GEO-MARINE TECHNOLOGY, INC.

A Geological, Geophysical and Hydrographic Survey Consultancy

MATTHEW T. ZUNKER CPG, PG

OPERATIONS DIRECTOR

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SUMMARY OF QUALIFICATIONS

- Professional Geologist certified by the AIPG (#11769) and the State of Alaska (#103104).
- Knowledgeable of a broad array of theoretical and applied geoscientific disciplines, esp. sedimentary processes, geomorphology and geophysics.
- Analyst and interpreter of high-resolution geophysical data, esp. side-scan sonar, shallow-penetration acoustic systems (e.g. subbottom profiler and single-beam echosounder), magnetometer, navigation, multibeam swath bathymetry, and (P)CPT(u).
- Data integrator and technical writer of Desktop Studies (DTS) and Marine Survey Reports (MSR) for a wide range of submarine installation and hazard-identification projects.
- Proficient with the following software: Chesapeake Technology SonarWeb/SonarWizMap, Seismic Micro Technology Kingdom Suite, AutoCAD Land Desktop and Raster Design, Trimble SketchUp, Blue Marble Geographics Global Mapper, Golden Software Surfer and Grapher, Interactive Visual Systems Fledermaus, Adobe Creative Suite, CorelDRAW, Microsoft Office Suite and GMT Utilities Suite.
- Experienced with drill rig and geotechnical engineering operations.

PROFESSIONAL EXPERIENCE

2008-P **GEO-MARINE TECHNOLOGY, INC.** Position: Sr. Geologist / Operations Director
Missoula, Montana

- Project manager; lead technical writer; senior analyst of geophysical data for hazards assessment, geologic interpretation and scientific reporting; and director of in-house operations, training and bidding

2006-10 **SUSSEX SCHOOL** Position: Math and Social Studies Instructor
Missoula, Montana

- Created and taught middle school mathematics curricula, including: algebraic systems, data interpretation and modeling, and real-world applications

2004-08 **THE UNIVERSITY OF MONTANA** Position: Adjunct Instructor
Missoula, Montana

- Instructed Introductory and Environmental Geology and Natural Hazards courses.

2002-05 **THE UNIVERSITY OF MONTANA** Position: Teacher Assistant
Missoula, Montana

- Assisted the teaching of Physical Science for education majors and the Geology Lab

2000-01 **TERRACON** Position: Field Geologist
Ft. Collins, Colorado

- Logged drill cores, assessed rock/soil samples, and constructed subsurface and plan geologic interpretations for commercial, residential and civil developments

Project Experience

2016 **MARINE SURVEY REPORTS** Project: Submarine Cables and Pipelines
SHDAS, ORVAL Inshore, DEPRS

Project: Marine Installations
Tophill Low Res., Rehoboth, Oswestry Res., Acajutla LNG Plant, Elderberry Forebay

- Project manager, lead or contributing writer and data analyst

2015 **MARINE SURVEY REPORTS** Project: Submarine Cables
GTMO SFOC

Project: Marine Installations
Merchants Bridge

- Project manager, lead or contributing writer and data analyst

DESKTOP STUDIES Project: Submarine Cables
ORVAL

- Project manager, lead writer and data analyst

2014 **MARINE SURVEY REPORTS** Project: Submarine Cables and Pipelines
WCGT, Virginia VOWTAP, PRGT

Project: Marine Installations
AWISS, Colorado River Reservoir, Siesta Key Sand Prospect

DESKTOP STUDIES Project: Submarine Cables
GBOOC

- Project manager, lead or contributing writer and data analyst

2013 **MARINE SURVEY REPORTS** Project: Submarine Cables and Pipelines
PRGT, PCCS Seg 1, SSCS Branch 1, MonIta HVDC Nearshore, BLAST

Project: Marine Installations
Matagorda Shipping Channel, Krum Bay Berthing Area, Bolongo Bay Wind Farm, Obispito Bay Port Facility, Flamenco Bay Port Facility

- Project manager, lead or contributing writer and data analyst

2012 **MARINE SURVEY REPORTS** Project: Submarine Cables and Pipelines
Block 22, TPKM-3

Project: Marine Installations
Manistee River Dredge

DESKTOP STUDIES Project: Pipeline
Block 22

- Project manager, lead writer and contributing data analyst (MSR); project manager and lead writer (DTS)

2011 **MARINE SURVEY REPORTS** Project: Submarine Cables and Pipelines
Haiti Cable, viNGN, Maple, Juniper, Asia Subsea Express, Southeast Asia Japan

DESKTOP STUDIES Project: Submarine Cables
TPKM-3, Fibralink Ext., Ufinet, viNGN, Maple

- Project manager, lead writer and contributing data analyst (MSR); project manager and lead writer (DTS)

2010 **MARINE SURVEY REPORTS** Project: Submarine Cables
AdOCS-2, Loran-Manatee, RSN

Project: Marine Installations
St. Clair River, Lake Huron

DESKTOP STUDIES Project: Submarine Cables and Pipelines
AdOCS-2, RSN, ECGPL

- Lead and contributing writer and contributing data analyst (MSR); project manager and lead writer (DTS)

2009 **MARINE SURVEY REPORTS** Project: Submarine Cables and Pipelines
SAIT, Pelican, Toucan

DESKTOP STUDIES Project: Submarine Cables
SAIT, SAIT Panama Ext., CSNet

- Lead and contributing writer and contributing data analyst (MSR); project manager and lead writer (DTS)

2008 **MARINE SURVEY REPORTS** Project: Pipelines
Zandolie, Whiptail, Iguana

DESKTOP STUDIES Project: Submarine Cables
Unity

- Contributing writer and data analyst (MSR); contributing writer (DTS)

Education

ABD **THE UNIVERSITY OF MONTANA** Program: PhD Candidate, Geoscience
Missoula, Montana

- Dissertation topic focused on the affect of lee vortex stability on the morphology of ripples in transitional and three-dimensional flow. Earned a 4.0 GPA and received an NSF-funded doctoral fellowship from the Center for Learning and Teaching (West) to understand and mitigate the underrepresentation of American Indians in math and science.

2010 ***THE UNIVERSITY OF MONTANA*** Program: MS, Geoscience
Missoula, Montana

- Thesis topic focused on the patterns and processes of unidirectional current ripples at Netarts Bay, Oregon. 4.0 GPA.

1999 **THE UNIVERSITY OF MONTANA** Program: BA, Geology
Missoula, Montana

- Senior thesis focused on disambiguating descriptive and genetic sedimentary rock classifications. 3.8 GPA and graduated with High Honors on the Western Undergraduate Exchange scholarship.

1996-7 **ARAPAHOE COMMUNITY COLLEGE** Program: Core Courses
Littleton, Colorado

1994 **RED ROCKS COMMUNITY COLLEGE** Program: Core Courses
Arvada, Colorado

Research

2016 **IN PREPARATION** Project: Paper
Journal of Sedimentology

- The Patterns and Processes of Current Ripples on the Tidal Sand Flats of Netarts Bay, Oregon

2015 **IN PREPARATION** Project: Paper
Journal of Curriculum Theorizing

- A Systems Theory Perspective on Culture, Education and Blackfoot Science Pedagogy

2011 **PRESENTED** Project: Poster & Abstract
GSA Convention, Minneapolis, MN

- Zunker, M. *The Role of Lee Vortices in the Patterns and Processes of Current Ripples, Netarts Bay, Oregon*

2010 **PUBLISHED** Project: Article
Mathematics Teacher

- Winston, B. and M. Zunker. *How Long Does It Take a Person to Sober Up? Some Mathematics and Science of DUI*

2009 **PROFESSIONAL** Project: Curriculum

Sussex School, Missoula, MT

- The mathematics of the Great Pyramid of Giza

2008 **PROFESSIONAL** Project: Curriculum

Sussex School, Missoula, MT

- The mathematics and science of DUI

2007-9 **PRESENTED** Project: Talks

NCTM Conferences at Washington D.C. and Salt Lake City, UT; MCTM Conference, Belgrade, MT

- Winston, B. and M. Zunker. *The Mathematics and Science of DUI*

2005 **PUBLISHED** Project: Abstract

GSA Convention, Salt Lake City, UT

- Zunker, M. and D. Winston. *Three Dimensional Flow Ripple Patterns and Their Inferred Flow Dynamics on Tidal Sand Flats, Netarts Bay, Oregon*

2003 **PRESENTED** Project: Poster

Belt Symposium, Missoula, MT

- Zunker, M., R. Ambrose and B. Pallister. *A Palinspastic Restoration of Selected Formations in the Belt-Purcell Supergroup*