

QUALIFICATIONS AND WORK HISTORIES

Of

E and E Group, L.L.C.

Environmental Consultants



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Visit us at www.EandEgroup.net

Areas of Expertise



E and E Group is a consulting firm specializing in providing highly technical expertise in the environmental field. The principals of the firm have almost 90 years of experience successfully conducting various types of environmental audits and assessments, surveys, environmental litigation support and natural resource damage assessments. Our areas of expertise include the following:

- ◆ Freshwater, Marine, Estuarine and Wetlands Ecology
- ◆ Coastal Use Permitting
- ◆ Oyster Lease Damage Assessments & Settlement Negotiation
- ◆ Oyster Lease Rights-of-Way Acquisition
- ◆ Oil Spill Response Monitoring
- ◆ Fisheries Studies
- ◆ Benthic Macroinvertebrate Taxonomy
- ◆ Environmental Assessments & Impact Statements
- ◆ Environmental Audits & Site Evaluations
- ◆ Phase I & Phase II Environmental Studies
- ◆ Water Quality Surveys
- ◆ Wetland Determinations
- ◆ Monitoring Well Sampling and Reports
- ◆ Natural Resource Damage Assessments
- ◆ Waste Disposal Site Evaluations
- ◆ Corps of Engineers Section 404 Permit Applications

Services



The principals of **E and E Group** have been active for many years in oil spill monitoring and other oil field related services, oyster lease damage evaluations, coastal use permitting, wetland (section 404) permitting, environmental impact statements and assessments, Phase I/II property studies, expert testimony, threatened and endangered mussel surveys and benthic macroinvertebrate ecology. **E and E Group** provides a wide scope of services as follows:

- ◆ Oyster Resource Assessments
- ◆ Environmental Assessments
- ◆ Emergency Oil Spill Response Monitoring
- ◆ Oilfield Services
- ◆ Threatened and Endangered Mussel Surveys
- ◆ SCUBA Diving Services
- ◆ Biological Surveys
- ◆ Wetland Delineations
- ◆ Expert Testimony & Representation Before Agencies
- ◆ Preparation & Presentation of Material for Public Hearings



Oyster Resource Assessment

Coastal Use Permitting

- ◆ **E and E Group** has performed hundreds of oyster resource assessments of private oyster leases for the inshore oil and gas industry, in accordance with the Louisiana Department of Natural Resources (LDNR) protocols for Coastal Use Permitting as required for:
 - ◆ Dredging
 - ◆ Propwashing
 - ◆ Access routes
 - ◆ Well locations
 - ◆ Flowline installation and repairs
 - ◆ Structure/pipeline removal
 - ◆ Clearance surveys

- ◆ **E and E Group** has performed more than 100 bottom type mapping and oyster resource assessments for the inshore oil and gas industry as required by the Louisiana Department of Wildlife and Fisheries (LDWF) in public oyster areas and seed grounds.

- ◆ **E and E Group** has developed much of the methodology required by LDWF to conduct bottom type mapping.

Project Locations

Grand Isle to Clovelly, LA
Plaquemines to Terrebonne, LA
Plaquemines to Terrebonne, LA
Plaquemines to Jefferson, LA
Lake Washington Field
Dog Lake Field
Lake Washington Field
Bay De Chene Field
Matagorda Bay
Old Lady Lake
Biloxi Marsh
Lirette Field
Lirette Field
Lake Boudreaux
Main Pass Blk 298
Breton Sound
Bastian Bay Field
West Cote Blanche Bay
Port Fouchon BP Pipelines
Scofield Bayou

Clients

Mardi Gras Transportation (BP)
Columbia Gulf Transmission Company
BP Pipelines, N.A.
Duke Energy Gas Transmission Company
Hilcorp Energy Company
Hilcorp Energy Company
Swift Energy Operating, LLC
Swift Energy Operating, LLC
Palace Exploration Company
Discovery Pipeline
Meridian Resources
Apache Louisiana Minerals, Inc.
Denbury Onshore
Energy Partners, Ltd.
El Paso/Southern Natural Gas
Yuma E & P
Badger Oil Corporation
ORX Resources
BP Pipelines North America
El Paso/Tennessee Gas Pipeline

Oyster Resource Assessment

Oyster Lease Damage Assessments

- ◆ Conduct pre-project oyster resource assessments of productive bottoms and oyster standing crop.

Project Locations

Grand Terre Islands
Chaland Headlands
Timbalier Island
Terrebonne Bay
Lake Mechant
Calcasieu Lake
Calcasieu Lake
Empire Foreshore Dike

Clients

LDNR, CWPPRA Project
LDNR, CWPPRA Project
LDNR, CWPPRA Project
LDNR, CWPPRA Project
LDNR, CWPPRA Project
BP-Amoco
Corps of Engineers-NOD
Corps of Engineers-NOD



- ◆ Provide onsite water sampling and observations during rig moves and dredging activities through private oyster leases and public seed grounds.

Project Locations

Lirette Field
Breton Sound
Bay Baptiste Field
Lirette Field

Clients

Denbury Offshore, Inc.
Red Willow Offshore, LLC
Apache Louisiana Minerals, Inc.
Brammer Engineering, Inc.



- ◆ Perform oyster lease evaluations as a result of rig groundings, drilling fluid discharges, canal and pipeline dredging and seismic survey activity.

Project Locations

Bayou Barre
Blue Hammock Bayou
Bay Coquille
Houma Navigation Canal
Marsh Island

Clients

Exxon
Exxon
Elevating Boats Inc.
Elevating Boats Inc.
Cockrell



Oyster Resource Assessment

Oyster Lease Rights Of Way And Damage Settlements

- ◆ As a service to our clients, **E and E Group** offers the extremely specialized service of the negotiation of oyster rights-of-way and oyster damage claim settlement.
- ◆ Our negotiators have settled over 4 million dollars on oyster damage claims and are experienced in all matters dealing with oyster leases and the lessees.
- ◆ These services are extremely valuable to anyone planning a project in the oyster growing waters of Louisiana for which rights-of-way are necessary or to anyone whose operations have resulted in oyster lease damage claims.



**For Additional Information or Questions
Regarding Oyster Resource Assessments
Please Contact Our Expert
Michael F. Rayle
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Environmental Assessments

Phase I And II Studies

- ◆ Completed numerous Phase I/II environmental property assessments with asbestos sampling and site soil investigations for the Whitney National Bank. Properties included large industrial properties and plants in New Orleans, Baton Rouge, and St. Tammany Parishes.
- ◆ Performed Phase I environmental assessment of 1,750 acres of rural property in Pearl River County, Mississippi for the Whitney National Bank.
- ◆ Conducted Phase I/II site assessments involving material and soil sampling of an aggregate storage yard and asphalt plant site on the Industrial Canal, New Orleans, Louisiana.
- ◆ Completed Phase I/II site assessment, property review for NOPSI Gas Department Yard, New Orleans, Louisiana.
- ◆ Completed numerous Phase I site assessments for cellular phone companies including: SBA, Inc., Verizon Wireless, Sprint, Radiophone, and Charter Communications.
- ◆ Conducted site review and property assessment of 20 acres of undeveloped land in Houma, Louisiana for Sizeler Property Investors.
- ◆ Completed property assessment and material sampling of a multi-story bank building in New Orleans, Louisiana for First Interstate Bank.
- ◆ Completed environmental property assessment of an industrial supply company building and property in Harahan, Louisiana.
- ◆ Completed numerous Phase I site assessments for Superior Energy properties in Louisiana, Texas, Oklahoma, New Mexico, Utah, Mississippi, Alabama, Arkansas, Wyoming, and North Carolina.



**For Additional Information or Questions
Regarding Environmental Assessments
Please Contact Our Expert
Frederick E. Schultz
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Email: FSchultz@EandEgroup.net**

Emergency Oil Spill Response Monitoring

E and E Group has performed oil spill monitoring and sampling of many spills from facilities, pipelines and wells throughout the Gulf Coast area to determine impacts on such resources as streams, fish farms, oyster beds, duck leases, trapping leases and marsh vegetation.

- ◆ Environmental assessment of the oil spill at the Exxon Pelican Island Terminal in Plaquemines Parish. Samples were taken to determine the extent of the spill and its effect on some of the most productive oyster beds in the state.
- ◆ Evaluation and assessment of impacts associated with an oil leak in a popular sport fishing stream in Mississippi. The leak occurred in a pipeline on land and flowed into the stream, so there were terrestrial and aquatic impacts.
- ◆ Environmental assessment of the oil spill in Breton Sound for Chevron which occurred as a result of a ruptured pipeline. Sampling was conducted over a large area to determine the extent and effect of the spill on surrounding areas.
- ◆ Environmental assessment of the Exxon Pipeline oil spill near an egret rookery on Avery Island. Intensive sampling was carried out to determine the effects the spill would have on the protected wildlife of the Island.
- ◆ Performed water sampling and environmental observation of the Bayou Perot/ Bayou Rigolets oil spill.



Oilfield Services

Solid Waste Disposal Projects

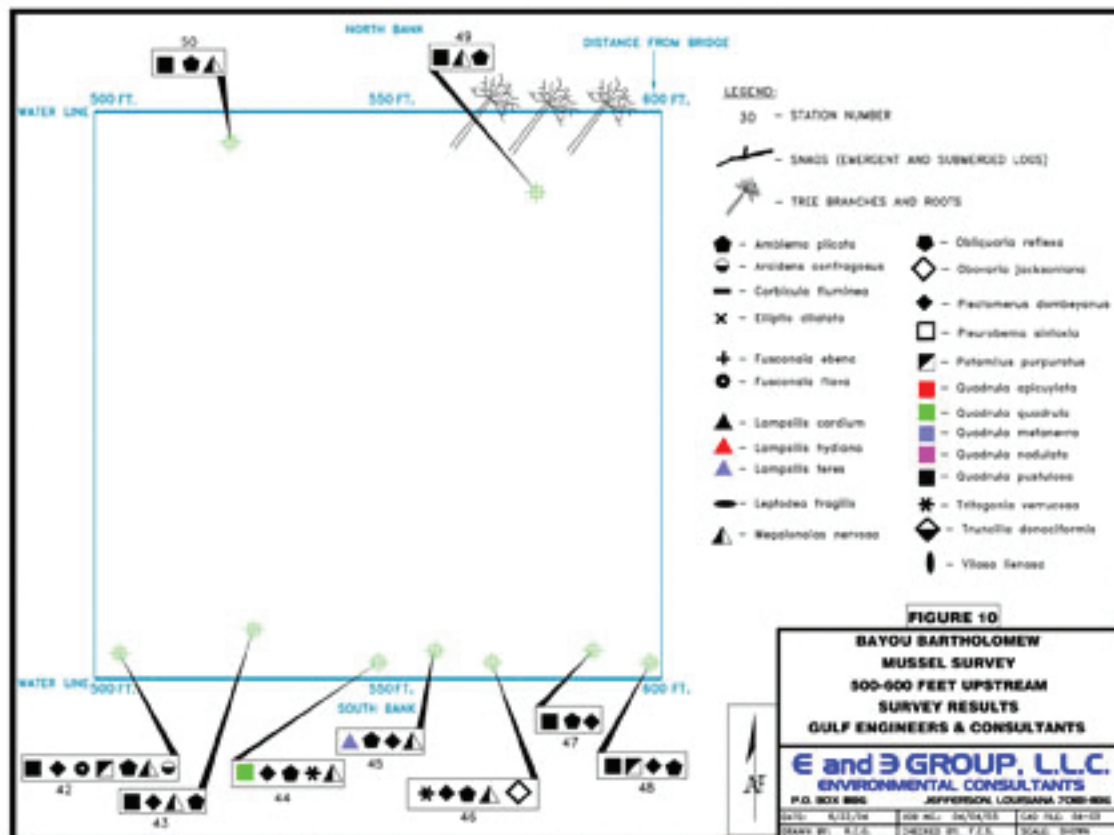
- ◆ Designed one of the first waste facility certification systems used in the oil industry. This system was designed for a major oil company and was credited with preventing involvement in several potential Superfund sites.
- ◆ Evaluation of processes, sites and facilities for treating, dewatering and disposing of drilling fluids and muds in Louisiana, Texas, Oklahoma, New Mexico, Mississippi, Alabama, Arkansas, and California.
- ◆ Developed a system for the evaluation of oil field waste disposal sites for Mobil Oil.
- ◆ The firm has sampled produced water disposal pits for various industrial clients.



Threatened and Endangered Mussel Surveys



- Conducted an endangered mussel survey for the inflated (*Alabama*) heelsplitter (*Potamilus inflatus*) on the Amite River for a Florida Gas Transmission Company pipeline crossing, near the junction of East Baton Rouge, St. Helena and Livingston Parishes, Louisiana.
- Performed two pink pearly mucket (*Lampsilis abrupta*) endangered mussel surveys for a LDOTD bridge replacement on Hwy. 425 over Bayou Bartholomew in Morehouse Parish, Louisiana.
- Performed an endangered mussel survey for the inflated (*Alabama*) heelsplitter in Jones Creek in East Baton Rouge Parish, Louisiana for an LDOTD bridge replacement.
- Conducted an endangered mussel survey for the inflated (*Alabama*) heelsplitter along 20 miles of Bayou Manchac for a US Army Corps of Engineers clearing and snagging project along the waterway.



SCUBA Diving Services

E and E Group has five certified (PADI and/or NAUI) divers on staff to assist with projects requiring underwater collections and/or observations. Our divers are trained to work in the hazardous conditions of low visibility often found in south Louisiana waters, as well as swift currents and low temperature conditions. The following are a few examples of projects that **E and E Group's** divers have been involved:

- ◆ Clearance Surveys
- ◆ Equipment Salvage
- ◆ Oyster Resource Assessment
- ◆ Threatened and Endangered Mussel surveys



* **E and E Group** carries all of the necessary insurance policies required for professional diving services.



Expert Testimony & Representation Before Agencies

- ◆ Alonzo et. al vs. LDNR, provided expert witness testimony for the Caernarvon freshwater diversion litigation in Plaquemines and St. Bernard Parishes, Louisiana.
- ◆ Nettleton et. al vs. Denbury Offshore, provided expert witness testimony.
- ◆ Ongoing oyster biology consulting to the USACE and Louisiana Department of Natural Resources- Coastal Restoration Division for oyster lease valuation, project monitoring and resource delineation.
- ◆ Consulted with the U.S. Veterans Administration on the disposal of the soil to be removed for the addition to the hospital. The soil was contaminated with creosote.
- ◆ Provided consultation and project oversight for the remediation of oil contaminated property in Jefferson Parish, Louisiana.
- ◆ Provided consultation and project oversight for a Brownsfield site in St. John Parish, Louisiana.
- ◆ Provided consultation and expert testimony for the shell dredging industry in Lake Pontchartrain on the effects of shell dredging on water quality and biology of the lake.



Biological Services

Fisheries

The biologists at **E and E Group** have collected and performed various fish and shellfish studies along coasts and estuaries of Louisiana, Mississippi, Alabama and Texas.

- ◆ Performed collection and identification of fish in the estuaries of Terrebonne Basin as part of a larger Dissolved Oxygen study for EPA.
- ◆ Designed and conducted environmental monitoring of commercial fishery (oysters, shrimp, crabs and finfish) species during the 1997 Bonnet Carre' Spillway opening in Lake Pontchartrain, Lake Borgne and Mississippi Sound for the USACOE-NOD.



Benthic Macroinvertebrates

E and E Group is experienced in the collection and identification of benthic macroinvertebrates from freshwater, marine and estuarine systems throughout the southeast. Benthic macroinvertebrate assessments are required in Alabama and Florida streams and estuaries upon renewal and/or application of most industrial and municipal NPDES permitting actions. It is anticipated that Mississippi and Louisiana will soon follow.

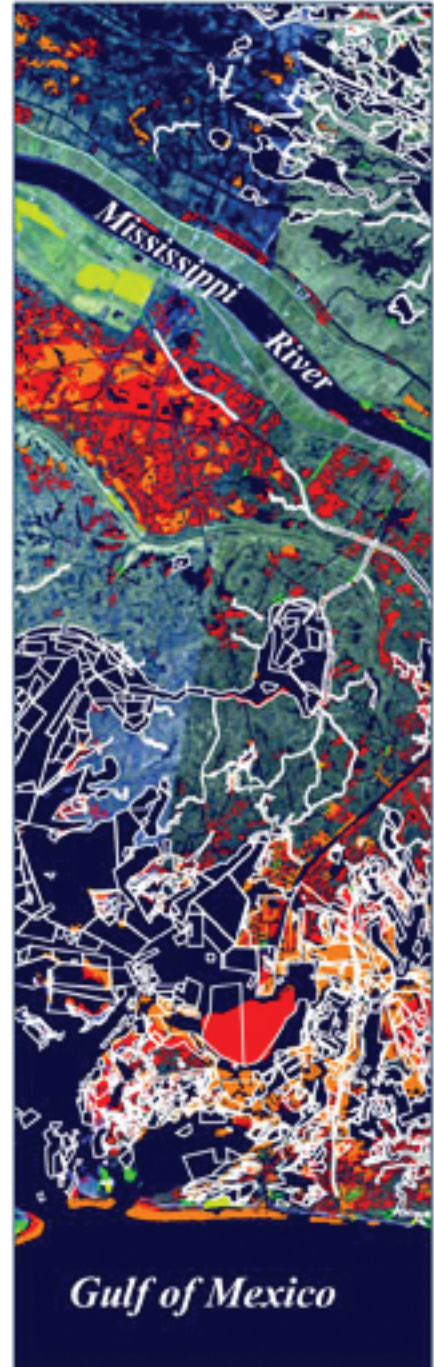
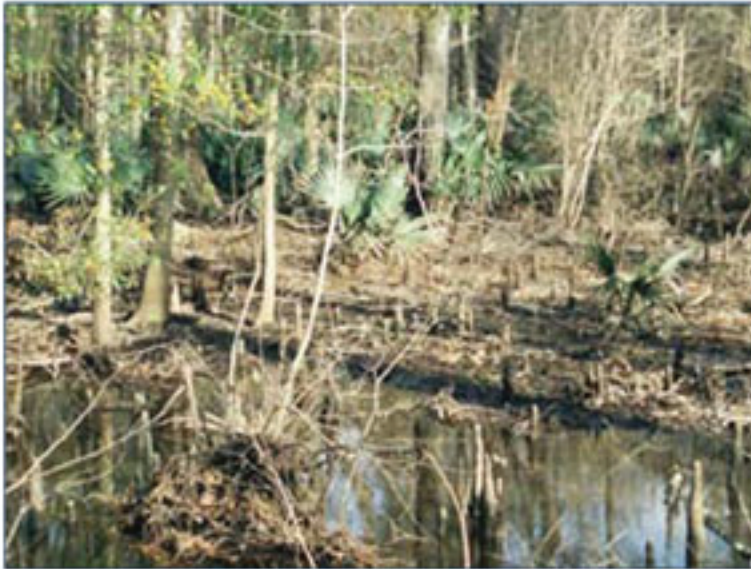
Our scientists are experienced in both laboratory identification and field identification, as well as the sample collection procedures for the following state and federal protocols:

- ◆ EPA National Coastal Assessment (EMAP)
- ◆ EPA Region VI
- ◆ EPA Region IV
- ◆ Alabama DEM - Discharge Information Zone Survey
- ◆ Florida DEP - Bio-reconnaissance survey, Stream Condition Index Survey
- ◆ USGS



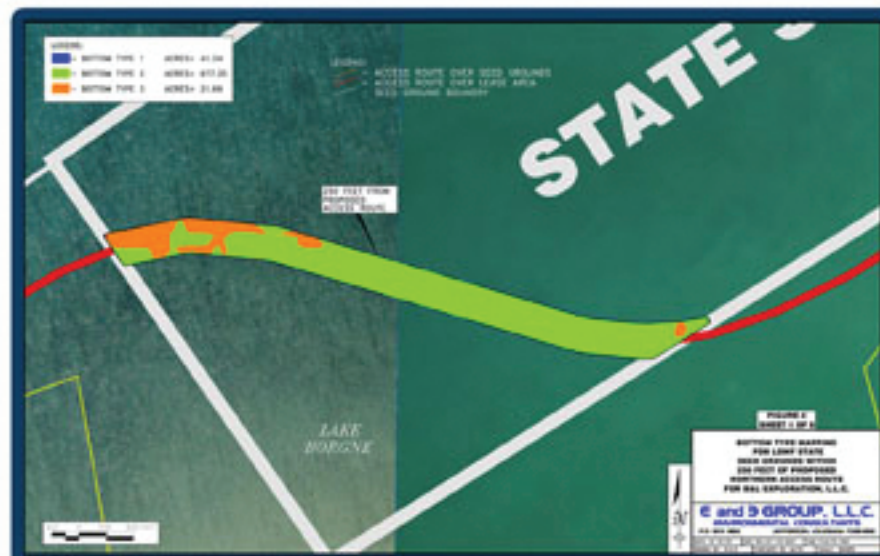
Wetland Delineations

E and E Group has experience in performing wetland delineations of five acres or less in Louisiana and Alabama in accordance with Section D, Subsection 2 of Technical Report Y-87-1, US Army Corps of Engineers Delineation Manual.



Preparation & Presentation Of Data

- ◆ As a service to our clients **E and E Group** provides high quality drawings and maps produced using AutoCAD Mapping Software.
- ◆ Experienced in utilizing multiple geodetic formats including: NAD27, NAD83, and UTM.
- ◆ Data can be provided in the following software formats: .dwg, .dxf, .jpeg, .tiff and .pdf.
- ◆ Reports and data can be produced and presented to clients and necessary regulatory agencies in both hardcopy and digital formats as needed.
- ◆ Large digital files can be accessed via our secure web link on the www.eandegroup.net website.



Qualifications of Key Personnel **Michael F. Rayle**

MICHAEL F. RAYLE received his B.A. and M.S. in Biological Sciences from the University of New Orleans and 24 additional hours of post graduate study in Biology at Tulane University.

Mr. Rayle's academic research investigated the effects of storm water pollution on the presence and abundance of low salinity estuarine invertebrates using a multiple discriminate functions computer analysis. Since 1977, Mr. Rayle has been involved in various types of natural resources damage assessments including endangered species surveys and the preparation of environmental impact statements and assessments, wetland determinations and water quality evaluations. He has also participated in the monitoring of oil and gas well blowouts as well as the development of oil spill monitoring plans. He has participated in several studies of the fate and effects of oil and gas related produced waters in coastal Louisiana.

Mr. Rayle has been most active in the sampling of oyster leases in connection with Water Bottom Oyster Resource Assessments for Louisiana Department of Natural Resources (LDNR), Coastal Management Division (CMD), Coastal Use Permit (CUP) Applications. He has conducted hundreds of oyster resource assessments to evaluate of the effects of freshwater diversions (Coastal Wetlands Planning, Protection and Restoration Act or CWPPRA Projects), Bonnet Carre' Flood Control Spillway openings, oil spills, dredging and mechanical damage to oyster resources, both on private oyster leases and Louisiana Department of Wildlife and Fisheries Public Seed Grounds.

He has also been active in the locating, environmental impact assessment and permitting of solid waste facilities in both wetland and non-wetland areas. This experience includes the Louisiana DEQ Solid Waste permitting of the Jefferson Parish Kelvin Tract landfill, both the original and expansion area, the Jefferson East Bank Solid Waste Transfer Station, the Area Ninety landfill and the Coast Guard Road landfill in Venice, Louisiana.

He is the co-author of three refereed journal publications and is a member of the Estuarine Research Federation, the Gulf Estuarine Research Society and the National Shellfisheries Association. Mr. Rayle has been qualified as an expert witness in both Louisiana and Federal courts. He is certified to conduct oyster resource assessments for the Louisiana Department of Natural Resources, Oyster Lease Damage Evaluation Board.

Michael F. Rayle
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Qualifications of Key Personnel **Frederick E. Schultz**

FREDERICK E. SCHULTZ received his B.S. degree in Biology from Western Illinois University and his M.S. degree in Marine Biology from the University of Mississippi. His graduate research described the reproductive biology and early life history of yellow bass (*Morone mississippiensis*) and its comparison to striped bass (*Morone saxatilis*), white bass (*Morone chrysops*), and white perch (*Morone americana*).

Mr. Schultz has much experience in fish and plankton sampling in Mississippi coastal rivers and the Gulf of Mexico. He aided in the sampling and identification of ichthyoplankton from a survey of the Mississippi Sound conducted by the Gulf Coast Research Laboratory. He conducted a sampling program to collect freshwater fish and fish larvae in several of Mississippi's coastal rivers.

He conducted sampling and identification of larval, juvenile and adult fish in Lake Pontchartrain for the U.S. Army Corps of Engineers associated with the opening of the Bonnet Carre' Spillway in 1997.

He has been responsible for identification and enumeration of Foraminifera related to siltation in Louisiana bayous, the surveying of streams for rare and endangered mussels, and investigations of oyster bed damage claims due to dredging, siltation and oil spills.

Mr. Schultz helped develop and implement an inspection and assessment program of oil field waste disposers, recyclers and transporters. The program completed assessments on over 300 companies over a 15 state area. He has also collected sediment and water samples associated with the discharge of drill cuttings from drill rigs and produced water from tank batteries.

He has directed and performed numerous Phase I property assessments in southern Louisiana, Texas, Oklahoma, New Mexico, Utah, Mississippi, Alabama, Arkansas, Wyoming, and North Carolina. He has also been involved in underground storage tank remediation projects and groundwater contamination investigations.

He has 40 hour HAZWOPER training and is certified to conduct assessments for the Louisiana Department of Natural Resources Oyster Damage Evaluation Board.

His primary fields of interest include ichthyoplankton, ichthyology, fish taxonomy and aquaculture.

Frederick E. Schultz
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Qualifications of Key Personnel **Raymond C. Albert**

RAYMOND C. ALBERT completed the Drafting and Design Program at E.P. Nunez Community College and attended Southeastern Louisiana University. In 1999 he completed the Environmental Site Assessments course at Louisiana State University Division of Continuing Education. In 2001 he completed a Wetland Delineation course based on the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual.

Mr. Albert has experience in Phase I Assessments, oil spill assessment, monitoring & sampling, NORM surveys, groundwater monitoring well sampling, water quality measurements and sampling, LDNR oyster resource surveys, creel sampling and collection using gillnets, trawls, cast nets & seines, creel surveys, crustacean collection, and benthos collection.

He is an Environmental Specialist, with field and office responsibilities. These include preparing CADD drawings for various projects including landfills, site plans, sub surface cross sections, building layouts, topographic and dredging/pipeline installation drawings. Field responsibilities include; professional support for underground storage tank investigations, oyster resource assessments, oil spill sampling, oil rig move monitoring, water sampling, sediment sampling, groundwater monitoring well sampling, Phase I and II environmental audits, wetland delineations, organism collection and soil core collection.

Mr. Albert is also experienced in the operation of various workboats, DGPS navigation systems, fathometers, current meters, Eckman dredges, Van Dorn bottles, oyster dredges, salinometers, dissolved oxygen meters, pH meter, soil drilling equipment, bottom sediment corers, Ludlum 12S gamma survey meter, organic vapor analyzer, and HAZWOPER certified, with current 8 hour refresher.

Ray C. Albert
Phone: (504) 464-9906
Email: RAlbert@EandEgroup.net

Clients

The specialized services that **E and E Group** provides are utilized by a wide variety of industrial, state and federal entities. The following are examples of clients for whom our company has assisted:

Survey & Permitting Companies

- ◆ C & C Technologies
- ◆ C. H. Fenstermaker & Associates, Inc.
- ◆ John Chance Land Surveyors, Inc.
- ◆ Morris P. Hebert, Inc.
- ◆ Regulatory Specialists, Inc.
- ◆ T. Baker Smith & Son, Inc.
- ◆ Tim Morton & Associates, Inc.

Engineering Firms

- ◆ ARCADIS
- ◆ Brammer Engineering
- ◆ Eagle Geophysical
- ◆ Gulf Engineering & Consulting, Inc
- ◆ RETEC
- ◆ Strand Associates, Inc.
- ◆ United States Environmental Services

Legal Firms

- ◆ Burke & Mayer
- ◆ Best & Koppel
- ◆ Chopin Wagar
- ◆ Frilot Partridge
- ◆ Jones Walker
- ◆ Lemle Kelleher
- ◆ Liskow & Lewis

Federal/ State Agencies

- ◆ Louisiana Department of Natural Resources
- ◆ Louisiana Office of Resource Management
- ◆ USACOE - New Orleans District
- ◆ USACOE - LMVD
- ◆ U.S. Department of Justice
- ◆ U.S. Veterans Administration

Oil & Gas Production Companies

- ◆ Apache Corporations
- ◆ Badger Oil
- ◆ B & L Exploration, LLC
- ◆ Beryl Resources, L.P.
- ◆ BP Pipelines
- ◆ Chevron Environmental Management Company
- ◆ Columbia Gulf Transmission Company
- ◆ Cox Operating, LLC
- ◆ Denbury Onshore, LLC
- ◆ Energy Partners, Ltd.
- ◆ Hilcorp Energy Company, LLC
- ◆ Meridian Resources
- ◆ Palace Exploration Company
- ◆ Swift Energy Operating, LLC

Phase I, Phase II & Wetland Delineations

- ◆ Superior Energy Services
- ◆ Anderson Investments
- ◆ Beltec Spray Weld & Machine, LLC
- ◆ Chevron Exploration & Production Company
- ◆ Lulich Steel Corporation
- ◆ Superior Plant Services
- ◆ Time Warner Cable
- ◆ Wood Resources
- ◆ Wright Enterprises

Professional Associations

Professional Affiliations

Societies in which our professionals participate include the following:

- ◆ Estuarine Research Federation
- ◆ Gulf Estuarine Research Society
- ◆ National Shellfisheries Association
- ◆ Biological Society of Washington
- ◆ North American Benthological Society

Professional Certifications

One or more of the **E and E Group** professionals are certified in the following:

- ◆ OLDEB Certified
- ◆ PADI Diving Certification
- ◆ NAUI Diving Certification
- ◆ FDEP Audited for Benthic Surveys

Professional Liability Insurance

E and E Group carries the following liability and professional policies:

- ◆ Commercial, General & Professional Liability
- ◆ Worker's Compensation
- ◆ Maritime Employer's Liability
- ◆ Commercial Umbrella Liability