



Joseph Stearns
Marine Technician
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Education

- **TEXAS A&M UNIVERSITY CORPUS CHRISTI – Corpus Christi, Texas**
Master of Science in Environmental Science, anticipated graduation December 2019
* Overall GPA: 3.5 Major GPA: 3.6
* Thesis: An evaluation of the feasibility of the electrical resistivity tomography method in identifying submarine groundwater discharge in fine-grained, highly saline, shallow marine environments.
* Defending thesis September 2019, available to work October 2019.
- **MILLSAPS COLLEGE – Jackson, Mississippi**
Bachelor of Science in Geophysics with a Minor in Mathematics, May 2017
* Overall GPA: 3.1 / Major GPA: 3.3
* Thesis: Ground penetrating radar reconnaissance of relict, Eocene age paleochannels.

Experience

2019 – Present

Marine Technician, TDI-Brooks International, Inc. – College Station, Texas

- Offshore: perform duties on the deck of international research vessels including rigging, load testing and daily crane and winch inspections, perform all maintenance of deck machinery, aid in the launching and recovery of EBS equipment. Operate high speed coring winches, fixed boom and articulating cranes. Assist in lab responsibilities as needed.
- Onshore: Work in the shop to prepare for upcoming jobs and fix equipment. Also work on various TDI vessels when they are in port.

2018-2019

Research Assistant TEXAS A&M UNIVERSITY CORPUS CHRISTI – Corpus Christi, Texas

- Boat captain for marine expeditions.
- Collection of radioisotope samples and ERT geophysical data.
- Processing of radioisotope samples and ERT geophysical data.

2017-2019

Teaching Assistant TEXAS A&M UNIVERSITY CORPUS CHRISTI – Corpus Christi, Texas

- Teach 3 lab sections of physical geology to undergraduate students.
- Course preparation, lecturing, and grading.
- Assisted with overnight field expeditions for structural geology and petroleum geology.

Projects & Research

Coauthored 2017 - Present | Master's Thesis | Texas A&M University Corpus Christi



- Collection of well-constrained electrical resistivity tomography (ERT) data to study submarine groundwater discharge (SGD) via AGI Supersting R8, processed in AGI EarthImager2D.
- Application of constrained salinity, temperature, and sediment characterization data to forward models.
- Statistical analyses of forward models compared to inversion data in R.
- Development of a best practice workflow for ERT data processing.
- Comparison of results to pre-established methodology (radioisotopes).

2017 - 2018 | Coastal Monitoring Project | Texas A&M University Corpus Christi

- Executed quarterly, 24-hour time-series, synoptic geophysical and geochemical surveys at six bays on the Texas Gulf Coast.
- Data collection, processing, and analysis.

2016 | Undergraduate Thesis - Geophysical Directed Study | Millsaps Geology Department

- Shot a 10.0m by 9.0m ground penetrating radar (GPR) grid using a pulseEKKO pro GPR system.
- These data were edited and processed in GFP Edit and EKKO_Project.
- Identified the presence and influence of relict, Eocene age paleochannels on the development of a slump and hydrophytic vegetation, which was ultimately classified as a protected wetland by the U.S. Army Corps of Engineers.

2015 | Little Cedar Creek Reservoir Evaluation | Millsaps Geology Department

- Reservoir evaluation of the Little Cedar Creek Field in Conecuh County, Alabama.
- Well logs were correlated, then structure and isopach maps were produced in Petra to identify structure, relative thickness, and zones of porosity.
- Field was found to be productive within the Smackover formation, a southwest dipping monocline composed predominantly of limestone, ranging in depth from 10,806 to 11,567 feet.
- Reserve estimates were calculated to be 10,769,467 barrels of oil.

Equipment Software & Capabilities

- **Field:** Sediment coring, AGI SuperSting R8 Electrical Resistivity System, pulseEKKO PRO GPR System, Geometrics Seismograph, In-Situ Rugged Troll
- **Skills:** Radium Delayed Coincidence Counter (RaDeCC), Basic Powder X-Ray Diffractometer System, Ion Chromatographer System, Well Log Correlation, Isopach and Structure Map Production, Seismic Refraction/Reflection Data Collection/Processing, ERT Data Collection/Processing, GPR Data Collection/Processing, Spatial Analysis, Temporal Analysis, Critical Thinking, Problem Solving
- **Software:** Microsoft Office, EndNote, Petra, EKKO_Project, R, CAPTURE, AGI EarthImager 2D and 3D, YSI Data Manager, Geochemist's Workbench, Schlumberger VISTA, Seismodule Controller, Win-Situ



Affiliations / Involvement / Leadership / Awards

- Corpus Christi Geological Society Scholarship (CCGS), 2018
- Pan-American Round Table Scholarship (TAMUCC), 2018
- Student Member, Corpus Christi Geological Society (CCGS), 2018-Present
- Jennifer L. Sorrells Memorial Geophysics Award (Millsaps College), 2017
- Student Member, Association of Environmental and Engineering Geologists (AEG), 2014-Present
- Student Member, Mississippi Geological Society (MGS), 2014-2017
- Treasurer, Sigma Gamma Epsilon (Geology Honorary), 2015-2017
- Catcher, NCAA Baseball Team, 2013-2017
- Sigma Gamma Epsilon Geology Honorary (Millsaps College), 2015-2017
- Omicron Delta Kappa Leadership Honorary (Millsaps College) 2016-2017