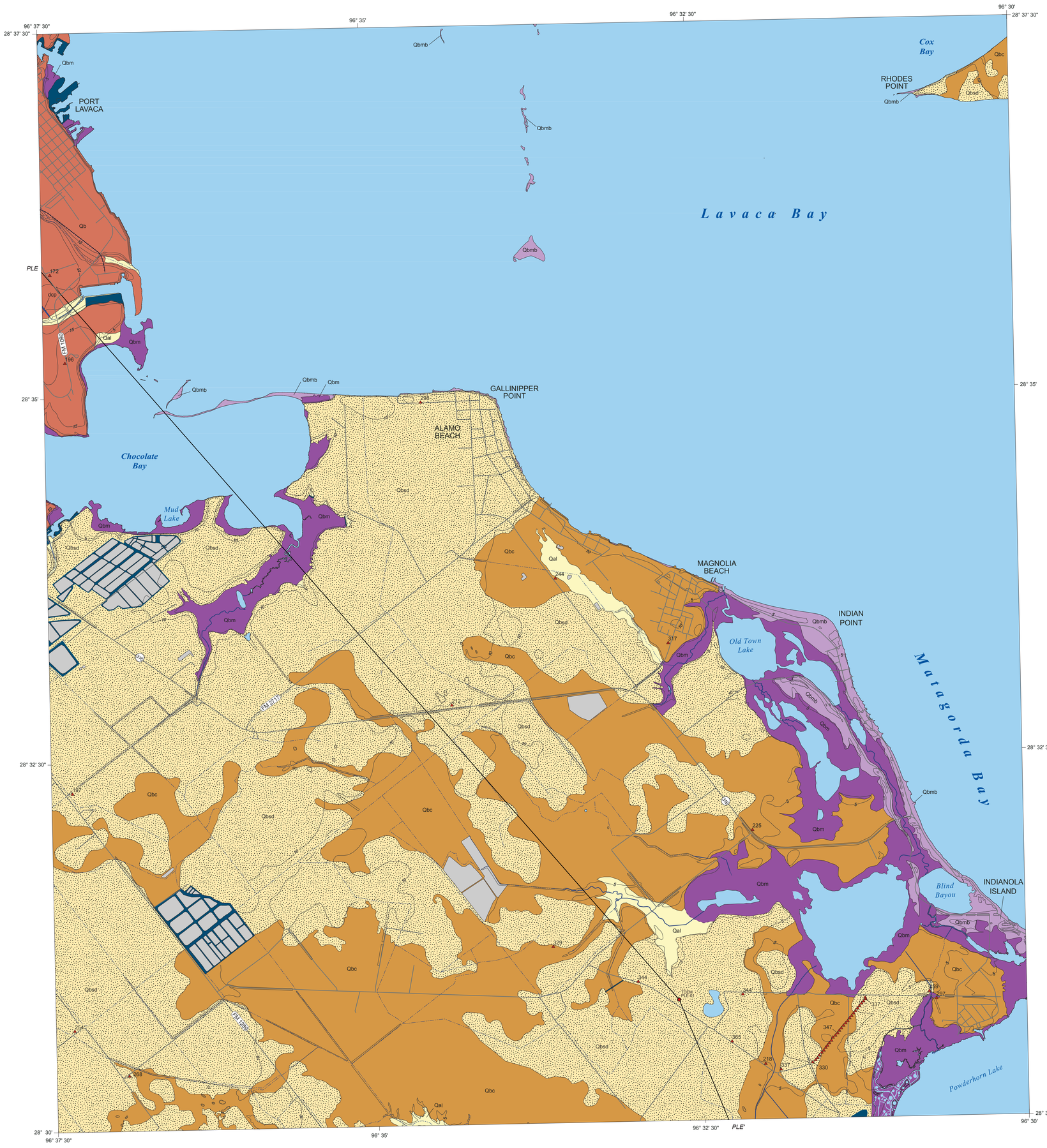
BUREAU OF ECONOMIC GEOLOGY
SCOTT W. TINKER, DIRECTOR
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THE UNIVERSITY OF TEXAS AT AUSTIN
In cooperation with the State of Texas Advanced Resource Recovery Program and the U.S. Geological Survey National Cooperative Geologic Mapping Program under STATEMAP award number G16AC00194, 2016

GEOLOGIC MAP OF THE PORT LAVACA EAST QUADRANGLE,
TEXAS GULF OF MEXICO COAST
Open-File Map 0233



SCALE 1:24,000
0 1 2 MILES
0 1 2 KILOMETERS
UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 14N NAD 83

N
3° 17' MN
Approximate 2017 Magnetic North (MN) declination

Explanation

Modern to Holocene

- Qal — **Qal—Alluvium.** Sand and clay.
- Qbm — **Qbm—Bay margin deposits.** Mud and sand.
- Qbmb — **Qbmb—Bay margin beach deposits.** Sand and mud.

Pleistocene

- Qb — **Qb—Beaumont Formation.** Clay, silt, and sand in a fluvial-deltaic, interdistributary, and distributary setting. Includes stream-channel, point-bar, natural-levee, crevasse-splay, and back-swamp deposits. Some coastal-marsh, mud-flat, and lagoon deposits.
- Qbc — **Qbc—Beaumont Formation clay facies.** Clay, silt, and minor sand in a fluvial-deltaic, interdistributary, and distributary setting. Contacts with Beaumont Formation sandy facies, **Qbsd**, are gradational.
- Qbsd — **Qbsd—Beaumont Formation sandy facies.** Sandy clay, silt, and minor sand in a fluvial-deltaic, interdistributary, and distributary setting. Contacts with Beaumont Formation clay facies, **Qbc**, are gradational.

Map Symbols

- Contact; dashed where approximate.
- 10 — Elevation (ft); contour interval 5 ft
- Topographic depression
- TDEM sounding–Time-domain electromagnetic induction sounding.
- 200 — Apparent electrical conductivity (in millisiemens per meter, or mS/m) of the ground, measured using a Geonics EM31 ground-conductivity meter in the vertical dipole coil orientation. Value shown is a bulk conductivity from the surface to depths of 10 to 20 ft (McNeill, 1980a and b).
- Water; Bay
- Selected ponded water
- Stream or canal
- Intermittent stream or canal
- Pit
- dcp—Dredged canal or pond
- Fill—Land artificially elevated by fill material
- Road
- Railroad

Acknowledgments

Photography used and reviewed in the study was 0.5-m-pixel digital imagery, photographed in 2015. Photography was obtained from Texas Natural Resources Information System (TNRIS). Photography was supplemented by a 1-m resolution digital elevation model (DEM) constructed from a 2016 airborne Lidar survey of the Port Lavaca area. Previous regional maps that cover this area include the 1:125,000-scale Environmental Geologic Atlas, Port Lavaca Sheet (McGowen and others, 1976), the 1:125,000-scale map of Distribution of Wetlands and Benthic Macroinvertebrates (White and others, 1983), and the 1:250,000-scale Geologic Atlas of Texas, Beeville—Bay City Sheet (Aronow and others, 1975; revised 1987).

The study included field observations of surficial deposits, collection and study of ground-based electromagnetic-conductivity measurements, and time-domain electromagnetic-induction sounding measurements for subsurface lithostratigraphic interpretations. Digital files for general topography adapted to this map came from TNRIS for USGS topographic quadrangle map, Port Lavaca, East. Digital files of roads were also obtained through TNRIS. Water bodies were adapted from aerial photographs, a Lidar-derived DEM, and the USGS topographic map.

Bureau staff Kutalmis Saylam, Tiffany Caudle, Aaron Averett, John Andrews, John Hupp, and Rebecca Brown acquired and processed airborne Lidar data. U.S. Fish and Wildlife Department Service staff member Joe Saenz facilitated access to the Aransas National Wildlife Refuge unit within the study area. Work for this map was supported partly by the USGS National Cooperative Geologic Mapping Program, with the assistance of STATEMAP award G16AC00194, 2016, and partly by Bureau STARR funds for geologic mapping and study of geologic hazards. Views and conclusions contained in this map should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government. The authors disclaim any responsibility or liability for interpretations from this map or digital data or decisions based thereon.

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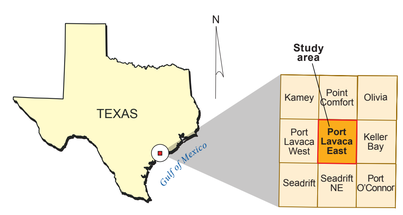
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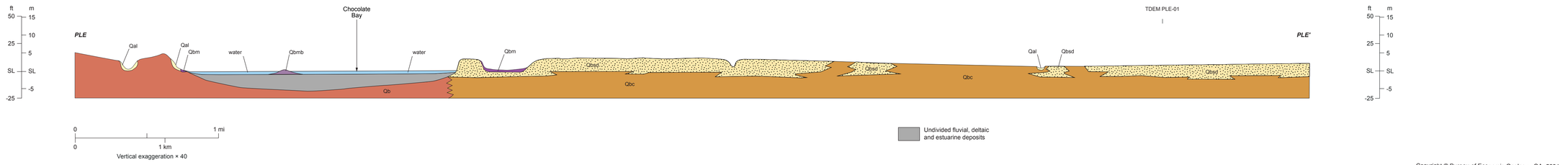
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System	Series	Time Ma	Map and Cross Section Units	
Quaternary	Holocene	0.01	Bay and Estuarine System: Qbm, Qbmb	Fluvial-Deltaic System: Qal
	Pleistocene	1.80		Qb, Qbc, Qbsd



GEOLOGIC MAP OF THE PORT LAVACA EAST QUADRANGLE, TEXAS GULF OF MEXICO COAST

Jeffrey G. Paine and Edward W. Collins
2017



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