

# Ivan A. Svrcek, PE

## Mechanical Engineer

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**TDI-Brooks International, Inc.**

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Ph: (979) 693-3446 Fax: (979) 693-6389

[www.tdi-bi.com](http://www.tdi-bi.com)

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### PROFESSIONAL EXPERIENCE

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- Mechanical Engineer, TDI-Brooks International, Inc., 2011 - Present
- Mechanical Engineer, Naval Air Warfare Center Weapons Division, 2009 - 2011

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### PROFESSIONAL HIGHLIGHTS

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- More than 30 cruises and mobilizations over the past 13yrs as a technical member of the geotechnical survey parties.
- Over 50 significant research projects, upgrades and new designs of custom tools and instruments for TDI-Brooks
- Substantial practice outfitting vessels and analyzing/upgrading/designing marine deployment machinery and lifting structures. More than 40 notable systems handled for TDI-Brooks' vessels and third party ship deployments
- 2 years' experience in environmental system testing and analysis for the U.S. Navy

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### KEY ACHIEVEMENTS - TDI BROOKS INTERNATIONAL, INC.

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- Upgraded and designed new, unique coring tools, lab instruments, field instruments and other data acquisition systems such as TDI-Brooks' CPT-Stinger, Pneumatic Vibracore and Auto-Tbar.
- Designed small deck machinery and technical vessel accessories such as side mount transducer poles, moonpool systems, deck hydraulic systems and tow booms.
- Performed investigative research, modeling, testing and simulation to explore the feasibility of new tool concepts and understand phenomenon observed in the field with existing tools.
- Retrofitted primary vessel winches to optimize them for operational needs with custom designed coarse lay levelwinds optimized for synthetic rope and piston coring needs or power increases to reduce deployment times
- Outfitted vessels such as the RV Gyre for technical work by laying out decks, designing custom machinery and deck structures, performing stability surveys and writing loading calculators to aid masters in maintaining stability
- Conducted project feasibility investigations and planned non-standard tool deployments on third party and TDI-Brooks vessels along with field analyses of lifting structures and machinery to determine safe limits for these operations
- Designed handling systems for tools ranging from 500lb box cores to 14,000lb piston cores and 9,000lb submarines
- Designed the lifting equipment required to launch and recover TDI-Brooks' entire tool suite. Systems such as the 60,000lb SWL Manta-200 deployment on the RV Nautilus, the "10K" 10,000lb SWL stern a-frame on the RV Gyre, and a fleet of portable "5K" 5,000lb SWL side a-frames used on TDI-Brooks' and third party vessels

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### KEY ACHIEVEMENTS - NAVAL AIR WARFARE CENTER WEAPONS DIVISION

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- Designed fixturing for air qualification, rate table, vibration, shock and temperature envelope testing of the LOGIR missile and performed the tests
- Conducted modal analyses of LOGIR missile components as well as the all-up missile and other missiles and test articles
- Designed a test and fixtures to determine the forces generated during a bullet impact of P-8 Poseidon emergency crew oxygen bottles and evaluate the feasibility of containing shrapnel from composite tanks instead of steel tanks
- Wrote shock and launch acceleration test programs for the SPIKE missile electronic safe arm device and performed tests
- Consulted Millenniata Inc. on accelerated testing of their "M-Disc" and performed the resulting modified test programs

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### FORMAL EDUCATION

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- Texas A&M University, College Station, TX, Bachelor of Science, Mechanical Engineering, 2009

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### PROFESSIONAL TRAINING AND CERTIFICATIONS

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- Professional Engineer, Texas License #139686

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### FIELD EXPERIENCE

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- Mech Eng, Winch and deployment systems upgrades/N5K mobilization, Connecticut, RV Nautilus, 3 June-8 June 2024
- CPT Tech, Windfarm Geotech Survey, Vineyard Northeast, New York, RV Nautilus, 4 March-27 March 2024
- Mech Eng, RV Nautilus outfitting, Spain, RV Nautilus, 24 Jan-27 Jan, 3 April-, 28 May – 4 June, 6 July – 14 July, 12 Nov-22 Nov 2023
- Mech Eng, Pneumatic Vibracore TRT Install, Massachusetts, RV Brooks McCall, 17 Oct– 19 Oct 2022
- Mech Eng, Windfarm Geotech Survey, Vineyard Northeast, Massachusetts, RV Brooks McCall, 13 June – 28 June 2022
- CPT Tech, Pipeline Geotech Survey, Williams, New York, RV Brooks McCall, 29 Oct -9 Nov 2021
- CPT Tech, Windfarm Geotech Survey, US Wind, Maryland, RV Brooks McCall, 11 Aug - 9 Sept 2021
- CPT Expert, Pipeline Geotech Survey, Drebbel, Mexico, BA Natalie, 1 Aug - 11 Aug 2020
- Mech Eng, Geotech Survey, Ocean Infinity, Trinidad, Seabed Constructor 18 Dec – 22 Dec 2019
- Mech Eng, Geotech Survey, Oceaneering, BHP-Trion, Mexico, CSV Ocean Investigator, 15 Aug -17 Aug, 15 Sept -24 Sept, 8 Nov – 11 Nov 2019
- Mech Eng /CPT Tech, Geotech Pipeline Survey, Drebbel, Mexico, BA Natalie, 22 March – 13 April 2019
- Party Chief, Cable Route Survey, Geoteam, Guadalupe, RV Proteus, 13 Feb – 19 Feb 2019
- CPT Tech, Geotech Survey, ENSCO, Gulf of Mexico, RV Brooks McCall, 28 Sept – 29 Sept 2016
- Mech Eng, Vessel Stability Calculation and Inspection, RV Gyre, 4 Dec – 6 Dec, 2018
- CPT Deck Chief, Cable Route, CSR GeoSurveys, Lake Ontario, Radium Yellowknife, 9 Nov – 15 Nov 2018
- Mech Eng /Deckman, Geotechnical Investigation, Benthic Geotech Pty LTD, Esso Exploration and Production Guyana, Atlantic Ocean, SABLE, 26 Aug – 16 Sept 2018
- Mech Eng, EBS Survey, Total S.A., Mexico, OSV Maris, 26 Feb – 2 March 2018
- CPT Tech/Deck Chief, Cable Route Survey, TerraSond Ltd., Bering Sea, 22 Sept – 4 Oct 2017
- Mech Eng, Environmental Baseline Survey, Amec Foster Wheeler (AFW), BHP Billiton Petróleo Operaciones De México, Gulf of Mexico, Laguna Azul, 07 July – 10 July 2017
- CPT Tech, Geotechnical Survey, Atlantic Ocean, R/V Proteus, 10 June - 27 June 2017
- Lab Tech, Geotechnical Survey, Anadarko Petroleum Corporation (Anadarko), Caribbean Sea, R/V Proteus, 12 June – 14 June 2017
- T-Bar Tech, Geotechnical Survey, Oceanering, Gulf of Mexico, 19 Dec – 29 Dec 2016 (Leg 1) & 2 Jan – 7 Jan 2017 (Leg 2)
- T-Bar Tech, Geotechnical Survey, LEEDco, Lake Erie, Salvage Chief, 3 Sept - 20 Sept (Leg 1) & 30 Sept - 12 Oct 2016 (Leg 2)
- CPT Tech, Geotech Survey, ENSCO, Gulf of Mexico, R/V Brooks McCall, 28 Sep – 29 Sept 2016
- Party Chief, DOF Subsea, Port of Brownsville, Keppel Amfels Barge, 24 March 2016
- CPT Technician, DOF subsea, Port of Brownsville, R/V Proteus, 05 March – 06 March 2016
- Deckman, Geotechnical Survey, G3 Óleo e Gás Ltda. (G3OG), Atlantic Ocean, R/V Gyre, 20 Jan 2016 – 28 Jan 2016
- Mech Eng, Geotechnical Survey, Anadarko Petroleum Corporation, Gulf of Mexico, R/V Brooks McCall, 14 Feb – 20 Feb 2015
- Mech Eng, Sea Trial, Gulf of Mexico, R/V Proteus, 07 June – 09 June 2014
- Deckman, Geotechnical Survey, Conoco Phillips, Gulf of Mexico, RV Brooks McCall, 04 Dec 2013
- CPT Tech, Geotechnical Survey, Shell Offshore Inc., Gulf of Mexico, RV Brooks McCall, 08 Sept – 12 Oct (Leg 1) & 26 Nov – 04 Dec 2013 (Leg 2)
- Mech Eng, Geotech Survey, Hess Corp, Gulf of Mexico, RV Brooks McCall, 12 Dec – 28 Dec 2012
- Deckman, Geotech Survey, Anadarko, Indian Ocean, OSV Rylan-T, 15 Nov – 20 Nov 2012
- Deckman, Geotechnical Survey, Exxon Mobil, Gulf of Mexico, RV Brooks McCall, 22 Feb – 31 March 2012
- Deckman, Geotechnical Survey, Exxon Mobil, Gulf of Mexico, RV Brooks McCall, 22 Feb – 31 March 2012
- Deckman, Geotechnical Survey, BP America, Gulf of Mexico, RV Brooks McCall, 04 Nov – 18 Nov 2011

### REPORTS

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- Svrcek, Ivan, 2009. Accelerated Life Cycle Comparison of Millenniata Archival DVD, Naval Air Warfare Center Weapons Division - Life Cycle and Environmental Engineering Branch