

RECEIVED
IN ADCRSM
ADSESM 88
ADSPSM 96

Cruise Report

Boat name: R/V Chippewa

Cruise number: CH-1-89

Parent Project: Southern Lake Michigan

Area of Operations: Nearshore zone off Fort Sheridan (40 km north of Chicago center)

Dates: Daylight operations from Great Lakes Naval Training Center, September 11-15, 1989

Chief Scientist: James S. Booth

Cruise Personnel: William J. Winters, USGS

Daniel Q. Coulson, Captain

Frank Pranschke, Owner, R/V Chippewa

Purpose of Cruise: Collect grab samples and conduct a bathymetric survey off Fort Sheridan

Navigation: Loran

Scientific equipment: Raytheon DE-719C Recording Fathometer Depth Sounder, Ponar grab sampler

Cruise Information: Days: 5

Kilometers bathymetric data: 100

Stations: 32

Station data: see attached sheet

Track chart: see attached sheet

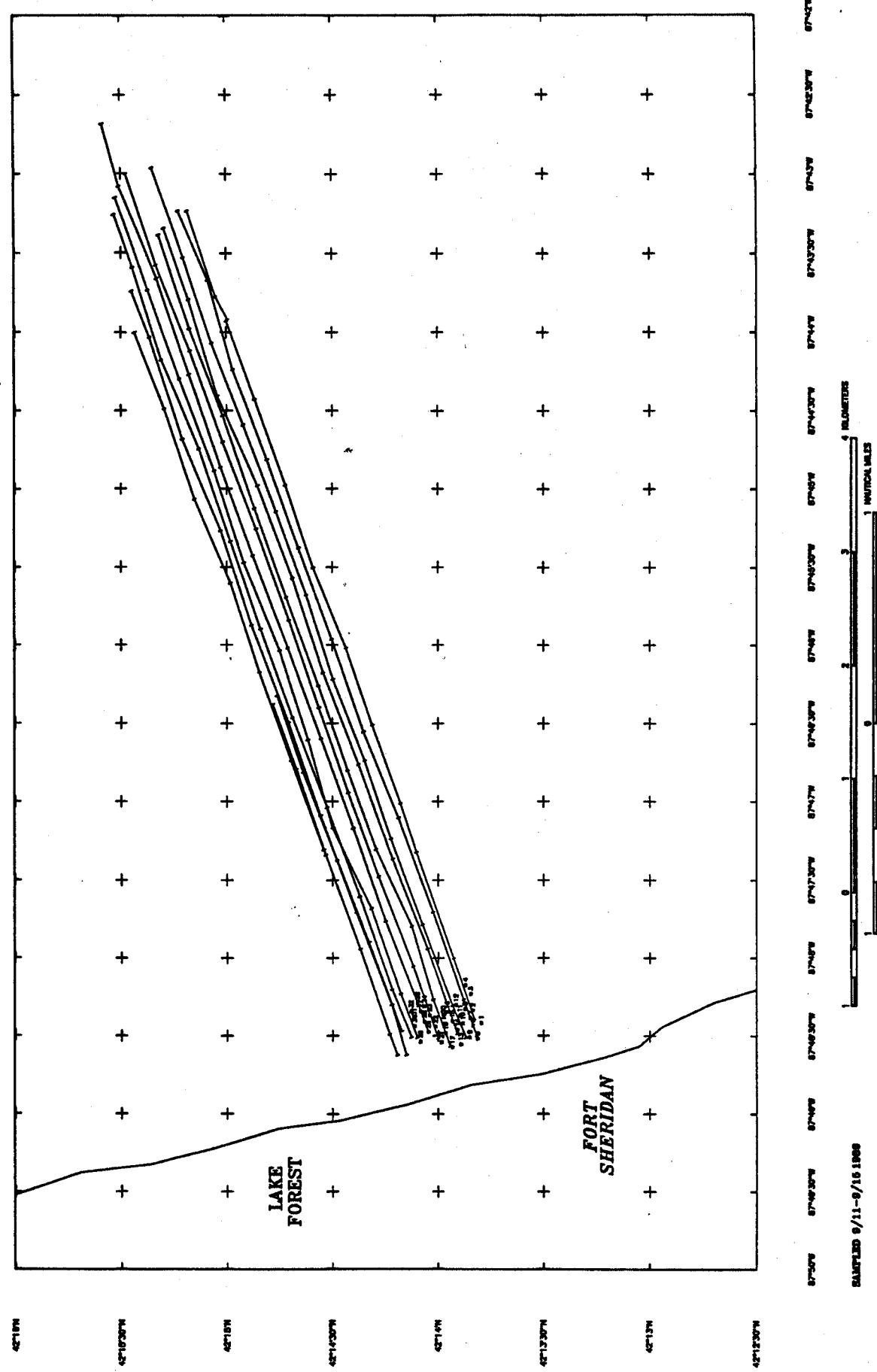
Southern Lake Michigan Project
Cruise: R/V Chippewa 89-1 Area: Fort Sheridan (Illinois)
Raw Station Data

Date	Sample Time	IDX	IDY	Latitude (° N)	Longitude (° W)	Depth (ft)	Depth (m)	Sample Description
9/15/89	0810	33296.0	49820.0	42.229935	87.806969	14.50	4.4	dark yellow brown, med. sand to pebbles., poorly sorted, gravelly sand
	0817	33295.4	49819.8	42.230595	87.805634	17.50	5.3	dark yellow brown, v. fine to med. sand, shell frags. poor to mod. sort., fine sand
	0833	33294.9	49820.0	42.230770	87.803894	16.50	5.0	no recovery—hard bottom
	0844	33294.5	49819.9	42.231174	87.802948	17.50	5.3	dark yellow brown, v. fine to fine sand, mod. to well sorted, very fine sand
5	0853	33296.3	49819.5	42.230213	87.808662	10.00	3.0	dark yellow brown, very fine to fine sand, mod. sorting, fine sand
	0904	33295.8	49819.5	42.230595	87.807266	13.00	4.0	dark yellow brown, v. fine to fine sand, mod. sorting, fine sand
	0913	33295.5	49819.5	42.230824	87.806427	17.25	5.2	pebbles (2 rock frags.), sub-angular, gravel
	0927	33295.1	49819.4	42.231228	87.805481	18.50	5.6	dark yellow brown, med. sand to peb., very poorly sorted, gravelly sand
9	0940	33296.0	49819.1	42.230846	87.808510	10.50	3.2	dark yellow brown, very fine sand., well sorted, very fine sand
	1001	33295.4	49819.0	42.231403	87.807007	15.00	4.6	dark yellow brown, v. fine to fine sand, shell frags., mod. sorting, fine sand
	1008	33295.1	49819.0	42.231632	87.806168	17.50	5.3	dark yellow brown, v. fine sand to granule, v. poorly sort., clay, fine sand
	1025	33294.7	49819.0	42.231937	87.805054	17.50	5.3	no recovery—hard bottom
13	1040	33295.9	49818.5	42.231593	87.809258	09.00	3.0	dark yellow brown, very fine to fine sand, mod. to well sorted, very fine sand
	1050	33295.4	49818.6	42.231812	87.807693	12.50	3.8	dark yellow brn, v. fine sand, shell frags., well sorted, very fine sand
	1104	33295.0	49818.5	42.232216	87.806747	15.50	4.7	Pale yellow to dark yellow brown hard clay, clay
	1109	33294.6	49818.4	42.232620	87.805801	18.25	5.6	hard bottom: no recovery
16	1109	33295.7	49818.0	42.232189	87.809563	09.25	2.8	dark yellow brown, v. fine to fine sand, mod. to well sorted, very fine sand
	1140	33295.1	49817.9	42.232750	87.808052	12.25	3.7	dark yellow brn, v. fine sand, shell frags., mod sort., very fine sand
	1150	33294.8	49818.0	42.232876	87.807045	15.50	4.7	dark yellow brn, v. fine sand, some pebs. (rk & shlf frgs.), well sort., very fine sand
	1157	33294.6	49818.1	42.232925	87.806313	16.75	5.1	dark yellow brn, silt to v. fine sand, shell & rk frag., mod sort., very fine sand
17	1140	33295.7	49818.0	42.232189	87.809563	09.25	2.8	dark yellow brn, v. fine to fine sand, granules (shell frgs.) rare, mod sort., fine sand
	1150	33295.1	49817.9	42.232750	87.808052	12.25	3.7	dark yellow brn, v. fine to fine sand, shells and shell frgs., mod sort., fine sand
	1157	33294.8	49818.0	42.232876	87.807045	15.50	4.7	dark ylw brn, v. fine to fine sand & pebs. (rk & shlf frgs.), pr sort., very fine sand
	1205	33294.6	49818.1	42.232925	87.806313	16.75	5.1	v. fine sand to pebbles (shells and rk frags.). v. poorly sorted, gravelly sand
21	1212	33295.2	49817.5	42.233078	87.809021	11.50	3.5	dark ylw brn, v. fine to fine sand, granules (shils & shlf frgs.), mod sort., fine sand
	1221	33294.6	49817.5	42.233536	87.807343	14.00	4.3	dark yellow brn, v. fine to fine sand, silt?, shell frags. rare, mod. sorting, fine sand
	1227	33294.1	49817.4	42.234016	87.806114	16.75	5.1	dark ylw brn, v. fine to fine sand, shell frags., mod sort., very fine sand
	1237	33293.7	49817.3	42.234421	87.805176	20.50	6.2	v. fine sand to pebbles (shells and rk frags.). no recovery
25	1245	33294.5	49817.0	42.234119	87.807922	13.25	4.0	dark ylw brn, v. fine to fine sand, granules (shils & shlf frgs.), mod sort., fine sand
	1253	33294.1	49817.0	42.234421	87.806801	19.75	6.0	dark yellow brown, v. fine to fine sand, silt?, shell frags. rare, well sorted, very fine sand
	1300	33293.7	49817.0	42.234726	87.805687	19.50	5.9	dark yellow brn, v. fine to fine sand, shell frags., mod. to well sorted, very fine sand
	1305	33293.4	49817.0	42.234955	87.804848	20.75	6.3	dark yellow brown, v. fine to fine sand, shell frags., well sorted, very fine sand
29	1315	33294.5	49816.4	42.234726	87.808952	12.50	3.8	dark yellow brown, v. fine to fine sand, shell frags., mod to well sort., very fine sand
	1325	33293.9	49816.4	42.235184	87.807274	15.50	4.7	dark yellow brown, v. fine to fine sand, shell frags. rare, well sorted, very fine sand
	1332	33293.7	49816.5	42.235233	87.806541	17.50	5.3	dark yellow brn, v. fine to fine sand, shell frags., mod. to well sorted, very fine sand
	1340	33293.4	49816.5	42.235462	87.805710	19.50	5.9	dark yellow brown, v. fine to fine sand, shell frags., well sorted, very fine sand

note: many samples contain very fine sand to granule sized black fragments that may be ash particles

USGS CHIPPEWA 89-1

FORT SHERIDAN TRANSECT TRACKLINES/SAMPLE LOCATIONS



Fort Sheridan Sample Locations

