



SHORT COURSE

TRAINING

WEEK

May 7 – 11, 2018

REGISTER ONLINE <https://minervatri.wufoo.com/forms/mt8j7y509glctn/>

**LINER INTEGRITY SURVEYS/
ASSESSMENTS (LISA)**

May 7 – 8, 2018

**SLOPE STABILITY OF
CONTAINMENT SYSTEMS**

May 7 – 8, 2018

**CONSTRUCTION QA/QC FOR
GEOSYNTHETIC INSTALLATIONS**

May 9, 2018

**CONSTRUCTION QA/QC FOR COMPACTED
CLAY LINER & GCL INSTALLATION**

May 10, 2018

**GEOSYNTHETIC CERTIFICATION INSTITUTE –
INSPECTORS CERTIFICATION PROGRAM
(GCI-ICP) EXAM**

May 11, 2018

Accredited Geosynthetics Laboratories
Accreditation Designation # GAI-LAP-001



v030618

LOCATION

TRI/Environmental, Inc. | Bldg. A Facility | 9063 Bee Caves Rd. | Austin, TX 78733, USA

TRI-Environmental.com

Create a new revenue center and provide growing, in-demand services to clients. LISA complements existing services offered by most CQA firms practicing in waste management. Water resource conservation, lined tanks, mining, and other sectors are now using LISA too.



LISA TRAINING, MAY 7 – 8, 2018

A Liner Integrity Survey (Electrical Leak Location) is a state-of-the-art, nondestructive method of locating leaks in installed geomembranes. LISA equipment, rooted in geophysical measurement techniques, tests exposed and soil or water-covered geomembranes. TRI's training course disseminates the theoretical and practical knowledge required to employ and specify the quality of LISA methods and equipment.

The course includes a classroom example of a test cell process which simulates the ELL testing process.

The Liner Integrity Surveys/Assessments (LISA) class provides the most up-to-date information on survey methods and standards (e.g., ASTM). It is ideal for design engineers, CQA firms, site owners, and regulators interested in specifying and employing this service.

LISA Certification

A multi-part certification process has been designed for survey performers. Graduates of this program:

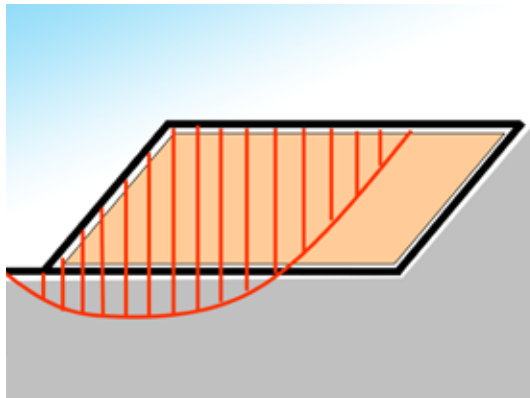
- Understand the basis of geo-electrical leak testing
- Select the most appropriate LISA methodology under a variety of site circumstances
- Are able to perform each LISA method
- Know how to generate LISA reports
- Have on-going access to the resources of TRI as they begin to perform surveys for clients

The course, offered by the TRI-Corp Liner Integrity Center (T-CLIC), assists those who are interested in adding LISA to their business, as well as those who review LISA results for regulatory or client approval.

A proctored Level 2 ELL Certification Exam will be offered on May 8 for interested participants.

This course, worth 8 PDHs, is specifically targeted to those persons who have a need to understand and specify interface friction and direct shear tests; and who use these results in subsequent design, construction, and monitoring performance of containment structures. Participants include:

- Design, Consulting and Certifying Engineers
- Construction and Quality Assurance Managers
- Manufacturers
- Installers and Contractors
- Third-Party Inspectors
- Regulators Engineers
- Construction/Quality Assurance
- Project Managers
- Installers/Contractors
- Third-Party Inspectors
- Regulators



SLOPE STABILITY OF CONTAINMENT SYSTEMS, MAY 7 – 8, 2018

Modern waste containment structures (e.g. municipal and hazardous waste landfills, coal ash surface impoundments, heap leach pads) are constructed using multiple layers of geosynthetic materials such as geomembranes, geotextiles, geonets, geocomposites, and geosynthetic clay liners (GCL). The design of a containment structure not only requires an understanding of the properties of each individual geosynthetic material but also the ability to comprehend the interaction mechanism (friction) between various geosynthetic layer interfaces. This understanding of interface friction between various geosynthetic layers becomes even more challenging as the interface governing the stability of slopes within a containment structure may change depending on if the project is in a construction phase, a waste filling phase, or being closed with a final cover system.

The standard test method for the evaluation of friction between one geosynthetic and another or between soil and a geosynthetic is ASTM D5321 (large-scale direct shear test for geosynthetics) and ASTM D6243 (determining internal and interface shear strength of GCLs). While these tests are simple in concept, the generated test results are significantly affected by the test parameters and the procedures used for testing the materials. As a result, understanding how to formulate specifications, interpret specifications, execute testing programs, and

interpret the results for interface friction testing programs become a crucial part of the design and construction of an engineered enclosure.

The presenters, one from a third party laboratory and one with experience as a geoenvironmental consultant and now working as an owner's engineer, will address a broad range of issues related to laboratory testing and design of containment structures. This course will be presented in two parts, each of which complements the other, to provide maximum benefit to the attendees. The first part will focus on slope stability of containment structures including an overview of sources of interface strength, the difference between peak and large displacement strength for design, the relation between normal stress and failure envelopes, and slope stability calculations.

The second part will provide an explanation of ASTM D5321, including detailed discussion of test parameters. Procedural implications of specimen anchorage, normal stress application, machine friction and calibration, rate of shear, and reporting mechanisms will be discussed. In addition, limitations of the ASTM D5321 test will be explored, with explanation of alternative tests including torsional shear, tilt table, and double interface shear. Special emphasis will be placed on specifying a meaningful shear test that will best serve the user's project requirements. The forensic analysis of several slope failure case studies will be presented to help relate the material presented during the course with real-world applications.

Professionals who benefit from this course:

- Specifying/Certifying Engineers
- Construction/Quality Assurance
- Project Managers
- Installers/Contractors
- Third-Party Inspectors
- Regulators



FIELD CQC / CQA TRAINING, MAY 9 – 10, 2018

These two 1-day courses may be taken singly or as a package. They are designed specifically for those who need a detailed understanding of proper CQC and CQA procedures at waste containment facilities.

The courses provide ideal preparation for the Geosynthetic Certification Institute's Inspectors Certification Program (GCI-ICP) exam.

Gain comprehensive understanding of:

- Preparing CQC/CQA plans
- Reviewing CQC/CQA plans
- Performing CQC/CQA observations and tests
- Reviewing field CQC/CQA procedures

Each course presents material that complements the other. Day 1 focuses on installation of geomembranes, geotextiles, geocomposites, geogrids, and geo-appurtenances. It includes demonstrations of geomembrane seaming and seam peel and shear testing. Day 2 focuses on the installation of compacted clay and geosynthetic clay liners (GCLs). Special emphasis will be given to establishing rationale and standard operating procedures for field inspections, documentation of test and visual observations, and implementation of CQA plans. A broad appreciation for the manufacture and installation of containment facility materials will be provided. Additionally, a tour of TRI's Geosynthetic Testing and Research Laboratories will support class curriculum through test demonstrations, details on some TRI internal R&D projects, and discussion of other relevant topics.

GCI-ICP CERTIFICATION EXAM, MAY 11, 2018

CQA course students will be allowed to sit for the Geosynthetic Certification Institute-Inspectors Certification Program (GCI-ICP) exams immediately following the CQA courses. All exam-interested students MUST REGISTER with the Geosynthetic Institute (GSI) and pay GSI's certification fee before the test. TRI does NOT collect this fee. Contact GSI (+1 610 522 8440) for more information.

Exceptional Professional Development

LISA training, slope stability understanding, and CQA of geosynthetics complement and expand opportunities for engineering consulting and design practice. TRI's Short Course Training Week participants will be provided a certificate of course completion, suitable for use in proposals and statements of qualifications for CQC/CQA work. These unique programs provide professional growth and exceptional business development opportunities.

WHERE TO STAY

- Holiday Inn Express Hotel & Suites, Austin-Sunset Valley, 4892 US Highway 290 West, Austin, TX 78733, 1 800 315 2621, 10 miles from airport, 9.9 miles from short course, NO shuttle service
- Extended StayAmerica Austin – Southwest, 5100 US Hwy. 290 W., Austin, TX 78735, Telephone: 512- 892-4272, 15.7 miles from airport, 9.54 miles from short course, NO shuttle service
- Sonesta Bee Cave Austin – 12525 Bee Cave Parkway, Bee Cave, TX 78738, Telephone: 512-483-5900, Call for a Reduced Rate - code: TXRES, 20 miles from airport, 5.2 miles from short course, NO shuttle service

ABOUT TRI

TRI/Environmental, Inc. (TRI) has been active in geosynthetics testing, inspection and research and development for 20 years. TRI is an independent, third-party laboratory unaffiliated with any manufacturing, engineering/consulting, or construction management firm.

REGISTRATION

Download registration forms for the courses and exams at: TRI-Environmental.com

Online registration is available at: <https://minervatri.wufoo.com/forms/mt8j7y509glctn/>



Sam Allen



Jeffery Blum



Abigail Gilson



Ranjiv Gupta



Jeffrey Kuhn



Mark Sieracke

Sam Allen

Vice President and Division Manager

Sam Allen is the Vice President of Texas Research International's (TRI) Geosynthetic Services Division. He has served as Chairman of ASTM Committee D35 on Geosynthetics and currently serves on the Board of Directors of the Geosynthetic Institute (GSI).

Jeffrey Blum

Senior Project Manager for Weaver Consultants Group

Jeffery Blum serves as a senior project manager for Weaver Consultants Group and has 25 years of landfill and wastewater impoundment construction quality assurance experience. His work has involved a wide variety of soils and geosynthetics. Jeff served on steering committees during the development of the GCI - Inspector Certification Program and the earlier NICET Geosynthetic Certification Program. Jeff has 10+ years of LISA experience.

Abigail Gilson, M.S., P.E.

Senior Engineer for TRI/Environmental

Abigail Gilson, M.S., P.E., is the Director of TRI Environmental's Liner Integrity Services. She has a wealth of experience in geomembrane-lined containment facility design and construction and has performed liner integrity surveys since 2004. As a graduate of TRI's inaugural liner integrity class in 2003, her liner integrity and leak location field experience has exceeded 160 million square feet and over 100 projects. Her contribution to the field of electrical leak location includes numerous published technical papers, educational seminars, presentations world-wide, and chairing the ASTM committee for the recent revisions and additions to the ASTM Standard Guide and Practices. Ms. Gilson's expertise is available for providing equipment, field training, classroom education, instructional presentations, engineering consulting, and liner integrity survey execution. She has trained staff in all of TRI's office locations to provide local assistance on survey projects..

Dr. Ranjiv Gupta, P.E.

Senior Engineer for Freeport-McMoRan

Dr. Ranjiv Gupta, P.E., is a Senior Tailings Engineer with Freeport-McMoRan in Phoenix, Arizona. Dr. Gupta has 12 years of academic and professional experience in the field of geotechnical and geosynthetic engineering. His research work at the University of Texas, Austin included developing soil-geosynthetic interface models for geosynthetic reinforced pavements over expansive clays. Prior to joining Freeport-McMoRan, Dr. Gupta worked as a project engineer with Geosyntec Consultants for seven years. Dr. Gupta's has been involved with the design and permitting of waste containments structures, including solid and hazardous waste landfills, coal-combustion residual surface impoundments and mine tailing facilities throughout the US. Dr. Gupta is the member of ASCE-Geoinstitute technical committees on Sustainability and Geoenvironmental Engineering. He currently serves as a Vice-President and Treasurer on the Board of International Geosynthetics Society's North America chapter.

Dr. Jeffrey Kuhn, P.E.

Director of TRI Geotechnical Laboratory

Dr. Jeffrey A. Kuhn, P.E., is the Geotechnical Laboratory Director for TRI/Environmental, Inc. His doctoral work principally focused on alternative/evapotranspirative cover design and evaluation for the EPA, and he performed research with expansive clays for the Texas Department of Transportation (TxDOT). Prior to joining TRI, he served as a consulting engineer, where he worked on the design and installation of the Circuit of the Americas Formula One Race Track over expansive clays with tight differential movement criteria. Since 2012, he's led the expansion of TRI's geotechnical laboratory capabilities and reach within the geotechnical community.

Mark Sieracke, P.E.

Landfill Design and CQA Consultant

Mark D. Sieracke, P.E., is an industry-recognized expert in the fields of landfill design and CQA. Mark serves as a Principal and Solid Waste Practice Area Manager for Weaver Consultants Group. Mark has served as a Technical Reviewer of the US EPA Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities (EPA/600/R-93/182, Sept. 1993). He has served as a hands-on CQA practitioner, certifying engineer, and consultant for 1000+ acres of geosynthetic installations. He contributes routinely to landfill failure investigations and constructability reviews for design engineers. Mark serves on the Waste Management Inc. (WMI) Geosynthetic Task Force, creating the corporate standards for CQA.

LISA - SHORT COURSE OUTLINE MAY 7 – 8, 2018

With Abigail Gilson, M.S., P.E. and Jeffrey Blum

| May 7, 2018 | |
|---------------------|---|
| 8:30 – 8:45 AM | Welcome |
| 8:45 – 9:00 AM | Introduction & Applications |
| 9:00 – 9:30 AM | Significance of LIS |
| 9:30 – 9:45 AM | Leak Statistics |
| 9:45 – 10:15 AM | Electricity 101 |
| 10:15 – 10:30 AM | Break |
| 10:30 – 11:15 AM | Bare Geomembrane Methods Instruction |
| 11:15 AM – 12:15 PM | Bare Geomembrane Methods Hands-on Practice |
| 12:15 – 1:00 PM | Lunch (<i>provided</i>) |
| 1:00 – 2:00 PM | Dipole Method Instruction |
| 2:00 – 5:00 PM | Hands-On Dipole Method Practice |
| 5:00 – 5:15 PM | Q&A |
| 5:30–6:30 PM | Tour of TRI's Accredited Geosynthetics Testing Laboratory |
| 6:30 – 9:00 PM | Tex-Mex Dinner |
| May 8, 2018 | |
| 8:30 AM – 9:45 AM | Designing for and specifying LIS |
| 9:45 – 10:15 AM | Advanced Dipole Mapping |
| 10:15 – 10:30 AM | Break |
| 10:30 – 11:00 AM | Method Standards |
| 11:00 – 11:30 AM | Leak Location Distance Testing & Survey QC |
| 11:30 AM – 12:00 PM | Leak Location Equipment |
| 12:00 – 12:45 PM | Lunch (<i>provided</i>) |
| 12:45 – 1:15 PM | Case Histories - <i>Jeff Blum</i> |
| 1:15 – 1:45 PM | Case Histories - <i>Abigail Gilson</i> |
| 1:45 – 2:00 PM | Final Q&A |
| 2:00 – 2:30 PM | Break |
| 2:30 – 5:00 PM | Proctored Level 2 ELIS Certification Exam |

SLOPE STABILITY OF CONTAINMENT SYSTEMS SHORT COURSE OUTLINE MAY 7 – 8, 2018

With Dr. Jeffrey Kuhn, P.E. and Dr. Ranjiv Gupta, P.E.

| May 7, 2018 | |
|---------------------|---|
| 8:00 – 8:30 AM | Registration and Coffee |
| 8:30 – 8:45 AM | Welcome |
| 8:45 – 9:45 AM | Introduction and Overview |
| 9:45 – 10:00 AM | Break |
| 10:00 – 11:15 AM | Case Histories I – <i>What happened, what was learned, how industry was impacted</i> |
| 11:15 AM – 12:00 PM | Lunch (Provided, On Site) |
| 12:00 – 1:15 PM | Slope Stability I – <i>How to approach a slope stability problem, what's needed for evaluation, what can be done, what can't be done</i> |
| 1:15 – 1:30 PM | Break |
| 1:30 – 3:00 PM | Slope Stability II – <i>Discussion related to Factor of Safety, Limit Equilibrium, Gas Pressure, Pseudo-static, Seismic, and Remedial Measures</i> |
| 3:00 – 3:15 PM | Break |
| 3:15 – 4:30 PM | Case Histories II – <i>A real world application: Illustrative example of a slope stability problem showing how a shear testing program was established (specified), how the results were interpreted, and how the results were used in stability analysis</i> |
| 4:30 – 5:00 PM | Discussion – <i>Recap of Day 1, Questions and Concerns, Highlights</i> |
| 5:00 PM | Dinner at County Line |
| May 8, 2018 | |
| 8:00 – 8:30 AM | Breakfast and Coffee |
| 8:30 – 9:45 AM | Interface Shear Strength Testing I – <i>Historical Background, Equipment, Normal Stress, Clamping, Step and Ramp Loading, Conditioning and Consolidation, Traditional Shear Rates, Shear Rate Determination</i> |
| 9:45 – 10:00 AM | Break |
| 10:00 – 11:15 AM | Interface Shear Strength Testing II – <i>Step and Ramp Loading, Pre-Hydration/Conditioning, Single and Multi-layer Interface, How to Review Test Results, Historical Databases, Review of Demonstration Data</i> |
| 11:15 AM – 12:00 PM | Lunch (Provided, On Site) |
| 12:00 – 3:00 PM | Laboratory Tour and Interface Test Demonstration – <i>Visit TRI Geotechnical and Geosynthetics Laboratory, Interface test setup, Data collection and interpretation</i> |
| 3:00 – 3:15 PM | Break |
| 3:15 – 4:00 PM | Final Remarks and Survey – <i>Recap of Day 2, Questions and Concerns, Highlights</i> |
| 4:00 PM | Closing |

CQA FOR GEOSYNTHETIC INSTALLATIONS SHORT COURSE OUTLINE MAY 9, 2018

With Sam Allen and Mark Sieracke, P.E.

| May 9, 2018 | | |
|---------------------|---|----------------------|
| 7:30 – 8:00 AM | Registration | |
| 8:00 – 8:15 AM | Welcome and Introductions | Allen |
| 8:15 – 8:30 AM | CQA Principles and Philosophy – <i>Responsibilities, appreciation of role, professional considerations and on-site protocol, conflict resolution, etc.</i> | Sieracke |
| 8:30 – 9:30 AM | Background of Geosynthetics and Manufacturing – <i>Polymers to products, material properties, product manufacturing</i> | Allen |
| 9:30 – 10:30 AM | HDPE & LLDPE & fPP Geomembranes & Seams – <i>Types and specifications, shipping/receiving, unloading, storage & installation</i> | Sieracke |
| 10:30 – 10:45 AM | Break | Sieracke |
| 10:45 – 11:15 AM | HDPE & LLDPE & fPP Geomembranes & Seams – Continued | |
| 11:15 AM – 12:15 PM | Welding Demonstration/Seam Testing – <i>Double track fusion welds, extrusion welds, “T” welds, seam sampling, peel and shear testing, peel incursion and strain measurements, modes of failure, break codes, field vs. laboratory testing</i> | Sieracke & Installer |
| 12:15 – 1:00 PM | Lunch (provided) | |
| 1:00 – 2:00 PM | Special Guest Lecture | |
| 2:00 – 2:30 PM | PVC Geomembranes & Seams – <i>Types and specifications, shipping/receiving, unloading, storage & installation</i> | Allen |
| 2:30 – 3:30 PM | Geotextiles, Geonets/Geocomposites, Geogrids, Pipe, Erosion Control – <i>Types and specifications, shipping/receiving, unloading, storage & installation</i> | Allen |
| 3:30 – 3:45 PM | Break | |
| 3:45 – 4:30 PM | Protection and Soil Cover | Sieracke |
| 4:30 – 4:45 PM | CQA Paperwork and Record Keeping – <i>Importance of documentation, communication records, examples of record keeping and documentation, checklists</i> | Sieracke |
| 4:45 – 5:00 PM | Discussion | |
| 5:00 – 6:00 PM | Tour of TRI Geosynthetic Testing and Research Laboratories – <i>Test demonstrations, explanation of some TRI internal R&D projects, etc.</i> | |
| 6:00 – 8:00 PM | Texas BBQ Dinner (provided) | |

CQA FOR COMPACTED CLAY & GEOSYNTHETIC CLAY LINER (GCL) INSTALLATIONS SHORT COURSE OUTLINE MAY 10, 2018 *With Dr. Jeffrey Kuhn, P.E.*

| May 10, 2018 | |
|---------------------|--|
| 8:00 – 8:30 AM | Registration |
| 8:30 – 9:00 AM | Liner and Cover Systems – <i>Single liners/double liners/composite liners, leakage rates through soil, composite action with geomembranes, importance of drainage layer properties</i> |
| 9:00 – 10:30 AM | Compacted Clay – <i>Materials, factors affecting hydraulic conductivity, clod vs. particle orientation theory, keys to low hydraulic conductivity, water content-density criteria, recommended procedures for determining acceptable zone, influence of overburden stress, bonding of lifts, thickness</i> |
| 10:30 – 10:45 AM | Break |
| 10:45 AM – 12:00 PM | Construction of Compacted Clay Liners and Covers – <i>Equipment, preprocessing of soil, soil moisture control, sieving, clod control, crushing/pulverizing materials, compaction, test pads</i> |
| 12:00 – 1:00 PM | Lunch (<i>provided</i>) |
| 1:00 – 2:00 PM | CQA for Compacted Clay Liners and Covers – <i>CQA principles, CQA plan, tests, observations, field water content tests, field density tests, hydraulic conductivity compliance tests, frequency of tests, sampling pattern, outliers, corrective action, role of test pads, final certification</i> |
| 2:00 – 3:00 PM | History of GCLs – <i>Commercially-produced GCLs, geosynthetic materials, manufacturing of GCLs, manufacturing quality control, recommended specifications</i> |
| 3:00 – 3:15 PM | Break |
| 3:15 – 4:00 PM | Bentonite – <i>Measures of and tests for bentonite quality, recommended specifications for bentonite in GCLs, contaminant-resistant bentonite</i> |
| 4:00 – 5:00 PM | Installation of GCLs – <i>Transportation, handling, storage, subgrade preparation, placement procedures, seaming protection, construction quality control and assurance, observations, types of tests, frequency of testing, field case history</i> |
| 5:00 – 5:30 PM | Open discussion |

CERTIFICATION EXAM: GEOSYNTHETIC CERTIFICATION INSTITUTE – INSPECTORS CERTIFICATION PROGRAM (GCI-ICP) MAY 11, 2018

| May 11, 2018 | |
|------------------|---------------------------------|
| 7:45 – 8:00 AM | Registration and Introduction |
| 8:00 – 10:00 AM | Geosynthetic Exam |
| 10:00 – 10:25 AM | Break |
| 10:30 – 11:30 AM | Compacted Clay Liner (CCL) Exam |

Information regarding exams

- ALL students wishing to sit for the exam(s) MUST FIRST register for certification through the Geosynthetic Institute (GSI) and pay the applicable fees directly to GSI (phone: +1-610-522-8440). GSI registration must be received by the GSI 7-10 days before the May 11 exam(s).
- Students are REQUIRED to bring a government-issued photo ID prior to entering the testing room. They must also supply the Proctor with a photocopy of the ID when turning in the test.

Time allowance and structure

- Students will be given two hours to take the geosynthetic test. There are 140 questions. One must answer 70% of the questions correctly in order to pass. Only one correct answer is possible for each question.
- Students will be given one hour to take the compacted clay liner test, which involves 30 questions. At least 70% of the questions must be answered correctly in order to pass. There is only one correct answer for each question.
- The test is a multiple-choice test. Students must circle the correct answer (and only one answer) for each question. They must not select multiple answers for the same question.



**SHORT COURSE / GCI EXAM COST / TUITION (SEE REGISTRATION FORM)
FOR REGISTRATIONS BEFORE FRIDAY, APRIL 6, 2018**

Liner Integrity Survey Short Course | May 7 – 8, 2018

| | |
|--------------------------------------|------------------|
| 1 registrant per company | \$1350.00/person |
| 2 registrants per company | \$1250.00/person |
| 3+ registrants per company | \$1095.00/person |
| Level 2 Certification Exam | \$500.00/person |

Slope Stability of Containment Systems Short Course | May 7 – 8, 2018

| | |
|--------------------------------------|-----------------|
| 1 registrant per company | \$850.00/person |
| 2 registrants per company | \$800.00/person |
| 3+ registrants per company | \$750.00/person |
| Government employees | \$250.00/person |
| Students | \$150.00/person |

CQC/CQA Short Courses and CQA Exam | May 9 – 10, 2018

| | |
|--|-----------------|
| Both courses, 1 registrant per company | \$850.00/person |
| Both courses, 2 registrants per company | \$800.00/person |
| Both courses, 3+ registrants per company | \$750.00/person |
| Both courses, government | \$300.00/person |
| One course (day) only, 1 registrant per company | \$600.00/person |
| One course (day) only, 2 registrants per company | \$550.00/person |
| One course (day) only, 3 + registrants per company | \$450.00/person |
| One course (day) only, government | \$225.00/person |

GCI Exam | May 11, 2018

| | |
|--|------------------|
| TRI fee for one applicant only per company | \$.75.00/person* |
| TRI fee for 2+ applicants per company | \$.50.00/person* |

*The exam costs above DO NOT reflect the TOTAL cost for sitting for the GCI exam, only TRI's exam proctoring cost.

The GCI exam is part of the GCI CQA technician certification program. Because of this, one MUST REGISTER with the Geosynthetic Institute (GSI) and pay its required certification fee in order to take this exam. TRI does NOT collect the fee for GSI; that fee must be paid directly to GSI. Call +1 610-522-8440 for more information.



(Registration Form continued on page 12)

REGISTRATION FORM

ONLINE REGISTRATION IS AVAILABLE: https://minervatri.wufoo.com/forms/mt8j7y509glctn/

Liner Integrity Survey Short Course | May 7 – 8, 2018

- 1 registrant per company \$1350.00/person
2 registrants per company \$1250.00/person
3+ registrants per company \$1095.00/person
Level 2 Certification Exam \$500.00/person

Slope Stability of Containment Systems Short Course | May 7 – 8, 2018

- 1 registrant per company \$850.00/person
2 registrants per company \$800.00/person
3+ registrants per company \$750.00/person
Government employees. \$250.00/person
Students \$150.00/person

CQC/CQA Short Courses and CQA Exam | May 9 – 10, 2018

- Both courses, 1 registrant per company \$850.00/person
Both courses, 2 registrants per company \$800.00/person
Both courses, 3+ registrants per company \$750.00/person
Both courses, government \$300.00/person
One course (day) only, 1 registrant per company \$600.00/person
One course (day) only, 2 registrants per company. . . . \$550.00/person
One course (day) only, 3 + registrants per company . . \$450.00/person
One course (day) only, government \$225.00/person

GCI Exam | May 11, 2018

- TRI fee for one applicant only per company \$75.00/person*
TRI fee for 2+ applicants per company \$50.00/person*

*The exam costs above DO NOT reflect the TOTAL cost for sitting for the GCI exam, only TRI's exam proctoring cost.

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METHOD OF PAYMENT

Payment may also be made by check, money order, American Express, Visa or MasterCard.

Total Amount Paid (USD \$) _____

- Check Money Order Make check or money order payable to TRI/Environmental, Inc.

Credit Card: American Express Visa MasterCard Credit Card #: _____ Expiration Date: _____

Please direct questions to Mr. Sam Allen, phone: (800) 880-8378, fax: (512) 263 2558.

BILLING / 1ST REGISTRANT INFORMATION Billing Info is SAME as 1st Registrant Info Billing Info is DIFFERENT than Registrant Info

First Name _____ Last Name _____

Position _____ Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

If Billing is SAME as 1st Registrant Info, be sure to check boxes below if appropriate.

(Registration Form continued on page 12)

- I have registered with GCI & paid the GCI certification fee. I will take the Geosynthetic CQA Exam May 11, 2018
I have registered with GCI & paid the GCI certification fee, and I will take the Compacted Clay Liner CQA Exam May 11, 2018

Return ALL Registrations and Payment via Mail or Fax to: TRI, ATTN: Kevin Garcia, 9063 Bee Caves Road, Austin, Texas 78733 (KGarcia@tri-intl.com; Fax: 512-263-2558)

ONLINE REGISTRATION IS AVAILABLE: <https://minervatri.wufoo.com/forms/mt8j7y509glctn/>

REGISTRANT INFORMATION If you have more Registrants, please fill out following Registrant Information fields.

First Name _____ Last Name _____

Position _____ Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

I have registered with GCI & paid the GCI certification fee. I will take the **Geosynthetic CQA Exam** May 11, 2018

I have registered with GCI & paid the GCI certification fee, and I will take the **Compacted Clay Liner CQA Exam** May 11, 2018

REGISTRANT INFORMATION If you have more Registrants, please fill out following Registrant Information fields.

First Name _____ Last Name _____

Position _____ Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

I have registered with GCI & paid the GCI certification fee. I will take the **Geosynthetic CQA Exam** May 11, 2018

I have registered with GCI & paid the GCI certification fee, and I will take the **Compacted Clay Liner CQA Exam** May 11, 2018

REGISTRANT INFORMATION If you have more Registrants, please fill out following Registrant Information fields.

First Name _____ Last Name _____

Position _____ Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

I have registered with GCI & paid the GCI certification fee. I will take the **Geosynthetic CQA Exam** May 11, 2018

I have registered with GCI & paid the GCI certification fee, and I will take the **Compacted Clay Liner CQA Exam** May 11, 2018

Return ALL Registrations and Payment via Mail or Fax to: TRI, ATTN: Kevin Garcia, 9063 Bee Caves Road, Austin, Texas 78733
(KGarcia@tri-intl.com; Fax: 512-263-2558)