 2009.



Figure 2.5-5 – Generalized Regional Structural Geologic Map



LEGEND

- SHINE SITE
- 200 MILE (322 KM) RADIUS
- REVERSE FAULT (SAWTEETH ON HANGING WALL)
- ANTICLINE
- GENERALIZED DOME AND BASIN
- SYNCLINE
- FAULT (HATCHURES ON DOWNTHROW SIDE)

REFERENCES

HEYL ET AL., 1978; NELSON, W.J., 1995; HARRISON, R.W., AND SCHULTZ, A., 2002; BRASCHAYKO, S.M., 2005; EXELON, 2006a; EXELON, 2006b; JIRSA ET AL., 2011; AND USGS, 2012c.

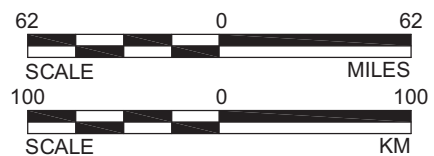
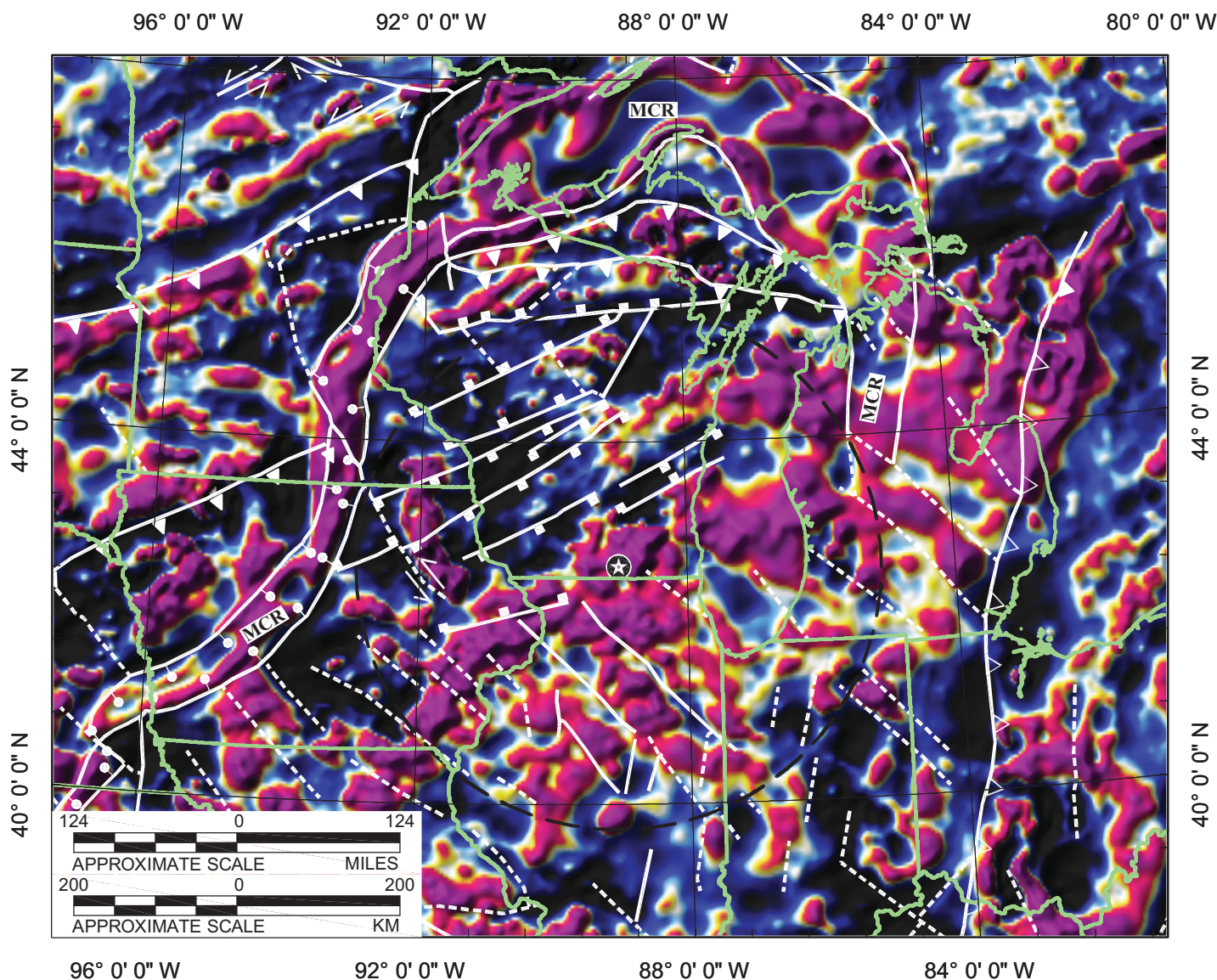


Figure 2.5-6 – Regional Magnetic Anomaly Map and Structural Interpretation



LEGEND

- SHINE SITE
 MCR MIDCONTINENT RIFT
 200 MILE (322 KM) RADIUS
 - HIGH-ANGLE FAULT - CHIEFLY TRANSCURRENT SHEARS AND FAULTS OF LATE PALEOPROTEROZOIC - MESOPROTEROZOIC AGE, BUT INCLUDES FAULTS OF LATE ARCHEAN AGE IN NORTHERN MIDCONTINENT. ARROWS INDICATE RELATIVE DISPLACEMENT WHERE KNOWN. SOLID LINE, BASED CHIEFLY ON GEOLOGIC DATA; DASHED LINE, BASED CHIEFLY ON MAGNETIC DATA. NOTE: SAME DISTINCTION APPLIES TO STRUCTURES FOLLOWING:
 - DUCTILE SHEAR ZONE; MAINLY OF LATE PALEOPROTEROZOIC AGE
 - BOUNDARY OF MAJOR RIFT ZONE OF LATE MESOPROTEROZOIC (MIDCONTINENT RIFT) AND CAMBRIAN (REELFOOT RIFT) AGE
 - THRUST FAULT OF MESOPROTEROZOIC (~1.1 Ga) AGE
 - THRUST FAULT OF PALEOPROTEROZOIC AGE ASSOCIATED WITH SUTURE ZONES. SOLID LINE, BASED CHIEFLY ON GEOLOGIC DATA; DASHED LINE BASED CHIEFLY ON MAGNETIC DATA.
- Total Intensity Anomaly
- nT
 -200 -150 -100 -50 0 50 100 150 200

REFERENCE

- 1.) MAUS ET AL., 2009.
- 2.) SIMS ET AL., 2005.