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Header 1

List View

**General Information** | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 1258505

Procurement Type: Central Purchase Order

Vendor ID:

Legal Name: ATC GROUP SERVICES LLC

Alias/DBA:

Total Bid: \$0.00

Response Date:

Response Time:

Responded By User ID:

First Name:

Last Name:

Email:

Phone:

SO Doc Code: CEOI

SO Dept: 0313

SO Doc ID: DEP2400000004

Published Date: 8/8/23

Close Date: 8/28/23

Close Time: 13:30

Status: Closed

Solicitation Description:

Total of Header Attachments: 1

Total of All Attachments: 1



Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

**State of West Virginia  
 Solicitation Response**

**Proc Folder:** 1258505  
**Solicitation Description:** EOI - 2023 AML Contract S4  
**Proc Type:** Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2023-08-28 13:30	SR 0313 ESR08282300000000977	1

**VENDOR**  
 000000189555  
 ATC GROUP SERVICES LLC

**Solicitation Number:** CEOI 0313 DEP2400000004  
**Total Bid:** 0  
**Response Date:** 2023-08-28  
**Response Time:** 10:08:36  
**Comments:**

**FOR INFORMATION CONTACT THE BUYER**

Joseph E Hager III  
 (304) 558-2306  
 joseph.e.hageriii@wv.gov

**Vendor Signature X** **FEIN#** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Professional Svcs - Branchland (Blankenship) Portal Drainage				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Branchland (Blankenship) Portal Drainage

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Professional Svcs - Branchland (Crum) Drainage				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Branchland (Crum) Drainage

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Professional Svcs - Branchland Portals Rt. 10				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Branchland Portals Rt. 10

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Professional Svcs - Branchland Portal				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Branchland Portal

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Professional Svcs - Middle Fork (Adkins) Portals				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Middle Fork (Adkins) Portals

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	Professional Svcs - Cadbury Lane Drainage				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Cadbury Lane Drainage

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
7	Professional Svcs - Belcher Hollow Auger Holes				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Belcher Hollow Auger Holes

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
8	Professional Svcs - Guyan River Refuse				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Guyan River Refuse

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
9	Professional Svcs - Branchland Hubball A				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Branchland Hubball A

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
10	Professional Svcs - Harmonds Creek Portals Phase II				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Harmonds Creek Portals Phase II

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
11	Professional Svcs - W. Columbia "B" Phase II				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - W. Columbia "B" Phase II

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
12	Professional Svcs - Lanham (Workman) Portals				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:**

**Extended Description:**

Professional Svcs - Lanham (Workman) Portals



**PROPOSAL FOR**  
**EOI 2023 AML CONTRACT S4**

**WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**DIVISION OF LAND RESTORATION**  
**OFFICE OF AML AND RECLAMATION**

**AUGUST 28, 2023**

SUBMITTED BY:  
**ATLAS TECHNICAL CONSULTANTS, LLC**  
125 Granville Square  
Morgantown, WV 26501  
304-533-0367 | [oneatlas.com](http://oneatlas.com)



*Contract Via Electronic Submittal*

August 28, 2023

**State of West Virginia  
Department of Administration, Purchasing Division**

2019 Washington Street East  
Charleston, WV 25304

ATTN: Joseph E. Hager, III  
Bid Clerk

**RE: EOI – 2023 AML Contract S4  
Solicitation No. CEOI 0313 DEP2400000004**

Dear Mr. Hager:

Atlas Technical Consultants, LLC (Atlas) is pleased to submit this Expression of Interest (EOI) for the EOI – 2023 AML Contract S4. Atlas is a full-service engineering and consulting firm with our local office located in north-central West Virginia and our teaming partner, Triad Engineering, Inc. (Triad) having offices in north-central and southern West Virginia, have successfully completed similar projects like these in the past, as outlined in our Statement of Qualifications.

Atlas has completed numerous similar mine reclamation and remediation projects in the past which include landslide analyses design/remediations, reclamation of coal refuse sites, abandoned highwall elimination, drainage design, mitigation of AMD drainage, and design of drainage facilities associated with the mining industry. Our team has over thirty (30) years of experience in the mining industry addressing these abandoned mine features.

In addition to our focus on safety, Atlas believes that communication and responsiveness are key elements of these abandoned mine lands (AML) projects and they are woven into every project undertaken by our firm. This culture, coupled with our experienced team, will result in project success for the Department of Environmental Protection.

We appreciate the opportunity to submit this EOI for the 2023 AML Contract S4 and would be pleased to provide additional information should you have any questions regarding our submittal.

Sincerely,  
Atlas Technical Consultants, LLC

Benjamin Staud, P.E.  
Engineering Division Manager  
412-335-4256  
[benjamin.staud@oneatlas.com](mailto:benjamin.staud@oneatlas.com)

Clayton K. Roderick  
Program Manager – Abandoned Mine Lands  
412-582-0922  
[clayton.roderick@oneatlas.com](mailto:clayton.roderick@oneatlas.com)

125 Granville Square  
Morgantown, WV 26501  
304-533-0367 | [oneatlas.com](http://oneatlas.com)





# EOI 2023 AML CONTRACT S4

## STATEMENT OF QUALIFICATIONS

- 1. Understanding of Project Scope.....1
  - a. Project and Goals.....2
- 2. Qualifications and Relevant Experience.....4
- 3. Available Resources.....6
  - a. Current Staffing Plan.....6
  - b. Sub Consultants.....8
- 4. Performance History.....9
  - a. References.....9

## APPENDICES

- A.** AML Consultant Qualification Questionnaire\*
- B.** AML and Related Project Experience Matrix\*
- C.** Key Personnel Qualifications and Resumes\*
- D.** Project Descriptions\*
- E.** Applicable Certifications\*
- F.** Required Forms

\* Appendix information from both Atlas Technical Consultants, LLC. and our teaming partner, Triad Engineering, Inc.



## 1. UNDERSTANDING OF PROJECT SCOPE

**Atlas Technical Consultants, LLC (Atlas)** (formerly ATC Group Services, LLC) is pleased to submit this Expression of Interest (EOI) for the EOI – 2023 AML Contract S4. Atlas is a full-service engineering and consulting firm with our local office located in north-central West Virginia and our teaming partner, Triad Engineering, Inc. (Triad) having offices in north-central and southern West Virginia, have successfully completed similar projects like these in the past, as outlined in our Statement of Qualifications.

### Project:

The purpose of the Group of Projects (as listed below 1 through 12) for which bids are being solicited is to provide the planning, realty, design, and construction oversight services for each project:

1. Branchland (Blankenship) Portal Drainage
2. Branchland (Crum) Drainage
3. Branchland Portals Rt. 10
4. Branchland Portal
5. Middle Fork (Adkins) Portals
6. Cadbury Lane Drainage
7. Belcher Hollow Auger Holes
8. Guyan River Refuse
9. Branchland Hubball A
10. Harmonds Creek Portals Phase II
11. W. Columbia “B” Phase II
12. Lanham (Workman) Portals

### Background:

Atlas is a licensed engineering firm in the State of West Virginia and has a successful track record of providing design and construction oversight services on similar projects. Atlas anticipates the contract will be for “full service” A/E design, planning, realty, and construction services that include, but are not limited to: Civil, Geological and Hydrological.

Atlas has a long history of providing the following environmental and engineering services:

- National Environmental Policy Act (NEPA) consultations and documentation
- Public Participation
- Infrastructure Investment Jobs Act (IIJA) compliance
- Determine legal ownership of properties
- Obtain exploratory and construction rights of entry
- Provide legal documentation to substantiate legal ownership findings
- Provide current mapping, perform survey and other related services
- Perform Site and Geotechnical Investigations
- Design temporary and permanent access or accesses for construction and future maintenance
- Slope stabilization
- Design multiple portal seals and regrades
- Design reclamation of exposed coal refuse and mine spoil



- Design of drainage conveyances, including drainage channels, underdrains, and/or other controls to safely convey water off-site
- Construction quality assurance and quality control (QA/QC)
- Provide resident project representative/inspector
- Prepare daily construction activity logs summarizing activities
- Provide engineering support and services throughout construction
- Provide Engineers certification report

### Locations:

Projects are located in Lincoln, Kanawha, Putnam and Mason Counties.

#### a. Project and Goals:

Discuss any anticipated concepts and proposed methods of approach for achieving each of the listed goals and objectives:

##### 2.1 NEPA tasks and IJA compliance.

Atlas will refer to the *Handbook on Procedures for Implementing the National Environmental Policy Act* with our approach on designing reclamation plans for these sites. Dependent on the type(s) of AML features associated with the site, Atlas will may apply one or more of the following: 1) Categorical Exclusion, 2) Environmental Assessment (EA) potentially resulting in a 'Finding of No Significance', or a Notice of Intent (NOI) for the preparation of an Environmental Impact Statement (EIS), or 3) an Environmental Impact Statement (EIS) and the subsequent Record of Decision (ROD).

Atlas will follow the *Guidebook to the Bipartisan Infrastructure Law, Abandoned Mine Land Grant Implementation*, in order to determine IJA Compliance.

##### 2.2 Determine legal ownership of properties and provide legal documentation to substantiate legal ownership findings (if required).

Determination of the legal ownership of properties and providing legal documentation to substantiate these findings will be conducted by our subcontractor, Steptoe and Johnson.

##### 2.3 Develop construction plans and technical specifications for all aspects to reclaim mine portals, drainage controls and systems, slope stabilization, coal refuse reclamation, stream restoration, subsidence repair, storm water and erosion and sediment control, regrade and revegetation, and all other conditions encountered on the project sites.

*Reclamation of Mine Portals and Drainage Control Systems and Other Existing Facilities* – All abandoned systems and/or features will be slated for demolition will be identified at the Pre-Design Meeting. Those facilities will be disposed of by means of the WVDEP's discretion.

*Slope Stabilization / Subsidence Repair* – Atlas' teaming partner, Triad Engineering, will conduct all drilling operations, gathering data for the completion of all geotechnical studies needed for the successful reclamation of the sites.



*Limits of Disturbance, Erosion and Sediment Control & Regrade and Revegetation* – Atlas will provide detailed grading plans that show the existing contours, proposed final grading contours, cross-sections and the location of the proposed Erosion and Sediment control devices. The proposed revegetation plan will be included in the plans and specifications.

*Erosion and Sediment Control Plans* – Atlas will prepare the E&S control plans in accordance with the WVDEP *Erosion and Sedimentation Control Best Management Practice Manual*. The E&S control devices may include: silt fence, super silt fence, sumps, earthen berms and/or compost filter socks.

The Erosion and Sediment Control Plan (E&SCP) will include the following:

- Project Narrative and description of the proposed Best Management Practices (BMP's)
- Construction Sequence
- Narrative and description of the proposed post-construction stormwater management plans
- E&SCP Detailed Drawings
  - Location Map
  - E&S Control Plan Sheets
  - Post Construction Stormwater Management Plan Sheets

The construction drawings and specifications will be developed based on the conceptual design as approved by the WVDEP. These drawings and specifications will conform to the WVDEP Guidelines for Preparation of Design Plans & Specifications. The drawings will be 24"X36" format and will be generated from base mapping files in AutoCAD 2019 format.

The final drawings and specifications for each project will be provided to the WVDEP for their review and for use by the selected contractor.

#### **2.4 Obtain/maintain/release all required permits.**

Atlas will prepare and submit all requisite permit application(s) for the successful reclamation of the sites, as determined at the Pre-Design Meeting. All requisite plans, specifications and supporting data will be included in the permit application packets. The required permits may include the following:

- 401/404 Stream and Wetlands Permits
- Construction Stormwater General Permit
- WVDOH Occupancy Permit
- Bats Survey/Clearance of Buffer Zones

#### **2.5 Provide resident project representative, QA/QC certification, and prepare daily field activity logs summarizing construction activities.**

Atlas will provide a resident project representative, QA/QC certification, and prepare daily field activity logs summarizing construction activities.



## 2. QUALIFICATIONS AND RELEVANT EXPERIENCE

Atlas is a national engineering and environmental consulting firm with more than 3,200 staff that operates out of over 100 offices across the country, including licensed professional engineers, licensed scientists, geotechnical engineers, certified inspectors, project managers, construction managers and support personnel.



With our primary management office located at **125 Granville Square, Morgantown, West Virginia, 26501**, the Atlas team can mobilize quickly to the site to conduct the necessary site work and meet the needs of the West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands and Reclamation (WVDEP-DLR-AML) (Agency).

As trusted advisors, we work to understand our clients' businesses and customize solutions to their environmental challenges. We live where we work, so every project benefits from our commitment to our communities, a deep understanding of local regulations and practices, a wealth of relationships, and world-class subject matter expertise.

**Atlas has provided abandoned mine land (AML) reclamation and acid mine drainage (AMD) abatement design services to State programs for over thirty (30) years.**

### Safety

At Atlas, we are committed to safety and work to strengthen our culture around it. The health of our employees, the prevention of incidents, and the protection of the environment are mandates incorporated into every aspect of our company, surpassing all other considerations. Our clients expect it, and we require it of ourselves.



Our **Think 12 safety mantra** means that you must always be aware of what is: 12 feet in front of you, 12 feet behind you, 12 feet to each side, 12 feet above you, and 12 feet below you.

### Performance History and Relevant Experience

Atlas has provided abandoned mine land (AML) reclamation and acid mine drainage (AMD) abatement design services to State programs for over thirty (30) years. We have designed remedial measures for mine-related landslides, extinguishment of burning coal refuse piles, reclamation of acid-producing mine spoil and coal refuse, mine subsidence abatement, impoundment investigations and other Abandoned Mine Land (AML)-related problems. We have also evaluated and designed AMD treatment techniques for many projects including anoxic limestone drains, open limestone channels, vertical flow wetlands, sulfate reducing bioreactors, limestone leach beds, steel slag leach beds, aerobic and anaerobic wetlands, and lime dosing units. **More information on our relevant experience is included in our Project Descriptions in Appendix D.**

Atlas has a team of geophysical scientists with an average of nineteen (19) years of experience in the geotechnical, construction, environmental, and petroleum fields conducting geophysical and engineering evaluations throughout the United States. Their experience includes the use of EM (electromagnetic) and ERT (electrical resistivity tomography) data collection to find old mine shafts/voids as well as karst features and caves.



Our reclamation and AMD treatment system operation, maintenance, and monitoring (OM&M) services staff are experienced at: sampling; field parameter measurement and data collection; system operation/maintenance; staff gauge installation and gauging; field and laboratory analytical services; ASTM and other sample handling/collection requirements. The staff currently provide remediation system operation and maintenance services (including blowers, pumps, and liquids/solids treatment/filtration) at numerous Appalachian sites and are experienced at system install, shakedown, troubleshooting, and preventive/routine maintenance. **We recently renewed a multi-year contract with WVDEP for restoration/remediation system OM&M services at a site in western West Virginia.**

**CORE SERVICES INCLUDE:**

- Project management
- Reclamation plan development and design
- Hydrologic-hydraulic engineering
- AMD evaluations
- Field services including water quality sampling, discharge measurements, soil sampling and spoil/coal refuse sampling
- Wetland delineation, environmental assessments and NEPA documentation
- File review
- Operation, maintenance, and monitoring of existing systems
- Construction quality assurance (CQA) and construction oversight
- Health and safety
- Project controls
- Site reconnaissance
- Construction oversight
- Construction inspections
- Preparation of construction quality assurance plans
- Potential borrow area investigations
- Soil classifications
- Field hydraulic conductivity testing
- Determination of in-place soil density
- Monitoring of installation of geomembranes, geotextiles, geocomposites, and geosynthetic clay layers
- Monitoring of placement of drainage collection systems
- Preparation of construction quality assurance/certification reports
- Phase I/II Site characterizations
- Conceptual design recommendations



*Photo 1: Abandoned Surface Mine*



### 3. AVAILABLE RESOURCES

#### a. Current Staffing Plan

The Atlas team that will assist in the 2023 AML Contract S4 project is presented on the **Organizational Chart on the following page**. The Organization Chart presents the necessary technical service areas and the names of staff resources that will provide those services. Key team member **resumes are also provided in Appendix C** as indicated by the asterisks. **Applicable WV staff certifications are included in Appendix E.**



Photo 2: Abandoned Coal Tipple

#### Senior Project Manager – Benjamin Staud, PE

Mr. Staud is a Senior Project Manager and licensed Professional Engineer in multiple states, including West Virginia. Mr. Staud has over 22 years of project management and design experience. **Mr. Staud has significant experience in managing and designing large scale engineering projects that require expertise in various technical disciplines including acid mine drainage treatment, water and wastewater treatment, development of site grading plans, geotechnical evaluations, and stormwater control designs.** Mr. Staud's experience centers around investigating, designing, permitting, and managing a diverse array of environmental, geotechnical and civil engineering projects.

Specifically, Mr. Staud served as the design engineer for an active AMD treatment system in West Virginia that involved site grading and channelization of existing seeps into a flushable limestone bed and a subsequent polishing pond. In addition, he has managed and designed several other water treatment-related projects including a sanitary and wash bay wastewater treatment system and a groundwater treatment system to remove iron and manganese from drinking water. Mr. Staud has also designed and managed landfill capping, stormwater control and leachate treatment projects, geotechnical investigations and slope stability/repair projects in Pennsylvania and large manufactured gas plant remediation projects that have included stream bank restoration and construction oversight.

In his role for this contract, Mr. Staud will serve as the primary client contact and overall Senior Project Manager. He will also serve as the primary engineering manager, overseeing the development of work plans, implementation of field work, development of grading/reclamation plans, stormwater control plans, AMD treatment options and ultimately all project deliverables. Administrative responsibility will include client communication, status updates and reporting, and invoice management.

*“Atlas/ATC Associates has provided the Indiana Abandoned Mine Land Program with quality consultation, Engineering, and Geotechnical services for 20+ years. (They) are well-versed in safety and environmental issues associated with legacy mining.”*

- Kit Turpin  
IN DNR

*“The City of Cincinnati has worked with Atlas's geotechnical & environmental professionals for several years. Throughout this relationship, we've developed a strong confidence in the high standard of quality Atlas incorporates into each project, no matter the size.”*

- Lisa Rowell, PE  
City of Cincinnati DOTE



**LEGEND**

**Black** = Atlas Technical Consultants  
**Blue** = Triad Engineering  
**Green** = Steptoe & Johnson  
 \* = Resume included in Appendix C

**SENIOR PROJECT MANAGER**  
Benjamin Staud, PE (WV)\*

**PROJECT CONTROLS / IIJA COMPLIANCE**  
Jeff Rossi

**LEGAL/PROPERTY ROE**  
Armando Benincasa, Esq.\*  
Brian Gallagher, Esq.\*

**QA/QC**  
Chad Harrison, PE (WV)\*

**CONSTRUCTION**  
Sung Yi\*

**ENVIRONMENTAL**  
Clayton Kirk Roderick\*

**ENGINEERING**  
Sendhil Kumar, PE\*  
Bo Criniti, PE (WV)\*  
Eric Iser, PE (WV)\*

**CONSTRUCTION SERVICES**  
Quincy Fraley\*  
Patrick Dammler\*  
Allan Kennedy\*  
Jobe Hope\*  
Brett Morris\*

**GEOPHYSICAL INVESTIGATION**  
Kenneth Pasterak, PG, LRS (WV)\*  
Mark Edwards, RG  
Patrick Lehmann, PG, PGp  
Edward Epp, CPG

**GEOLOGY / HYDROGEOLOGY**  
Lisa Welmer, PG\*  
Mark Breting, PG\*  
Nancy Slater, PG

**RECLAMATION / AMD TREATMENT DESIGN**  
Michael Thornbrue, PE  
Robert Duncan, PG\*  
Justin Petrlicko\*

**HYDROLOGIC ENGINEERING**  
Richard Kresge, Jr, PE\*  
James Lucklewicz, PE, CFM\*  
Dominic Mandarino, EIT\*  
Carl Schimmel, PE

**RESIDENT PROJECT REP/INSPECTOR**  
Quincy Fraley\*  
Jacob Drake

**FIELD SAMPLING SERVICES**  
Jared Anthony\*  
Michael Ciccone\*  
Benjamin Rudolph

**O & M**  
James Sturm, PG\*  
Malt Walker, PE\*

**GEOTECHNICAL ENGINEERING**  
James Romano, PE\*  
Ryan Ortiz, PE\*  
Thomas Struewing, PE\*  
John Noel, LPG\*  
David Hooper, PE (WV)\*  
Benjamin Campbell, PE (WV)\*  
Maria af Rolen, PG\*

**CAD / GIS SERVICES**  
James Gilligan\*  
Adam Kalry  
Adam Behringer

**NEPA/PUBLIC PARTICIPATION**  
James Kooser\*  
Kara Moree, CFM  
Heather Metz, LRS (WV)\*  
Cadaris Woods, LRS (WV)\*  
Matthew Wright, LRS (WV)\*

**DRILLING**  
John Haynes, PE (WV)\*

**SURVEY SERVICES**  
David Graham, PS (WV)\*  
Lloyd Kirk, PS, CFS (WV)\*  
Kevin Brockett, PS, PLS, RLS (WV)\*  
Mark Talkington  
Buddy Goff





## b. Sub Consultants

**Our Teaming partner, Triad Engineering, Inc., will assist Atlas with surveying and mapping, geotechnical investigation, and drilling.** Triad has worked on hundreds of West Virginia DEP AML&R projects. **More information on Triad is included in their firm profile on the following page.**



Triad provides many specialty engineering services to the mining and extraction industry. Our typical clients include coal companies, contract miners, land companies and design-build construction firms. Our professional staff has degrees in Mining, Civil and Geotechnical Engineering, Geology, Biology, Physics, Environmental Technology and Surveying. TRIAD has developed and maintained excellent long-standing working relationships with many regulatory agencies, which can be invaluable in moving projects forward. The diverse education and experience of our professionals, combined with our in-house drilling, laboratory testing and construction monitoring capabilities, provides clients with a full-service engineering firm that listens, designs, and delivers for our mining and extraction clients. In addition to mining and extraction, TRIAD has supported numerous reclamation projects over the decades. With in-depth knowledge of the West Virginia Department of Environmental Protection, our team has assisted many communities, development authorities and other organizations utilize their funding accordingly and restore properties back into productive use.

**Atlas will also utilize Steptoe & Johnson PLLC to assist in performing property right of entry and legal services.** The Steptoe & Johnson team for this project is comprised of attorneys in northern and southern West Virginia, allowing us to efficiently work on projects across the state. The Steptoe & Johnson real estate team is well-versed in all aspects of real estate law, including determining ownership through research and due diligence, obtaining rights of way, and interacting and negotiating with landowners. The real estate team is supplemented by attorneys who focus on environmental law, including permitting, obtaining regulatory approvals, and mitigating risk from enforcement actions. **The WVDEP is very familiar with Steptoe's environmental team, in fact, Armando Benincasa who is part of this team was in-house at the DEP from 1995-2002.**



Below are examples of how we have helped clients with similar real estate projects.

- Represented client in a transaction to finance the purchase of traditional oil and gas wells in seven West Virginia counties. The project, completed for a multi-state bank, involved the due diligence and perfection of security interests for over 640 wells and over 1000 mineral and surface leases.
- Responsible for real estate issues in the development and financing of a wind-powered electric generating facility in Grant County, West Virginia. The "wind farm" required leases and easements from more than 40 landowners and financing in excess of \$300,000,000.
- Advised client, and successfully enforced client's right of way to use surface estate for ingress/egress for drilling operations.
- Negotiated and facilitated the acquisition of mining assets from Chapter 11 debtors.
- Represented oil and gas company in connection with the sale of environmental attributes related to coal bed methane.
- Provided analysis of complex title issues and guidance on applicable law in conjunction with due diligence for acquisition and divestiture of oil, gas, coal bed methane, and coal assets, including preparation of conveyance and curative documents
- Negotiated new easements and shared services agreements between adjoining major international manufacturing facilities to allow for access to necessary services.
- Provided survey review, environmental survey review, title insurance, and loan structure advice to an international manufacturing company for credit facilities in excess of over \$600 million.



## WHO WE ARE

Triad is a multi-discipline, employee-owned firm of engineers, surveyors and scientists who provide geotechnical and civil engineering, environmental services, drilling, surveying and construction testing and inspection services. Since 1975, Triad has grown from a small office in West Virginia to nine offices across five states. Triad can provide practical solutions to meet your project needs and exceed your expectations.

TRIAD Listens, Designs, & Delivers™

## WHAT WE DO

### GEOTECHNICAL ENGINEERING

Subsurface Explorations; Geological and Geophysical Surveys; Landslide Studies and Remediation; Dam and Impoundment Design; Foundation Design Recommendations; Soil Characterization and Stabilization; Sinkhole Remediation; Infiltration Studies

### CIVIL ENGINEERING

Site Grading and Development Plans, Commercial/Industrial Site Developments, Landscape Design, Storm Water Best Management Practices, Hydrologic Studies, Green Sustainable Design, Retaining Wall Design, Utility Design, Land Use and Planning Consultation, Construction Specifications and Contract Documents, Construction Contract Administration

### DRILLING AND SAMPLING

Geotechnical and Environmental Drilling and Sampling; Monitoring Well and Piezometer Installation; Rock Coring; Bridge Pier Borings; Air Track Probes

### CONSTRUCTION MATERIALS ENGINEERING AND TESTING

Soils and Fills; Concrete; Asphalt and Aggregate; Footings; Pile Foundations; Floor Flatness; Structural Steel; Seismic Monitoring; Welds; Paint and Fireproofing; Roof; Compressive Strength; EFAS; NDT; Mortar and Grout; Laboratory Analysis of Soil and Rock; Special Inspections

### ENVIRONMENTAL

Hydrogeological Studies; Fracture Trace Analysis; Groundwater and Soil Assessment; Site Remediation Design; Phase I/II ESAs; Brownfield Site Assessment; Asbestos, Mold and Lead-Based Paint Inspection; Wetland and Forest Management Services; Regulatory Compliance Assistance & Permitting

### SURVEYING AND MAPPING

Topographic & Planimetric Mapping; Construction Layout; Subdivision Platting; ALTA / NSPS Surveys; Property Boundary Surveys; Aerial Photogrammetry; Drone Surveying

### MARYLAND

Hagerstown  
301-797-6400

Frederick  
240-259-3468

### OHIO

Portsmouth  
740-249-4304

## LOCATIONS

### VIRGINIA

Winchester  
540-667-9300

Sterling

703-729-3456

### WEST VIRGINIA

Scott Depot  
304-755-0721

Morgantown

304-296-2562

### PENNSYLVANIA

Mechanicsburg  
717-590-7429

New Stanton

412-257-1325



## 4. PERFORMANCE HISTORY

### a. References

We encourage the Agency to contact the following references to discuss our previous performance on similar projects.

#### **Atlas' References:**

William F. Huggins, Jr.  
ERS-3 Project Manager / Supervisor Superfund/Federal Facilities Section  
West Virginia Department of Environmental Protection, Office Environmental Remediation  
[william.huggins@wv.gov](mailto:william.huggins@wv.gov)  
304-238-1220, Extension 00098

Kit Turpin, Deputy Director  
Indiana Abandoned Mine Land Program  
[cturpin@dnr.in.gov](mailto:cturpin@dnr.in.gov)  
812-665-2207

#### **Triad's References:**

Mark Pennington, Principal Engineer  
Civil Tech Engineering, Inc.  
[civiltech1@frontier.com](mailto:civiltech1@frontier.com)  
304-757-8094

L. Jane Hicks, Principal  
Civil & Engineering Consultants, Inc.  
[jhicks@cecinc.com](mailto:jhicks@cecinc.com)  
304-848-7502

**Appendix A:**  
AML Consultant  
Qualification  
Questionnaire

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**AML CONSULTANT QUALIFICATION QUESTIONNAIRE**

**Attachment "A"**

PROJECT NAME EOI 2023 AML Contract S4		DATE (DAY, MONTH, YEAR) August 28, 2023	FEIN 46-0399408
1. FIRM NAME Atlas Technical Consultants, LLC		2. HOME OFFICE BUSINESS ADDRESS 125 Granville Square Morgantown, WV 26501	3. FORMER FIRM NAME ATC Group Services LLC
4. HOME OFFICE TELEPHONE 304-533-0367	5. ESTABLISHED (YEAR) DE 12-14-87; Converted to LLC (S Corp) November 2015	6. TYPE OWNERSHIP Corporation	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 125 Granville Square, Morgantown, WV 26501 / 304-533-0367 / Benjamin Staud, PE / 6 270 William Pitt Way, Pittsburgh, PA 15238 / 412-826-3120 / Clayton K. Roderick / 24			
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Don Beck, Senior Vice President, don.beck@oneatlas.com Kevin Hamilton, Senior Vice President, kevin.hamilton@oneatlas.com		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS Joe Boyer, CEO	
9. PERSONNEL BY DISCIPLINE			
350 ADMINISTRATIVE	5 ECOLOGISTS	1 LANDSCAPE ARCHITECTS	15 STRUCTURAL ENGINEERS
10 ARCHITECTS	ECONOMISTS	MECHANICAL ENGINEERS	25 SURVEYORS
5 BIOLOGIST	ELECTRICAL ENGINEERS	2 MINING ENGINEERS	7 TRAFFIC ENGINEERS
275 CADD OPERATORS	325 ENVIRONMENTALISTS	PHOTOGRAMMETRISTS	293 OTHER
250 CHEMICAL ENGINEERS	ESTIMATORS	7 PLANNERS:	
250 CIVIL ENGINEERS	213 GEOLOGISTS	URBAN/REGIONAL	
655 CONSTRUCTION INSPECTORS	HISTORIANS	8 SANITARY	
275 DESIGNERS	10 HYDROLOGISTS	ENGINEERS	3,236 TOTAL PERSONNEL
275 DRAFTSMEN		5 SOILS ENGINEERS	
<p><b>TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>2</u></b></p> <p><b>*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.</b></p>			
Benjamin Thomas Staud, PE			
Chad John Harrison, PE			
Kenneth Pasterak, LRS			
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Qualification Questionnaire".

<p>NAME AND ADDRESS:                  Triad Engineering, Inc.                  1097 Chaplin Road                  Morgantown, WV 26501                  304-296-2562</p>	<p>SPECIALTY:                  Geotechnical Services                  Surveying Services                  Drilling Services                  Civil Site Design</p>	<p>WORKED WITH BEFORE   <input checked="" type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:                  Steptoe &amp; Johnson, PLLC                  1085 Van Voorhis Road, Suite 400                  Morgantown, WV 26505                  304-598-8000</p>	<p>SPECIALTY:                  Title / Property Research                  Rights-of-Entry</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input checked="" type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>

12. A. Is your firm's personnel experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

**YES** Description and Number of Projects: Atlas has extensive experience with AML and mine-reclamation engineering / design. To date, Atlas has completed over 15 AML projects in the States of Indiana, Ohio and Kentucky.

B. Is your firm experienced in Soil Analysis?

**YES** Description and Number of Projects: Atlas has a team dedicated to the sampling and analyses of soils. This team works as support to our geotechnical group and aids in the completion of geotechnical studies and reports-of-findings. The last five years, Atlas has completed over 20 projects from our Pittsburgh office.

C. Is your firm experienced in hydrology and hydraulics?

**YES** Description and Number of Projects: Atlas has experience in completing hydrologic and hydraulic studies. We have completed over 20 projects, over the past five years, that focused on hydrology and hydraulics.

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

Description and Number of Projects: \_\_\_\_\_

**NO** The Aerial Photography and Development of Contour Mapping services will be provided by Triad Engineering.

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

**YES** Description and Number of Projects: Atlas has provided water line designs for projects across the United States. Additionally, our staff has individual experience in evaluating the degradation of aquifers as a result of mining activities.

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

**YES** Description and Number of Projects: Atlas has extensive experience in acid mine drainage and has developed abatement plans for AML-related projects.

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Roderick, Clayton K.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 24	YEARS OF AML RELATED DESIGN EXPERIENCE: 24	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

**Brief Explanation of Responsibilities**  
 With over 24 years of mining and mining-reclamation experience, Clayton's role is the Program Manager for Atlas' AML Group. He will manage the projects from inception to completion, act as a liaison for the WVDEP, complete and manage all environmental aspects of the AML design plan. He will ensure all timelines and milestones are being met throughout the life of the project.

**EDUCATION (Degree, Year, Specialization)**  
 B.S. - Earth Sciences; Geology, 1997, Structural Geology, Hydrogeology, Environmental Geology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Staud, Benjamin T.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 3	YEARS OF AML RELATED DESIGN EXPERIENCE: 3	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 4

**Brief Explanation of Responsibilities**  
 Mr. Staud's responsibilities include: Mr. Staud will act as the Senior Project Manager / Senior Engineer for the AML projects. He will oversee the engineering components of the projects and will certify and seal all reclamation design plans.

**EDUCATION (Degree, Year, Specialization)**  
 B.S., Engineering, 1997, M.S., Engineering, 2000, Civil Engineering, Hydraulics

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State) Professional Engineer, West Virginia, 2013
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13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Kumar, Sendhil	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 5	YEARS OF AML RELATED DESIGN EXPERIENCE: 5	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8

Brief Explanation of Responsibilities Mr. Kumar will assist in the develop of the reclamation design plans and will provide insight from his years of AML experience in other States.

EDUCATION (Degree, Year, Specialization)

B.E., Chemical Engineering, 2005; M.E., Environmental Engineering Services, 2009; MBA, Kelley School of Business, 2021; Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer: IN, MI, NC, MA, OH, WA, 2010\*

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Duncan, Robert	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 30	YEARS OF AML RELATED DESIGN EXPERIENCE: 30	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5

Brief Explanation of Responsibilities

With over 30 years of reclamation and remediation experience, Mr. Duncan will provide insight for the management, design and oversight of the AML reclamation plans.

EDUCATION (Degree, Year, Specialization)

B.S., Geology, 1984; M.S., Geology, 1989; Hydrogeology, Remediation, Abandoned Mine Lands, Landfill Investigations

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Geologist, Indiana, 1994

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES

Microsoft Office Professional, Microsoft Project, Bentley Pond Pack, Adobe Acrobat, FoxIt, AutoCAD Civil 3D, ESRI ArcGIS, ESRI ArcView, AutoDesk Civil 3D, Bentley Flow Master, Bentley HEC-Pack, STBBL5M, GMS, AutoDesk Storm and Sanitary Analysis, HydroCAD

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Vienna PCE Superfund Site	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304		\$500,000 / Annually	100%
Ripley Duchess BP Petroleum Station Site Assessment / Risk Mgmt & Remedial Planning	Englefield Oil Company 1935 James Parkway Heath, OH 43056		\$100,000	70%
Former Petroleum Retail Risk Assessment Reporting; Glasgow, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304		\$100,000	Monitoring through 2030
USACE Section 404 Individual Permit / OEPA Individual 401; Water Quality Cert.	North Royalton City Schools 6579 Royalton Road Royalton, OH 44133		\$22,000	Monitoring through 2030
USACE Section 404 Individual Permit / OEPA Individual 401; Water Quality Certification / Stream & Wetland Mitigation	Knight Development Corporation 3933 Center Road Brunswick, OH 44212		\$100,000	2024 (Anticipated End of Mitigation / Monitoring)
PQ NEPA Services	WVDOT Division of Highways 1900 Kanawha Blvd, E Charleston, WV 25305		On-Call Contract, Variable	N/A
PQ Asbestos Inspection Services	WVDOT Division of Highways 1900 Kanawha Blvd, E Charleston, WV 25305		On-Call Contract, Variable	N/A

TOTAL NUMBER OF PROJECTS: 7

TOTAL ESTIMATED CONSTRUCTION COSTS: approx. \$850,000



17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Cheat Lake, WV Spill Response. Cheat Lake, West Virginia	Herrygers Environmental Services, LLC 602 Northwood Road Lexington, SC 29072	\$25,000	2018-2019	N/A
Mountain Funeral Group - Phase I Environmental Site Assessments, various locations	The Huntington National Bank PO Box 1558 Columbus, OH 43216	\$14,500	2020	N/A
Major Elbert L. Bias United States (US) Army Reserve Center (USARC) 1550 Spring Valley Drive, Huntington, West Virginia	US Army Reserve (USAR)	\$6,000	2011	N/A
Atlas has conducted thousands of projects nationwide. For the purpose of the EOI only a sample is provided.				

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
N/A					

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.

**Atlas has extensive knowledge and resources capable of designing reclamation plans for several types of AML projects. With a presence in Morgantown, WV and several offices located within a short distance from West Virginia, Atlas is regularly performing work in the State.**

20. The foregoing is a statement of facts.

Signature: Clayton K. Roderick Title: Program Manager - AML Date: 08/28/23  
 Printed Name: Clayton K. Roderick

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**AML CONSULTANT QUALIFICATION QUESTIONNAIRE**

**Attachment "A"**

PROJECT NAME EOI - 2023 AML CONTRACT S4		DATE (DAY, MONTH, YEAR) 28 AUGUST 2023	FEIN 55-0592364
1. FIRM NAME TRIAD ENGINEERING, INC.		2. HOME OFFICE BUSINESS ADDRESS 10541 TEAYS VALLEY ROAD SCOTT DEPOT, WV 25560	3. FORMER FIRM NAME NA
4. HOME OFFICE TELEPHONE  (304)755-0721	5. ESTABLISHED (YEAR)  1975	6. TYPE OWNERSHIP Individual <input type="checkbox"/> Corporation <input checked="" type="checkbox"/> Partnership <input type="checkbox"/> Joint-Venture <input type="checkbox"/>	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE  10541 TEAYS VALLEY ROAD, SCOTT DEPOT, WV 25560			
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM  BRADLEY REYNOLDS, PE, CEO		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS  DAVID HOOPER, PE, PRINICPAL ENGINEER, (304) 296-2562	
9. PERSONNEL BY DISCIPLINE			
21 ADMINISTRATIVE ARCHITECTS	ECOLOGISTS	3 LANDSCAPE ARCHITECTS	STRUCTURAL ENGINEERS
BIOLOGIST	ECONOMISTS	MECHANICAL ENGINEERS	20 SURVEYORS
13 CADD OPERATORS	ELECTRICAL ENGINEERS	2 MINING ENGINEERS	TRAFFIC ENGINEERS
CHEMICAL ENGINEERS	11 ENVIRONMENTALISTS	PHOTOGRAMMETRISTS	55 OTHER (TECHNICIANS)
10 CIVIL ENGINEERS	ESTIMATORS	PLANNERS:	
15 CONSTRUCTION INSPECTORS	8 GEOLOGISTS	URBAN/REGIONAL	
DESIGNERS	HISTORIANS	SANITARY	
DRAFTSMEN	HYDROLOGISTS	ENGINEERS	168 TOTAL PERSONNEL
		12 SOILS ENGINEERS	
		SPECIFICATION WRITERS	
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 4			
*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.			
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input type="checkbox"/> NO			

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Qualification Questionnaire".

<p>NAME AND ADDRESS: *Triad will be a sub-consultant to Atlas.</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE   <input type="checkbox"/> Yes  <input type="checkbox"/> No</p>



12. A. Is your firm's personnel experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES  
 NO

**Description and Number of Projects:** Although Triad has few active/recent AML projects, we have a  
number of personnel who possess the requisite knowledge, skills and abilities through prior AML  
experience and current or recent associated mining projects, to perform these tasks.

B. Is your firm experienced in Soil Analysis?

YES  
 NO

**Description and Number of Projects:** Triad is well-versed in the many areas of soil analysis through  
our persistent work in the geotechnical and environmental sectors. Over the last ten years Triad has  
produced dozens of designs, investigations and reports involving analysis of soils.

C. Is your firm experienced in hydrology and hydraulics?

YES  
 NO

**Description and Number of Projects:** Over a hundred projects involving dams/impoundments, sediment, stormwater  
analysis, culverts, waterlines, etc.

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES  
 NO

**Description and Number of Projects:** Triad produces in-house aerial photography and contour mapping,  
utilizing UAV and photogrammetric software to generate high-quality orthophotography and digital terrain  
models. Triad has applied this capability to numerous projects for commercial, industrial, residential  
and public clients, with project area ranging from less than one acre to more than 200 acres.

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES  
 NO

**Description and Number of Projects:** Projects over the years involving domestic waterline design are  
over a hundred...land development, municipal, industrial, residential, public utilities, etc.

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES  
 NO

**Description and Number of Projects:** No active or recent projects.

**13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)  *Design activities associated with AML projects will fall under the purview of Atlas.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:

Brief Explanation of Responsibilities

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EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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**13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)  NA	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:

Brief Explanation of Responsibilities

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EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
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14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES

Adobe Acrobat Standard	Kofax Power PDF Standard
Adobe Photo	Microsoft Office Professional
AutoCAD Civil 3D / Map 3D	Microsoft Project
Autodesk Storm and Sanitary Analysis	Microstation
Bentley Pond Pack (Haestad Methods)	Peristaltic Pumps
Bentley Flow Master (Haestad Methods)	Pix4D
Bentley HEC-Pack	RAE 3000 Portable Handheld VOC Monitor
Bentley MicroStation with InRoads	Settle3 (Rocscience)
Bluebeam Revu	Slide II Stability Analysis Program
DJI sUAS	Submersible Pumps
ESRI ArcGIS	Topcon Robotic Total Stations
ESRI ArcView	Topcon RTK-GPS
Carlson Software	Topcon Automatic Levels
gINT	Troxler 3430, 3440, 3450 (Nuclear Gauges)
GMS	
GoCanvas	
Google Earth	
Groundwater Vistas	
HydroCAD	

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
West Virginia High Technology Foundation Phase III Improvements, Change Order, Fairmont, WV (Technology)	West Virginia High-Technology Foundation, 1000 Galliher Dr., Fairmont, WV 26554	Project Management, engineering, consultation and other services.	Unknown	<25%
WVU Health Science Center Transformer Improvements, Morgantown, WV (Higher Ed)	West Virginia University, PO Box 6570 - 975 Rawley Lane, Morgantown, WV 26506	Civil site plan development and other services for transformer-related improvements.	Unknown	<25%
Greystone Road Paving Projects, Morgantown, WV (Residential)	Greystone Property Owners Association, 706 Sunset Beach Road, Morgantown, WV 26508	Civil Roadway Improvement Plans, bid document preparation, bid phase and other services.	Unknown	>75%
WVU Coliseum Addition, Morgantown, WV (Athletics)	WVU Department of Intercollegiate Athletics, PO Box 0877, Morgantown, WV 26507	Civil design/ construction documents and other services for coliseum improvements.	Unknown	>75%
Fast Pace Health, Hodgenville and Morehead, KY (Healthcare)	Hutton Development, 736 Cherry St., Chattanooga, TN 37402	Civil design construction documents and due diligence for new urgent care and retail project.	Unknown	>50%
Farmers Bank & Savings Co. (Commercial)	Farmers Bank & Savings Co., 164 Upper River Road, Gallipolis, OH 45631	Civil site design, construction documents and other services for new bank.	Unknown	>75%
SparkVault Data Center Project, Fairmont, WV (Technology)	West Virginia High-Technology Foundation, 1000 Galliher Dr., Fairmont, WV 26554	Civil site plan development and other services for new data center.	Unknown	<25%
TOTAL NUMBER OF PROJECTS: 7			TOTAL ESTIMATED CONSTRUCTION COSTS: \$ Unknown	

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Longview Power - Train Unloading Facility, Morgantown, WV (Energy)	Subsurface Investigation and surveying.	Mountain State Clean Energy, 1375 Fort Martin Road, Maidsville, WV 26541	September 2023	Unknown	\$12K
Renaissance Academy, Morgantown, WV, (K-12)	Due diligence geotechnical exploration for new school.	Monongalia County Schools, 13 South High Street, Morgantown, WV 26505	October 2023	\$75 million	\$155K
Middle Island Creek HDD, Middlebourne, WV (Energy)	Geotechnical investigation for horizontal directional drilling crossing.	Hope Gas, 133 Goshen Road, Morgantown, WV 26508	September 2023	Unknown	\$10K
Shallmar Culvert Replacement/Bridge Crossing, Kitzmiller, MD (Recreational)	Geotechnical investigation for culvert replacement and/or bridge crossing.	Trout Unlimited, Mid-Atlantic Office, PO Box 239, Davis WV 26260	October 2023	Unknown	\$18K
Sycamore Slip Location Survey, Clarksburg, WV (Energy)	Surveying.	Arch Coal, Inc., 115 Morris Street, Buckhannon, WV 26201	November 2023	Unknown	\$9K
Wallops Island SWFO Antennae Survey, Wallops Island, VA (Aerospace)	Surveying	Wallops Island Flight Facility, 34200 Fulton Street, Wallops Island, VA 23337	August 2023	Unknown	\$9K
Nolans's Run Slurry Impoundment, Shinnston, WV (Energy)	Surveying.	Harrison County Coal Resources, Inc., 71 Camp Run Road, Mannington, WV 26582	September 2023	Unknown	\$24K

## 17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
LK Intake Substation Pad Barbour County, WV, 01-19-0301 (Energy)	Wolf Run Mining Co., 99 Edminston Way, Intersection County Route 12 and County Route 5/7, Buckhannon, WV 26201	Unknown	2019	YES
New Portal Bathhouse Office Building, Barbour County, WV, 01-19-0393 (Energy)	Arch Coal, Inc., 15 Morris Street, Buckhannon, WV 26201	Unknown	2019	YES
8.3 Acre Parcel Property, Wood County, WV, 01-20-0477 (Land Development)	Resource Consultants and Developers, Inc., 100 Star Avenue, Parkersburg, WV 26101	Unknown	2020	YES
WVU Parking Lots - Parking Area #1, Monongalia County, WV, 01-22-0186 (Higher Ed)	West Virginia University, Facilities Management, 975 Rawley Lane, Morgantown, WV 26506	Unknown	2022	YES
ADA Ramps - Holland Avenue, Monongalia County, WV, 01-22-0328 (Road/Highway/ Bridge)	West Virginia Department of Highways, Transportation Building, 5, 1900 Kanawha Blvd. E, Charleston, WV 25305	Unknown	2022	YES
Secondary Containment Improvements, Apple Grove, WV, 04-19-0777 (Industrial)	APG Polytech USA, LLC, 27610 Huntington Road, #8121, Apple Grove, WV 25502	Unknown	2019	YES
AEP Kanawha - Lurich SWPPP Inspections, Powellton, WV, 04-19-0308 (Utilities)	American Electric Power Transmission, 4600 Robert C. Byrd Drive, Beckley, WV 25801	Unknown	2019	YES
AEO Inez to Logan 138kV SWPPP and Inspections, Dingess, WV, 04-21-0908 (Utilities)	American Electric Power, 4600 Robert C. Byrd Drive, Beckley, WV 25801	Unknown	2021	YES

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Moorefield North Levee Project, Moorefield, WV, 01-19-0113, (Dam/Impoundment)	Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20024	\$50K (Construction Services)	2019	YES	Aterra Solutions
I-64 Widening, Barboursville, WV, (Road/Highway/Bridge)	WVDOH, Transportation Building, 5, 1900 Kanawha Blvd. E, Charleston, WV 25305	\$300K (Construction Services)	2020	YES	Mead & Hunt
Morgantown Municipal Airport Runway 18-36 Extension, Morgantown, WV (Airport)	Morgantown Municipal Airport, 100 Hart Field Road, Morgantown, WV 26505	\$90K (Construction Services)	2019	YES	Michael Baker International
FBI Clarksburg Office Building, Clarksburg, WV (Government)	Federal Bureau of Investigations, 1000 Custer Hollow Road, Clarksburg, WV 26306	\$40K (Survey Services)	2020	YES	Desbuild, Inc.
National Oceanic and Atmospheric Association AWHIPS Antennae, Fairmont, WV (Technology)	West Virginia High-Technology Foundation, 1000 Galliher Dr., Fairmont, WV 26554	\$25K (Geotechnical Services)	2022	YES	March-Westin Company, Inc.
Camden Wilson AML Drilling Project, Lewis County, WV (AML)	WVDEP Office of Abandoned Mine Lands and Reclamation, 601 57th Street SE, Charleston, WV 25304	\$20K (Drilling Services)	2020	YES	E.L Robinson Engineering, Inc.

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.  
 Triad Engineering, Inc. possesses all of the necessary knowledge, skills and abilities required to plan and execute the requisite services for the performance of reclamation activities associated with abandoned mine land projects.

20. The foregoing is a statement of facts.

Signature: William M. Ernstes Title: Vice-President Date: 16 August 2023

Printed Name: William M. Ernstes

**Appendix B:**  
AML and  
Related Project  
Experience Matrix



AML and RELATED PROJECT EXPERIENCE MATRIX																										
PROJECT	Exp. Basis C=Corp P=Personnel *	Additional Info Provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS															PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional								
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remaining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation	Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Sendhil Kumar, PE	Patrick Dammier	Robert Duncan, PG	Mark Breting, PG	James Luckiewicz, PE	John Noel, PG	Thomas Struewing, PE	Michael Thornbrue, PE
Snow Hill Reclamation Project	C	Vigo County, Indiana	X	X		X				X	X		X	X		X			P				P			
Yankeetown Slide Correction Project	C	Newburgh, Indiana				X				X	X			X												
Ash Storage Closure Project	C	Edwardsport, Indiana		X		X			X	X				X				X								
Ash & Mine Refuse Closure Project	C	W. Terre Haute, Indiana		X		X			X	X			X				X		P	P		P	P	P	P	
207-Acre Ash Pond System Closure	C	West Haute, Indiana				X			X	X			X				X		P	P		P	P	P	P	
Landfill Expansion Project	C	Petersburg, Indiana	X	X		X			X	X							X			P	P		P			
Belden AMD Reclamation Project	C	Carroll County, Ohio	X			X				X	X		X	X								P				
Blackfoot Acid Mine Drainage Abatement	C	Augusta, Indiana				X								X								P				
Carbondale II Reclamation Project	C	Athens County, Ohio	X			X				X	X		X	X								P				
East Branch Raccoon Creek AMD Reclamation	C	Athens County, Ohio	X			X				X	X		X	X								P				
Hancock County AMD Abatement Project	C	Hancock, Kentucky	X			X				X	X		X	X								P				
Harsha North Reclamation Project	C	Carroll County, Ohio	X			X				X	X		X	X								P				
Jones & Venoy Reclamation Projects	C	Gallia & Meigs Counties, OH	X			X				X												P				
Keystone Road Reclamation Project	C	Jackson County, Ohio	X			X				X	X			X		X						P				

\* List whether project experience is corporate or personnel based or both.  
 \*\*Use this area to provide specific sections or pages if needed for reference.  
 \*\*\*List Primary Design personnel and their functional capacity for the projects listed.

AML and RELATED PROJECT EXPERIENCE MATRIX																							
PROJECT	Exp. Basis C=Corp P=Personnel *	Additional Info Provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS																PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional				
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remaining Evaluation	Mine/Rufuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Nitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Benjamin Staud, PE	Clayton Kirk Roderick	James Gilligan			
Hope Hollow GFCC Site	P	Fayette County, Pennsylvania	X	X	X	X	X		X	X	X	X		X	X		X			M/P			
GFCC No. 1 Site	P	Fayette County, Pennsylvania	X	X	X	X	X		X	X	X	X			X		X			M/P			
Bute Coal Refuse Disposal Site	P	Fayette County, Pennsylvania	X		X	X		X		X	X	X		X		X	X			M/P			
Milan GFCC Site	P	Fayette County, Pennsylvania	X	X	X		X	X			X	X		X						M/P			
Continental GFCC Site	P	Fayette County, Pennsylvania	X	X	X			X	X		X	X		X		X				M/P			
Unity GFCC Site	P	Westmoreland County, PA	X				X			X	X	X		X			X			M/P			
Toth GFCC Site	P	Allegheny County, PA	X			X	X				X	X		X		X				P			
Montana Mines AML Site	P	Marion County, WV		X					X		X									P			
Rupert-Rainelle Waterline Feasibility Study	P	Greenbrier County, WV				X						X	X							P			
Whispering Woods Waterline Feasibility Study	P	Monongalia County, WV				X						X	X							P			
Royal Scot	P	Greenbrier County, WV				X					X	X			X			X	P				
Max Environmental Hazardous Waste Site	P	Westmoreland County, PA					x			x				x				x			P		
North Fork Mine Site	P	Somerset County, PA					x								X			x			P		
Laurel Refuse Site	P	Cambria County, PA					x							x	x						P		

\* List whether project experience is corporate or personnel based or both.  
 \*\*Use this area to provide specific sections or pages if needed for reference.  
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AML and RELATED PROJECT EXPERIENCE MATRIX																													
PROJECT	Exp. Basis C=Corp P=Personnel *	Additional Info Provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS																PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional										
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Blue Knob AML	C	See Project Profile		X																			P		P				
Flatbush Highwall	C	See Project Profile	X																				P		P				
Winter Portals AML Surveying	C	See Project Profile			X																			P					
WVDEP Drilling for Northern Counties	C	See Project Profile	X	X	X			X	X		X												X	P		P			
WVDEP Drilling for Southern Counties	C	See Project Profile	X	X	X			X	X		X												X	P		P			
Meigs County Mine Closure	C	See Project Profile			X																						P		
Quinwood Coal Refuse	C	See Project Profile						X																			P		
2023 WV BRIM Investigations	C	See Project Profile							X																		P		
Artistic Cleaners	C	See Project Profile										X		X														P	

\* List whether project experience is corporate or personnel based or both.  
 \*\*Use this area to provide specific sections or pages if needed for reference.  
 \*\*\*List Primary Design personnel and their functional capacity for the projects listed.

**Appendix C:**  
Key Personnel  
Qualifications and  
Resumes

## Benjamin Staud, PE

### SENIOR PROJECT MANAGER

#### EDUCATION

M.S., Civil Engineering, 2000,  
West Virginia University

B.S., Civil and Environmental  
Engineering, 1997, West Virginia  
University

#### REGISTRATIONS

Professional Engineer:

- WV 020372
- PA PE071430
- MA 50126
- NY 086812

#### SPECIALIZED TRAINING

- ASCE Natural Stream  
Restoration
- OSHA 1910.120 40-Hour Safety  
Training
- OSHA 1910.120 8-Hour  
Refresher Training

#### AREAS OF EXPERTISE

Project management; design;  
investigation; permitting

#### YEARS OF EXPERIENCE

22

Mr. Staud is a Senior Project Manager for Atlas in the Engineering & Environmental Services Division. Mr. Staud is a licensed Professional Engineer with over 22 years of project management and design experience. Mr. Staud's experience centers around investigating, designing, permitting, and managing a diverse array of environmental, geotechnical, and civil projects. He has completed projects in Pennsylvania, West Virginia, Virginia, Ohio, New York, Massachusetts, Maryland, Michigan, and Oklahoma.

#### PROJECT EXPERIENCE

##### AMD Treatment System Design, WV

Manager and Design Engineer for active AMD treatment system in Greenbrier County West Virginia. Project involved the grading and channelization of existing seeps to a 5,700-sf flushable limestone bed and 5,000-sf polishing pond.

##### Sanitary & Wash Bay Sewer Design, WV

Managed, designed and permitted treatment systems for a 1,000 gallon/day sanitary sewer system and a 1,000 gallon/day wash bay water treatment system in West Virginia.

##### Civil Design and Permitting Management, PA & WV

Managed the design and permitting of Marcellus natural gas well sites in Pennsylvania and West Virginia. Responsibilities included bidding and managing contract engineering services, identifying and tracking of permits required for location construction, extensive technical reviews of draft drawings and permit applications, inspections of completed projects to evaluate design and/or as-built performance, and identification and incorporation of lessons learned from past and present construction projects. Management of these projects required rigorous coordination with all divisions within the company to ensure proposed locations facilitated the development process while simultaneously minimizing construction costs, addressing slope instability concerns and avoiding unnecessary permitting delays.

##### Construction Inspection & Drilling Oversight, VA, WV, & MD

Conducted field inspection of various municipal and industrial construction projects.

Oversaw field drilling operations to support geotechnical and environmental site investigations.

##### Groundwater Treatment System Treatment Design, OH

Managed, designed and permitted ~4,000 gpd treatment systems for the removal of iron and manganese from drinking water utilizing manganese greensand treatment media continuously regenerated by chlorine injection.

##### Post Construction Stormwater BMPs

Provided real time verification of Post Construction Stormwater BMP construction with the assistance of survey equipment for Notice of Termination documentation.

##### Aluminum Dross Landfill Capping, AL

Completed procurement and oversight of geotechnical and environmental drilling programs, historical records review, slope stability analyses, grading plans, cap system design, and construction oversight for a capping and leachate treatment project for a 40-acre industrial landfill.

##### Facility Response Plan, OK

Managed and prepared a Facility Response Plan for a 70 thousand barrel per day oil refinery.

##### Environmental Compliance, Asphalt Emulsions Manufacturing Facility, PA, MD, OH, & NC

Managed compliance for multiple asphalt emulsions production facilities across four states.

## Benjamin Staud, PE

### SENIOR PROJECT MANAGER

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#### **MGP Remedial Design, Danville, NY**

Evaluated remedial design investigation results, attained regulatory approval, prepared remedial design documents, and secured an E&S control permit for an impacted soil removal project at a former manufactured gas plant located in an urban area under complete containment.

#### **MGP Permitting & Remediation Phase I, Greenfield, MA**

Completed a detailed design of the stream bank and bed restoration utilizing natural stream restoration techniques; obtained all required permits from local, state, and federal regulators (Section 404/401 permits); prepared remedial and restoration design documents; assisted with contractor selection; attained E&S permits, supervised field oversight activities; and submitted completion documentation for the initial phase of an MGP impacted sediment removal and stream/bank restoration project. This required the installation of a structural soil mix barrier wall and complete gravity diversion of a medium sized stream to facilitate the removal and replacement of approximately 12,000 tons of sediment. The restoration portion of the project was designed to mitigate for stream and bank impacts due to the extensive remediation work. Remediation, stream, bank and wetland restoration goals addressed water quality, eroded stream banks and restoration of bordering vegetated wetlands.

#### **MGP Permitting & Remediation – Phase II, Greenfield, MA**

Provided a detailed design of the stream bank and bed restoration utilizing a combination of hard armoring and natural stream restoration techniques; obtained all required permits from local, state, and federal regulators (Section 404/401 permits); prepared remedial and restoration design documents; assisted with contractor selection; attained E&S permits, supervision of field oversight activities; and submitted completion documentation. This MGP impacted sediment removal and stream/bank restoration project required the complete gravity diversion of a medium-sized stream to facilitate the removal and replacement of 12,000 tons of sediment. The restoration portion of the project was designed to mitigate for stream and bank impacts due to the extensive remediation work. Remediation, stream, bank and wetland restoration goals addressed water quality, eroded stream banks and restoration of bordering vegetated wetlands.

#### **Oil Water Separator Design, IA**

Managed and designed a 1,200-gallons/min oil/water separator replacement project for an oil terminal loading rack in Iowa.

#### **Firing Range Redesign, PA**

Developed detailed grading plans, lead mitigation plan, geotechnical investigation, and oversight of stormwater for the City of Pittsburgh.

#### **Former Creosote Wood Treatment Site, Reed City MI**

Completed investigation, design, and field oversight of a steel sheet pile cut-off wall installation along the banks of the Hersey River to contain coal tar impacts.

#### **MGP Permitting and Remediation, Canandaigua, NY**

Completed a detailed design of s stream bank and bed restoration utilizing a combination of hard armoring and natural stream restoration techniques; obtained Section 404/401 permit, prepared remedial design documents, assisted with contractor selection, attained E&S permits, supervised field oversight activities, and submittal of completion documentation for a MGP impacted sediment/soil removal and stream restoration project adjacent to an existing commercial facility located in an urban area. This project included sheet pile walls for groundwater control and excavation support, pumped stream bypass, disposal of 12,000 tons of impacted sediments, onsite water pre-treatment, and the construction of a vegetated segmental retaining wall. The restoration portion of the project was designed to mitigate for stream and bank impacts due to the extensive remediation work. Remediation, stream and bank restoration goals addressed water quality, eroded stream banks and restoration of riparian buffer strips.

#### **Geotechnical Slide Evaluations, PA**

Investigated, provided conceptual design recommendations, and reviewed final detailed repair plans for multiple slope failures within southwestern Pennsylvania.

## Chad Harrison, PE

QA/QC

### EDUCATION

B.S., Geo-Environmental Engineering, The Pennsylvania State University, 1997

### REGISTRATION

Civil Engineer  
WV PE23116  
PA PE081112  
OH E-83040

### CERTIFICATIONS

- OSHA 1910.120 40-Hour Safety Training (current refreshers)
- OSHA 1910.120 Supervisor Training
- OSHA 1910.1030 Occupational Exposure to Bloodborne Pathogens

Mr. Harrison serves as our Area Manager for Atlas, overseeing operations for our Morgantown, Cleveland, Cincinnati, Columbus, Dayton, Erie and Pittsburgh Offices. As a Principal-in-Charge for the firm, Mr. Harrison provides oversight, management, and technical direction of services performed by the company in our multi-state office locations. A licensed Professional Engineer in West Virginia and Pennsylvania, Mr. Harrison has over 20 years of experience in the engineering consulting field. His experience has been gained through management and technical participation in a broad range of projects in the environmental field. In addition, Mr. Harrison is an instructor for a Professional Engineer exam review course.

### PROJECT EXPERIENCE

#### Transmission Client, Facility Construction Management on Superfund Site – Moundsville, West Virginia

Managed the environmental and health and safety aspects of constructing a shale gas fractionation plant on a Superfund site. Provided general guidance on conducting excavation activities in accordance with the environmental covenant by developing a comprehensive soil management plan for all activities conducted within the impacted area.

#### Midstream (Transmission) Client, Catastrophic Pipeline Failure Response – Proctor, West Virginia

Managed the response, investigation, and regulatory closure of a catastrophic pipeline failure resulting from landslides associated with heavy precipitation. The released material was natural gas liquids and the regulatory closure was conducted in accordance with the West Virginia voluntary remediation program. In addition to the primary investigation and remediation, a surface water and potable water well sampling program was developed and implemented to evaluate exposure of nearby residents.

#### U.S. DOD, Department of the Navy, Northern Division, Naval Facilities Engineering Command, CERCLA Feasibility Study – Kittery, Maine

As project engineer, prepared a feasibility study for the remediation of a landfill at Portsmouth Naval Shipyard. Remedial options included capping and complete excavation and off-site transport and disposal. The landfill was historically used for general waste, munitions, and equipment. All options were evaluated under OSHA Level B personal protective requirements and explosive hazards.

#### U.S. DOD, Department of the Navy, Southern Division, Naval Facilities Engineering Command, RCRA Corrective Measures Study – Jacksonville, Florida

As project engineer, prepared a feasibility study for the remediation of volatile organic carbon contaminated soil and groundwater at NAS Cecil Field. Several technologies were evaluated including permeable reactive barriers and extraction in order to prevent the migration of contaminants from the site and to address residual source contributions from the free product area, part of which was located underneath an active runway.

#### Various Clients, Numerous Groundwater and Soil Remediation System Designs, Risk Assessment – Multiple States

As the lead engineer, designed new systems, designed and oversaw retrofits to an existing systems; provided system operation oversight and data evaluation; and optimized system recoveries. The technologies included air sparging, soil vapor extraction, groundwater extraction, ex-situ treatment, chemical oxidation, oxygen injection, and bioremediation.

## Clayton Kirk Roderick

### ENVIRONMENTAL TEAM LEAD

#### EDUCATION

B.S., Earth Sciences; Geology,  
California University of  
Pennsylvania, 1997

#### CERTIFICATIONS

OSHA 30-Hour Construction  
Safety Training

Safeland USA Training

HAZWOPER 40-Hour  
Training

MSHA Training

#### YEARS EXPERIENCE

24

Mr. Roderick is a Senior Project Manager for Atlas Technical Consultants, LLC in our Engineering and Environmental divisions. Mr. Roderick is a geologist with over 24 years of project management and regulatory / environmental experience within the energy sector. Kirk's experience centers around geologic and hydrologic investigations, designing, permitting, and managing a diverse array of environmental, geologic, environmental, reclamation / remediation, and civil projects within the coal and aggregate mining and, oil and gas industries.

#### PROJECT EXPERIENCE

##### Coal and Aggregate Mining Projects; Pennsylvania and West Virginia

Managed and completed all geologic, hydrologic and environmental sections of mining projects throughout western Pennsylvania and northern West Virginia. Responsibilities included exploratory and overburden drilling, field reconnaissance to collect groundwater and surface water samples, conduct joint readings and obtain any additional environmental information that would be needed for the completion of surface mine permit and underground mine permit applications for the mining of coal and non-coal (aggregate) units. Other responsibilities included completing acid base accounting (ABA) of the overburden, assisting with the proposed mining and reclamation plans, designing erosion and sedimentation (E&S) control systems and all requisite notifications for the review, compilation and submittal of the application to the regulatory agency.

##### Remediation and Reclamation Projects, Pennsylvania and West Virginia

Collected acid mine discharges at abandoned surface and underground mine sites and reviewed the analyses for the design of passive treatment systems. Quantity and quality data were used to design the system to improve the overall water quality. This was achieved by adding net alkaline material at the source point, constructing a series of waterfalls and ripples within the limestone channel for aeration purposes to raise the pH, promote settling of dissolved metals and improve the overall water quality before discharging into the receiving streams.

Completed Government Financed Construction Contract (GFCC) over thirty (30) applications for the reclamation of abandoned mine sites throughout western Pennsylvania. Field reconnaissance, consisting of drilling operations, water sampling and completing environmental assessments, was conducted for the gathering of information used to re-mine and reclaim the proposed sites that were scarred with remnants of previous surface and underground mining activities, consisting of abandoned highwalls, numerous spoil areas, subsidence features, impounded waters and abandoned entry ways.

Compiled reclamation plans for Title IV sites located throughout the State of West Virginia. Several sites were comprised of abandoned highwalls, spoil areas and impounded waters; the features were eliminated by developing a grading plan by using all spoil material as backfill, tying into the surrounding contours while achieving approximate original contour. Other sites included the treatment of acid mine drainage (AMD), eliminating abandoned deep mine entries and partial daylighting of the deep mine complex to eliminate subsidence features.

##### Hydrologic Investigations, West Virginia and Pennsylvania

Assisted in the monitoring program designed to determine flow loss of undermined streams in the permitted areas above several separate long wall mining operations. Field mapping and visual observations of geologic outcrops and mining-related anomalies were conducted throughout the length of the monitored streams. Field data was entered and organized into a client-accessible web-based GIS data system to access impacts.

##### Environmental Assessments, West Virginia and Pennsylvania

Completed field work for the preparation and submittal of Environmental Site Assessments for various sites throughout Pennsylvania and West Virginia.

##### Construction Inspection and Drilling Oversight, West Virginia and Pennsylvania

Conducted field inspection of various mining, well pad and construction projects. Oversaw drilling operations to support geotechnical and environmental site investigations.



# KEY PERSONNEL

## Fracture Trace Analysis, Pennsylvania

Geologist tasked with completing a fracture trace study to determine several drilling sites for replacement water wells. The client was required by the Pennsylvania Department of Environmental Protection to locate, drill and develop a replacement water well needed to satisfy the requirements of obtaining a Large Non-Coal (LNC) permit in Fayette County, PA. Responsibilities included utilizing local topographic relief mapping and LiDAR mapping to analyze the study area to identify features that are result of underlying zones of fractured bedrock. Areas with a high concentration of fracture traces were suggested for preliminary drilling of the proposed replacement sites and these replacement water well sites yielded the volume of potable water required by Department.

## Aggregate Reserve Study, Pennsylvania

Completed an aggregate reserve study to determine the approximate tonnage of non-coal material within western Pennsylvania. Responsibilities included drafting regional structure lines on USGS topographic mapping and plotting all mineable sandstone and limestone units in areas south of the city of Pittsburgh that included Allegheny, Washington, Greene, Fayette and Westmoreland Counties. The report-of-finding revealed the stratigraphic unit, the approximate tonnage of each unit, the feasibility of obtaining leases and requisite permits, and identifying any associated environmental and/or socioeconomic impacts the proposed mining sites could potentially encounter.

## Oil & Gas Projects, Pennsylvania and West Virginia

Managed the design and permitting of Marcellus natural gas well pad sites and gas pipeline sites in Pennsylvania and West Virginia. Responsibilities included bidding and managing contract engineering services, identifying and tracking of permits required for location construction, extensive technical reviews of draft drawings and permit applications, inspections of completed projects to evaluate design and/or as-built performance. Management of these projects required rigorous coordination with all divisions within the company to ensure proposed locations facilitated the development process while simultaneously minimizing construction costs, addressing slope instability concerns and avoiding unnecessary permitting delays.

## Pipeline Replacement Project and Compressor Station Rebuild Project, Pennsylvania

Completed all daily and weekly reporting for gas line construction activities while maintaining a digital and hard copy filing system, as required by the Department of Transportation. – Pipeline and Hazardous Materials Safety Administration (PHMSA). Procured data for materials reconciliation during the pipeline replacement project and completed hydrostatic test packets for all pipe integrity testing throughout the project. Additional responsibilities included office management and assisting the field staff and contractors.

## Geologic Investigation, Pennsylvania

Performed joint readings and conducted visual inspections throughout an active underground limestone mine to investigate roof falls. The investigation included taking joint readings, mapping the readings, completing a report-of-findings that recommended an adjustment of the mining plan to prevent any additional roof falls.

## Project Close-Outs / Auditing, Midwest

Completed internal audits of all remediation / reclamation and civil / constructions sites at numerous air compressor sites throughout the Midwest for a major gas pipeline company. Activities included reviewing all project files for the prior three years to determine completeness and obtain any, and all, project documents to satisfy the internal audit and ensure satisfactory record keeping for a potential federal regulatory audit.



## Sendhil Kumar, PE

### ENGINEERING TEAM LEAD

#### EDUCATION

MBA, Kelley School of Business, 2021

M.E., Environmental Engineering Sciences, University of Florida, 2009

B.E., Chemical Engineering, R.V. College of Engineering, 2005

#### REGISTRATIONS

Professional Engineer:

- IN PE11900632
- MI 6201064290
- NC 044165
- MA 53537
- OH PE.87193
- WA 56769

#### CERTIFICATIONS

10-hour Construction Safety  
40-Hour OSHA HAZWOPER  
Nuclear Gauge Certification

Mr. Kumar is the Principal Engineer and the Group Manager for Atlas's Solid Waste Engineering Division. Mr. Kumar has been working in the area of civil and environmental engineering for more than 16 years, including Municipal Solid Waste (MSW) and Coal Combustion Residuals (CCR) related work. Mr. Kumar has hands-on experience in developing engineering plans for permitting and construction, providing construction quality assurance, and performing fieldwork in relevance to construction quality assurance. Mr. Kumar also brings in his solid waste research experience to develop innovative solutions to existing and new challenges faced in the solid waste management industry.

#### PROJECT EXPERIENCE

##### **CCR Beneficial Use Demonstration, Confidential Client, Indiana**

Mr. Kumar was the senior engineer on a CCR beneficial use demonstration project and assisted in evaluating the potential contaminant releases from an ash pond with CCR structural fill, using IWEM – groundwater fate and transport model developed by the US EPA.

##### **CCR Landfill Final Cover Modification, Confidential Client, Indiana**

Mr. Kumar was the senior engineer for the development of construction plans to replace a soil final cover system on a CCR Landfill with a composite final cover system. The project also included the redesign of diversion berms and stormwater structures for the modified final cover system.

##### **Ash Pond Closure, Duke Energy Facilities, Indiana**

As a Senior Project Engineer, Mr. Kumar has provided solid waste services for the preparation of construction drawings and specification for closure of several ash ponds.

##### **Landfill Site Inspector, Casella Waste, Massachusetts**

Mr. Kumar was the Senior Engineer for the inspection of landfill site during the waste placement, regrading, and construction of final cover, for compliance with MassDEP Solid Waste Regulations and consent order to the site. The task included oversight of site operations, construction activities and reporting to MassDEP on a daily basis.

##### **Landfill Cell Baseline Construction, Covanta Energy, Massachusetts**

Mr. Kumar was the Senior Engineer for the construction of a landfill cell baseliner with geosynthetics. Tasks included managing

construction quality assurance activities for compliance with construction drawings and specifications, testing methods, and preparation of certification reports. The task also included coordination with the construction contractors, client and the senior project manager to track the progress of the project and to resolve any design concerns or unexpected field conditions. Three such projects were completed in 2017 and 2018.

##### **Landfill Cell Expansion Plans, S.A. Dunn & Company LLC, New York**

Mr. Kumar was the Senior Engineer for developing engineering drawings and technical specifications for the construction of a landfill cell. Tasks included site development planning, earthwork quantities estimation, gas collection system modifications, and stormwater management plans associated with the cell construction. Cell construction and its associated site development activities are currently ongoing.

##### **MSE Wall Design, S.A. Dunn & Company LLC, New York**

Mr. Kumar was the Project Engineer for developing conceptual engineering plans and technical specifications for the construction of a MSE wall as part of a landfill cell expansion. The primary function of the MSE wall was to provide visual screening for the landfill operations, from the adjacent public properties. The task included site development, earthwork quantities estimation and stormwater management plans. The client is currently reviewing the MSE wall design to be incorporated into the landfill cell expansion.

## Sendhil Kumar, PE

### ENGINEERING TEAM LEAD

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#### **Landfill Cell Construction Plans, EC Waste, Puerto Rico**

Mr Kumar was the Project Engineer for developing engineering drawings and technical specifications for the construction of a landfill cell. Tasks included site development, earthwork quantities estimation, gas collection system modifications, and stormwater management plans associated with the cell construction. The cell construction and its associated site development is ongoing.

#### **Landfill Cell Baseline Construction, Waste Management, Ohio:**

Mr. Kumar was the Senior Engineer for the construction of a landfill cell baseline with geosynthetics. The task included managing construction quality assurance activities to ensure compliance with construction drawings and specifications, testing methods and prepare certification reports. The task also included coordination with the construction contractors, client and the senior project manager to track the progress of the project and to resolve any design concerns or unexpected field conditions.

#### **Subsurface Landfill Gas Migration Control System, Various Clients, Pennsylvania, and Maryland**

As Lead Project Engineer, Mr. Kumar has provided alternatives analysis and subsequent design of several landfill gas migration control systems. He has evaluated subsurface conditions, potential sources, and migration paths, created site conceptual models of potential migration paths, and provided clients with remedial alternatives analysis reports. Mr. Kumar is also experienced in utilizing the one pass trenching systems for landfills with a waste limit in close proximity to adjacent property boundaries.

#### **CCR Surface Impoundment Closure Plan, Confidential Client, North Carolina**

Mr Kumar was the Lead Project Engineer and Project Manager for evaluating the existing CCR impoundments and developing a closure plan for its closure, under the new CCR rule and North Carolina's CAMA regulations. The feasibility of several closure options were evaluated based on site specific features and were presented to the client for consideration. A closure plan for the chosen closure option was developed in accordance with the CCR and CAMA Regulations and submitted for final review before presenting it to the North Carolina regulatory agencies for approval of the closure plan. Developing the closure plan included working with geotechnical leads, groundwater experts and subcontractors, to plan and implement safe fieldwork procedures to perform subsurface investigations.

#### **CCR Landfill Permitting and Construction Documents, Confidential Client, Tennessee**

Mr. Kumar was the Design Engineer for developing engineering calculations, associated with the permitting of a

proposed 52-acre coal combustion residuals landfill. The package included engineering calculations for leachate generation, slope stability evaluation, geosynthetic liner systems, and stormwater management.

#### **CCR Landfill Cell Construction Plans, Confidential Client, Ohio**

Mr. Kumar was the Design Engineer for developing engineering drawings and technical specifications for the construction of a 24-acre cell and a stormwater pond as part of the overall permitted landfill construction. The task included site development and stormwater management plans. The construction of the CCR Landfill Cell and its associated site development were completed in September 2014.

#### **CCR Landfill Expansion, Confidential Client, Ohio**

Mr. Kumar was the Design Engineer for developing plans for a 135-acre expansion of an existing Landfill. The engineering plans included identification of existing site conditions and defining the landfill footprint, the horizontal and vertical limits of waste based on property boundaries and subsurface conditions, leachate collection system and grading plans. Stormwater management plans were also developed as part of the permit application.

#### **CCR Pond Closure, Confidential Client, Tennessee**

Mr Kumar was the Resident Engineer for construction oversight, management of construction quality assurance (CQA) activities, coordination with regulators, approval of materials, request for information, lab testing coordination, and record keeping of all construction activities and reporting. The project included CQA oversight of lime stabilization of subgrade, geosynthetics installation, construction of cover soil, topsoil, and establishing vegetation over the 2-acre chemical treatment pond at a coal power plant site in Tennessee. Construction CQA for geosynthetics included field test observation, destructive and non-destructive testing, and random material sampling and testing. A certification report was developed post construction, documenting the activities with as built engineering drawings and was submitted to Tennessee Department of Environment and Conservation in January 2013.

#### **CCR Material Characterization Study, Confidential Client, Tennessee**

Mr Kumar was the Staff Engineer and Site Safety Officer to ensure safety and procedural collection of CCR samples from all major Coal Combustion Plants in and around Tennessee. Thirty (30) different CCR material samples from 11 power stations, in three (3) states (TN, KY, and AL), were collected, labelled and shipped to a laboratory for physical and chemical testing. The test results from the laboratory were compiled and discussed in a Material Characterization Report for the client.

## Sung Yi

### CONSTRUCTION TEAM LEAD

#### EDUCATION

B.S., Business with emphasis in Marketing, California University of Pennsylvania

#### PROFESSIONAL REGISTRATIONS / CERTIFICATIONS

- American Concrete Institute, grade 1 Concrete Testing: ACI # 01070092
- American Concrete Institute Concrete Strength Testing Technician
- Northeast Center of Excellence for Pavement Technology, Concrete Field Technician #7889
- International Code Council Soils Special Inspector #8716131
- International Code Council Reinforced Concrete Special Inspector #8716131
- International Code Council Structural Steel and Bolting Special Inspector #8716131
- Certified Erosion, Sediment and Storm water Inspector (CESSWI) #00005116

#### SPECIALIZED TRAINING

- TROXLER Nuclear Density Gauge and Radiological Safety Training Program. Troxler Electronic Laboratories, Inc.
- Mine Safety and Health Administration training
- OSHA 30hr

Mr. Yi is a Senior Project Manager with 21 years of hands-on, practical experience in the geotechnical engineering, construction inspection, and materials testing industry. His responsibilities have included overall project management of geotechnical investigations, construction management, construction monitoring and inspection, Quality Control and Quality Assurance, slope stability assessments, engineering analysis, laboratory materials testing and management, onsite remediation, field technician management, client relations, and marketing and business development. Proven technical expertise and leadership.

#### PROJECT EXPERIENCE

##### Project Manager/ Lead Field Technician/ Geotechnical; Various Commercial and Residential Development Locations throughout WV & PA

Managed geotechnical investigations including soil drilling and rock coring and associated logging for geotechnical studies. Monitored earthwork activities including cut and fill slopes, keyway construction, slope stability, nuclear density testing, grading, drilled piers, caissons, and auger cast piles. Managed all reporting and review activities from technicians. Performed slope stability analysis and landslide assessments for Oil and Gas pipeline Right of Ways, including design recommendations for remediation's and restorations. Conducted presumptive bearing evaluations for both commercial and residential structures as they relate to bearing condition feasibility and/or potential pyritic expansion issues. Conducted and managed technicians for commercial building inspection and monitoring (including but not limited to- reinforcing steel verification, site concrete testing, floor flatness and levelness testing, masonry testing, visual steel bolts and welds, sub-base verification, and storm line and utility installation verification.) Conducted and managed technicians for hot mix asphalt monitoring, testing and compliance with site specifications including temperature monitoring and density testing of stone sub-base. Managed all activities for laboratory testing including compressive strength testing, standard and modified proctor, classification, Atterberg Limits, hydrometer analysis, sieve analysis, relative density, fireproofing density, and moisture analysis.

##### Project Manager – National accounts, Right of Way Utilities, City of Pittsburgh Firing Range; Various locations in WV & PA

Coordinated and managed construction materials testing activities of field technicians including monitoring geotechnical investigations and activities, materials testing and on-site issue resolutions. Responsible for generation of geotechnical reports from inception to completion. Reviewed daily reports generated by the field technicians along with timesheet approval for technicians. Responsible for invoicing, budget management and client management. Responsible for all phases of hiring and training new technicians. Development of yearly training activities for continued education. Radiation Safety Officer. Project coordination for NPDES permit discharge events.

#### Lab Manager

Managed the design and implementation of in house soils and concrete testing laboratory and coordinated the AASHTO certification process. Managed and created laboratory procedures for mix designs for full depth reclamation projects including review of daily tested data. Managed lab procedures and lab work training for new hires and continuing education and training for current technicians. Managed AMRL and CCRL Quality Management Systems.

#### Engineering Technician II

Managed inspections of City Right of Way standards for driveways, sidewalks, gutters, ramps, construction staging, and erosion control standards including sidewalk Café permitting review. Managed permitting reviews for new applications for work within the City's Right of Way, including Erosion and Sedimentation Controls. Managed plans reviews for residential and commercial projects within the City's Right of Way and review of Maintenance of Traffic designs per FDOT standards and MUTCD for Special Events.

## Quincy Fraley

### CONSTRUCTION SERVICES & INSPECTIONS

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#### EDUCATION

Bachelor of Science in Environmental Science, Alderson Broaddus University, 2017

#### CERTIFICATIONS

APNGA Portable Nuclear Gauge Safety

OSHA 30 Hour Construction Safety and Health

Mr Fraley is a Project Manager in the Construction Materials Testing Division at Atlas Technical Consultants in the Morgantown, West Virginia office. Mr. Fraley has over 5 years of hands-on, practical experience in construction management and construction inspection. Mr. Fraley's current area of focus is project management, client relations, field report analysis and marketing.

#### AREAS OF EXPERTISE

- Construction Management
- Construction Inspection
- Scheduling and Coordination
- Marketing and Client Relations
- Technical Writing

#### PROJECT EXPERIENCE

##### Project Manager – West Virginia

Coordinated and managed construction projects throughout different industries. Assigned personnel to the projects so they were completed in a professional, but timely manner. Tracked allotment of materials spending on the project were below the bugeted amounts. Completed coordination of scheduling the projects through different cliental. Worked with clients to uphold Quality Assurance of the given project was to the satisfaction of the client.

##### Construction Management; Ohio, Pennsylvania, West Virginia

Coordinated and managed site operations of construction for natural gas well pads, roadways, reclamation sites and pipeline construction projects. Inspections of these operations were completed by comparing the prepared plan sheet to the completed construction activities. Worked with clients to assure Quality Assurance of the completed construction was within the plans.

##### Water Quality Inspection; Ohio, Pennsylvania, West Virginia

Completed collection of water quality samples based on perimeters set by the client. The results were compiled into spreadsheets/reports for the clients' comparison to allotted amounts of material being tested for application to permitting process.

##### Environmental Inspections; Ohio, Pennsylvania, West Virginia

Completed inspection of environmental issues across various industries and compiled reports-of-finding for submittal to the client. Follow-up inspections were conducted and oversaw calibration of all monitoring equipment.

##### Report Writing

Assisted in writing virtual inspection reports for construction sites. Completed daily reports from active sites for client submittal. Reconciled materials used on the site daily to cross reference for the client.



## Patrick Dammier

### CONSTRUCTION SERVICES

#### EDUCATION

Associates Degree, Computer Aided Drafting and Design, ITT, 2000

#### CERTIFICATIONS

40HR HAZWOPER  
Portable Nuclear  
Density/Moisture Use and Training

Mr. Dammier is a project manager in Atlas Technical Consultants Environmental Engineering Division in Indianapolis, Indiana. He has been employed with Atlas since 2008. Mr. Dammier currently serves as Project Manager in the Landfill Design Group and provides proposal and budget preparation, project coordination and management, certification report preparation and supervision of field personnel. Mr. Dammier has provided construction quality assurance services for over 1,200 acres of soil and composite base liner and final cover systems in the state of Indiana. Services have also included assistance in permitting, expansions and modifications of new and existing municipal and restricted waste facilities. During his tenure at Atlas, he has provided assistance in several areas of civil and environmental construction engineering projects including subsurface investigations, storm water sampling projects and Abandoned Mined Land (AML) reclamation projects. Mr. Dammier's accomplishments also include soil classification and performing laboratory testing in the Geotechnical Soils Laboratory.

#### PROJECT EXPERIENCE

##### **Landfill Design and Construction Quality Assurance, Duke Energy Indiana, Gibson County, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for soil and composite base liner and final cover projects for approximately 35,083,224 square feet at Gibson Generating Station – Restricted Waste Type I landfill. Services also include assistance in borrow area subsurface investigations.

##### **Landfill Design and Construction Quality Assurance, Duke Energy Indiana, Cayuga County, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for composite base liner projects for approximately 5,719,428 square feet at Cayuga Generating Station – Restricted Waste Type I landfill. Services also include assistance in borrow area subsurface investigation.

##### **Landfill Design and Construction Quality Assurance, Duke Energy Indiana, New Albany, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for composite base liner projects for approximately 3,354,120 square feet at Gallagher Generating Station – Restricted Waste Type I landfill. Services also include assistance in borrow area subsurface investigation.

##### **Landfill Design and Construction Quality Assurance, Duke Energy Indiana, Noblesville, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting a final cover project for approximately 696,960 square feet at Noblesville Generating Station. Services also include assistance in borrow area subsurface investigation.

##### **Landfill Design and Construction Quality Assurance, Duke Energy Indiana, Dresser, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for approximately 718,740 square feet at Dresser Generating Station. Services also include assistance in borrow area subsurface investigation.

##### **Landfill Design and Construction Quality Assurance, Hoosier Energy Indiana, Sullivan County, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for soil and composite base liner and final cover projects for approximately 1,655,280 square feet at the Merom Generating Station Coal Combustion By-Products Landfill. Services included assistance with test pad construction, monitoring and Boutwell testing on constructed test pad at this landfill site. Services also included assistance in borrow area subsurface investigations.

##### **Landfill Design and Construction Quality Assurance, Vectren Power Supply, Mount Vernon, Indiana**

## Patrick Dammier

### CONSTRUCTION SERVICES

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Provided Construction Quality Assurance services including assistance with certification reporting for soil and composite base liner and final cover projects for approximately 43,561 square feet of landfill cell and final cover system construction at the A.B. Brown Generating Station - Restricted Waste Type III landfill. Services also include assistance in borrow area subsurface investigation.

#### **Landfill Design and Construction Quality Assurance, Waste Management, Buffalo, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for composite base liner and final cover projects for approximately 3,689,532 square feet at Liberty Landfill. Services also include assistance in borrow area subsurface investigation.

#### **Landfill Design and Construction Quality Assurance, Waste Management, Danville, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for composite base liner and final cover projects for approximately 2,241,162 square feet at Twin Bridges RDF. Services also include assistance in borrow area subsurface investigation.

#### **Landfill Design and Construction Quality Assurance, Waste Management, Portland, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for composite base liner projects for approximately 923,472 square feet at Jay County Landfill. Services also include assistance in borrow area subsurface investigation.

#### **Landfill Design and Construction Quality Assurance, New Paris Pike Landfill, Richmond, Indiana**

Provided Construction Quality Assurance services including assistance with certification reporting for soil and composite base liner projects for approximately 1,424,412 square feet at the City of Richmond landfill. Services also include assistance in borrow area subsurface investigation.

#### **Mine Reclamation, Indiana Division of Reclamation**

Provided Construction Quality Assurance including certification reporting for soil and geosynthetics liner for approximately 392,040 square feet of coal refuse at an abandoned coal mine site in Terre Haute, Indiana. Services also included assistance in borrow area subsurface investigations.

#### **Geotechnical Lab**

Performed soil classification and laboratory soil testing including standard and modified Proctor, moisture content, atterberg limits, and sieve preparation.

## Kenneth Pasterak, PG, LRS

### GEOPHYSICAL INVESTIGATION

#### EDUCATION

M.B.A., University of Pittsburgh,  
Katz Graduate School of Business

M.S., Environmental /Earth  
Studies, Adelphi University

B.S., Geology, West Virginia  
University

#### REGISTRATIONS

Licensed Remediation Specialist

- WV 243
- Professional Geologist:
- PA 3733

#### AREAS OF EXPERTISE

Developing and implementing  
site assessment and remediation  
plans

#### YEARS OF EXPERIENCE

30

Mr. Pasterak has over 30 years of industry experience in environmental due diligence and assessment / remediation services. He specializes in overcoming environmental obstacles to real estate development, auditing environmental management systems, and performing pre-purchase environmental management capital / O&M budget forecasting to support industrial / commercial property acquisitions. Mr. Pasterak has extensive experience developing and implementing site assessment and remediation plans for petroleum hydrocarbon and hazardous substance releases. Mr. Pasterak regularly performs Phase I and II environmental due diligence and compliance audits and prepares SCRs, RAPs, RAPRs, RACRs, Risk Assessment, RIRs, FRs, and compliance audits and due diligence reports for his clients. Mr. Pasterak designs, installs and operates remediation systems utilizing dual/multi-phase extraction, soil vapor extraction, air/ozone sparge, LNAPL recovery, and carbon trap and treat injection/ enhanced bioremediation technologies.

Additionally, Mr. Pasterak develops and implements soil and groundwater management plans for site development, and develops and installs VI mitigation systems for existing and new construction. He performs human health risk assessment and vapor intrusion (VI)/ solute transport modelling, and has successfully deployed various vapor intrusion to indoor air mitigation and/or methane mitigation technologies. He has presented regulatory agency VI to indoor air assessment training. He has a working knowledge of SPCC, Pennsylvania Clean Fill Policy, RCRA hazardous waste regulations, and SPCC and NPDES storm water management requirements. He has provided forensic analysis for PRP dispute resolution, expert testimony and other litigation support, and has performed human health risk assessment and fate and transport analysis.

#### PROJECT EXPERIENCE

##### **Environmental Due Diligence, Various Sites, PA, OH, WV, NY, CT, KS, WI, GA, CO, & CA**

Performed Phase I and II Environmental Site Assessment for transactional due diligence purposes at over 100 sites.

##### **Mixed Use Redevelopment of Former Manufacturing Facilities, Including Fast-Track Remediation and Vapor Intrusion Mitigation, Pittsburgh, PA**

Prepared and implemented assessment and remediation plans in response to the discovery of potential significant environmental liabilities, including polycyclic aromatic hydrocarbons and lead in soil, and halogenated volatile organic compounds (VOC) in groundwater, during pre-purchase due diligence activities. To reduce costs, multiple properties (including parcels separated by a public right-of-way) targeted for mixed-use redevelopment were aggregated into one Act 2 site to reduce costs and fast-track site cleanup. The Special Industrial Area provision of Pennsylvania Act 2 was utilized to avoid investigation and delineation of an off-site VOC groundwater

plume, significantly reducing costs. Following clean-up, the Pennsylvania DEP issued a Pennsylvania Act 2 release of liability for the site. Soil and Groundwater Management Plans were prepared and implemented during site demolition and construction activities to cost-effectively manage impacted media. Designed and coordinated the installation of multiple vapor intrusion mitigation systems consisting of sub-slab depressurization and vapor barrier technologies in buildings undergoing redevelopment, as part of activity and use limitations.

##### **Site Characterization, Remedial Action, and PADEP Negotiation, Bulk Petroleum Terminal Assessment, PA**

Prepared and implemented site characterization and remedial action plans for multiple releases at a bulk petroleum terminal. Implemented NAPL recovery, developed storm water management plan BMP improvements, and negotiated a PADEP notice of violation and consent order to reduce an enforcement penalty.



## Kenneth Pasterak, PG, LRS

### GEOPHYSICAL INVESTIGATION

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solvents during pre-purchase due diligence activities at a former electroplating facility. Entered the property into the Pennsylvania Voluntary Clean-up (Act 2) Program and obtained Act 2 relief of liability from Pennsylvania DEP for chromium and other hazardous substances in soil and groundwater pursuant to Pennsylvania Act 2.

#### **Assessment and Remediation to Support Residential Brownfield Redevelopment of Former Industrial Property, Columbus Square Development Project, PA**

Prepared and implemented assessment and remediation plans in response to the discovery of potential significant environmental liabilities associated with heavy metals and chlorinated

#### **In Situ Enhanced Biodegradation of VOCs in Groundwater Using Carbon-Based Injectate Technology, Multiple Sites, PA**

Performed assessment and remediation of an unleaded gasoline release to groundwater, gathered geochemical data to provide multiple lines of evidence indicating aerobic and anaerobic biodegradation of petroleum hydrocarbons by indigenous microorganisms. Prepared Site Characterization Plans, Remedial Action Plans, Remedial Action Progress Reports and Remedial Action Completion Reports. Successfully utilized carbon-based (trap and treat) injectate remedial technology to biodegrade contaminants in situ at source and down-gradient toe-of-plume areas.

#### **Brownfield Redevelopment Site Assessment, Multiple States**

Prepared and implemented site assessment to support brownfield redevelopment in multiple states.

#### **LNAPL Remediation and Pennsylvania Act 2 Clean-up and Liability Relief, Pennsylvania**

Prepared and implemented an LNAPL clean-up plan, performed human health risk assessment, solute transport and vapor intrusion to indoor air modelling, and prepared a Remedial Investigation and Final Report to obtain PADEP relief of liability pursuant to Pennsylvania Act 2 for a heating oil release site where heating oil was effectively recovered to PADEP requirements.

#### **Bauxite Mining Facility Groundwater Assessment, Jamaica**

Evaluated groundwater impact associated with aluminum ore mining activities.

#### **Nahcolite Mining Facility and Nitrogen Fertilizer Plant Environmental Due Diligence, ID & CO**

Performed pre-purchase environmental due diligence.

#### **Dual Phase Extraction and/or Soil Vapor Extraction Remediation of Petroleum-Impacted Soil at Industrial Facilities, Various Sites, PA**

Operated SVE and/or dual phase extraction (DPE) remediation systems and achieved remedial objectives for petroleum-impacted soil at multiple sites. A Buyer-Seller Agreement, multi-party/PADEP negotiation, and remediation concurrent with site development were coordinated to satisfy stakeholder interests.

#### **Mining Facility Assessment, Remediation, Litigation Support, and Trial Expert Witness Support, KS**

Investigated the extent of constituents of concern in groundwater, evaluated the performance of groundwater remediation systems, and performed fate and transport analysis for groundwater. Provided defendant technical litigation support including expert testimony.

#### **Retail Petroleum Distribution Facility Assessment and Remediation, Various Sites, PA**

Prepared and implemented Site Characterization Plans, Remedial Action Plans, Remedial Action Progress Reports and Remedial Action Completion Reports for multiple sites in Pennsylvania. Obtained Pennsylvania Storage Tank program relief of liability by demonstrating attainment to multiple standards. Performed human health risk assessment, fate and transport analysis, and vapor intrusion to indoor air evaluation. Active remediation was performed using dual phase extraction, in situ chemical oxidation, enhanced in situ bioremediation, source removal, vapor extraction groundwater extraction (VEGE), and/or multi-phase extraction.

#### **Close-Out of Multiple Sites with Subsurface LNAPL, PA**

Prepared and implemented LNAPL recovery plans, implemented active LNAPL remediation, and effectively demonstrated LNAPL recovery to the maximum extent practicable (MEP) using decline curve analysis methods and other lines of evidence to expedite closure of sites with residual, non-migrating LNAPL in the subsurface. The close-outs included human health risk assessment and pathway elimination strategies. PADEP approved the attainment and LNAPL MEP demonstrations.

#### **Site Redevelopment, Multiple Sites, PA**

Performed geotechnical investigation, infiltration testing, fast-track orphan UST closure, evaluation of impacted fill management alternatives, dig-and-haul soil remediation, and use of administrative and engineering controls to quickly and cost-effectively address environmental obstacles to real estate development.

## Lisa Weimer, PG

### GEOLOGY/HYDROGEOLOGY

#### EDUCATION

BS, Geology  
Clarion University of  
Pennsylvania  
Clarion, Pennsylvania

#### REGISTRATION

Professional Geologist  
PG PA #PG00491

#### CERTIFICATIONS

OSHA Hazardous Waste  
Operations and Emergency  
Response (40-Hour 29 CFR  
1910.120e)

OSHA 8-Hour Refresher  
Training  
(Current)

Ms. Weimer has a diverse background in hydrogeology and environmental sciences spanning over 30 years. She provides environmental assessment, remediation, compliance and due diligence services to both private and public sector clients. Ms. Weimer has experience conducting geological and hydrogeological investigations for contaminated project sites as well as for municipal water supply projects. Her experience includes analytical and numerical groundwater modeling, as well as fate and transport modeling of simple to complex geological settings for a variety of clients including industrial, municipal water suppliers and environmental litigation expert witnesses.

#### PROJECT EXPERIENCE

##### **Numerous Real Estate Companies and Financial Institutions throughout Pennsylvania, Ohio, New York and West Virginia**

Phase I and II Environmental Site Assessments. Conducted and supervised due diligence investigations of multi-unit residential, commercial and industrial properties.

##### **Pennsylvania Underground Storage Tank Indemnification Fund (USTIF) Claims, Various Sites, Western Pennsylvania**

Project Manager for projects that involved completion of cost to closure work plans to be implemented as fixed priced contracts. Duties included review of historical data and development of strategies to bring the USTIF claims to closure under Pennsylvania Act 2 Program; interfacing with USTIF claimants and claim managers, third party reviewers and Pennsylvania Department of Environmental Protection (PADEP) case managers.

##### **Numerous Client Confidential throughout New Jersey, Pennsylvania, Maryland and Delaware**

Project Scientist providing litigation support to environmental expert witnesses. Activities included completion of historical reviews and summarizing the case specifics including the environmental impacts to the site, contaminants of concern, source areas, applicable regulations, extent of contamination and the remedial efforts conducted; review of environmental consultants' site investigation reports in order to determine whether correct procedures

were utilized to address and mitigate environmental impacts and to determine if work was conducted in accordance with the applicable local, state and federal regulations; conduct fate and transport modeling of contaminants in the subsurface to determine the time of a release, calculate the future extent of the contaminant plume and determine the duration of remediation to achieve attainment of the applicable standards.

##### **Numerous Municipalities throughout South-central Pennsylvania**

Project Scientist – Development of new groundwater resources. Activities included siting test wells based on review of lithology, fracture trace analyses and logistics; supervision of the installation of the test wells, logging geology and water bearing zones; supervision of the conversion of the test well to production wells; supervision of aquifer testing, analysis of aquifer test data, completion of new source report as part of the New Source Permit application to the state.

##### **Beazer East, Pennsylvania**

Project Scientist leading the reporting group completing RCRA quarterly, semiannual and annual reports for 29 sites located in 22 states. Duties included oversight of the reporting group; completion of deliverables to the state and federal agencies in accordance with site specific permits and other regulatory requirements; review and interpretation of field and analytical data; interfacing with client and regulators.

## Mark Breting, PG

### GEOLOGY/HYDROGEOLOGY

#### EDUCATION

M.S., Geology, University of Missouri - Columbia, 1996  
 B.S., Geology, University of Missouri - Columbia, 1992

#### REGISTRATIONS

Licensed Professional Geologist  
 • IN #2092, 1996

#### CERTIFICATIONS

Slug Test Short Course, The Ohio State University Office of Continuing Education and The Midwest Geosciences Group, Madison, WI, 1999  
 ARC/INFO software applications Short Course, IDEM, Indianapolis, IN, 1998  
 Groundwater Modelling System (GMS) Short Course, IDEM, Indianapolis, IN, 1998  
 Global Positioning System (GPS) Short Course, IDEM, Indianapolis, IN, 1997  
 OSHA Hazardous Waste Site Operations 40-hour training, 29 CFR 1910.120; 1997, with current refreshers

Mr. Breting is a senior project geologist with ATC Group Services, LLC. He is also an experienced field geologist. He has twenty five years of professional work experience as a geologist, project manager, and team leader. Mr. Breting has completed project management duties at coal combustion and landfill sites as well as hydrocarbon, drycleaner, and other chemical-contaminated sites. He has written corrective action plans (CAPs) for various remedial projects. He has served as a field and staff geologist on various hydrocarbon contaminated sites, including retail gasoline facilities and bulk terminals. He has been involved with reviewing reimbursement claims to ensure compliance with the requirements of to the Excess Liability Trust Fund (ELTF) policies. He has operation and maintenance experience with soil vapor extraction and dual phase vacuum extraction systems. He has experience in field sampling and analysis, and with field instrumentation equipment, such as multi-parameter water quality meters, photo-ionization detectors, multi-gas monitors, and oil/water interface probes. In addition to petroleum experience, Mr. Breting has completed project management duties for open and closed Indiana landfills. He has completed various field tasks such as groundwater sampling, soil sampling, borehole logging, monitoring well installation, and slug tests. He has completed the field geology and hydrogeological site investigation report for a landfill horizontal expansion, and has completed statistical analysis reports for landfill sites.

#### PROJECT EXPERIENCE

##### Remediation Services, Various Clients, Indiana

Served as project manager for nine retail gasoline stations located in Indiana that required engineered remediation systems. Responsibilities include proposal and report preparation, project planning, assessment and remediation design, UST closure, client and regulatory agency communication, invoicing, and staff, budget, schedule management, and daily interaction with client site environmental tracking website.

- Manage remedial activities at a site in Indianapolis affected by historic release of dry cleaning wastes into a sanitary sewer. CAP18 ME injections utilized at site to reduce chlorinated compound concentrations.
- Oversaw remedial excavation for a former manufactured gas plant located in a residential area of Franklin, Indiana.
- Project manager for various generating stations in Indiana that are currently addressing monitoring and closure requirements in accordance with 40 CFR Part 257 (Federal CCR Rule).
- Project manager for a site in Indianapolis impacted by historic release of drycleaner fluids into aging sanitary sewer system. Remediation activities complicated by co-mingled plume from adjacent property. Utilized CAP18/bacteria injections for groundwater remediation. Monitor geochemical changes and associated changes to cVOC levels. Also monitor methane levels in soil gas associated with remedial progress, and complete venting events as needed to reduce potentially elevated levels.
- Hydrogeological Remediation, Various Clients, Indiana Served as field geologist for the permitting of a landfill horizontal expansion. Completed hydrogeological site investigation report following fieldwork in accordance with 329 IAC 10 (Indiana Solid Waste Regulations).
- Generated groundwater flow maps, pre-mining cross-section maps, and underclay maps for two former surface-mined areas that were to be used for landfilling coal-combustion by-products.
- Prepared ground water model using MODFLOW and FEMWATER utilizing regional DNR well records and facility monitoring well records to evaluate contaminant transport pathways for a recycling facility suspected of causing off-site groundwater contamination.
- Served as a field geologist for the completion of a pilot study at a U.S. government facility in suburban St. Louis utilizing in situ injection of oxidant into aquifer impacted with chlorinated solvents. Assisted in completion of report summarizing findings of study.

## Mark Breting, PG

### GEOLOGY/HYDROGEOLOGY

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- Assisted with review of pump test data and calculations for seepage modelling as part of FEMA certification study for relief well network levee system in Lawrenceburg, Indiana.
- Peer review of aquifer performance test for a proposed hospital chiller system in South Bend, Indiana. Reviewed aquifer demands and how they might influence nearby well field operations.
- Project involved a hydrogeological investigation of a site for a proposed landfill expansion. Served as the field geologist for this project. Main tasks involved oversight of drilling operations, description of core using USDA classification system, and communications with facility manager and ATC project geologist.
- Completed statistical analyses of ground water quality data for Subtitle C and D facilities in Indiana.

#### **Phase II Site Assessment, St. Louis, Missouri**

Oversaw the completion of a Phase II site assessment at a proposed residential development adjacent to a Superfund site in suburban St. Louis, Missouri, which required multiple meetings with city council personnel to ensure stringent city goals for study were maintained during project completion. Results of study and associated report spurred U.S. EPA and State of Missouri regulatory agency to become re-engaged in area due to unresolved contamination concerns in vicinity of residential areas. U.S. EPA has subsequently developed plans to remove elevated levels of dioxin-impacted soil that had previously been left in place. Provided oversight of the collection of GPR and EM61 geophysical data, and reviewed data as part of an assessment needed to identify potential geophysical anomalies (buried drums, metal, miscellaneous debris) that may have been dumped as part of historic activities at adjacent property (large scale drum burial activities).

#### **Remediation Services, Confidential Client, Franklin, IN**

On-site manager for site - remediation activities in residential neighborhood in Franklin, IN. Project involving temporary move of a two-story house, temporary bypass of a sanitary sewer, excavation of impacted soil below house and adjacent lands, and repositioning of house on newly constructed foundation. Over 9,000 tons of soil and over 1,000,000 gallons of groundwater required treatment/disposal during project. Anticipate re-sale of properties without deed restrictions following eight quarters of groundwater monitoring and final site closure application.

## Jared Anthony

### FIELD SAMPLING SERVICES

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#### EDUCATION

B.S., Earth Science,  
Pennsylvania State  
University, 2003

#### CERTIFICATIONS

- Certified Asbestos Building Inspector in Pennsylvania (License# 043025)
- Certified Asbestos Building Management Planner in Pennsylvania (License# 043025)
- Certified Asbestos Inspector in West Virginia (License# AI009033)
- OSHA 1910.120 40-Hour Safety Training.
- OSHA 1910.120 8-Hour Refresher Training (Current)

Mr. Anthony is a Division Manager and is responsible for managing the operations of the Building Sciences Division at Atlas Technical Consultants LLC. Mr. Anthony has over 19 years of environmental consulting experience. Mr. Anthony has managed and conducted numerous surveys in multiple states for commercial, industrial, and residential clients. Mr. Anthony has experience managing and conducting asbestos surveys, lead-based paint surveys, mold assessments, indoor air quality assessments, monitoring small- and large-scale asbestos abatement projects, and providing oversight on asbestos abatement/demolition projects.

#### PROJECT EXPERIENCE

##### Multiple Petroleum Retail Sites / PA, NJ, and NY

Project Role: Project Manager responsible for managing asbestos and lead-based paint surveys for over 100 various sites. Responsible for scope of work development, project budgets, and scheduling. Project Manager responsible for managing a team of industrial hygienists, reviewing all project reports, and submitting deliverables to the client.

##### Project Monitor/Title II Services, Andrews AFB

Project Role: Provided asbestos abatement contractor oversight for AFCEE. Project site was a 340,000 SF former office building. Included daily contractor oversight, visual inspections for containment clearance, and technical document review.

##### Project Scientist, Various Sites

Project Role: Hazardous materials surveys of suspect asbestos-containing materials (ACMs), polychlorinated biphenyls (PCBs), mercury, lead-paint chip sampling, and other potentially hazardous materials at multiple Government Facilities.

## Michael Ciccone

### FIELD SAMPLING SERVICES

#### EDUCATION

Bachelor of Science in Geology,  
Minor in Environmental Studies,  
Penn West Edinboro University,  
2003

#### CERTIFICATIONS

Geologist in Training in  
Pennsylvania  
(License#GT000015)

OSHA Hazardous Waste  
Operations and Emergency  
Response (40-Hour 29 CFR  
1910.120e)

APNGA Portable Nuclear Gauge  
Safety & U.S. D.O.T. Hazmat  
Certification

OSHA 30-Hour Construction  
Training

International Codes Council  
Reinforced Concrete Special  
Inspector (Expired)

International Codes Council  
Spray-Applied Fireproofing  
Special Inspector (Expired)

International Codes Council Soils  
Special Inspector (Expired)

Mr. Ciccone is a Senior Engineering Technician for Atlas Technical Consultants LLC in the Engineering Division. He is responsible for Construction Materials Testing (CMT), and the completion and submittal of reports-of-findings.

#### PROJECT EXPERIENCE

##### Construction Materials Testing; West Virginia, Pennsylvania, Ohio, and Colorado

Inspected site operations and completed field work during the construction and rebuilding of commercial properties, commercial buildings, large industrial sites, roadways, and gas piping trenches. The field work including the sampling and testing of concrete, asphalt, grout, mortar, aggregate and soils. Collected swell test samples and performed sand cone density tests in Colorado.

##### Pennsylvania Department of Environmental Protection, Bureau of Mining Operations

Mr. Ciccone corresponded with mining company consultants to ensure that state regulations were met for: Surface Mine Permit (SMP) applications, bonding requirements, transfers of ownership, changes to mining operations and requests for water monitoring cessation in six (6) counties located in southwest Pennsylvania on eighteen (18) simultaneous permitting actions. Mr. Ciccone completed a multi-million dollar, four-mine site perpetual treatment trust for a major coal operator, thereby eliminating the need for permit renewals. Coordinated permitting actions with the permitting and compliance sections of the Department, their legal counsel, and organized field visits as-needed. Mr. Ciccone compiled, analyzed and interpreted water quality data. Mr. Ciccone published proposed water quality effluent limits in the Pennsylvania Bulletin for 30-day public comment period and worked with the Environmental Protection Agency (EPA) to permit National Pollution Elimination Discharge Systems (NPDES) for coal mining and aggregate quarry operation outfalls. He assisted licensed professional geologists in hydrological investigations. Mr. Ciccone received training from the Federal Office of Surface Mining and Reclamation (OSM), and occasional state level hydrogeology conferences. Mr. Ciccone queried county tax parcels for land ownership, used satellite imagery, aerial photography and historic mapping. Additionally,

he updated the Water Management Systems (WMS) database, and created inventory spreadsheets for permits held in their office.

##### Construction Materials Testing Lab

Mr. Ciccone has experience working in a Geotechnical lab performing and reporting the testing of concrete, soils and aggregate samples from CMT and Geotechnical Projects. The CMT Lab procedures include moisture content, atterberg limits, sieve analysis, sieve analysis with hydrometer, standard proctor, modified proctor, rock correction factor, specific gravity of aggregates, concrete cylinder breaks, preparing core samples for strength testing with sulfur caps, and grout cube breaks. Mr. Ciccone has experience with training others on laboratory procedures and tests, in accordance with the ASTM.

##### International Codes Council Reinforced Concrete Special Inspector, Pennsylvania

Mr. Ciccone oversaw reinforcing steel installation and ensured it was ICC-Compliant for a prime contractor during the construction of the \$1.5-billion ATI Allegheny Ludlum Hot Rolled Processing Facility. Responsible for ensuring that reinforcing bars were installed with proper lap slice, spacing, clearance, shape and size. Assisted the site safety superintendent by recommending corrections to unsafe conditions. Stopped a concrete pour when reinforcement had been improperly cut to fit anchor bolts. Ensured that contractor completed punch list items. Assisted in other areas when concrete work was complete.

##### Pennsylvania Department of Environmental Protection, Bureau of Waterways, Engineering and Wetlands

As a seasonal Environmental Projects construction Inspector, Mr. Ciccone inspected the rehabilitation of the Brockway Flood Protection Project and Levee Drainage Structures.

## James Sturm, PG

### OPERATIONS & MAINTENANCE LEAD

#### EDUCATION

B.S., Petroleum Geology, 1985,  
Mercyhurst University

#### REGISTRATIONS

Professional Geologist:

- PA 000148G

#### SPECIALIZED TRAINING

- OSHA Hazardous Waste Operations and Emergency Response (40-Hour 29 CFR 1910.120e)
- OSHA 8-Hour Refresher Training (Current)

#### AREAS OF EXPERTISE

Regulatory and environmental consulting

#### YEARS OF EXPERIENCE

34

Mr. Sturm is a Senior Project Manager and Professional Geologist for the Atlas Erie and Pittsburgh offices and was previously employed by the Pennsylvania Department of Environmental Protection (PADEP) in the Storage Tank Group. Mr. Sturm has over 34 years of experience in the regulatory and environmental consulting industry, is recognized as a storage tank compliance subject matter expert in the region and has been a licensed professional geologist for over 25 years. Mr. Sturm provides compliance, spill response, first responder, UST closure oversight, assessment and remediation services for UST and other sites, as well as real estate development and other consulting services.

#### PROJECT EXPERIENCE

##### Assessment, Remediation and Regulatory Compliance at Over 400 Regulated UST Sites, PA and NY

Directed UST closure, site assessment, soil and groundwater remediation, and spill response for over 500 petroleum releases at retail petroleum distribution and bulk petroleum sites. Manages subcontractors, works with regulators to assure compliance, and conducts field data collection, spill response, and environmental media sampling. Prepared UST Closure Reports, Site Characterization Reports (SCR's), Remedial Action Plans (RAP's), Remedial Action Progress Reports (RAPR's), and Remedial Action Completion Reports (RACR's). Adept at pursuing and securing PAUSTIF reimbursement for assessment and corrective action costs.

##### Spill Response and Regulatory Compliance at Multiple Industrial Sites, PA, OH, & NY

Senior Consultant and/or Project Manager responsible for compliance, assessment, mitigation and remediation for dozens of industrial sites in PA, New York and Ohio. Directed subsurface investigations and remediation including sites with releases to multiple environmental media including surface water, soil, and groundwater.

##### Emergency Response, PA

Managed various emergency responses in Western Pennsylvania. Incidents included surface chemical and petroleum spills of various different types. Remediations ranged from quick excavations to

installation/operation of long-term continuous remediation systems. Served as client liaison with regulators to facilitate compliance and close out sites at minimal cost.

##### Real Estate Development and Landfill Compliance, PA

Managed compliance for landfill and real estate development/acquisition projects. Conducted environmental due diligence for over 200 sites, including Phase I and II ESAs.

##### UST Compliance, PA

Managed storage tank regulatory compliance services for multiple PA and NY sites. Known to storage tank regulators and a storage tank compliance subject matter expert.

##### Potable Water Supply Development, PA

Assisted in directing and conducting pumping tests, yield evaluation, well construction design, and water quality assessment for potable water supply development at multiple sites.

##### Retail Petroleum Client Service Manager, PA

Directed over 20 project staff in the delivery of UST compliance and assessment / remediation services for a large retail petroleum client operating in multiple states. On-call spill response manager for client spills and releases. Responsible for Client satisfaction, cost control, and expediting site environmental incident close-out.

## Mait Walker, PE

### OPERATIONS & MAINTENANCE

#### EDUCATION

BA Environmental Science,  
Boston University, Boston, MA

#### CERTIFICATIONS/ TRAINING

Professional Engineer:  
Environmental  
(Colorado #PE0049954)

OSHA 40-Hour HAZWOPER  
Training and current 8-Hr  
Refresher

Mr. Walker has been working in the environmental industry for over 18 years and has experience that spans a wide variety of specialties. His early career included the design and permitting of onsite stormwater and wastewater treatment systems. The most recent years have expanded this scope to include the design and implementation of remediation systems including water recovery and treatment, air sparging and vapor extraction, and in-situ chemical oxidation injections. Mr. Walker also has experience in Phase I/II Environmental Site Assessments, environmental emergency response, environmental sampling, and has spent time as a licensed water treatment plant operator at a 30 MGD Recycle Plant.

#### PROJECT EXPERIENCE

##### Operations and Maintenance

Mr. Walker is frequently involved in the operation and maintenance of remediation systems during the course of his work, providing technical guidance and sometimes completing the work himself. He has performed operation and maintenance duties at a water treatment plant that reclaims treated wastewater and creates non-potable service water for use in irrigation and industrial operations. He has also successfully managed the operations and maintenance of a large-scale tetrachloroethylene remediation system at a Superfund site in West Virginia. He has also developed O&M manuals for several groundwater remediation and wastewater treatment systems. Of particular interest is the Solar Aquatics Systems™ at the Biohabitat headquarters in Massachusetts.

##### Environmental Remediation Design

Mr. Walker has performed the design calculations and developed detailed design drawings and specifications for a number of soil and groundwater remediation systems including air sparge, soil vapor extraction, and chemical oxidation injection at numerous sites with petroleum hydrocarbon contamination throughout Colorado, Wyoming, Utah, Ohio, and Pennsylvania. In addition, he has developed construction drawings and specifications for numerous onsite wastewater treatment systems including traditional systems such as wastewater lagoons and ranging to innovative plant-based systems such as constructed wetlands and Solar Aquatics Systems™. This experience also includes regulatory permitting at both state and local levels.

##### Phase I/II Environmental Site Assessments

Mr. Walker has performed, or contributed to, Phase I and Phase II Environmental Site Assessments, in accordance with the American Society for Testing and Materials (ASTM) guidelines and lender requirements, for a number of sites in Colorado, Michigan, and Ohio. As part of these services, he has provided technical direction and recommendations to project managers and clients in the resolution of recognized environmental conditions.

##### Technical Design Documents

Mr. Walker is credited with contributing to the development of a technical and economic model designed to evaluate the long-term costs and environmental implications of treating produced water from fracking, oil and gas well development, and ongoing well production. He has also published guidance documents relating to stormwater and wastewater management for Leadership in Energy and Environmental Design (LEED) companies and for the Living Building Challenge 2.0.

##### Field Work

Mr. Walker's field work experience spans a variety of tasks including soil and groundwater sampling, construction oversight, and Stormwater Pollution Prevention (SWPPP) inspections. His engineering background has involved him in a number of ongoing projects related to treatment system installation, operations, and performance evaluations. He is also a member of the Atlas environmental emergency response team.



## James Kooser

### SENIOR ECOLOGIST – NEPA/PUBLIC PARTICIATION

#### EDUCATION

Undergraduate studies in biology, Kent State University, Kent, Ohio  
Undergraduate and graduate studies in plant ecology, The Ohio State University, Columbus, Ohio

#### SPECIALIZED TRAINING

Ohio EPA Headwater Habitat Evaluation Index (HHEI) and Qualitative Habitat Evaluation Index (QHEI)

Ohio EPA Ohio Rapid Assessment Method for Wetlands (ORAM)

Wetland Construction Series, Wetland Training Institute Inc. (WTI)

Wetland Delineation Training, Regional Manuals, WTI

Winter Botany, WTI

#### PROFESSIONAL ORGANIZATIONS

Society of Wetland Scientists  
Natural Areas Association

#### YEARS OF EXPERIENCE

38 years

Mr. Kooser has been a practicing ecologist since 1986, with experience in both the private and public sectors. His responsibilities at Atlas include leading wetland and natural resource investigations, permitting, business development, mentoring staff and project management. Mr. Kooser has performed and managed natural resource evaluations, wetland delineations, permitting and mitigation, endangered species assessments, NEPA and FERC documentation, park and nature preserve planning and management, ecosystem restoration and ecological risk assessment, and surveys for invasive and state and federally listed species. His clients have included state, local and federal governments and agencies; electric and gas utilities; oil and natural gas pipeline companies; not-for-profit groups and developers. He has completed projects in Arkansas, Illinois, Indiana, Kentucky, Maine, Maryland, Michigan, New York, Ohio, Pennsylvania, Texas, Virginia and West Virginia.

#### PROJECT EXPERIENCE

##### Wetland Delineations, Functional Assessments, Permitting, Mitigation and Restoration

Mr. Kooser has completed and led wetland the full spectrum of wetland related services for private clients in the housing, retail, and commercial industries; electric, oil, gas and public utilities; and state, local and federal government. He's experienced in the use of all current and former wetland delineation manuals, and a wide variety of functional assessment techniques.

##### Threatened and Endangered Species

Mr. Kooser has completed threatened and endangered species investigations for plants, mammals, fish and birds in Pennsylvania, New York, Maryland, Michigan, Virginia, Ohio, Oregon and Texas.

##### NEPA and FERC Documentation

Mr. Kooser has completed NEPA studies for transportation projects, including categorical exclusion evaluations, Environmental Assessments and Environmental Impact Statements in Maryland, Michigan, Ohio, and Pennsylvania. He was a technical lead for the preparation of FERC re-licensing documents and assisted with the management of HIP and REP projects for the New York Power Authority, Exelon and Brookfield.

##### Electric and Natural gas Utility Consulting

Mr. Kooser is a specialist in evaluating the potential ecological impacts of electric and gas transmission projects. Since 1999, Mr. Kooser has been a leader in Integrated Vegetation Management on electric transmission rights of way. He helped develop innovative GIS

applications for natural resource analysis, particularly in using field portable computers for ecological field data collection.

##### Natural Resource Evaluations

Mr. Kooser has completed terrestrial, wetland and aquatic natural resource evaluations for clients of all types. These services have included mapping, site analysis, potential impact studies, watershed assessments, species surveys and site restoration, monitoring and management.

##### Park and Natural Area Management

Mr. Kooser has assisted local state and federal governments and not-for-profits in performing inventories in and developing management plans for parks and nature preserves.

##### Research

Mr. Kooser has led and participated in research projects on avian impacts on power lines, the integration of water quality and landscape variables, HGM model development, bio-control of invasive species

##### Miscellaneous Projects

Mr. Kooser has led and participated in ecological risk assessments, water quality monitoring, development of NPDES Phase II storm water plans, natural hazard mitigation plans, educational projects and consulting on environmental policies.

## James Kooser

SENIOR ECOLOGIST – NEPA/PUBLIC PARTICIATION

### SPECIFIC PROJECT EXAMPLES

**Field Tests of the Operational Draft Regional Guidebook for the Functional Assessment of High-gradient Ephemeral and Intermittent Headwater Streams in Western West Virginia and Eastern Kentucky\***, US Army Corps of Engineers Huntington District and Environmental Laboratory, Engineers Research and Development Center, West Virginia and Kentucky. **Lead Scientist.**

Led a group of aquatic and wetland ecologists who performed field tests to validate the draft HGM models for high-gradient and intermittent headwater streams. The crews collected data on stream morphology, bed materials, flow, riparian vegetation, bank conditions and stream biology, using both the HGM methods and other established assessment methods. Samples were taken in a range of sites from undisturbed streams to streams affected by mountaintop removal and acid mine drainage. Results were compared across methods. Analyzed data and authored the final report.

**Wetland and Stream Delineations, Fink-Kennedy Pipeline Replacement\***, Dominion Energy, West Virginia. **Senior Ecologist.**

Delineated wetlands and 100-foot stream buffers for this project designed to replace the aging lines in Dominion's Fink-Kennedy gas storage field, located in Lewis and Harrison Counties. Mr. Kooser led field teams that completed the delineation studies and estimated permitting requirements for the expansion of this existing gas field.

**Greenbrier Pipeline Wetland Delineation and Plant Community Mapping\***, Dominion Energy, West Virginia, Virginia and North Carolina. **Senior Ecologist.**

Helped develop electronic mapping tools and standards to identify and delineate wetlands, plant communities, listed species sites and archaeological resources along a proposed new pipeline route. The proposed line began in central West Virginia and stretched over 400 miles into North Carolina. The team used a field portable GIS driven by pentop computers, and sub-meter accuracy GPS receivers to map sensitive features along the proposed route. Served as a technical advisor to the group and helped perform field delineations.

**Mountaineer Power Plant, Wetland Delineation and Plant Community Mapping\***, American Electric Power, West Virginia.

Mr. Kooser was the lead scientist for studies to delineate wetlands and map plant communities for a project intended to support the proposed conversion of the Mountaineer Power Plant to clean coal. The delineation and vegetation mapping were used to support

permitting for the conversion and expansion of the facility.

**Huntington District, Biological Assessment for the, Monday Creek Acid Mine Drainage Treatment Program\***, US Army Corps of Engineers, Hocking County, OH. **Lead Scientist and Project Manager.**

Led a Biological Assessment of potential effects of proposed acid mine drainage treatments in the Monday Creek watershed in the Hocking Hills region of SE Ohio. The team assessed potential effects on Indiana Bat (*Myotis sodalis*), American Burying Beetle (*Nicrophorus americanus*), Running Buffalo Clover (*Trifolium stoloniferum*), Small Whorled Pogonia (*Isotria medeoloides*), and Northern Monkshood (*Aconitum noveboracense*). Prepared the final document for the Corps of Engineers. Project date(s): 2009.

**Hydrogeomorphic (HGM) Functional Assessment Model Development\***, US Army Corps of Engineers Waterways Experiment Station and Penn State University, Pennsylvania, Ridge and Valley Province. **Consultant Representative to Team:** Assisted the Pennsylvania A-Team in developing models for the Hydrogeomorphic Method for wetland functional assessment. The team included scientists from the USEPA, Baltimore District Corps of Engineers, Pennsylvania State University. Gathered data on wetlands throughout the Ridge and Valley physiographic province. The team sampled a range of sites from pristine, undisturbed areas to sites affected by acid mine drainage. Helped evaluate and test new functional assessment models. Models and data were presented to a peer review team. Funding was provided by the US Environmental Protection Agency (Region 3), Baltimore District of the US Army Corps of Engineers and the Pennsylvania Department of Environmental Protection.

**Water Quality Monitoring\***, Marathon Oil, Canton, OH. **Senior Ecologist.**

Led a team of scientists who collected fish and macroinvertebrate data in order to calculate an Index of Biotic Integrity and Index of Community Integrity. Fish data were collected using a boat mounted electrofishing unit. Macroinvertebrates were collected using Hester-Dendy multiplate samplers supplemented with kick-net samples. Analyzed data using Ohio EPA procedures and prepared a monitoring report.

## Robert Duncan, PG

RECLAMATION/AMD TREATMENT DESIGNER

### EDUCATION

M.S., Geology, Indiana University, Indiana, 1989  
B.S., Geology, Indiana University, Indiana, 1984

### REGISTRATIONS

Licensed Professional Geologist (IN #1574)

### AFFILIATIONS

Indiana Geologists  
Chair of Indiana Map Advisory Group for the Indiana Geological and Water Survey  
Member of the Indiana Geological and Water Survey advisory committee.  
Geology Presenter for Indiana Master Naturalist Program, Danville, Indiana

### CERTIFICATIONS

HAZWOPER 8 Hour Refresher Annual Training  
DOT HAZMAT Training  
Groundwater Statistics Training Dumpstat  
Groundwater Sampling Procedures  
USGS Age Dating Groundwater Hydrogeology of Allen County  
Global Position System short course

EPA Statistics/GRITS/STAT  
USGS Statistics/Statistics and Geologic Data  
HAZWOPER 40 Hour Training  
Wetlands and Coal Mine Reclamation  
OSMRE Hydrology of Surface Mines

Mr. Duncan has over 30 years of experience with Comprehensive and Liability Act (CERCLA), Resource Conservation Recovery Act (RCRA), Safe Drinking Water Act (SDWA), Clean Water Act (CWA), Surface Mining Control and Reclamation Act (SMCRA), and Voluntary Cleanup Programs. His current duties include but are not limited to the following: regulatory affairs (federal, state, and international), evaluation of hydrogeologic information for mining projects, water quality data analysis, hydrogeologic support for new projects, and corporate level environmental audits, technical and field support for Goldfields CERCLA responsibilities, TRI reporting, and Sustainability reporting for water and waste following the Global Reporting Initiative guidelines. He has planned and implemented geologic drilling programs for a variety of geologic problems including groundwater contamination investigations, landfill gas characterization, groundwater monitoring, and clay exploration studies. Mr. Duncan has also planned and implemented site location studies for landfills, transfer stations, and scrap yards including transfer station permitting. Mr. Duncan has planned and implemented geology/hydrogeology investigations for solid waste landfills and risk based corrective action projects. He has prepared the hydrogeology portion of several solid waste permit applications in Indiana. He has completed several groundwater geochemistry investigations and demonstrations. His experience includes project management and fieldwork for the installation of landfill gas vent wells and remote gas monitoring wells. He has presented geologic and regulatory information for the siting of solid waste landfills to solid waste boards, zoning boards, and planning committees. He has also inspected reclamation work and reviewed permit applications for surface coal mines in Southwest Indiana including the largest surface mine east of the Mississippi River.

Prior to employment with Atlas, Mr. Duncan was employed as Groundwater Section Chief with the Indiana Department of Environmental Management (IDEM). While with IDEM, Mr. Duncan planned and managed activities in the Groundwater Section. His duties included: implementation of state-wide groundwater monitoring network; implementation of residential groundwater complaint response program; implementation of Indiana's Wellhead Protection Program; development of Indiana's Source Water Protection Program, and the development of groundwater quality standards. In his capacity as Senior Geologist for IDEM, Mr. Duncan reviewed geologic information submitted for solid waste landfill applications. In addition, Mr. Duncan worked with landfill consultants to design groundwater monitoring networks around solid waste landfills. Mr. Duncan also worked with consultants to characterize, design and implement corrective action programs at solid waste landfills.

### PROJECT EXPERIENCE

#### **Nature and Extent Investigations, CCR Rule Compliance, Solid Waste Landfill Compliance, and Permitting, Various Clients, Indiana**

Plan and manage groundwater investigation related to coal combustion residuals from electric utilities. Plan and manage groundwater monitoring and statistical reporting projects for solid waste landfills. Coordinate compliance activities related to public water system requirements for solid waste clients. Several project include historic underground and surface mine locations. Sites include investigation of underground mine areas for potential subsidence impacts to a landfill expansion and potential impacts to groundwater quality from historic mining activities including acid mine drainage.

#### **Phase I and Phase II Environmental Site Assessment and Early Coordination, Various Clients, Indiana**

Plan and manage Phase I and Phase II work for multiple external and internal clients across Indiana. Review and coordinate with Indiana Department of Transportation on environmental concerns related to hazardous materials such as leaking underground storage tanks, RCRA facilities, open dumps, and other recognized environmental concerns related to INDOT projects.

## Robert Duncan, PG

### RECLAMATION/AMD TREATMENT DESIGNER

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**Public Water Supply Wells, Various Clients, Indiana** Prepare permit applications for various regulatory requirements for public water supply wells in Indiana. Work includes Wellsite Survey Applications, Well Construction Permits, Construction in a Floodway Permits, etc. Design water wells and provide construction oversight of well construction. Provide coordination with applicable regulatory agencies.

**Landfill Permit Preparation, Confidential Client, Indiana**

As part of an engineering and hydrogeology team, managed the site investigation boring program and prepared cross sections. Prepared the geology and hydrogeology portions of the permit narrative.

**Hydrogeology Investigations, Peabody (Coal Mining), North America, Asia, Australia**

As part of the hydrology team with a major coal company, reviewed and investigated a variety of geologic and hydrogeologic problems at various locations in the U.S. (Arizona, New Mexico, Wyoming, Illinois, and Indiana), Australia (New South Wales and Queensland), China (Xinjiang Province), and Mongolia (Gobi Desert Locations). Work including hydrogeologic evaluations of water resources including quantity and quality, acid-base accounting, and geologic hazards. Also provided technical comments to groundwater quality and surface water quality rule making efforts in both the US and Australia. Part of team that established water discharge criteria for mine locations in the Bowen Basin, QLD Australia and Hunter River Basin, NSW Australia. Provided technical guidance for appropriate Acid-Base Accounting procedures for mines in Australia in compliance with Australian standards.

Work also included project management and hydrogeologic / geologic technical support for various lead/zinc mine clean ups in North America. Active project areas included locations in the Tri-State Mining District Superfund cleanup sites located in Oklahoma, Kansas and Missouri, and locations in Illinois.

**Transfer Station Permit Preparation, Confidential Client, Indiana**

As part of an engineering and permitting team, managed the permitting process for three solid waste transfer stations.

**Groundwater Quality Investigation, Confidential Client, Indiana**

Prepared groundwater quality investigation report for a closed biosolids lagoon. Report included collection of historic and published geologic information to develop a site-specific geologic / hydrogeologic conceptual model to provide a better understanding of the existing groundwater monitoring system. The report resulted in a significant reduction in the number of monitoring wells required for groundwater monitoring and reporting.

**Wellhead Protection Plan, Confidential Client, Indiana**

Managed project and prepared a wellhead protection plan. Wellhead protection plan included working with a community public water supply to establish a local planning team, develop a contingency plan, model a wellhead delineation area, identify potential sources of contamination, and complete a written wellhead protection plan.

**Groundwater Monitoring Plans, Confidential Client, Indiana**

Prepared multiple groundwater monitoring plans for solid waste landfills and restricted waste landfills in Indiana.

**Hydrogeologic investigations, Confidential Client, Indiana** Planned, implemented and completed hydrogeologic investigations of solid waste and restricted waste landfills in Indiana.

**Sediment Sampling Study, Confidential Client, Indiana** Planned and implemented sediment sampling study as part of split sampling program with the Indiana Department of Environmental Management. Sampling was done to assess the potential impact of a pre-SMCRA coal processing plant refuse area on sediment quality in an adjacent stream. Sampling done for a large coal company in coordination with the Indiana State Cleanup program.

## Justin Petricko

### RECLAMATION/AMD TREATMENT DESIGN

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#### EDUCATION

B.S Geoscience-Energy and Natural Resource, Indiana University of Pennsylvania, 2018

#### CERTIFICATIONS

OSHA 1910.120 40-Hour Safety Training.

Mr. Petricko is an Environmental and AutoCAD Technician for Atlas Group Services in the Engineering & Environmental Services Division in Pittsburgh Pennsylvania. Mr. Petricko is a young and motivated individual eager to hone and evolve his professional skills and experience in the environmental and geological sciences.

#### PROJECT EXPERIENCE

##### AutoCAD Civil Design; Pennsylvania

Responsible for the overview and design of AutoCAD based project design. Work involvement includes Natural Gas and Waterline utility abandonment and renewal design projects for clients.

Other civil design projects include natural gas well pad lateral drilling design projects of proposed well head and bore path dimensioning, and project erosion and sedimentation control design plans per the Pennsylvania Erosion and Sedimentation Pollution Control Manual. Similar erosion and sedimentation control designs include stream embankment and stabilization design plans.

##### AutoCAD Environmental Design; Pennsylvania

Environmental AutoCAD technician for projects that include potentiometric and isometric mapping and design of environmental remediation sites analysing ground water, soil, and air vapor contamination data from field received data and measurements. Other environmental design experience includes remedial site geological cross section design, spill prevention, control and counter measures (SPCC) spill containment and emergency response design of storage tank facilities, and due diligence ACM and Lead sample site plan contamination mapping.

##### Environmental Field Technician; Pennsylvania

Technical field work has included a variety of geotechnical, inspection, survey, and construction materials testing experience. Geotechnical inspections include MS4 stormwater inlet and outfall monitorization along with sanitary pipeline inspections utilizing ArcGIS to record, organize and analyse field data and observations. Additional inspection work has included geotechnical erosion and sedimentation control design plans verifying the construction and completion of project site best management practices (BMP's) in accordance with the Pennsylvania Erosion and Sedimentation pollution control manual.

Additional field experience has included being an assistant to professional land surveyors that included water source purveyor mapping for natural gas well pad construction and natural gas line right-of-way, involving stream crossing and site stakeouts of project specific BMP's for proposed contractor excavation utilizing GeoXT units and Total Stations. Other field and survey work includes access to, and occupancy of highways, local roads, and site entrances drainage and traffic control plans.

Construction materials testing field work has included using nuclear density and moisture gauges to assure target compaction percentages are obtained for aggregate backfill excavation projects, as well as compaction testing of asphalt compaction for PennDOT CS-6 and TR-4276 reports.

##### Additional Experiences and Involvement

Other notable experience includes being a volunteer geological field research assistant for Indiana University of Pennsylvania conducting a sedimentological analysis of the Cleveland Lloyd Dinosaur utilizing x-ray fluorescence to record elemental composition of ancient biologically influenced sediments in reference to Jurassic period paleontological excavation sites. Additional involvement includes being an active member of Pittsburgh Geological Society, and active attendee of Pennsylvania's Ground Water Symposium by Penn State University. Workshop experience has included California University of Pennsylvania's drilling workshop.

## James Romano, PE

### GEOTECHNICAL ENGINEERING

#### EDUCATION

M.S., Civil Engineering,  
Geotechnical Engineering  
Concentration, 2019, Villanova  
University

B.S., Civil Engineering, 2012,  
Widener University

#### REGISTRATIONS

Professional Engineer:  
• PA PE086261

#### SPECIALIZED TRAINING

- Nuclear Gage Training,  
Humboldt Scientific
- 30-Hr. Construction Health &  
Safety, OSHA
- eRail Safe Certification - CSX,  
NS and SEPTA regional railway  
construction access

#### AREA OF EXPERTISE

Geotechnical site investigations

#### YEARS OF EXPERIENCE

11

Mr. Romano is a licensed Professional Engineer with over 11 years of site investigation and design experience. Mr. Romano's has managed all aspects of geotechnical subsurface exploration including proposal writing, site reconnaissance and logging of boreholes, field, and laboratory coordination. He also has experience with engineering analyses to determine the types of a foundation, provide the parameters for foundation design, and report generation.

#### PROJECT EXPERIENCE

##### Commercial Vehicle Entry Control Point, Joint Base McGuire-Dix-Lakehurst, Lakehurst, NJ

Provided comprehensive geotechnical engineering consulting services for the replacement of the existing approximately 1,500 linear feet, 15-inch diameter sanitary sewer line with a new 15-inch diameter sanitary sewer line along the west side of Vandenberg Avenue. Atlas' geotechnical services consisted of 3 geotechnical borings with long term groundwater readings, laboratory testing of soils for engineering design parameters, and preparation of the geotechnical engineering report.

##### SAFStor Land Co., LLC – SAFStor Self- Storage Facility, Philadelphia, PA

Provided comprehensive geotechnical engineering consulting for a new self-storage structure with asphaltic parking/drives, and stormwater management facilities. Atlas's geotechnical services consisted of consultation, geotechnical borings and stormwater/septic test pits with permeability/infiltration testing, ground improvement underneath foundations by flowable fill, soil compaction testing, laboratory testing of soils for engineering design parameters, and preparation of the geotechnical engineering report, retaining wall design. Site supervision of foundation construction and ground improvement.

##### Anthology Senior Living - Senior Living Community, Marlton, NJ

Provided comprehensive geotechnical engineering consulting services for a new senior living community with associated asphaltic parking/drives, and stormwater

management facilities. Performed drilling, lab assignment, geotechnical report, foundation recommendations, pavement design, stormwater management testing.

##### Home Depot – Belleville, NJ

Provided comprehensive geotechnical engineering consulting services for a new Home Depot facility with associated asphaltic parking/drives. Perform drilling inspection of 99 borings, lab assignment, foundation recommendations, published and unpublished geotechnical findings research, seismic site classification.

##### Geotechnical Site Investigations at Multiple Sites, PA & DE

Performed geotechnical site investigations and prepared preliminary subsurface exploration programs. Completed geotechnical design, report preparation, and geotechnical oversight for bridges, culverts, retaining walls, sign structures and ground improvement projects.

##### Geotechnical Engineering on PennDOT and DelDOT projects, PA & DE

Designed and prepared reports of bridge foundations, retaining walls, culverts on PennDOT and DelDOT Foundation Submissions including:

- I-95 Girard Avenue Interchange,  
PennDOT District 6-0, Philadelphia, PA.
- I-80 Reconstruction and Widening Final  
Design Services, PennDOT District 5-0,  
Monroe County, PA
- I-78 Mainline (Sect 12M) & Krumsville  
Interchange (Sect 13M) Reconstruction,  
PennDOT District 5-0, Berks County, PA

## James Romano, PE

### GEOTECHNICAL ENGINEERING LEAD

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- Pennsylvania Department of Transportation Central Office, US 22 Widening Project, Allentown, PA
- SR 4011 Section CSB - Coulter Street over SEPTA Chestnut Hill West Line, PennDOT District 6-0, Philadelphia, PA
- SR 0001 Section DSB Final Design, PennDOT District 6-0, King of Prussia, PA
- Skinners Falls Bridge Rehabilitation, PennDOT District 4-0, Damascus, PA
- Delaware Department of Transportation, Bridge Design Contract 2017-2021 - Bridges 3-152 & 3-161 Rehabilitation, Laurel, DE
- DelDOT Bridge 1-714 Replacement (Chapman Road) over I-95, Christiana, DE
- DelDOT Old Kennett Road Retaining Walls, Wilmington, DE
- Yukon Interchange Transportation Support 2017-2027 - Final Design, District 12-0, Yukon, PA
- PA 29 Norfolk Southern Bridge Replacement Final Design, District 5-0, Lehigh County, PA.
- PennDOT District 4-0, 5-0, 6-0 & 11-0, Geotechnical Engineering Open-Ended Contract, Various Locations, PA

#### **PennDOT Certified Drilling Inspector, PA**

Inspected >5,000 LF of continuous soil sampling and NX/NQ rock coring on PennDOT, PA Turnpike and DelDOT projects. Created typed engineer's logs, profiles, and tracings for various PennDOT projects. Familiar with gINT Bentley suite. Used design software and engineering judgement to investigate the most economical foundation type. Highly familiar with state DOT and AASHTO bridge and highway design practices and guidelines. Administered subsurface

boring soils and testing contracts, identified interested drilling contractors, hosted on-site pre-bid meetings, issue meeting minutes, and attended bid openings. Developed soil and rock lab testing schedules and cost. Used results to determine engineering properties. Analyzed internal, external, global stability and settlement of shallow and deep foundations. Reviewed outside firms foundation submissions and other deliverables on behalf of PennDOT. LRFD Spreadsheet creation. Micropile design and preparation of foundation submissions for I-95 Construction Section GR4, PennDOT District 6-0, Philadelphia County, PA. Atlantic Sunrise/Shell Falcon Pipeline construction oversight, geohazard and landslide assessment.

Designed over ten PennDOT Foundation Submissions involving bridge replacements throughout Eastern PA. Highly familiar with PennDOT bridge and highway design practices and guidelines. Experience with full in-depth flexible pavement design and reinforced slopes. Oversaw and performed geotechnical design from site reconnaissance to final geotechnical engineering reports. Experience logging continuous soil sampling and NX/NQ rock coring on PennDOT and PTC Projects. Performed geotechnical site investigations and prepared preliminary subsurface exploration programs; type logs, profiles, and tracings. Administered subsurface boring soils and testing contracts, identified interested drilling contractors, hosted on-site pre-bid meetings, issued meeting minutes, and attended bid openings. Developed soil and rock lab testing schedules and cost. Oversaw and reviewed in-house boring logs and field documents. Reviewed various foundation reports submitted to PennDOT by other companies to ensure safe and efficient design.

## Ryan Ortiz, PE

### GEOTECHNICAL ENGINEERING

#### EDUCATION

M.S., Civil Engineering,  
University of Kentucky,  
Lexington, Kentucky, 2015

B.S., Civil Engineering,  
University of Kentucky,  
Lexington, Kentucky, 2013

#### REGISTRATIONS

Professional Engineer, Indiana,  
License # 11900205

Professional Engineer,  
Kentucky, License # 33219

#### AFFILIATIONS

ASCE, American Society of  
Civil Engineers

GBA, Geoprofessional Business  
Association

#### YEARS EXPERIENCE

8+

Mr. Ryan Ortiz is a Project Geotechnical Engineer for Atlas in Louisville, KY with 8 years of professional experience. Mr. Ortiz oversees and manages geotechnical services, including proposal preparation, fieldwork management, engineering, reporting, and collaboration with the engineering project team for design and construction. Ryan performs the pre-task planning for geotechnical projects, oversees subsurface explorations, assigns soil mechanics lab testing, and is responsible for creating geotechnical reports and collaborating with clients on recommendations. These responsibilities include ensuring field operations are executed safely and effectively, that all data is accurate, and all client expectations are exceeded.

#### PROJECT EXPERIENCE

**Field Engineer, Landslide Projects / Various Clients / West Virginia, Kentucky, Indiana** - Projects have included a multitude of landslide and slope stability projects involving transmission gas pipelines, existing and new buildings, along with other project types. Responsibilities included site reconnaissance to characterize the geotechnical conditions within the property, developing a geotechnical study for remedial considerations (if needed), and spearheading the execution of the geotechnical characterization. Involvement included identification and characterization of geo-hazards, collaboration with the design team, brainstorming for geotechnical characterization studies, and executing the geotechnical field investigations. Additionally, made site visits during construction and remediation of geohazards to ensure the geohazards were handled properly and construction was performed according to project specifications.

**Field Engineer, Transmission Pipeline / Various Clients / West Virginia, Kentucky, Indiana, Tennessee** - Field Engineer for a multitude of transmission pipeline projects servicing West Virginia, Kentucky, Indiana, and Tennessee. Collaborated with pipeline engineers, construction representatives, the design team, and construction representatives from other utility companies to ensure the project was planned efficiently and safely in an electrical transmission line right-of-way. Provided environmental field monitoring services to ensure the safety of field crews. Documented and analyzed field and laboratory data to ensure data quality and accuracy. Performed calculations and compiled into a geotechnical engineering report for the project.

**Project Manager, Charlestown Landslide, Charlestown, West Virginia** - Project included a pile and lagging wall that was designed for a slope stability failure on the downhill side of the residence. Performed a site visit to characterize the surficial nature of the slope failure and review the conditions for drill accessibility. Performed drilling operations to characterize the materials for construction considerations, and to confirm the foundation design. Delivered the geotechnical results and collaborated with the design engineer.

**Field Engineer, Hobet Mine Highway, Department of Highways, Madison, West Virginia** - Field engineer on an approximate 4-mile-long Department of Highways (DOH) Hobet Mine Highway, which is located in Madison, West Virginia. Coordinated drilling, sampling and provided collaboration with professional engineers. Field exploration included standard penetration testing, Shelby tube sampling, and rock coring. The project included difficult drilling in mine spoils over 100 feet deep, rock cores over 300 feet deep, and creating miles of dozer paths to access boring locations.



## Thomas Struewing, PE

### GEOTECHNICAL ENGINEER

#### EDUCATION

B.S.C.E., Civil Engineering,  
University of Dayton, 1981

#### REGISTRATIONS

Professional Engineer

- IN #21494, 1985
- IL #062-56869, 2003

#### AFFILIATIONS

American Society of Civil  
Engineers

#### CERTIFICATIONS

Drilled Shaft Foundations  
Seminar, Association of Drilled  
Shaft Contractors, Inc.  
Asphalt Pavement Design  
Seminar, Asphalt Institute

Mr. Struewing is a Principal Engineer for Atlas in the Engineering Group in Indianapolis with over 40 years of experience. He served as an engineer for Atlas in the Construction Materials Testing Group from 1981 to 1988, when his responsibilities included managing construction materials, testing, inspection and consulting on large construction projects. His construction materials experience includes auger-cast piles, drilled shafts, compaction control, reinforcing steel inspection, post-tensioning inspection, pile installation inspection and load testing.

Since joining the Geotechnical Engineering Group, he has been involved with geotechnical investigations for proposed highways, bridges, dams, levees, industrial facilities, schools, office buildings, sports facilities, commercial complexes and railroads. His experience includes the technical direction of subsurface investigation design teams consisting of engineers, geologists, drill crews and laboratory technicians. These projects include design recommendations for various earth-related aspects of all types of facilities.

#### PROJECT EXPERIENCE

##### **Geotechnical Engineering Investigation, Dual-Brand Hyatt Hotel, Indianapolis, Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for the 15-story Dual-Brand Hyatt Hotel and parking garage in downtown Indianapolis adjacent to Bankers Life Fieldhouse. The project included partial basement levels as well as non-basement levels and included conventional spread footings and aggregate columns intermediate foundation soil improvements.

##### **Geotechnical Engineering Investigation, Conrad Hotel, Indianapolis, Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for the 30-story Conrad Hotel and parking garage in downtown Indianapolis. The building is designed with high bearing capacity spread footings.

##### **Geotechnical Engineering Investigation, Lucas Oil Stadium, Indianapolis, Indiana**

Principal Engineer in charge of geotechnical engineering investigation and geotechnical testing during construction for the Lucas Oil Stadium in downtown Indianapolis. This project included providing foundation design recommendations for the four super-columns that had vertical column loads in excess of 15,000 kips and horizontal loads in excess of 6,000 kips. The project also included evaluating ground water and dewatering and retaining wall design. The structure is supported on conventional spread footings bearing on soils designed with an allowable bearing capacity of 15 kips/sq. ft.

##### **Geotechnical Engineering Investigation, Purdue University Honors College, West Lafayette Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for the 6-story Honors College Buildings on the Campus of Purdue University in West Lafayette, Indiana. The project included partial basement levels as well as non-basement levels and included conventional spread footings and aggregate columns intermediate foundation soil improvements.

##### **Geotechnical Engineering Investigation, Purdue University Wilmeth Active Learning Center, West Lafayette Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for the flagship instructional and academic building at the heart of the Purdue University campus in West Lafayette, Indiana. The building is a 3-story cast in place concrete structure with a full basement.

##### **Geotechnical Engineering Investigation, Purdue University Football Player Performance Center, West Lafayette Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for a multi-level partially below-grade structure for the Purdue University football program on the Purdue campus in West Lafayette, Indiana. The project included a variety of foundation types to accommodate various project constraints, project characteristics and soil conditions including conventional shallow spread footings, auger-cast concrete piles, aggregate column intermediate foundation improvements and helical pier foundations.

##### **Geotechnical Engineering Investigation, Purdue University Flex-Lab Building, West Lafayette Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for the laboratory building on the Purdue University campus in West Lafayette, Indiana. The building is a 3-story cast-in-place concrete structure with a full basement.

## Thomas Struewing, PE

### GEOTECHNICAL ENGINEER

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#### **Geotechnical Engineering Investigation, Indiana University Medical School, Evansville, Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for a multi-level structure for the Indiana University Medical School in downtown Evansville, Indiana. The project included auger-cast concrete pile foundations and aggregate columns intermediate ground improvements.

#### **Geotechnical Engineering Investigation, Indiana University Global and International Studies Building, Bloomington, Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for a multi-level partially below-grade structure in the central portion of the Indiana University campus in Bloomington, Indiana. The project included high-capacity rock bearing footings and drilled pier foundations.

#### **Geotechnical Engineering Investigation, Ball State University Health Sciences Building, Muncie, Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for a multi-level facility for the Health Sciences program on the Ball State University campus in Muncie, Indiana

#### **Geotechnical Engineering Investigation, Ball State University Worthen Arena Addition, Muncie, Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for a new practice facility addition to Worthen Arena on the campus of Ball State University in Muncie.

#### **Geotechnical Engineering Investigation, Indiana University Basketball Player Development Facility, Bloomington, Indiana**

Principal Engineer in charge of the geotechnical engineering investigation for a new partially below-grade structure on the Indiana University campus in Bloomington, Indiana. The project included high-capacity rock bearing footings and rock anchors to resist overturning moments on the foundations due to long concrete arches to support the roof structure.

#### **Geotechnical Engineering Investigation, Indiana Convention Center Expansion – Phase V, Indianapolis, Indiana**

Assisted in the evaluation of subsurface data and the development of foundation recommendations for the Indiana Convention Center Expansion – Phase V project located at the former location of the RCA Dome.

#### **Geotechnical Engineering Investigation, Interstate 69, Sections 2 and 3 from State Road 64 to U.S. Route 231 in Gibson, Pike, Daviess and Greene Counties**

Principal Engineer in charge of geotechnical engineering investigations for various Segments within Sections 2 and 3 of the I-69 new-terrain interstate highway in Southwest Indiana. These projects included drilling more than 600 test borings (including many with rock coring) for approximately 16 miles of new terrain divided mainline highway and associated county roads and access roads. The project includes numerous bridges over roadways, railroads and creeks and a thirty-two span bridge over the Patoka River valley. The project subsurface conditions included soft, compressible lacustrine soils and liquefiable soils and engineering analyses for development of countermeasures for modifying these soils.

#### **Geotechnical Engineering Investigation, Interstate 69, Section 4 from U.S. Route 231 in Greene County to State Road 37 in Monroe County**

Principal Engineer in charge of geotechnical engineering investigations for various Segments within Section 4 of the I-69 new-terrain interstate highway in Southwest Indiana. The project included new terrain highway sections that cross over deep lacustrine clay deposits, potentially liquefiable soils and construction in karst geologic areas. Ground improvement methods utilized to overcome geotechnical challenges included, stone columns, densely graded/compacted aggregate piers and pre-fabricated vertical drains. The project required foundation design recommendations for bridges of various lengths and heights including the bridge over Dry Branch of Plummer Creek that utilize drilled shafts socketed into the underlying bedrock. Special staged construction methods in conjunction with specialty geotechnical instrumentation and monitoring and high-strength geotextiles were used for 120 ft high earth embankments to be constructed over soft foundation soils.

#### **Geotechnical Engineering, Artsgarden Tower, Circle Area Community Development Corporation, Indianapolis, Indiana**

Principal-in-Charge for the geotechnical investigation for the proposed Artsgarden Tower, which is to be a mixed use facility consisting of twenty-five stories above grade and two levels below grade, located in downtown Indianapolis. The project included soil borings, engineering analyses for bearing capacity and settlement of spread footings designed for 14,000 lbs/sq ft., design recommendations for auger-cast piles, recommendations for lateral earth pressure calculations for below-grade structures, and recommendations for a mass excavation.

## Thomas Struewing, PE

### GEOTECHNICAL ENGINEER

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#### **Geotechnical Engineering, Various Clients, Indianapolis, Indiana**

Directed geotechnical investigation for Emmis Broadcasting Building, Victory Field Baseball Stadium, Indiana History Museum, IMAX Theater, DowElanco World Headquarters and Research Facility, United Airlines Indianapolis Maintenance Facility, parking garages and hospitals on I.U.P.U.I. Campus, Veterans Affairs Hospital expansion and many other factories, office buildings, hospitals, motels, parking garages, and shopping centers.

#### **Geotechnical Engineering, INDOT, U.S. Route 231, Spencer County, Indiana**

Conducted geotechnical engineering investigation for approximately 4.9 miles of new alignment for U.S. Route 231 in Spencer County, Indiana. The project included nine three-sided concrete arch culverts, a three-span bridge and a single-span bridge. The study included settlement and slope stability analysis for embankments as high as 65 ft., some of which are over abandoned strip mines.

#### **Geotechnical Engineer, Indiana University, School of Law, Indianapolis, Indiana**

Principal Geotechnical engineer for the Indiana University School of Law located at the corner of New York Street and West Street on the IUPUI campus. The project includes spread footings for the multi-story building that included a basement level with a parking garage.

#### **Geotechnical Engineering, West Lawrenceburg Flood Control Levee, Lawrenceburg, Indiana.**

Performed geotechnical study necessary to design an approximately 3-mile long flood control levee for the city of Lawrenceburg, Indiana along the Ohio River. The project involved the design of the approximately 35 ft. high earth embankments to be constructed primarily of processed shale fill from an off-site borrow area located on hills above the flood plain. The design included the evaluation of the borrow materials, embankment stability analyses, underseepage, uplift pressures, interior drainage. Pressure relief wells were designed for areas with an inadequate factor of safety relative to uplift at the toe of the slope. The design was performed to meet the Army Corp of Engineers requirements and requirements for FEMA certification and accreditation.

#### **Geotechnical Engineering, WKE Coleman Station, Hawesville, Kentucky**

Directed geotechnical engineering investigation for the Flue Gas Desulfurization project for the Western Kentucky Energy Coleman Station in Hawesville, Kentucky. The project included analysis of deep foundations in the outwash soils along the Ohio River. The 600 ft. stack is subject to high uplift loads and the absorber is subject to high lateral loads.

#### **Geotechnical Engineering and Construction Materials Testing, Neal Marshall Education Center, Fink Roberts & Petrie, Bloomington, Indiana**

Functioned as Principal-in-Charge for the geotechnical engineering investigation and construction materials testing and inspection for a large educational building and theater for Indiana University in Bloomington, Indiana. The project included the design and inspection of high capacity rock bearing foundations in a karst area.

#### **Geotechnical Engineering, Indianapolis Museum of Art, Indianapolis, Indiana**

Principal-in-Charge for geotechnical engineering investigation for the multi-story addition to the Indianapolis Museum of Art as well as a new parking garage for the museum. The project included heavily loaded shallow spread footings for a high profile structure on a bluff above White River.

#### **Geotechnical Engineering and Construction Materials Testing, United Airlines Maintenance Operation Center, Indianapolis, Indiana**

Project engineer for geotechnical engineering investigation for the United Airlines Maintenance Operation Center at the Indianapolis International Airport. This project included foundation design for an 8-hangar structure as well as the design of the hangar floors, taxiways and aprons in accordance with FAA design criteria. Provided technical support to the construction manager and field personnel during construction.

#### **Geotechnical Engineering, Greendale Flood Control Levee, Greendale, Indiana**

Geotechnical investigation to evaluate the conversion and improvement of an abandoned railroad embankment into a one-mile long flood control levee for the City of Greendale, Indiana along the Ohio River. The project included evaluation of the existing subsurface conditions and designing the improvements necessary to protect landside area from the 100-year-old flood event of the Ohio River to allow for extensive commercial develop in a significant flood-prone area.

## John Noel, LPG

### GEOTECHNICAL ENGINEER

#### EDUCATION

M.S., Geology, University of Georgia, 1986  
B.S., Geology, Indiana University, Bloomington, Indiana, 1983

#### REGISTRATIONS

Licensed Professional Geologist IN #1681, 1998

#### AFFILIATIONS

Indiana Geologists  
Professional Geologists of Indiana  
National Ground Water Association

#### CERTIFICATIONS

OSHA Hazardous Waste Site Operations Supervisor Training, 29 CFR 1910.120, 2000

OSHA Hazardous Waste Site Operations 40-hour training, 29 CFR 1910.120, 1994, with current refreshers  
Understanding Accelerated Natural Attenuation, Regenesis Short Course, Indianapolis, Indiana 2003  
In Situ Treatment of Groundwater Contaminated with Non-Aqueous Phase Liquids: Fundamentals and Case Studies, U.S. EPA Technology Innovation Office Seminar, Chicago, Illinois, 2002

Solid Waste Landfill Design and Construction, Leachate and Landfill Gas Management, Environmental Education Enterprises, Indianapolis, Indiana, 1997

Karst Hydrology, Western Kentucky University, Bowling Green, Kentucky, 1997

Groundwater Monitoring Statistics and Regulations, International Ground Water Modeling Center, San Francisco, California, 1996  
Environmental Data Validation, American Chemical Society Short Course, American Chemical Society, Indianapolis, Indiana, 1996

Mr. Noel is a principal geologist for ATC's Environmental Engineering Division and leads a team of geologists serving solid waste and utility clients. Mr. Noel consults on geology and groundwater issues related to landfill monitoring and permitting, surface impoundment closures, and environmental investigations. He is responsible for sample collection, data evaluation, statistical analysis, and reporting at several of the landfills served by ATC. Mr. Noel investigates geology and hydrogeology for permit applications, surface impoundment closures, and regulatory compliance. He is familiar with geological and hydrogeological investigations of bedrock and unconsolidated deposits throughout Indiana and the Midwest. Mr. Noel's knowledge of regulatory policies gained during a four year tenure at Indiana's Department of Environmental Management contributes to successful agency acceptance of client projects.

#### PROJECT EXPERIENCE

##### **Preliminary Geologic Characterization and Monitoring Well Installation, Confidential Indiana Utility, Indiana**

Reviewed publically available geologic and hydrogeologic reports and directed installation of 45 bedrock and unconsolidated monitoring wells. Guided formation testing and groundwater sampling efforts. Provided senior oversight for data reduction and reporting.

##### **Residential Well Sampling Program, Confidential Indiana Utility, Indiana**

Working with client project managers, legal counsel, and communications office, ATC implemented a residential water well testing program. Directed development of the sampling and analysis plan and oversaw the field sampling program and report preparation. Coordinated preparation of site plans with posted water quality results using geographic information system (GIS) software.

##### **Surface Impoundment Closure & Post-Closure Request, Confidential Indiana Utility, Indiana**

Reviewed site hydrogeology and designed a groundwater monitoring system. Directed subsurface investigation, soil and aquifer testing, and well installation. Negotiated well locations and testing requirements with state regulators in conjunction with preparation of the facility's Closure/Post-Closure request.

##### **Hydrogeology & Groundwater Monitoring, Duke Energy, Restricted Waste Site Landfills at Gibson, Cayuga, and Gallagher Generating Stations, Indiana**

Managed design and installation of groundwater monitoring systems according to permit requirements and Indiana landfill regulations. Determined monitoring well screen depths and sampling equipment based on site hydrogeological characteristics. Initiated groundwater sampling and analysis programs to determine groundwater quality prior to placement of waste.

##### **Surface Impoundment Closure, Duke Energy, Ash Impoundments at Gibson & Cayuga Generating Stations, Indiana**

Prepared geologic and hydrogeological reports, cross sections, and maps for closure and post-closure of ash impoundment systems. Integrated local and site-specific geologic and groundwater data to determine groundwater monitoring locations and depths.

## John Noel, LPG

### GEOTECHNICAL ENGINEER

#### **CERTIFICATIONS Cont.**

Applied Ground Water Statistics for Landfills, Intelligent Decision Technologies, Ltd., Indianapolis, Indiana, 1996  
Environmental Sampling and Field Sample Screening for Site Characterization and Remediation, Nielsen Environmental Field School, Columbus, Ohio, 1995  
Design and Performance Monitoring of Groundwater Remediation Systems, U.S. EPA Region V, Robert S. Kerr Environmental Research Lab, & the Center for Environmental Research Information, Chicago, Illinois, 1994

#### **PUBLICATIONS**

Paleomagnetism and  $40\text{Ar}/39\text{Ar}$  Ages from the Carolina Slate Belt, Albemarle, North Carolina: Implications for Terrane Amalgamation with North America," Noel, J.R., Spariosu, D.V., and Dallmeyer, R.D., Geology, Vol. 16, 1988.

#### **Utility Industry Action Plan Groundwater Monitoring Programs, Duke Energy, Ash Impoundments at Gallagher & Wabash River Generating Stations, Indiana**

Investigated the geology and hydrogeology at two generating station ash impoundments. Designed and installed well systems for groundwater monitoring under the voluntary action plan developed by the Utility Solid Waste Activities Group.

#### **Well Installation & Groundwater Sampling, Duke Energy, Electric Power Research Institute (EPRI) Study, Gibson Generating Station, Indiana**

Installed nine monitoring wells for an on-going EPRI groundwater investigation. Directed well installation and construction, prepared boring logs and construction diagrams, and investigated formation hydraulic conductivity with slug tests.

#### **Voluntary Remediation Program, Confidential Client, Columbus, Indiana**

Managed a multi-phase site investigation at a former dry cleaning location. Delineated the horizontal and vertical extent of soil and groundwater impacts and developed a conceptual site model after utilizing numerous site characterization technologies including soil gas measurement, geophysical analysis, and direct-push soil and groundwater sampling. Oversaw remediation pilot testing and treatability analysis. Assisted with design and installation of an in-situ groundwater chemical oxidation remediation system. Soil and groundwater remediation tasks were performed in conjunction with site redevelopment and construction of a new retail department store.

#### **Landfill Permit Preparation, EnviroPower, Pike & Sullivan Counties, Indiana**

As part of an engineering and hydrogeology team, managed a site investigation boring program and prepared cross sections for a restricted waste landfill permit application. Prepared geology and hydrogeology portions of the permit narrative.

#### **Groundwater Assessment Monitoring, Confidential Client, Indiana**

Provided project management oversight and prepared interim and summary reports for a groundwater assessment monitoring program at a solid waste landfill. Evaluated statistical comparisons, comparisons to soil concentrations, and solubility information to show that concentrations are natural and not attributable to the landfill.

#### **Groundwater Demonstration & Methane Investigation, Confidential Client, Indiana**

Developed a multi-phase groundwater, soil gas, leachate, and landfill gas sampling and analysis work plan to investigate the occurrence of trace levels of an anthropogenic organic compound in groundwater samples at a solid waste landfill. Managed implementation of the plan, including collection of landfill gas and soil gas samples, investigation of the depth and lateral extent of unsaturated sand using direct push soil conductivity measurements, evaluation of major ion groundwater and leachate geochemistry, and interpretation of fixed gas, isotope, and organic compound results from soil gas and landfill gas samples.

#### **Site Supervisor, Hazardous Waste Drum Removal, City of Olney, Illinois**

Provided project site management during excavation, removal, staging, field analysis, and disposal of liquid and solid hazardous waste contained in more than 5000 buried drums. Completed waste manifests and labelling. Coordinated efforts of multiple contractors during drum removal, waste sampling, and soil sampling, and provided health and safety oversight. Supervised bulk mixing of compatible waste streams.

#### **Groundwater Statistical Analysis & Reporting, Various Private & Local Government Clients, Indiana**

Perform statistical analysis and reporting for seventeen Indiana landfills throughout the state using DUMPStat, Sanitas, StatMost, and ProUCL.

## John Noel, LPG

GEOTECHNICAL ENGINEER

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### **Statistical Evaluation Plan Preparation, Various Private & Local Government Clients, Indiana**

Completed Statistical Evaluation Plans at eight Indiana landfills.

### **Post-Closure Permit Application, Confidential Client, Indiana**

Evaluated the monitoring network at a RCRA Subtitle C Hazardous Waste facility and prepared the hydrogeology sections of the Post-Closure Permit Application.

### **Groundwater Detection Monitoring System Evaluation, Confidential Client, Indiana**

Prepared a permit modification application to eliminate unnecessary monitoring requirements at a Subtitle D sanitary landfill.

### **RISC Based RCRA Closure Investigation, Confidential Client, Indiana**

Developed sampling and analysis plans for soil and sediment sampling to comply with statistical sampling requirements of Indiana's RISC program at a RCRA Subtitle C Hazardous Waste facility. Sampling and analysis performed as part of a risk-based closure at the facility.

### **Foundry & Coal Combustion Waste Classification, Various Clients, Indiana**

Developed sampling and analysis plans for analysis of foundry and coal combustion waste streams. Evaluated analytical results for waste streams and determined waste classifications based on statistical analysis methods in SW-846, IDEM guidance, and Indiana's Solid Waste Regulations.

### **Permitting & Compliance, Various Clients, Indiana**

Developed regulatory guidance for the preparation and review of groundwater monitoring Statistical Evaluation Plans. Evaluated solid waste landfill permit applications to ensure compliance with RCRA Subtitle D requirements. Reviewed environmental monitoring networks. Managed and interpreted environmental analytical results.

### **Groundwater Quality Evaluation, Various Clients, Indiana**

Applied statistical analyses to the evaluation and comparison of split sample groundwater results at RCRA Subtitle C facilities. Prepared sampling and analysis plans and assisted in field sampling for groundwater and leachate.

### **Geological & Hydrogeological Evaluation, Various Clients, Indiana**

Provided consultation and review of site investigations, aquifer characterization, groundwater modeling results, and remediation system performance for Indiana's CERCLA, State Cleanup and LUST Programs

## Richard B. Kresge, Jr., PE

### HYDROLOGIC ENGINEER

#### EDUCATION

B.S., Civil Engineering, Penn State University, 1992

#### REGISTRATION

Professional Engineer:  
PA PE0053031E  
NJ 24GE052639  
ME 12038  
MS 26131  
MD 52083

#### CERTIFICATIONS

Rope & Rescue Operations Level  
thru NFPA 1670 Lowering  
Systems One Person Rescue

#### PROFESSIONAL AFFILIATIONS

PA Society of Professional  
Engineers  
National Society of Professional  
Engineers  
Society of American Military  
Engineers

Mr. Kresge has over 26 years of experience in the study, planning, regulatory compliance and design of various land development and water / wastewater projects. Land development projects include a wide variety ranging from small-scale curbing and sidewalk replacement to large-scale development, involving thousands of building square footage. The water / wastewater projects range in size from small-scale water distribution and sewage collection systems to complex water and sewage treatment facilities for both public and private clients.

#### PROJECT EXPERIENCE

##### Land Development Design; PA

Managed the design and site development for Community Health System, Inc., Highland Park Senior Living Facility, the new maintenance garage for the Pike County PennDOT district, King's College and for the Department of Defense in Pennsylvania. Responsibilities included site development of mixed-use developments with associated infrastructure designs for water treatment plant upgrades, emergency water repair, heliport improvements and curb, sidewalk and parking lot improvements. Engineer for multiple municipalities and boroughs throughout Pennsylvania and responsible for infrastructure solutions related to design and reconstruction of public transportation rights-of-way, roadways and sidewalks. Reviewed borough subdivision land development planning and permits. Team leader responsible for coordinated efforts of several individuals and task management. Responsible for managing projects from inception to completion, including budget management. DoD facility design and land development at Portsmouth Naval Shipyard and Tobyhanna Army Depot for paving, widening and water distribution systems.

##### Water and Wastewater Treatment Plant Design; PA

Engineer for both public and private clients including several Boroughs and Municipalities throughout Pennsylvania. Responsible for the design, development, and modifications of plant upgrades and expansions, systems designs, and station rehabilitation work. Additional responsibilities include designs of new and replacement water lines and sanitary lines within Pennsylvania American Water rights-of-way. Associated civil designs for new and replacement roadways for rehabilitation and improvements. Responsible for team management and project management duties from inception to completion, including budget management.

##### Stormwater Designs; PA

Engineer for several boroughs and municipalities throughout Pennsylvania. Design work for several pumping and collections stations for multiple phases in rehabilitation, improvements and upgrades. Design of sanitary sewer line replacements and repairs with associated infrastructure rehabilitation. Design of low-pressure sanitary sewer collection and conveyance systems.

##### Construction Management; PA

Direct oversight of design build projects. Responsible for construction management throughout the project duration from initial contract negotiations through the close out. Budget management and client management services throughout the project life cycle. Coordinated all meeting and management of project schedules, quality assurance/control, costs, and inspections.

##### Permitting; PA

Provided permitting services for all applications associated with design work with multiple boroughs and municipalities. Familiarity with several government processes and regulations.

## James Luckiewicz, PE, CFM

### HYDROLOGIC ENGINEER

#### EDUCATION

B.S.C.E., Civil Engineering,  
Rose Hulman Institute of  
Technology, 1984

#### REGISTRATIONS & MEMEBERSHIPS

Professional Engineer:

- IN #890260, 1989
- OH #70065, 2005
- IL #062-058969, 2006

Certified Floodplain Manager

- Indiana 2006;

American Society of  
Engineers (ASCE)

IN Water Resources Assoc  
(IWRA)

IN Assoc of Stormwater &  
Floodplain Managers  
(INAFSM)

Assoc of State Floodplain  
Managers (ASFPM)

#### CERTIFICATIONS & TRAINING

-Hydrologic Evaluation of  
Landfill Performance (HELP)  
Workshop, University of  
Wisconsin-Milwaukee, August  
1989;

-Foundation Analysis and  
Design, Indiana  
University/Purdue University  
at Indianapolis;

-Storm Water Pollution  
Prevention Plan Development  
Course, Environmental  
Management Institute, May  
1993;

-HEC-RAS Model Seminar,  
Rose-Hulman Institute of  
Technology, January 1997;

-Diversion Ditch Design  
Workshop, Indiana Society of  
Mining and Reclamation,  
November 1998;

-National Association of  
Abandoned Mine Lands  
Programs Annual Conference,  
2001, 2007;

-ODNR Division of Mineral  
Resources Management  
Annual Conference 2006,  
2007;

Mr. Luckiewicz is a Principal Engineer in Atlas's environmental engineering group at their regional headquarters office in Indianapolis. He provides stormwater, surface water, floodplain, pollution prevention, and construction erosion control compliance expertise, permitting, and hydrologic / hydraulic capabilities for Coal Combustion Residual (CCR) impoundment projects, landfill designs, dam inspections, surface water quality and quantity investigations, flood plain encroachment studies, channel and culvert analyses and designs, detention/retention pond designs, and mine reclamation studies and designs. He has provided expertise concerning National Pollutant Discharge Elimination System (NPDES) compliance issues to various industrial facilities, including Individual and General permit preparation associated with storm water and construction activities, Storm Water Pollution Prevention Plan (SWP3) development and storm water discharge measurement and sampling. He has provided review and certification of Spill Prevention Control and Countermeasures (SPCC) Plans for several industrial facilities. He has conducted tasks necessary to obtain Construction in a Floodway permits from the IDNR-DOW, as well as, Storm Water Drainage Permits from the City of Indianapolis, Carmel, Noblesville, Fishers, Plainfield, New Albany, and other cities in Indiana. He has conducted above-ground storage tank, secondary containment, and piping assessments for large industrial clients. He has worked with federal, state and local government agencies. Prior to working for Atlas, Jim was a Hydraulic Engineer with the Indiana Department of Natural Resources Division of Water, 1984 - 1987.

#### PROJECT EXPERIENCE

##### **NPDES Storm Water Pollution Prevention Plan Development, compliance, and sampling (327 IAC 15-6; Rule 6)**

Jim has completed NPDES storm water compliance audits, Storm Water Pollution Prevention Plan (SWP3) Development, site inspections, and compliance storm water sampling for industrial facilities across Indiana: Highlighted facilities include:

- Indiana Department of Transportation (INDOT) maintenance facilities including 18 locations in Laporte, IN District, 18 locations in the Seymour, IN District, and 22 locations in the Vincennes, IN District.
- United State Postal Service facilities at Bacon Station, Park Fletcher, Castleton, New Augusta, Eagle Creek, Nora, Kokomo, Bloomington, South Bend, Lafayette, Fort Wayne, Gary, Muncie, and Southport.
- Duke Energy's IGCC Generating Station in Edwardsport, Indiana, Duke's Cayuga Generating facility, Duke's Wabash River Generating Station, Duke's Gibson Generating Station (one of the largest generating station in the US); Duke's Noblesville Generating Station, and Duke's Gallagher Generating Station.
- AES/IPL permit compliance review; completed Level 2 environmental compliance review and associated permit cost estimates for 85 project sites.
- Waste Management, Inc. landfill and transfer station/hauling company facilities at Twin Bridges, Oak Ridge, Prairie View, Liberty, Earthmovers, Jay County, 56th Street, Hamilton County, Lafayette, Kokomo, Muncie, Ft. Wayne, Warsaw, South Bend, LaPorte, and Gary.
- Grissom US Air Reserve Base near Peru, Indiana, sampling and testing storm water runoff at four outfall locations around the perimeter of the facility.
- Vectren Corporation AB Brown Generating Station in Mt. Vernon, IN and FB Culley Generating Station in Newburgh, IN;
- Other facilities include: Cargill, Inc. in Lafayette, IN; Carrier Corp in Indianapolis, IN; Roche

Diagnostics in Indianapolis, IN; Champion Trucking in New Albany, IN; Impact and Net Forge (now AAM) in Columbus, IN; Omni Forge in Remington, IN; Custom Building Products and the Frankfort Airport in Frankfort, IN; DA Lubricants in Lebanon, IN; Dixie Chopper in Coatesville;



## James Luckiewicz, PE, CFM

### HYDROLOGIC ENGINEER

#### **PUBLICATIONS**

Project Planning for Stream Restoration: A Case History of the Kyger Creek Reclamation Project in Gallia County, Ohio, co-authored with Don Bryenton and Brent Miller for the National Association of Abandoned Mine Lands Programs Annual Conference, August 2001

FedEx Ground in Indianapolis and Zionsville, IN; Kremers Urban Pharmaceuticals in Seymour, IN; Landis + Gyr in Lafayette; Clark-Floyd County Landfill; Regal Beloit in Monticello, IN; Lawrence County Transfer Station in Bedford, IN; Temple Inland in Newport, IN; Advance Disposal Transfer Station in Monticello, IN; Morrystown, and Fort Wayne, IN; Rays Trash facilities in Zionsville, Clayton, and Indianapolis, IN; JB Hunt in Indianapolis; DSM Coating Resins in Frankfort; Wabash Steel in Vincennes; Enterprise and National Car Rental facilities in Indianapolis; SABIC in Mt. Vernon; Chief Industries in Rensselaer, IN; Target Corp in Indianapolis, IN; Cameo Marble in New Albany, IN; Robert Bosch Corp in Albion, IN; CTS Corp in Lafayette and Berne, IN; Cummins Industrial Center in Seymour, IN; Seymour Tubing in Seymour, IN; Delta Faucet in Greensburg, IN; HH Sumco in Indianapolis, IN; Fort Wayne

Foundry in Fort Wayne, IN; Harrison Steel Company in Attica, IN; Haynes International in Kokomo, IN; Greenwood Municipal Airport; Johnson Controls in Ossian, IN; Majestic Block and Brick in Mooresville, IN; Terra International in Francesville, IN; Horton Fan Systems in Carmel, IN; Suncall America in Richmond, IN, and Newton County Landfill.

#### **NPDES Storm Water Construction and Pollution Prevention Plan Development, compliance and permitting (327 IAC 15-5; Rule 5):**

Jim has developed construction and Storm Water Pollution Plans for several construction projects for clients across Indiana to obtain permits in accordance with the local SWCDs, MS4s, and State of Indiana Rule 5 (327 IAC 15-5) requirements. Highlighted projects include:

- Duke Energy Generating Station construction projects at Edwardsport, Gibson, Cayuga, Gallagher; Wabash River Station; and the former Dresser facility for several site and impoundment improvement projects, as well as, Coal Combustion Residual (CCR) impoundment projects.
- Duke Energy new substation projects in Plainfield, Carmel, Fishers, Noblesville, Lafayette, Kokomo, Manhattan, Brazil West, Bloomington, Howard County, Markland Dam, and Shelbyville;
- Wilhelm Construction; completed weekly Rule 5 construction stormwater inspections for Wilhelm construction sites at the Eli Lilly facility in Indianapolis, IN.
- Peru Utilities Power Plant Demolition project;
- Hoosier Energy Merom Station construction projects;
- Marathon Pipe Line, LLC construction projects in Fishers and Indianapolis;
- Waste Management, Inc. construction projects at Twin Bridges, Oak Ridge, Jay County; and Liberty
- Vectren Corp construction projects at AB Brown Station and FB Culley Station
- Sabic Innovative Plastics, LLC construction project in Mt. Vernon, IN

#### **Spill Prevention, Control, and Countermeasure (SPCC) Plan development and compliance (40 CFR 112):**

Jim has inspected, developed, and provided professional certification of SPCC Plans for industrial facilities across Indiana, Ohio, and Illinois including: Duke Energy facilities, Vectren Corp facilities, Unites States Postal Service facilities, Waste Management, Inc. facilities, Martin Marietta facilities in Belmont, Carmel, Cloverdale, Five Points, Gosport, Kentucky Avenue, Kokomo Sand, Kokomo Stone, North Indianapolis, Noblesville, Putnam, and Waverly; INDOT facilities; ODOT SPCC Plans for facilities in Athens, Gallia, Hocking, Licking, Meigs, Monroe, Morgan, Noble, and Vinton Counties; Sunoco SPCC Plans for the Brickyard 400, Indy Raceway Park, Mansfield Raceway in Mansfield, OH, and Mid Ohio Sports Car Course in Lexington, OH; Jacobson Companies in Plainfield, IN and Champaign, IL; Cleveland Clinic facilities in Ohio; Cargill in Lafayette and Mentone; JB Hunt in Indianapolis; National Car Rental in Indianapolis, IN; Progressive Casualty Insurance Corp facilities in Ohio; IBM in Cincinnati, OH; PMG in Columbus, IN; LaGloria Oil & Gas Company in Clermont, IN; Verizon facilities in Ft. Wayne, Indianapolis, and Ohio; Indiana Dept. of Admin Police Posts in Versailles and Bloomington; Indiana Vets Home in Lafayette, IN; Richard Roudebush VA Hospital in Indianapolis, IN; DA Lubricant in Lebanon, IN; TWB Company LLC in Columbus, IN; US Census Bureau in New Albany, IN; Suncall America in Richmond, IN; Von Duprin in Indianapolis, IN; Yuma Industries in Shelbyville, IN; Trane in Rushville, IN; Horton Fan Systems in Carmel, IN; Carver Toyota in Taylorsville, IN; Clark Floyd Landfill; Target Corp in Indianapolis, IN; Emge Packing Company in Ft. Branch, IN; KT Corp in Shelbyville, IN; Robert Bosch Corp in Albion, IN; Dana Corporation in Richmond, IN; Seymour Tubing in Seymour, IN; Regal Beloit in Monticello, IN; American Steel in East Chicago, IN; Johnson County REMC; Butler University in Indianapolis, IN; Frankfort

## James Luckiewicz, PE, CFM

### HYDROLOGIC ENGINEER

Airport, DSM Coatings in Frankfort, IN, Enterprise facilities in Indianapolis & Ft. Wayne, IN, Charles Schwab facility in Indianapolis, IN, and Temple Inland in Newport, IN..

#### **NPDES Waste Water Compliance and Permitting (including Rules 7, 9, and 10; 327 IAC 15-7, 15-9, and 15-10):**

Jim has provided assistance with NPDES wastewater compliance and permitting for Landis + Gyr, Marathon Pipeline LLC, Horton Fan Systems, INOK Investments, Temple Inland, Kemmerer Bottling Facility, Maplehurst Bakery, Hertz/Penske, Beldon/Cooper Industries, CTS Corp, Cargill, Harrison Steel, USF Holland, and the US Postal Service; as well as, preparation of the Rule 7 permit submittal for the Duke Energy Dresser Station Closure Project pond dewatering and discharge activities.

#### **NPDES “No Exposure” and Notice of Termination Investigations and Exemption sites:**

Jim has assisted with site inspection and determination of “No Exposure” in accordance with NPDES Rule 6 for the following facilities: Landis + Gyr in Lafayette, IN, Roche Diagnostics in Indianapolis; ECP Safeway, LLC in Ft. Wayne, IN; Dynamic Corp in Montmorenci, IN; HH Sumco in Indianapolis, IN; Rays Trash White River Station and Waste Management LaPorte Kingsbury Transfer Station in LaPorte, IN and Kokomo Transfer Station.

#### **Floodway Modelling Projects and IDNR Construction in a Floodway Permit Projects**

Jim has developed flood frequency hydrologic and hydraulic models for pre and post construction conditions and, where needed, obtained Construction in a Floodway Permits from IDNR for the following projects:

- Duke Energy Generating Station construction projects at Edwardsport, Gibson, Cayuga, Gallagher; Wabash River Station; and the former Dresser facility for several site and impoundment improvement projects, as well as, Coal Combustion Residual (CCR) impoundment projects.
- Duke Energy Gibson Station Haul Road Project and channel relocation
- Waste Management Liberty Landfill
- Vectren Corp AB Brown Ash Pond /embankment and Borrow areas in West Franklin, IN and work at the FB Culley Station in Warrick County
- Marathon Pipeline repair and stream erosion control sites for stream pipeline crossings in Indiana;
- Tipton County Landfill
- TRS Range Services for shooting range project site in Roanoke, IN;
- Browning Ferris Industries Laubscher Meadows Landfill in Evansville and channel relocation
- Harrison Steel in Attica, IN
- Brookville Road Golf Center in Indianapolis, IN
- AMAX channel relocation project with Rick Rampone in Saline, IL
- Adams County Transfer Station in Adams County, IN
- Bernardin Lochmueller project site in Vanderburgh County, IN
- August Mack project site in Indianapolis, IN
- Owens Corning in Brookville, IN

#### **Dam and Levee Inspection and Modelling Projects**

Jim has completed inspection and associated reports for low, significant, and high hazard dams and levees in accordance with state and federal requirements for the following clients:

- Citizens Energy Group dams including Morse Dam and Levee, Geist, Broad Ripple, Williams Creek, Keystone, and Fall Creek Overflow; and Waverly Landersdale Levee.
- Duke Energy ash pond dams at Gallagher Generating Station in New Albany, Cayuga Station, Wabash River Station in West Terre Haute, IN, and Gibson Station in Owensville, IN.
- Vectren Corp ash pond dams at AB Brown and FB Culley Generating Stations
- Hoosier Energy Merom Station dam
- E.ON US ash pond dams in Kentucky
- Lalumierre School Dam in LaPorte, IN

## James Luckiewicz, PE, CFM

### HYDROLOGIC ENGINEER

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In addition, completed hydrologic/hydraulic studies and DAMBREAK analyses using the COE HECRAS Model for the following dams to identify potential flood zones in accordance with state and federal requirements and to assist with Emergency Action Plan (EAP) development:

- Duke Energy ash pond dams at Gallagher Generating Station in New Albany, Noblesville Station, and Cayuga Station;
- Vectren Corp ash pond dams at AB Brown and FB Culley Generating Stations
- E.ON US ash pond dams in Kentucky.

#### **Storm Water Design Projects:**

Jim has completed watershed and storm water drainage studies for local regulatory approval for several project sites and clients across Indiana using TR-55, SEDCAD4, and COE HECRAS models including Duke Energy Substation design projects for local approval in Tipton County, IN, Carmel, IN, Fishers, IN, Noblesville, IN, Edwardsport, IN, and Plainfield, IN; Diamond Chain in Indianapolis, IN; Amoco in Whiting, IN; Monon Corp in Monon, IN; GB Glick in South Bend, IN; USPS Gary Post Office; Kerkhof Lake in Cicero, IN; Coal Creek project in Fountain County, IN; and Westinghouse in Bloomington, IN.

#### **Abandoned Mine Land and Acid Mine Drainage Remediation Projects:**

Jim has completed surface water sampling, discharge measurement, stream channel surveys; storm water discharge estimates, and flood frequency and storm water flood modelling using the COE HECRAS Model to estimate the historic storm water runoff flood impact of mining on several streams in Gallia, Hocking, Jackson, Meigs, and Noble Counties, Ohio and also sites in southwestern Indiana, as well as, sites in Kentucky.

#### **Landfill Design, compliance and permitting projects**

Jim has been involved with all aspects of Landfill design and permitting associated with storm water and erosion control design and modelling, landfill leachate collection systems and HELP modelling, for several landfill facilities across Indiana for Waste Management, Duke Energy, and Vectren Corp to name a few.

#### **RCRA Tank, secondary containment, closure, and pipeline certification projects**

Jim has provided third party professional certification services for RCRA Tank, pipeline, and secondary containment areas for Eli Lilly and Company in Lafayette, Clinton, and Indianapolis; and Evonik Industries in Lafayette; as well as, closure certification reports for several projects. He has also been involved with tank ultrasonic testing services for tanks at Haynes International, Lilly Industries, Indiana Precision Technology, Lin El, Inc. in Mooresville, IN; Delta Faucet, and the State of Indiana Veteran Home.

## Dominic Mandarino, E.I.T.

### HYDROLOGIC ENGINEER

#### EDUCATION

B.S. Civil Engineering and  
B.S. Mining Engineering,  
West Virginia University

#### PROFESSIONAL REGISTRATIONS / CERTIFICATIONS

OSHA 40 Hour HAZWOPER  
(Current)

APNGA Portable Nuclear  
Gauge Safety & U.S. D.O.T.  
Hazmat Certification  
(Current)

Engineer in Training  
Certification

Mr. Mandarino is a senior project engineer for Atlas Technical Consultants LLC in the Engineering Division. Mr. Mandarino is an E.I.T. with over 4 years of experience in public water design, wastewater design, and stormwater design, Stormwater Pollution Prevention Plans (SWPPP), Spill Prevention Control and Countermeasure (SPCC) plans, Notice-of-Intent (NOI), stream crossing permitting, and NPDES permit requirements.

His project experience includes design and oversight of water and wastewater line construction and repair. He also has experience in SWPPP and SPCC plan revisions and the review of applicable associated documents.

#### PROJECT EXPERIENCE

##### Project Management, Construction Oversight, SWPPP, SPCC, NPDES Compliance, Environmental Remediation Efforts, Pittsburgh, PA

As part of performing his project engineer responsibilities for the Atlas Pittsburgh office, Mr. Mandarino has also been a part of many environmental compliance operations, including groundwater sampling, NPDES discharge confirmation and various remediation efforts. Mr.

Mandarino help conduct designing and recommending remediation efforts on sites with various conditions, including varying contaminants and concentrations, on active sites. Mr. Mandarino also has experience with Atlas preparing SWPPP and / or SPCC plans, creating potentiometric and analyte distribution maps in AutoCAD, and drafting Remedial Action Plans. He has experience with soil and groundwater contamination remediation.

#### Additional Experience

Mr. Mandarino has conducted site inspections, interviewed residences, and reviewed site documents to evaluate potential mine subsidence. He has also conducted site inspections and offered remedies for acid mine drainage (AMD) discharging into a public storm water system. For his senior design project, Mr. Mandarino performed a coal seam analysis and longwall mining method design for the Dilworth coal mine located in Greene County, PA. Mr. Mandarino has background experience in designing public and private water and sanitary lines; his experience includes existing waterline repair and new waterline design and construction oversight. Mr. Mandarino has experience in existing sanitary wastewater line repair and new wastewater line construction that includes pump stations. Along with a background in design, he has experience with DEP stream crossing permits, NPDES permits, and NOI support. Additionally, Mr. Mandarino has experience with soil sampling and slope stabilization. He has experience reviewing waterlines, wastewater lines, stormwater systems, and roadways for proposed housing developments as the municipality's engineer. He also has experience designing stormwater outfalls and riprap aprons. Mr. Mandarino has experience in roadway remediation and oversight of roadway construction. He also has experience with oversight and review of stormwater line and sanitary sewer line CCTV inspections. With this CCTV line inspection experience, Mr. Mandarino has been a part of the oversight and review of the stormwater lines between Boden Avenue and the manhole located in the Aldi's parking lot, located in Scott Township, Allegheny County.

#### AutoCAD / Environmental Design, Pennsylvania

Responsible for the overview and design of AutoCAD based project design. Work involvement includes wastewater and waterline utility abandonment and renewal design projects for clients. Project erosion and sedimentation (E&S) control designs include stream embankment and stabilization design plans.



## James Gilligan

### CAD/GIS SERVICES

#### EDUCATION

Associate in Specialized  
Technology Degree Computer  
Aided Drafting and Design 1988  
Triangle Tech, Greensburg PA

#### SOFTWARE SKILLS

AutoCAD  
AutoCAD Civil 3D  
Carlson Civil Suite  
Microsoft Office 365

#### YEARS EXPERIENCE

35

Mr. Gilligan is a Senior Civil Designer for Atlas Technical Consultants, LLC in our Engineering and Environmental divisions. Mr. Gilligan is a seasoned design professional with over 35 years of experience with a 30-year focus in the Civil and Environmental consulting industry. Jim's experience centers around a diverse array of layout and designs for environmental, geologic, reclamation / remediation, and civil projects within the coal and aggregate mining, sanitary and residual waste, and oil and gas industries.

#### PROJECT EXPERIENCE

##### Coal and Aggregate Mining Projects; Pennsylvania

Design, layout, and permitting for surface and underground coal and aggregate mining facilities including layout and design of coal refuse disposal facilities, active surface mining operations, and underground mine workings. Design work included erosion and sedimentation control, site grading, and earthwork quantity calculations for overburden and required fill placement utilizing AutoCAD Civil 3D software.

##### Remediation and Reclamation Projects; Pennsylvania

Design and layout for the remediation of abandoned mine lands to include restoring site to post mining topographic conditions with required erosion and sedimentation controls. Design work included earthwork quantity calculations, proposed grading layout, and geologic cross-sections utilizing AutoCAD Civil 3D software.

##### Municipal and Residual Solid Waste Landfills: Pennsylvania, Kentucky, Maryland, and Tennessee

Design, layout, and permitting for various Landfill sites including conceptual layout and design, grading plans, geologic cross-sections, construction level grading plans, earthwork quantity calculations, 3D topographic modeling, piping plans, leachate detection and collection systems, landfill liner and capping system design and layout, and construction quality monitoring.

##### Coal Fired Power Plant Coal Stockpile Inventory Projects; Pennsylvania

Calculate quarterly coal stockpile volume utilizing AutoCAD Civil 3D, and Carlson Civil Suite software by creating 3D topographic models derived from UAV (unmanned aerial vehicle). Volume quantities were calculated by comparing the most recent model to the pile base to determine the amount in tons of coal in current inventory.

##### Oil and Gas Industry Projects; Pennsylvania

Design and layout of well drilling pads utilizing AutoCAD Civil 3D software to create grading and balance earthwork volumes to reduce overburden and required fill material. Layout of pipeline alignment sheet sets including all grading, erosion and sedimentation controls, and details.



**PROFESSIONAL EXPERIENCE**  
27 Years

**CERTIFICATIONS**

**WVDOH:**

- Soil Compaction Inspector
- Portland Cement Concrete Inspector

**MSHA:**

- Impoundments
- 24-hour Surface Mine Operations

**APNGA:**

- HAZMAT Portable Nuclear Gauges

**ACI**

- Concrete Strength Testing - Level 1
- Concrete Lab Testing - Level 1
- Aggregate Testing - Level 1
- Field Concrete Testing - Level 1

**OSHA 10**

**SKILLS**

- Field & Laboratory Testing
- Compaction Inspection & Testing
- Impoundment Skill

**HIGHLIGHTS OF EXPERIENCE**

Mr. Kennedy started his career as an Engineering Technician with Triad Engineering over 26 years ago. He has provided QA / QC services including field tests for soils, asphalt and aggregate compaction, concrete placements, mortar and grout testing, and structural bolt testing for numerous private industry and government / public sector clients including coal / energy companies and the WV Department of Highways. Mr. Kennedy has experience in conducting soil foundation and rebar and subgrade inspections. He is knowledgeable in most laboratory testing procedures for soil, concrete, asphalt, and aggregates. He has been involved with a variety of construction projects throughout his career, which enables him to read plans and specifications, complete clear and thorough field reports, and organize and manage on-site projects as needed to complete inspection tasks. Mr. Kennedy has maintained a leadership role in Triad's QC/QA department in the role of department manager.

**RELEVANT PROJECT EXPERIENCE**

**Galloway Shaft, Grafton, WV**

Mr. Kennedy provided quality control oversight for the construction of this mine shaft. Field testing included verification of stripping, proof-rolling, installation of drainage features, documentation of lift thickness, and moisture density testing. Observation of spread footings and drilled piers was also included. Laboratory testing included concrete strength testing and moisture-density testing.

**Marion County Mine, Marion County, WV**

Mr. Kennedy provided supervision to his team for providing quarterly and annual WVDEP and MSHA inspections, certifications, and material testing.

**Nolan's Run Expansion, Harrison County, WV**

Responsible to the Harrison County Coal Company, Mr. Kennedy provided oversight for testing and inspection services for this renovation of 304,700 cubic yards of random soil fill. Specific services included field and laboratory testing of fill and concrete.

**Murry 8 South Shaft, Knoxville, WV**

Responsible to the contractor, Mr. Kennedy provided oversight for the construction of a proposed mine shaft pad and access road. Specific services included project management, reporting, field and laboratory fill testing, and construction observation.

**Quality Control Services, Various Mines, Various Locations WV/PA/MD**

For over 10 years, Mr. Kennedy performed quality control and materials testing services for the following mines throughout West Virginia, Pennsylvania, and Maryland. Specific services included mine refuse compaction testing and site inspection.

- Harrison County Mine, Robinson Run, WV
- Monongalia County Mine, Blacksville No. 2, WV

- Marion County Mine, Loveridge, WV
- Federal No. 2 Mine, Monongalia County, WV
- Ohio County Mine, Shoemaker, WV
- Marshall County Mine, McElroy, WV
- Sentinel Mine, Barbour County, WV
- Mt. Storm Power Station, Grant County, WV
- Mettiki Mine, Oakland, MD
- Bailey Mine, Green County, PA

### **Impoundment Inspections, Various Mines, Numerous Locations, WV, PA, MD**

Mr. Kennedy provided Quarterly and Annual Impoundment Inspections for over 20 years for the following mines:

- Harrison County Mine, (formerly) Robinson Run, WV
- Monongalia County Mine, (formerly) Blacksville No. 2, WV
- Marion County Mine, (formerly) Loveridge, WV
- Ohio County Mine, (formerly) Shoemaker, WV
- Marshall County Mine, (formerly) McElroy, WV
- Mettiki Mine, Oakland, MD
- Robena Mine, PA

### **Impoundment Quality Control – Performed quality control testing and observation for construction of the following impoundments:**

- Harrison County Mine Slurry Cell
- Bailey Mine, WV

### **Cobun Creek Dam, Morgantown, WV**

Mr. Kennedy provided oversight for quality control testing and observation services for the General Contractor throughout construction of a new dam for the Cobun Creek reservoir. Services included compaction and backfill, proof-rolling, spread footings, concrete placement, along with laboratory testing of soils and concrete. Project management and consultant services were also provided during this project.

### **Antero Industrial Landfill, Pennsboro, WV**

Responsible to the contractor, Mr. Kennedy provided oversight for construction quality control services for this landfill project. Specific services included field and laboratory testing for fill soil and concrete along with project management and reporting.

### **State of West Virginia, Dent's Run Industrial Solid Waste Landfill, Mannington, WV**

As a subcontractor for the general contractor, Mr. Kennedy served as Project Manager and was responsible for the administration and oversight of Construction Inspection, Materials Testing and Lab Testing Services associated with the Dents Run Stage 2B Landfill Expansion. In doing so, Triad performed services including construction observation for site work (subgrade, compacted fill, liner installation), along with extensive lab testing on soil and aggregates used on the project.



**EDUCATION**

Marshall University  
*MS, Engineering*

Fairmont State University  
*BS, Civil Engineering  
Technology*

Potomac State College  
*AA, Civil Engineering*

**PROFESSIONAL EXPERIENCE**

14 Years

**REGISTRATIONS & LICENSES**

- Professional Engineer
- West Virginia #20492
  - Pennsylvania #087088

**SKILLS**

- Project Management
- Soils Classification
- Construction Materials Engineering & Testing

**PROFESSIONAL AFFILIATIONS**

- ASHE
- ASCE
- NSPE

**HIGHLIGHTS OF EXPERIENCE**

Mr. Campbell has over 14 years of engineering experience. He is responsible to Triad's Geotechnical Engineering Services. Mr. Campbell performs geotechnical explorations, assessments, and evaluation of exploration results, foundation recommendations and reporting, laboratory testing, field inspections, and special inspections.

**RELEVANT PROJECT EXPERIENCE / GEOTECHNICAL**

**Summit Community Bank Due Diligence, Granville, WV**

Mr. Campbell provided a due diligence subsurface exploration for a proposed two-story steel framed structure with masonry walls and slabs-on-grade. As project engineer, Mr. Campbell was responsible for baseline site and foundation recommendations. Challenges associated with this project included existing fill with mine spoil and the potential for mine subsidence.

**Preparation Plant Expansion, Wana, WV**

As project engineer, Mr. Campbell provided geotechnical exploration for the expansion of an existing preparation plant. Mr. Campbell's responsibilities included providing baseline foundation and site preparation recommendations. Project challenges included undocumented fill, pyritic materials, and moisture sensitivity of site soils.

**Various Well Pad Sites, Greene County, PA**

As project engineer, Mr. Campbell provided geotechnical exploration and initial earthwork recommendations for these well pad sites. Project challenges included fill slope stability, site location near landslide susceptible materials, vehicular traffic loads, and moisture susceptibility of site soils.

**17 Monument Lane Settlement, Monongalia County, WV**

As project engineer, Mr. Campbell provided a geotechnical exploration for this foundation settlement and distress of a housing property. Both a significant thickness of uncontrolled and a void within the bedrock were encountered. Foundation mitigations were recommended to the owner which included underpinning and grout stabilization.

**Green Hills Slide, Morris Township, PA**

As project engineer, Mr. Campbell provided geotechnical exploration for landslide repairs of an approximate 300 cubic yard slip along trunk line right of way. Mr. Campbell's responsibilities included supervision of the field exploration program, drilling inspection, logging of boring locations, and initial slide repair recommendations.

**I-79 Technology Park, Marion County, WV**

As Project Engineer, Mr. Campbell oversaw the drilling and laboratory testing for a geotechnical exploration of 560 linear feet of this roadway project for the business park located at a former site of a surface mining



operation. A detailed discussion of the site geology and subsurface conditions was provided along with recommendations for site preparation and controlled fill construction.

#### **Hilton Garden Inn Retaining Wall, Monongalia County, WV**

As part of the due diligence phase of the prospective property purchase of this hotel, Triad was retained to conduct visual observation of the existing Redi Rock segmental retaining wall to assess potential issues such as bulges, displaced face, cracks, water seepage or settlement. Mr. Campbell performed this observation and generated a report discussing his findings.

#### **Mountain State Clean Energy (Longview Power Plant), Maidsville, WV**

Triad was retained during the preparation of this site for the construction of 1,200 MW gas-fired power plant. The project scope included drilling a total of fourteen (14) test borings including Standard Penetration Testing of the soil overburden and coring of the encountered bedrock. The borings were drilled at the specified locations on the provided boring location plan. Upon completion of the field work, Mr. Campbell conducted soil and rock testing in the laboratory and prepared a detailed geotechnical report.

#### **Little Hackers Creek Slurry Impoundment, Barbour County, WV**

As Project Engineer, Mr. Campbell provided geotechnical engineering services for the expansion of this coarse refuse impoundment. Triad drilled one test boring at the specified location and included Standard Penetration Testing of the soil overburden. Upon completion of the field work, Triad conducted soil testing in our laboratory, prepared a boring log and lab test results.

#### **Leer South D2\_D3 Shaft Blackrock Site, Barbour County, WV**

As Project Engineer, Mr. Campbell provided geotechnical engineering services associated with the installation of the bleeder shaft. The site proposed was the location of an old strip bench and spoil area and was covered by approximately 75 feet of surface mine spoils material. The exploration was performed with considerations for both shallow and deep foundations. Upon completion of the field work, Triad conducted soil and rock testing in our laboratory, prepared a detailed geotechnical report along with foundation design recommendations.

#### **WVBRIM Projects (7), Various Locations and Counties, WV**

##### **Other Recent Mining Projects in WV Includes:**

- 6 South, No. 2 Shaft, Marshall County, WV, 01-21-0344
- 7 West Bleeder Shaft, Harrison County, WV, 01-21-0229
- Leer South Slope Tail, Barbour County, WV, 01-20-0208

##### **Other Recent Dam/Impoundment Work in WV Includes:**

- Cobun Creek Dam No. 1 Inspection, Morgantown, WV, 01-21-0336
- Cobun Creek Dam Inspection, Monongalia County, WV, 01-18-0414
- Upshur Refuse Impoundment Spillway, Upshur County, WV, 01-22-0056

##### **Other Recent Slip Projects in WV Includes:**

- Cedar Stone Townhomes Slip, Morgantown, WV, 01-21-0121
- Brown's Run Beltline Slip, Marshall County, WV, 01-18-0498
- Newbrough Access Road Movement, Tyler County, WV, 01-20-0206

##### **Other Recent Retaining Wall Projects in WV Includes:**

- Lodgeville Road Retaining Walls, Harrison County, WV, 01-18-0184
- Laborers International Union Building Retaining Wall, Ohio County, WV, 01-17-0481



#### EDUCATION

West Virginia University, WV  
BA (1995), Chemistry

West Virginia Institute of  
Technology, BS (2008), Civil  
Engineering

#### PROFESSIONAL EXPERIENCE

15 Years

#### REGISTRATIONS & LICENSES

Professional Engineer, WV

#### SKILLS

- Civil Engineering
- Hydrologic and Hydraulic Analysis and Design
- Erosion and Sediment Control Plans
- Stormwater Management
- Permitting

#### HIGHLIGHTS OF EXPERIENCE

Mr. Criniti is currently a Project Engineer and is responsible for civil and surveying projects. He has participated in the design and management of numerous projects. These projects have included retail/commercial site preparation, airports, parking lots, buildings, retaining walls, foundations, sanitary structures, as well as boundary and topographic and photogrammetric surveys. Duties have included hydrologic and hydraulic analysis and design, erosion and sediment control plans, storm water management, field surveying, preparation of construction and as-built drawings, project specifications and preparation of various permit applications. Mr. Criniti also performs construction management, construction inspection, quality control testing, shop drawing review, project management, contract administration, and report preparation. He performs engineering calculations, studies, plans, reports and data analysis. Mr. Criniti assists in the coordinating of construction projects including conducting pre-bid, pre-construction and progress meetings, schedule review and pay request review and approval. He also assists in conducting interim and final inspections of construction projects to determine compliance with applicable laws, regulations, and specifications.

#### RELEVANT PROJECT EXPERIENCE

##### **WV BRIM Engineering Services, Various locations, WV**

As a Senior Engineer, Mr. Criniti conducted surface and subsurface investigations related to mining activities which included reviewing provided documentation, conducting site visits, and preparing a report of the observations. Mr. Criniti has been providing this service for WV BRIM for more than ten years.

##### **AEP SWPPP Inspections, Various Locations, WV & KY**

Mr. Criniti is the Senior Engineer for multiple stormwater pollution prevention plan (SWPPP) monitoring and inspection contracts for various project sites for AEP. Triad is responsible for inspecting the erosion and sediment controls at least once every four calendar days as well as within 24 hours after any storm event greater than 0.25 inch of rain per 24-hour period in accordance with the West Virginia NPDES General Storm Water Construction Permit. These inspections determine if the control measures have been installed correctly and within the required timeframes, whether damage has occurred to the measure after installation, and document what needs to be done to correct problems identified throughout the construction phase.

##### **AEP Substations, Various Locations, WV, KY and OH**

As Staff Engineering, Mr. Criniti provided engineering services for multiple substation projects for AEP. Triad performed civil/site design services including demolition, site layout, grading and drainage design as well as temporary erosion and sediment control. Triad provided required documents and submittals for permitting from appropriate agencies.

##### **APG Polytech Railyard Expansion Erosion & Sediment Control Inspections, Apple Grove, WV**

Triad was responsible for the stormwater pollution prevention plan (SWPPP) monitoring and inspection for the APG Polytech Railyard Expansion project. Mr. Criniti was responsible for the inspection of the erosion and sediment controls at leads once every seven calendar days as well as within 24 hours after any storm event equal to or greater than 0.25 inch of rain, in accordance with the West Virginia NPDES General Storm Water Construction Permit. These inspections determine if the control measures have been installed correctly

and within the required timeframes, whether damage has occurred to the measure after installation, and document what needs to be done to correct problems identified throughout the construction phase.

#### **Belle West Reynolds Avenue Sewer and Storm Sewer Improvements, Belle, WV**

The Town of Belle experiences excessive inflow/infiltration during wet weather events in the West Reynolds area of Town. Mr. Criniti, as Senior Engineer worked with the team to prepare plans, specifications, bid/contract documents, and for construction management. Triad also providing surveying, permitting, funding assistance and construction observation services.

#### **City National Bank – Construction Administration Services, WV**

This project consists of a statewide contract to provide construction administration services for City National Bank on bank loans for commercial construction projects. On this project Mr. Criniti is responsible for performing periodic job site inspections of work progress, reviewing contractor pay requests, monitoring project schedules as they pertain to percent completion and pay requests, and conducting periodic progress meetings.

#### **Crawley Creek Road – County Route 3 Slide, Logan County, WV**

Mr. Criniti worked on the Triad team that provided full civil engineering services including wall and roadway design for this landslide repair project on Crawley Creek/County Route 3, Logan County, West Virginia that caused the road to be reduced to one travel lane with alternating traffic. The services Triad provided consisted of surveying, drilling oversight, design, site grading, drainage and road repair. The design consisted of a retaining structure acceptable to WVDOH standards. Construction documents provided by Triad included existing conditions, site grading and drainage, erosion and sediment control, pertinent details, wall layout, wall profile and design calculations.

#### **Mason Campground Waterline Extension, Mason, WV**

The Town wished to use the remaining project contingency funds to extend the waterline service to the Clifton Campground and adjacent existing customers. The project involved boring under US62 and the CSX railroad. As Senior Engineer, Mr. Criniti worked with the team to design and obtain all applicable permits for the project. Triad provided construction management and observation for the project.

#### **Tolsia Athletic Fields, Fort Gay, West Virginia**

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the drainage design and permitting for this project. In this capacity he has to coordinate with the project architect, local municipalities, the WVDOH and the project developer. Work on this project included, utility routing, storm drainage design, storm water management design and preparation of WVDOH encroachment permit applications, health department permit application and NPDES permit application for handling surface water during construction. Mr. Criniti was responsible for performing construction administration on this project consisting of site inspections, pay application review and approval and construction schedule monitoring.

#### **US 52 – Maher Slide, Mingo County, WV**

This project consisted of the repair a landslide on US 52 near the town of Maher that caused the road to be reduced to one travel lane with alternating traffic. The work consisted of surveying, drilling oversight, and the design, site grading, drainage and road repair. Mr. Criniti was on the Triad team that provided full civil engineering services including roadway design for this project, which consisted of a retaining structure acceptable to WVDOH standards. Construction documents included existing conditions, site grading and drainage, erosion and sediment control, pertinent details, wall layout, wall profile and design calculations.

#### **US 52 – Stonecoal Slide, Wayne County, WV**

Mr. Criniti was on the Triad team that provided full civil engineering services including wall and roadway design for this landslide repair project on US 52 near the town of Stonecoal, Wayne County, West Virginia that caused the road to be reduced to one travel lane with alternating traffic. The services Triad provided consisted of surveying, drilling oversight, design, site grading, drainage and road repair. The design consisted of a retaining structure acceptable to WVDOH standards. Construction documents provided by Triad included existing conditions, site grading and drainage, erosion and sediment control, pertinent details, wall layout, wall profile and design calculations.

#### **WV 37 – Twelve Pole Creek Slide, Wayne County, WV**

This project consisted of the repair a landslide on US 52 near the town of Wayne that caused the road to be reduced to one travel lane with alternating traffic. The work consisted of surveying, drilling oversight, and the design, site grading, drainage and road repair. Mr. Criniti was on the Triad team that provided full civil engineering services including roadway design for this project, which consisted of a retaining structure acceptable to WVDOH standards. Construction documents included existing conditions, site grading and drainage, erosion and sediment control, pertinent details, wall layout, wall profile and design calculations.



#### EDUCATION

Marshall University, WV  
*BS (2012), Geology*

#### PROFESSIONAL EXPERIENCE

10 Years

#### Registration & Licenses

- WVDOH Aggregate Technician
- ACI Concrete Lab Testing Technician Level I
- ACI Aggregate Testing Technician Level I
- ACI Concrete Strength Testing Technician

#### HIGHLIGHTS OF EXPERIENCE

Mr. Morris works with our Geotechnical Department and manages the Laboratory in our Scott Depot, WV office. In this capacity, Mr. Morris's responsibilities include inspecting ongoing drilling projects. His drilling inspection responsibilities include coordination with the client, and logging soil and rock samples. He communicates and coordinates with the project engineers and the drillers to verify the work is being completed correctly. In the Lab, Mr. Morris performs multiple tests including standard and modified Proctors, sieve analyses, Atterberg limits, tri-axial compression, permeability and unconfined compressive strength tests. He also is responsible for overseeing lab testing done by others in our Scott Depot office.

#### RELEVANT PROJECT EXPERIENCE

##### **Blue Knob Complex AML, Barbour County, WV**

This project consisted of drilling 14 borings, providing boring logs that presented soil/rock descriptions, SPT results at ground water level, soil/rock layers and bedrock surface.

##### **Flatbush Highwall, Randolph County, WV**

Triad's duties included drilling 10 borings, soil drilling with Standard Penetration Testing & Sampling, Boring Access & Reclamation, observation of groundwater level and backfilled test borings.

##### **WVDEP Drilling for Northern Counties**

Duties of Triad included geotechnical, surface drilling, subsurface drilling, standard penetration testing and sampling and laboratory testing reporting for the geotechnical drilling investigation completed for WVDEP in the northern counties.

##### **WVDEP Drilling for Southern Counties**

Duties of Triad included geotechnical, surface drilling, subsurface drilling, standard penetration testing and sampling and laboratory testing reporting for the geotechnical drilling investigation completed for WVDEP in the southern counties.

##### **East Beckley Bypass, Beckley, West Virginia**

As a staff geologist, Mr. Morris was responsible for field coordination activities during geotechnical drilling for this WVDOH highway expansion and upgrade project in Raleigh County, WV. His duties also included logging and field classification of soil and rock samples. Mr. Morris also assisted in the preparation of engineering boring logs and report preparation.

##### **Dow Evergreen Project, Institute, West Virginia**

As a staff geologist, Mr. Morris was responsible for field coordination activities during geotechnical drilling for this chemical facility project in Institute, WV. His duties also included logging and field classification of soil and rock samples. Mr. Morris also assisted in the preparation of engineering boring logs and report preparation.

##### **Dingess Street Bridge, Logan, West Virginia**

As a staff geologist, Mr. Morris was responsible for field coordination activities during geotechnical drilling for this WVDOH bridge replacement and upgrade project in Logan, WV.

His duties also included logging and field classification of soil and rock samples. Mr. Morris also assisted in the preparation of engineering boring logs and report preparation.

**Special Metals Equipment and Building Expansion, Burnaugh, KY**

As a staff geologist, Mr. Morris was responsible for field coordination activities during geotechnical drilling for this steel manufacturing facility project in Burnaugh, KY. His duties also included logging and field classification of soil and rock samples. Mr. Morris also assisted in the preparation of engineering boring logs and report preparation.

**Bayer Crop Science West Sump SEP Project, Institute, WV**

As a staff geologist, Mr. Morris was responsible for field coordination activities during geotechnical drilling for the construction of a large concrete sump for the Bayer Crop Science facility Institute, WV. His duties also included logging and field classification of soil and rock samples. Mr. Morris also assisted in the preparation of engineering boring logs and report preparation.



**EDUCATION**

*Marshall University, WV*  
MS, Environmental Science,  
2017

*Marshall University, WV*  
BS, Safety Technology, 2015

**PROFESSIONAL EXPERIENCE**  
6 Years

**REGISTRATIONS & LICENSES**

- Graduate Safety Practitioner
- OSHA Construction Safety and Health: 30 Hr.
- OSHA 40 Hr. HAZWOPER
- WV Asbestos Building Inspector
- Licensed Remediation Specialist (LRS)
- Ohio Asbestos Management Planner

**SKILLS**

- Phase I & II Investigations
- NEPA
- Groundwater Remediation
- Asbestos Inspection

**HIGHLIGHTS OF EXPERIENCE**

Ms. Woods is currently a Staff Environmental Scientist with Triad's Scott Depot, West Virginia office. In this capacity she assists Project Managers with Phase I and Phase II Environmental Site Assessments, and soil and groundwater remediation projects. These activities include performing direct push investigations, subsurface soil and groundwater sampling, file reviews, site reconnaissance, data analysis, and report preparation. Along with being Triad's Staff Environmental Scientist, Ms. Woods is also Triad's Corporate Safety Manager.

**RELEVANT PROJECT EXPERIENCE**

**West Virginia High Technology Foundation Road Improvement (AML Project), Marion County, WV**

Ms. Woods performed an environmental assessment (EA) for the High Technology Foundation to extend the existing infrastructure in the I-79 Technology Park into an undeveloped phase. The road expansion will make industrial sized building pads available for offer to federal anchors. And the project area was documented as a known problem area on the federal website and AML Inventory System.

**Baltimore Gardens, Mineral County, WV**

Ms. Woods performed both a Phase I ESA and a NEPA Environmental Assessment (EA) for the construction of Baltimore Gardens, a 32-unit residential housing project on a 3.75-acre tract in Keyser, West Virginia.

**Black Diamond, Wayne County, WV**

Ms. Woods prepared an Environmental Narrative and checklist for the Black Diamond site in accordance with the National Environmental Policy Act (NEPA) and the U.S. Economic Development Administration (EDA). She also conducted site reconnaissance along with the NEPA EA review and provided an Environmental Narrative and Checklist.

**Elk View Development (HUD), Clarksburg, WV**

This project involved the construction of Glen Elk Apartments, a 36-unit rental housing project with on building containing rental units four stories in height. The site also included an office, tenant lobby, elevator, and on and off-street parking encompassing a 1.04-acre parcel. Ms. Woods performed a NEPA screening at the proposed site.

**Keith-Albee Performing Arts Center, Cabell County, WV**

Ms. Woods assisted in a Phase II ESA to evaluate the property and to provide technically sound data to determine whether hazardous substances or petroleum products were present. Vapor intrusion guidelines were also used to determine if residual environmental contamination was present. Ms. Woods also assisted in preparing an environmental review with an HTF Environmental Provisions checklist for the site in general accordance with the National Environmental Policy Act (NEPA).

**Lauryn Lane Gardens, Mason, Mason County, WV**

Ms. Woods performed both a Phase I ESA and a NEPA Environmental Assessment (EA) for the construction of Lauryn Lane Gardens, a 30-unit residential housing project on a 3.94-acre tract in Mason, West Virginia.

### **Nenni Building Revitalization, Mingo County, WV**

Ms. Woods assisted in performing a Phase I ESA and performed a NEPA Environmental Assessment (EA) for the rehabilitation of 3 structures comprising the Nenni Building in Matewan, West Virginia – Testerman Jewelry store, UMWA Meeting Hall/CE Lively's Building, and the Schaeffer Building. The building is located within the Mateway Historic District, a National Historic Landmark designation through the US Department of Interior, National Park Service.

### **Sunrise Gardens, Romney, West Virginia**

Ms. Woods assisted in performing Phase I ESA, Phase II ESA, and NEPA Environmental Assessment (EA) activities at the Sunrise Gardens property in Romney, West Virginia. During Phase I ESA activities, the vacant property was discovered to be located in a region of West Virginia that was historically used as apple orchards, leading to concerns of arsenic contamination and residential redevelopment. A Phase II investigation confirmed elevated levels of arsenic in the top layer of soil and a Soil Management Plan (SMP) was implemented for future construction activities. Due to anticipated federal funding for the redevelopment into low-income housing, Ms. Woods performed a required HUD NEPA EA.

### **Vickers Parke II Apartments (HUD), Kanawha County, WV**

This project involved the construction of Vickers Parke II Apartments, a 48-unit residential housing project located on a 3.94-acre tract in South Charleston, West Virginia. Ms. Woods performed a NEPA screening at the proposed site.

### **Brownfield Coalition Assessment – Queen Shoals Full Gospel Church, Clay/Kanawha County, WV**

Ms. Woods performed both a Phase I Environmental Site Assessment and an Asbestos Inspection of the former Queen Shoals Full Gospel Church that had been flooded during the 2016 Floods. The purpose of the studies was to identify potential economic development sites for the Advantage Valley Inc.

### **Hanover Substation, Wyoming County, WV**

Ms. Woods provided oversight for an AST cleaning of approximately 5,000 gallons of gasoline and approximately 5,000 gallons of diesel fuel that was vacuumed from the existing 10,000-gallon compartmented aboveground storage tank (AST). Each compartment was pressure cleaned and the filtered fuel was returned to the AST.

### **City of Huntington, Huntington, WV**

Ms. Woods assisted in the preparation of multiple Phase I Environmental Site Assessments for the City of Huntington utilizing USEPA Brownfield petroleum and hazardous assessment funding. Ms. Woods assessed 12 parcels as part of the City of Huntington's efforts on the Hal Greer Corridor Management Plan; 3 parcels along the 20th Street Corridor; and an additional 2 parcels along 14th Street West area to assist with redevelopment efforts. Specific tasks included site reconnaissance, asbestos inspection, records review, and report preparation.

### **Kanawha Manufacturing, Charleston, WV**

Ms. Woods assisted in Phase II ESA activities at the Kanawha Manufacturing facility on behalf of the West Virginia Department of Environmental Protection utilizing USEPA Brownfield assessment funding. The industrial facility had been operation since 1902, manufacturing and repairing equipment used to support coal, electrical power generation, and metal industries. Soil contamination was identified Site-wide during the investigation. Triad recommended the installation of groundwater monitoring wells and evaluating the human and ecological health risk of COC identified during the investigation.

### **The Point Industrial Park, Lawrence County, OH**

Ms. Woods assisted in providing asbestos remediation oversight services for The Point Industrial Park site. She also assisted in conducting inspections of the asbestos abatement contractor to validate the schedule and construction quantities.

### **Wayne County Economic Development Authority, Wayne County, WV**

Ms. Woods assisted in the preparation of various Phase I Environmental Site Assessments on behalf of the Wayne County Economic Development Authority utilizing USEPA Brownfield hazardous assessment grant funding. Work tasks included site reconnaissance, file reviews, data evaluation, and report preparation.



**EDUCATION**

Woodson School of Surveying

**PROFESSIONAL EXPERIENCE**

43 Years

**CERTIFICATIONS**

OSHA Certificate  
CADD Certificate

**REGISTRATIONS & LICENSES**

Professional Surveyor  
West Virginia #2117

**SKILLS**

FEMA Flood Surveys  
ALTA / NSPS Land Title  
Surveys  
Boundary  
Subdivision  
Construction Stake Out  
As-Build  
Bridge & Highways  
Industrial

**PROFESSIONAL AFFILIATIONS**

WV Association of Professional  
Surveyors

**HIGHLIGHTS OF EXPERIENCE**

Mr. Graham brings over 43 years of diverse surveying and construction management experience to the Triad team. He is responsible for all survey services provided in our northwest region. Mr. Graham has provided survey services to municipalities, residential, commercial and industrial developments and construction groups. His background includes experience as a Professional Surveyor, Field Engineer, Consultant, Construction Supervision, and Project Management.

**RELEVANT PROJECT EXPERIENCE**

**Wolf Run Mining Company, Philippi, WV**

Mr. Graham supervised his team in providing baseline control points above and mid-slope for the purpose of detecting any movement of a potential slide area. At the completion of established area control, slip monitoring procedures were created which included monitoring the site at specified intervals, providing photographic and video documentation, maintaining a chronological history of the area, and providing updated reports.

**Longwall Mining Subsidence Monitoring, Marshall County, WV**

As Survey Manager, Mr. Graham directed installation of strain gauges, field surveys, and daily monitoring services to assist in the monitoring of a transmission pipeline. Upon completion of initial baseline and consequent daily follow-up surveys, a report of data subsidence / consistency was completed and submitted.

**WVAML&R Davidson Highwall Project, Monongalia County, WV, 01-10-8179**

As Survey Manager, Mr. Graham was responsible for overseeing survey tasks for two reclamation sites. These tasks included recovery/validation of provided control points, flagging locations of temporary access roads, staking out limits of construction around work area, staking grades of manholes and outlets of discharge pipes, developing original ground cross sections, setting grade stakes, performing field run cross sections upon completion of regrading activities, plotting of cross sections and calculation/reporting of earthwork volumes. Deliverables included two sets of plotted cross sections and CAD drawing, and earthwork quantity reports.

**Lake Lynn Dam Monitoring, Monongalia County, WV, 01-20-0474**

As Survey Manager, Mr. Graham was responsible for required in order to monitor specific existing control monuments for the dam associated with Cheat Lake. Triad provided the client with an annual report for these specific monuments associated with potential dam movement involving the Lake Lynn Power Station.

**Ascension Street Slip Remediation, Harrison County, WV, 01-18-0417**

As Survey Manager, Mr. Graham was responsible for the oversight of the horizontal and vertical layout for this project. These services included construction stakeout services as required by contractor with offsets as requested, office data reduction, preparation and coordination. The client to provide Drawings in AUTOCAD format for computations and stakeout.

**Squires Creek Moats Portals and Refuse, Preston County, WV, 01-16-0375**

As Survey Manager, Mr. Graham had responsible oversight for services required to facilitate reclamation of this mine. This included limits of construction flagging, existing grade verification survey and cross sections and construction stakeout.





#### Education

State University of New York  
at Buffalo  
*BS, Civil Engineering*

#### Professional Experience

33 Years

#### Registrations and Licenses

- Professional Engineer -  
- Pennsylvania  
#PE04544E
- West Virginia #013515
- Maryland #22691
- Ohio #PE61912
- New York #75021

#### Affiliations

- ASCE
- SAME Pittsburgh

#### Skills Highlights

- Project Management
- Geotechnical  
Evaluations
- Energy Sector
- Slope / Stability
- Soils Classification
- Construction Materials  
Engineering & Testing

#### HIGHLIGHTS OF EXPERIENCE

Mr. David Hooper brings more than 30 years of geotechnical engineering and project management experience to Triad Engineering, Inc., where he leads engineering projects operations in North Central West Virginia and Western Pennsylvania along with Energy projects for all of Triad's Regional operations. Mr. Hooper's specialties include geotechnical engineering assessments and design for transportation, public works, energy, and other public and private projects, project and client management, and personnel leadership to ensure contractual, schedule and budgetary requirements are maintained.

#### RELEVANT PROJECT EXPERIENCE

##### **CNX Resources, Green Hills | Green County, PA**

Mr. Hooper completed a geotechnical exploration for the repair and remediation of a slide for CNX Resources. The existing soil materials at the site were soft in nature and exhibited poor strength characteristics. As a result, three options, along with advantages and disadvantages, were provided the client based on their risk consideration. Upon the option decision, construction recommendations were made.

##### **Cone Midstream Partners, Majorsville Station | Marshall County, WV**

Mr. Hooper was responsible for assessing two unstable slopes associated with the Compressor Station. One slip was material excavated during construction and was a material flow issue. The second slip was characterized by a crack with vertical displacement adjacent to the pipeline alignment. Mr. Hooper provided recommendations for remediation.

##### **Equinor, Long Ridge Road | Clarington, OH.**

Geotechnical Engineer perform analysis for stability for earthwork, retaining wall and drilled shaft stabilization solution. Prepared geotechnical exploration report and cost estimates for options developed.

##### **Pennsylvania Turnpike Commission | Scranton, PA**

Mr. Hooper was responsible for assessing an unstable soil slope for an embankment on the NE extension of the Pennsylvania Turnpike. Mr. Hooper's responsibilities included performing site reconnaissance, stability analyses of existing slopes and viable remedial alternatives, engineering cost analysis, and reporting.

##### **New Jersey Transit, River LINE | Trenton, New Jersey**

Mr. Hooper performed peer evaluation of failure investigation, slope analysis, design remediation and construction of this failed slope which closed the rail line and caused distress in the structure above the slide. He was responsible for geotechnical and structural review of design and repair by the design building engineer.

##### **Pennsylvania Department of Transportation, I-279 | Pittsburgh, PA**

Mr. Hooper performed exploration/remediation design for several small landslides along the I-279 expressway. Responsibilities included planning/monitoring the subsurface exploration and laboratory testing programs, performing geotechnical analysis and report preparation. Remedial designs included the use of rock buttresses, lightweight fill and regrading.



#### EDUCATION

*West Virginia University, BS,  
Civil Engineering*

#### PROFESSIONAL EXPERIENCE

22 Years

#### REGISTRATIONS & LICENSES

- PE #15062 West Virginia
- PE #59438 Maryland
- PE #93472 Pennsylvania
- PE #65135 Virginia

#### SKILLS

- Local, State and Federal Permitting Experience
- Storm Water Management Plans
- Water Quality Control and Water Quality
- Storm Drainage System Analysis
- Floodplain Hydrology and Hydraulic Studies
- Detailed Grading Plans
- Roadway Design
- Erosion and Sediment Control Plans

#### HIGHLIGHTS OF EXPERIENCE

Mr. Iser is currently a Project Engineer in the Civil Engineering Department. In this capacity, he is responsible for the design and layout of residential, institutional, commercial, industrial, roadway, utility, and water resource projects. These include the following facets of design and layout: storm water management plans, water quantity control and water quality through Environmental Sensitive Design Best Management Practices, storm drainage system analysis, detailed grading plans, erosion sediment control plans, sanitary sewer systems design and plans, water distribution and service design and plans, landscape plans, dam remediation plans, roadway engineering and construction design and plans, permitting through local, state and federal agencies, and land planning. Not only is he responsible for the designs but also for working with the client, attending public meetings, and processing the plans through the review agencies to obtain final approvals for permitting.

#### RELEVANT PROJECT EXPERIENCE

##### **Upshur Pond 27, Upshur County, WV**

As Lead Design Engineer, Mr. Iser assumed a pivotal role in overseeing the evaluation of as-built drawings for Wet Seal Ponds. Tasked with ensuring the completeness and alignment of these drawings with the initially proposed design, he meticulously reviewed every detail. Through comprehensive assessments and meticulous measurements, Mr. Iser validated the accuracy of the as-built work. These efforts culminated in providing MR-13 certification, demonstrating his ability to ensure compliance with stringent industry standards and deliver accurate certifications.

##### **Sawmill Wet Seal, Upshur County, WV**

As the Lead Design Engineer, Mr. Iser assumed the primary responsibility for evaluating the completeness and alignment of as-built drawings for Wet Seal Ponds. This task involved a meticulous comparison of the as-built drawings with the proposed design, ensuring accuracy and adherence to project specifications. He successfully facilitated the validation process by conducting comprehensive assessments and measurements. As a result of his efforts, Mr. Iser provided MR-13 certification, demonstrating his proficiency in certifying that the project's execution aligns with industry standards and design intents.

##### **Upshur Site As-Built, Upshur County, WV**

As the Lead Design Engineer, Mr. Iser held responsibility for overseeing and executing the evaluation of As-Built Drainage Ditches and Pond Embankments for Pond 24 & 19 as part of Stormwater Management (SWM) projects. This critical task involved meticulous examination, assessment, and measurement of the drainage ditches and pond embankments. His successful completion of this evaluation culminated in providing MR-13 certification, underscoring my proficiency in ensuring compliance with regulatory standards and delivering certified solutions.



**EDUCATION**

*Marshall University, WV*  
BS, Environmental Science,  
2001

**PROFESSIONAL EXPERIENCE**  
22 Years

**REGISTRATIONS & LICENSES**

- Licensed Remediation Specialist, No. 269, West Virginia
- Monitoring Well Driller Certification, No. WV00400, West Virginia
- OSHA HAZWOPER 40 Hour Training/8 Hour Update (current)
- OSHA 8 Hour Supervisor Certification

**SKILLS**

- Due Diligence
- CERCLA
- Hazard Ranking System (HRS)
- Environmental Assessments

**HIGHLIGHTS OF EXPERIENCE**

Ms. Metz is currently the Environmental Services Manager and Senior Environmental Scientist at the Scott Depot office of Triad. Ms. Metz is responsible for the personnel management of the Environmental Services Group as well as the technical quality and management control of all Environmental projects in the southwest region. Additionally, Ms. Metz is a Licensed Remediation Specialist (LRS) and performs a variety of tasks for sites in the West Virginia Voluntary Remediation Program (VRP).

**RELEVANT PROJECT EXPERIENCE**

**Artistic Cleaners Phase I & II ESAs, Huntington, WV**

As Environmental Services Manager and LRS, responsible for oversight of Phase I & Phase II ESAs and asbestos inspection at the Artistic Cleaners site located in Huntington, WV utilizing the City of Huntington Hazardous Brownfields Assessment grant funding.

**Baltimore Gardens, Mineral County, WV**

As the Environmental Department Manager, Ms. Metz was responsible for the oversight of the project which consisted of a Phase I ESA and a NEPA Environmental Assessment (EA) for the construction of Baltimore Gardens, a 32-unit residential housing project on a 3.75-acre tract in Keyser, West Virginia.

**Beaver County Emergency Services (FCC), Beaver County, PA**

As the Environmental Department Manager, Ms. Metz was responsible for the oversight of the project which consisted of a NEPA screening at the proposed Beaver County Emergency Services tower site, which is a 150-foot tall, self-supportive structure. The review revealed that the construction and operation of a wireless telecommunications antenna at the project site would have no effect on the quality of the human environment.

**Black Diamond, Wayne County, WV**

As the Environmental Department Manager, Ms. Metz was responsible for the oversight of the project which consisted of an Environmental Narrative and checklist for the Black Diamond site in accordance with the National Environmental Policy Act (NEPA) and the U.S. Economic Development Administration (EDA). She also conducted site reconnaissance along with the NEPA EA review and provided an Environmental Narrative and Checklist.

**Former Dairy Mart, Terra Alta, WV**

As Senior Scientist and LRS, responsible for performing characterization and remediation activities at the gasoline station under the WV LUST/UECA Program. Additional tasks included groundwater monitoring well installation, risk evaluation, site specific land use covenant (LUC) and area-wide groundwater use restriction.

**Kanawha Manufacturing, Charleston, WV**

As Senior Scientist and LRS, responsible for performing characterization and remediation activities at 100+ year manufacturing facility under the WV VRP. Tasks

included VRP Application and Agreement preparation, Sampling and Analysis Work Plan (SAWP) generation, monitoring well installation and multi-media sampling.

#### **Lauryn Lane Gardens, Mason, Mason County, WV**

As the Environmental Department Manager, Ms. Metz was responsible for the oversight of the project which consisted of a Phase I ESA and a NEPA Environmental Assessment (EA) for the construction of Lauryn Lane Gardens, a 30-unit residential housing project on a 3.94-acre tract in Mason, West Virginia.

#### **Nenni Building Revitalization, Mingo County, WV**

As the Environmental Department Manager, Ms. Metz was responsible for the oversight of the project which consisted of a Phase I ESA and a NEPA Environmental Assessment (EA) for the rehabilitation of 3 structures comprising the Nenni Building in Matewan, West Virginia – Testerman Jewelry store, UMWA Meeting Hall/CE Lively's Building, and the Schaeffer Building. The building is located within the Mateway Historic District, a National Historic Landmark designation through the US Department of Interior, National Park Service.

#### **Prichard Building, Cabell County, WV**

As the Environmental Department Manager, Ms. Metz was responsible for the oversight of the project which consisted of an Environmental Review (ER) with HTF Environmental Provisions checklist for the site in accordance with the National Environmental Policy (NEPA) and the U.S. Department of Housing and Urban Development (HUD) guidelines for the preparation of a NEPA environmental Review with the HTF Environmental Provisions. Those provisions included site reconnaissance, NEPA Environmental Review along with the required submittal process and ER checklist.

#### **Sunrise Gardens, Romney, West Virginia**

As the Environmental Department Manager, Ms. Metz was responsible for the oversight of the project which consisted of a Phase I ESA, Phase II ESA, and NEPA Environmental Assessment (EA) activities at the Sunrise Gardens property in Romney, West Virginia. During Phase I ESA activities, the vacant property was discovered to be located in a region of West Virginia that was historically used as apple orchards, leading to concerns of arsenic contamination and residential redevelopment. A Phase II investigation confirmed elevated levels of arsenic in the top layer of soil and a Soil Management Plan (SMP) was implemented for future construction activities. Due to anticipated federal funding for the redevelopment into low-income housing, Ms. Woods performed a required HUD NEPA EA.

#### **West Virginia Department of Environmental Protection, Multiple Locations, WV**

As Senior Scientist and Program Manager, responsible for performing various assessment tasks at USEPA Superfund sites throughout West Virginia. Tasks have included performing Preliminary Assessments, Site Inspections, Combined Preliminary Assessment/Site Inspections, Expanded Site Inspection, and Site Inspection Reassessments under CERCLA. Specific tasks have included performing regulatory file reviews, site reconnaissance's, Hazard Ranking System (HRS) site scoring using USEPA software, USEPA Contract Laboratory Program (CLP) data management using USEPA software, providing electronic laboratory data deliverables for the WVDEP in EQUIS® data management format, Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) generation, field sampling, and report preparation. These tasks have been performed at over 50 Superfund sites throughout West Virginia.

#### **West Virginia Department of Environmental Protection, Charleston, WV**

As Program Manager, implemented the WVDEP Statewide Hazardous Brownfield Assessment Grant program. Tasks include preparing site assessment work plans, acting as liaison between WVDEP and USEPA, conducting Phase I ESAs, conducting Phase II ESAs, preparing reports, reporting status to WVDEP and USEPA, monitoring budgets, managing field activities, and managing community outreach.



**EDUCATION**

West Virginia State College

**PROFESSIONAL EXPERIENCE**

32 Years

**REGISTRATIONS & LICENSES**

- WVDOH Certifies Tech Training Classes – Compaction, Aggregate, Portland Cement and Bituminous Concrete
- Troxler 8 Hour Nuke Safety and Operation
- Troxler Radiation Safety Officer Training
- 40 OSHA Training
- MSHA Impoundment Inspector Training ACI Training and Classes
- USACOE – Contractor QC Training
- WVDOT/DOH Compaction Inspector
- WVDOT/DOH Portland Cement Inspector
- WVDOT/DOH Aggregate Inspector
- WVDOT/DOH Bituminous Inspector
- ACI – Grade I Field Tech
- ACI – Grade I Lab Tech

**HIGHLIGHTS OF EXPERIENCE**

Mr. Hope is currently the Field Services Manager for the Scott Depot office of Triad. In this capacity he oversees the field staff, by handling calls from technicians on technical matters, staffing and scheduling and serving as the branch Radiation Safety Officer. Mr. Hope also keeps all records of inspections and calibrations. He assigns new jobs and lab work and writes Quality Control (QC) plans. Mr. Hope's duties include the completion and/or review and submission of required field reports for clients and owners.

**RELEVANT PROJECT EXPERIENCE**

**Meigs Mine Closure, Langsville, WV**

Triad's duties included the field-testing services for the closure of the Meigs Mine including subgrade stripping, compacted fill and backfill, and cast-in-place concrete. Triad also provided laboratory testing services for concrete and soil samples.

**Quinwood Coal Refuse Testing, Leivsay, WV**

Triad was responsible for compaction testing of the coal refuse materials, quarterly testing of in-place nuclear moisture-density testing, laboratory testing and moisture content testing services.

**Multiple Slip Repairs, Various, WV**

These projects consist of the repairs of slips in various locations throughout WV consisting of drilled pile and concrete lagging retaining walls. Mr. Hope provided overall project oversight and management as well as QC testing and inspection on these projects.

**Endocrine Disruptor Study, Potomac, Ohio, Monongahela and Kanawha Rivers**

Duties included the Sampling and Collection of raw river water to be tested by EPA and WV DEP for Endocrine Disruptors. The labeling and shipping of the samples to the testing labs. Photographic locations for the report and document river levels and clarity.

**Various AEP Station, West Virginia, Kentucky, and Ohio**

Duties included construction observation and testing/sampling, including Testing and Sampling of site concrete, including installation of reinforcing steel placement, concrete sampling and placement; gabion basket installation; and laboratory testing.

**Coalfields Expressway QAM**

This project consisted of the quality assurance management of a portion of WV Rt. 10 from the Mullens to County Rt. 12/1 in Wyoming County, WV. Mr. Hope provided overall project oversight and management for this project.

**Commerce Park and West Pea Ridge Bridges, Huntington, West Virginia**

Duties included the sampling and testing of all classes of WVDOH concrete. Testing and monitoring of lift thicknesses of fills and backfills. The collection of aggregate samples.

**Georgia Pacific Plant, Mount Hope, West Virginia**

Duties included Testing and Sampling of all concrete. Testing and monitoring lift thickness of tills. Collection of new proctor samples when material changes occurred. Utilization of an onsite lab to cure and break the test cylinders at proper intervals. Reporting of all information.

## REGISTRATIONS & LICENSES (CONT.)

- 40 OSHA HAZWAPER Certification
- MSHA –Certified Impoundment Inspector
- MSHA –Above Ground Hazard Trained
- US Army COE – Construction QC Manager for Contractors
- PCI Level I and II
- F-Number Measurement/Floor flatness
- Pervious Concrete Technician
- Licensed Asbestos Inspector, WV
- WVTRET, Level III
- SWPPP Certified

### **Hawks Nest Hydro Dam Improvements, Fayette County, WV**

This project consists of the installation of rock anchors to improve the overall stability of the dam structure. Mr. Hope provided overall project management and hands on QC testing for this project.

### **I-64 Widening Cross Lanes to Dunbar, WV**

This project consisted of the widening of I-64 to accommodate 3 lanes on each side. Mr. Hope provided overall project oversight and management as well as QC testing and inspection on these projects.

### **I-64 Widening Mud River to 29<sup>th</sup> Street, Barboursville WV**

This project consisted of the widening of I-64 to accommodate 3 lanes on each side. Mr. Hope provided overall project oversight and management as well as QC testing and inspection on these projects.

### **Kanawha Boulevard Bike Path, Charleston, WV**

This project consisted of the addition of a bike path and new ADA sidewalks and Ramps. Mr. Hope provided overall project oversight and management as well as QC testing and inspection on these projects.

### **King's Daughter Medical Center Addition, Ashland, Kentucky**

Duties included the Testing and Inspection of auger cast pile foundation installation. Testing and Sampling of site concrete.

### **Marshall University Football Stadium, Huntington, WV**

Duties included the Testing and Sampling of site concrete. Testing of utility line backfill for compaction. The testing of structural steel and light foundation connections for proper bolt torque.

### **Marshall University Pharmacy School and Student Housing Project, Huntington, WV**

This project consisted of the new construction of a Pharmacy School and Student Housing for Marshall University. This project was performed under the P3 delivery method. Mr. Hope provided overall quality control project management and hands on testing for this project.

### **Moisture Intrusion Project-WV State Capitol Complex Dome, Charleston, WV**

This project consists the replacement of the inside materials of the Dome due to moisture intrusion. Mr. Hope provided overall management and oversight of this high-profile WV project.

### **Robert C. Byrd Locks and Dam, Apple Grove, West Virginia**

Duties included site concrete Testing and Sampling. The testing of fill placement by sandcone method. Collection and determination of usability of site fill materials. Utilized onsite lab for gradation/sieve analysis.

### **Route 10 Overpass Overlay, Chapmanville, West Virginia**

Duties included the sampling and testing of the latex modified concrete for the overlay. Including the making of chloride perm samples.

### **Shadle Bridge, Pt. Pleasant, WV**

This project consisted of the construction of a bridge replacement in Mason County, WV. Mr. Hope provided overall project oversight and management as well as QC testing and inspection on these projects.



#### EDUCATION

West Virginia Institute of  
Technology  
*BS, Mechanical Engineering*  
*BS, Civil Engineering*

#### PROFESSIONAL EXPERIENCE

32 Years

#### CERTIFICATIONS

- Certified Monitoring Well  
Installer (WV #00225)

#### REGISTRATIONS & LICENSES

- Professional Engineer,  
West Virginia #016859
- Professional Engineer,  
Maryland #50585

#### SKILLS

- Managing Multiple Drill Crews
- Organizing drills, crews, and  
supplies for drilling projects
- Design of Subsurface  
Explorations
- Approval of Design Drawings
- Proposals
- Drilling Inspection
- Geotechnical Analysis &  
Reporting
- Geotechnical Engineering and  
Drilling Cost Estimating and Bid  
Preparation

#### HIGHLIGHTS OF EXPERIENCE

Mr. Haynes serves as the Senior Drilling Manager for Triad's drilling operations when he manages all drilling and sampling activities conducted by the firm's regional offices. Mr. Haynes previously served as a Project Geotechnical Engineer. Mr. Haynes' duties include design and implementation of the subsurface investigations, assignment of laboratory testing, approval of design drawings, development of technical specifications, and preparation of drilling and geotechnical engineering cost proposals and reports.

#### RELEVANT PROJECT EXPERIENCE

##### **WV Department of Environmental Protection Drilling for Northern Counties**

Triad was responsible for providing geotechnical investigation on these various projects to assist in the construction reclamation for these abandoned mine line projects. Triad's duties included geotechnical, surface drilling, subsurface drilling, standard penetration testing and sampling and laboratory testing reporting for the geotechnical drilling investigation completed for WVDEP in the northern counties.

##### **WV Department of Environmental Protection Drilling for Southern Counties**

Triad was responsible for providing geotechnical investigation on these various projects to assist in the construction reclamation for these abandoned mine line projects. Triad's duties included geotechnical, surface drilling, subsurface drilling, standard penetration testing and sampling and laboratory testing reporting for the geotechnical drilling investigation completed for WVDEP in the southern counties.

##### **Blue Knob Complex AML, Barbour County, WV**

This project consisted of drilling 14 borings, providing boring logs that presented soil/rock descriptions, SPT results at ground water level, soil/rock layers and bedrock surface.

##### **Cenalli Impoundment, Barbour County, WV**

The project consists of the construction of an impoundment with an approximate total volume of 10.2 million gallons, located in Barbour County, WV. We understand that the impoundment will be used as a centralized pit for the storage of water used in development of natural gas wells. Mr. Haynes provided drilling supervision and oversight during the subsurface investigation portion of the project. The subsurface investigation consisted of drilling 4 test borings to depths ranging from 30 to 40 ft. beneath the existing ground surface. Standard Penetration Testing and rock coring was performed at each location.

##### **Flatbush Highwall, Randolph County, WV**

Triad's duties included drilling 10 borings, soil drilling with Standard Penetration Testing & Sampling, Boring Access & Reclamation, observation of groundwater level and backfilled test borings.

##### **Morris Impoundment, Doddridge County, WV**

The project consists of the construction of an impoundment for the construction of a secondary containment system for a centralized water storage tank in Doddridge County, WV to be used in development of natural gas wells. Mr. Haynes provided drilling supervision and oversight during the subsurface investigation portion of the project. The subsurface investigation consisted of drilling 7 test borings to depths ranging from 16.5 to 45 ft. beneath the existing ground surface. Standard Penetration Testing was performed at each location and rock coring was performed at select borings.

### **Appalachian Corridor "H", Tucker and Grant County, WV**

As a Staff Geotechnical Engineer, Mr. Haynes worked closely with the field inspectors during the subsurface investigation phase by helping make decisions concerning boring locations, depths, and subsurface descriptions. He entered boring logs, assigned laboratory testing, and prepared geological stick bar borings to be placed on the project cross sections. Mr. Haynes also designed cut and fill slopes, performed slope stability analysis on critical embankment fills, estimated shrink/swell factors for excavated materials, and tabulated probable sources of select embankment for these sections of the Corridor. He compiled all information into a final geotechnical roadway report, including the three bridges in this section. Bridge reports provided foundation recommendations and bearing capacity computations for each of the bridge abutments and piers.

### **Coalfields Expressway, Sophia, WV**

As a Project Geotechnical Engineer on this project, Mr. Haynes initially developed a boring layout based on the project cross-sections provided by the client. He also worked with field inspectors during the subsurface investigation to design cut and fill slopes, perform settlement calculations for embankment fills, estimate shrink/swell factors for excavated materials, and tabulate probable sources of select embankment. After the original subsurface investigation and geotechnical report was completed, WVDOT decided to extend the project 800 ft. to balance borrow and waste. Mr. Haynes then developed a recall boring list to continue the project.

### **Corridor H Drilling-Kerens to Parsons, Section 2, Tucker County, WV**

The project consists of the geotechnical drilling for a 3.69-mile section of a 4 lane Expressway which extends from Interstate 79 near Weston, WV east to the Virginia state line near Wardensville, WV. Mr. Haynes was the project manager for this project which consisted of 166 Borings for a total drilling footage of 10,616 feet. This project was extremely difficult due to the extremely steep terrain and strict environmental requirements.

### **Corridor H Drilling-Kerens to Parsons, Section 1B, Randolph, Tucker County, WV**

The project consists of the geotechnical drilling for a 5.62-mile section of a 4 lane Expressway which extends from Interstate 79 near Weston, WV east to the Virginia state line near Wardensville, WV. Mr. Haynes was the project manager for this project which consisted of 272 Borings for a total drilling footage of 15,757 feet. This project was extremely difficult due to the extremely steep terrain and strict environmental requirements.

### **Ohio University Southern Center for Development, Athens, OH**

Mr. Haynes worked with drill teams from Triad during the subsurface investigation phase of this project, and then prepared computer-generated borings logs and assigned laboratory testing. From this, he prepared a geotechnical report including foundation recommendations, allowable bearing capacities, and estimated settlements.

### **St. Mary's Hospital, Huntington, WV**

Mr. Haynes escorted Triad's drillers to this project site and staked the test borings utilizing measurements from existing site features. Following the subsurface investigation, Mr. Haynes then prepared a geotechnical report including foundation recommendations, allowable bearing capacities, and estimated settlements.

### **West Virginia Route 9, Jefferson and Berkeley County, WV**

As a Staff Geotechnical Engineer on the first section of this project, Mr. Haynes worked as the Lead Inspector in the field during the subsurface investigation by logging soil and rock from bore holes, keeping track of drill rigs, and aiding other inspectors. He designed cut and fill slopes, performed slope stability analysis on critical embankment fills, performed settlement calculations for embankment fills, estimated shrink/swell factors for excavated materials, and tabulated probable sources of select embankment.

### **WV Statewide Geotechnical Drilling IDIQ, Various Locations, WV**

This project consists of an as-needed, on-call 1-to-2-year contract for providing geotechnical drilling to the West Virginia Division of Highways. Triad has maintained this contract since 1998 and Mr. Haynes has managed the contract since 2012. Recent projects have included water borings (offshore drilling) for the I-64 Nitro, St. Albans, Bridge and borings for several bridge replacements in various locations in Berkeley and Hampshire Counties, WV.

### **Western Juvenile Detention Center, Barboursville, WV**

As a Project Engineer, Mr. Haynes developed and implemented the subsurface investigation for this detention facility. His responsibilities included coordination with our in-house survey department, determination of access for drill rig and equipment, and supervision of all field work.





#### EDUCATION

*A.S. Land Surveying, Glenville State College*

*B.A., History, West Virginia University*

*B.S., Mining Engineering, West Virginia University*

#### REGISTRATIONS & LICENSES

- West Virginia Professional Surveyor #2405
- Tennessee Registered Land Surveyor #3143
- Kentucky Professional Land Surveyor #4313
- Pennsylvania Professional Land Surveyor #SU075651
- Maryland Professional Land Surveyor #22011
- West Virginia Engineer Intern #10335
- FAA Remote Pilot

#### TECHNICAL COMPUTER SKILLS

- ADOBE ACROBAT
- PIX4D
- ARCGIS
- AUTOCAD WITH CARLSON CIVIL SITE

#### HIGHLIGHTS OF EXPERIENCE

As the manager of Triad Engineering's surveying department in Morgantown, West Virginia, Mr. Brockett leads a team of experienced geospatial professionals while leveraging his technical skills to support and achieve the continuous goals of safety, efficiency, accuracy, and client satisfaction. His diverse range of past project work has encompassed many aspects of surveying for both private and public clients. In addition to his other responsibilities, Mr. Brockett has engaged in hydrologic analysis, easement negotiations with project stakeholders, and management of traffic monitoring data collection. During his 5+ years of experience as a surveyor, Mr. Brockett has demonstrated proficiency with boundary surveys for private homeowners, commercial ALTA surveys, topographic surveys, right-of-way alignment surveys, and construction layout surveys.

#### RELEVANT PROJECT EXPERIENCE

##### **Unmanned Aerial Photogrammetry, Numerous Locations in OH, PA and WV**

Mr. Brockett collected topographic survey data by means of an unmanned aerial vehicle. He set ground control targets, operated a small UAV as an FAA-certificated remote pilot, ensured compliance with applicable regulations and laws, established appropriate ground control points with conventional instrumentation and/or GPS equipment, operated equipment with a strong emphasis on public safety, performed quality assurance on captured images, and processed images to produce orthographic mosaic photographs and three-dimensional models.

##### **U.S. Army Corps of Engineers (Youghiogheny River Lake Recreation Area), Confluence, PA**

Mr. Brockett oversees on-call construction layout surveying services. This includes proposed grades, features, and/or structures. At the request and direction of the client, Triad's surveying personnel mark the proposed limits-of-disturbance/work, the site grading, and the project baseline. Triad also conducts pre- and post-construction surveys of embankment areas as directed by the Client.

##### **Friends-of-Decker's-Creek (Gamble Hollow), Preston County, WV**

Mr. Brockett oversaw actual field-run survey of a proposed easement area for an acid-mine drainage treatment system. The limits of the easement area were defined on the basis of electronic design files provided to Triad by the client. Triad located existing boundary corner monuments identified on a plat of survey by a third-party. The existing monuments were referenced to the proposed easement area for the purpose of defining its extents. Additional existing features within the area of interest were located, as necessary, to more fully describe the proposed easement. Permanent physical monuments were placed at the corners of the proposed easement area. A plat of the proposed easement area and an accompanying legal description was prepared.

### **Longview WWTS Survey Services, Madsville, WV**

Mr. Brockett was responsible for the conduct of a field run survey to create an existing conditions survey drawing to assist in the layout of a water water treatment system at Longview Power Plant. Proposed grades, structures, column lines, utilities and other features were marked with a combination of wooden stakes, hubs-and-tacks, nails, and other acceptable markers for construction layout. A post-construction survey was conducted to create as-built mapping of the final product.

### **Leer South D2-D3 Powerline Survey, Phillippi, WV**

Mr. Brockett was responsible for oversight of construction stakeout of a proposed powerline for a bleeder shaft site. The client and technician determined structure locations from field evaluations. Proposed structure and overhead line location mapping was provided after field reconnaissance. Powerline existing condition exhibits need to be created when crossing roadways or other overhead powerline right of ways to determine the safest route.

### **Leer South 2022 Quarterly Drone Surveys, Phillippi, WV**

Mr. Brockett is responsible for collection of quarterly topographic survey data of coarse coal refuse piles and an impoundment by means of an unmanned aerial vehicle. This field data is used to generate orthographic mosaic photographs and three-dimensional models for comparison. These models are used to create existing conditions plans, calculate quarterly site fill volumes, and cross sections to show project progress of each fill location.

### **Mt. Storm Anchor Bolts As-Builts, Mt. Storm, WV**

Mr. Brockett was responsible for the conduct of a field run as-built survey of approximately six hundred installed anchor bolts at the Mount Storm Power Station. Triad then utilized the as-built survey data gathered to make redline drawings that indicate the relative dimension of the installed anchor bolts for comparison and created a coordinate file summary for each measured point.

### **Leer South Mine Office Pond Soundings, Phillippi, WV**

Mr. Brockett was responsible for the conduct of a field run topographic survey of a pond behind Leer South Mine offices. Soundings of the base of the pond were to be collected in order to contour the bottom surface and to draw pond cross sections. Survey locations of the surrounding area were taken to generate contours, create an existing centerline profile of the pond, and profile of the embankment. Surface features to be included were the pond dam, spillway, embankment, streams, springs feeding the pond, nearby parking lot, and utilities. Storm calculations were also performed to determine if the existing spillway outlet pipe would handle potential rainfall events without breaching the emergency spillway.



#### EDUCATION

West Virginia Institute of  
Technology, WV  
AS, Mining Engineering  
Technology, 1987

#### PROFESSIONAL EXPERIENCE

22 Years

#### REGISTRATIONS & LICENSES

- Licensed Professional Surveyor – WV# 2247 & NC # L-3941
- FEMA Certified Flood Plain Surveyor – NC #139
- OSHA 10

#### SKILLS

- Construction Layout
- Boundary Subdivision
- Right of Way Plans
- Photogrammetric Control
- Mine Surveying
- Topographic Location

#### PROFESSIONAL AFFILIATIONS

- WV Society of Professional Surveyors
- NC Society of Professional Surveyors
- National Society of Professional Surveyors

#### HIGHLIGHTS OF EXPERIENCE

Mr. Kirk is currently the Survey Manager for the Scott Depot office of TRIAD. In this capacity, he is responsible for the supervision of the survey crews, overseeing the field work through drafting to the finished product delivered to the client, meeting with clients, and performing field work on large and complex projects. Mr. Kirk is experienced in construction layout, boundary and roadwork surveying, photogrammetric and topographic surveying. He has supervised and/or performed survey work on various types of work including surface mine surveying for coal mine facilities, site surveys and construction layout for landfill facilities, site surveys and right of way plans for WVDOH and NCDOT highway projects, and site surveys and construction layout for site development projects. Mr. Kirk has been involved in survey projects in several states including West Virginia, Kentucky, Ohio, Virginia, South Carolina and North Carolina.

In his capacity, he is responsible for schedules, project budgets, and the overall coordination of all survey projects. He works with all levels of engineering staff, the overall project team, and the project owner to produce a quality work product which satisfies all project requirements.

#### RELEVANT PROJECT EXPERIENCE

##### Winter Portals AML Surveying, Winter, WV

Triad provided construction surveying support services to Wiseman Excavating for this WV Department of Environmental Protection Abandoned Mine Lands project near Winter, WV. Mr. Kirk was the lead surveyor and project manager for the project and provided horizontal positioning, alignment staking, grade staking, and related professional surveying services to include pre- and post-construction topo location surveys in support of construction.

##### Various AEP Projects, WV

Mr. Kirk acted as the lead Project Manager and Lead Surveyor for several Appalachian Power projects, providing whatever surveying-related services were required. Mr. Kirk conducted on-site field operations to establish working survey control for the construction site, established a best-fit alignment of existing mooring cells for computations to provide layout and positioning of the proposed breasting system to be installed on the existing mooring cells at the coal and/or limestone unloading dock. For some projects, Mr. Kirk provided over-all site grade staking and off-set grade and alignment staking of the proposed storm drainage pipe and end-sections. Mr. Kirk conducted field and office survey operations to provide layout for the installation of caissons and anchor bolt alignment for construction of new transmission towers. Mr. Kirk provided horizontal and vertical positioning, grade and alignment staking, general layout, and location survey services per client needs and direction to support construction efforts associated with the installation of a TECCO Mesh slope stabilization system.

##### Goff Mountain Landfill – Goff Creek Stream Restoration, Nitro, WV

Mr. Kirk was the project manager and lead surveyor for this project with CJ Hughes Construction Company to restore Goff Creek in the Bayer CropScience Goff Mountain Landfill. Services provided by Triad included construction staking and as-built survey services.

### **Bluestone Park Fishing Pier Construction Staking and Layout, Bluefield, WV**

This project consisted of the construction of the Bluestone Park Fishing Pier for the US Army Corp of Engineers project. Mr. Krik was the lead surveyor and project manager for this project, providing drilled-pier foundation layout, and anchor bolt positioning. Triad staked the centerline of the proposed foundations to facilitate drilling operations. In addition, Triad provided positioning and alignment of the proposed anchor bolts by client-provided template placement in coordination with the concrete pour.

### **Bridges Christian Church FEMA Elevation Certificate, Russel, KY**

This project consisted of the presentation of a FEMA Elevation Certificate for each existing structure onsite for the Bridges Christian Church in Russell, KY. Triad conducted field operations to determine the adjacent grade elevations at the exterior building corners and finished-floor elevation of the existing structures.

### **Capitol Complex Steam Distribution Line Replacement Surveying, Charleston, WV**

This project consisted of the replacement of the existing steam distribution line servicing the WV State Capitol building and several other Capitol Complex buildings. Triad provided a complete topographic location survey, including subsurface utilities location and finished floor elevations of the subject buildings to ZDS Design/Consulting Services.

### **Dingess Street Bridge, Logan WV**

This project consisted of the replacement of the Dingess Street Bridge in Logan, WV. Mr. Kirk was the project manager and lead surveyor for this project which entailed generating an existing conditions survey of the existing bridge, approaches and affected roadway areas.

### **Kenney Hamrick Sr. Memorial Bridge, Webster County, WV**

This project consisted of the replacement of the existing bridge. Mr. Kirk was the project manager and lead surveyor for this project which entailed generating an existing conditions and topographic survey of the existing bridge, approaches and affected roadway areas, stream cross sections and R.O.W. surveys.

### **Ona Mall I-64 Bridge, Cabell County, WV**

This project will eventually consist of the widening of I-64 in the area of the Ona Mall, which will affect the I-64 Bridge in this area. Mr. Kirk was the project manager on this project. Survey work on this project consisted of mapping existing conditions and a topographic-location survey of the bridge and surrounding area.

### **Pendleton – Pocahontas County ADA Ramps, Pendleton and Pocahontas Counties, WV**

This project consisted of the installation of ADA compliant curb ramps at various locations along US 33 and US 220 in Franklin, Pendleton County and WV 39 and CO 39/2 in Marlinton, Pocahontas County, WV. As the project manager and lead surveyor, Mr. Kirk provided base mapping of 64 ramp locations, extending 25 feet on either side of the existing crosswalk along the existing sidewalk, and from the existing edge of pavement/gutter to the back of the sidewalk, throughout the project site.

### **Rt. 10 Roadway, Man, WV**

Mr. Kirk was the project manager and lead surveyor on this project which consisted of providing a localized GPS control network to support machine guidance construction efforts for the realignment of WV State Route 10 near Logan, WV.

### **US Methanol Liberty Plant Structural Deformation Monitoring, Institute, WV**

Mr. Kirk was the project manager and lead surveyor for this project. US Methanol had concerns about the possible movement of structural members associated with the Liberty methanol manufacturing plant. Triad conducted field and office survey operations to determine 3-dimensional locations and provided the information to the client for their use in evaluation of the potential deformation and movement of the structures.

### **WV Turnpike Pavement Reconstruction Survey and Mapping, Mercer County, WV**

Triad provided professional surveying and mapping services to HNTB Corporation in support of design and engineering efforts related to the replacement of a section of failing pavement in the northbound lanes of the WV Turnpike (US 77) in Mercer County, WV between the northern abutments of the Bluestone River Bridge for approximately 1.4 miles of roadway. As the project manager and lead surveyor, Mr. Kirk coordinated with Blue Mountain Aerial Mapping to provide planimetric and topographic mapping of the site, including placing and locating the aerial target control network.



#### EDUCATION

West Virginia University,  
Bachelor of Science,  
Geology, 2016

#### PROFESSIONAL EXPERIENCE

6 Years

#### REGISTRATIONS & LICENSES

PG005601 Pennsylvania

#### CERTIFICATES

- PennDOT  
Certified Drilling  
Inspector #472-20
- MSHA Surface Miner  
Training
- Class 32 Safety  
Sensitive Personnel
- OSHA 10-Hour Hazard  
Recognition Training
- CONSOL Hazard  
Training
- SafeLand USA Training

#### PUBLICATIONS

- Roadside Geology of  
West Virginia, Mountain  
Press Publishing  
Company, 2018

## HIGHLIGHTS OF EXPERIENCE

Ms. af Rolén is a geologist experienced in all phases of field investigations from geotechnical drilling coordination and inspection, soil and rock core logging, geological mapping, slope stability analysis and landslide remediation, mine subsidence investigations, piezometer installation, and environmental site assessments. She is well versed in preparing geotechnical reports, boring logs, and laboratory sample data. Maria was a substantial contributor to the publication Roadside Geology of West Virginia.

## RELEVANT PROJECT EXPERIENCE / GEOTECHNICAL

**Mine Subsidence Investigations, WV.** *West Virginia Bureau of Risk Insurance Management.* Geologist. Research past coal mining activities within the project area to determine if deep mining has been conducted within influence of the damaged structure and is responsible for damage. Responsibilities include, project coordination, site visit and damage assessment, site investigation, geotechnical drilling oversight, logging and interpretation of rock core, report development and remediation recommendations. Completed approximately 17 projects in various locations throughout West Virginia.

**Environmental Well Pad Inspections in West Virginia, Pennsylvania, and Ohio.** *EQT Corporation.* Geologist. Inspection and mapping of numerous well pads across West Virginia, Pennsylvania, and Ohio for preparation of Spill Prevention, Control, and Countermeasure (SPCC) Plans.

**Yost #6 Well Pad Slip Area, Greene County, Pennsylvania.** *Diversified Gas and Oil.* Geologist. Remediation design of the slope failure which occurred on the reclaimed site of a vertical well pad. Responsibilities included performing site reconnaissance, test boring inspection, logging of subsurface conditions, selection of samples for laboratory analysis, stability analyses of existing slopes and viable remedial alternatives, and reporting.

**4 North No. 1 Portal, Greene County, Pennsylvania.** *The Monongalia County Coal Company.* Geologist. Slope stability and fill embankment analyses for construction of a coal mine portal. Responsibilities included performing site reconnaissance, test boring and test pit inspection, logging of subsurface conditions, selection of samples for laboratory analysis, slope stability analysis, preparation of design and construction recommendations, and reporting.

**Proposed Coal Mine, Elizabeth, Pennsylvania.** *Navigator Environmental & Technical Services.* Geologist. Design of proposed coal mine. Responsibilities included performing site reconnaissance, test boring inspection, logging of subsurface conditions, selection of samples for laboratory analysis, preparation of design and construction recommendations, and reporting.

**Westridge Pad 4B-1 Geotechnical Study, Morgantown, West Virginia.** *Falcon Consulting.* Geologist. Design of mixed used development on a reclaimed abandoned mine site. Responsibilities included performing site reconnaissance, test boring inspection, logging of subsurface conditions, selection of samples for laboratory analysis, foundation recommendations, and reporting.



**EDUCATION**

*Morehead State, KY*  
BS, Geology, 1986

**PROFESSIONAL EXPERIENCE**

36Years

**REGISTRATIONS & LICENSES**

- Licensed Remediation Specialist, No. 233
- Monitoring Well Driller Certification, No. WV00405, West Virginia
- Monitoring Well Driller Certification, No. 0311-0401-00, Kentucky
- OSHA HAZWOPER 40 Hour Training
- OSHA HAZWOPER 8 Hour Update (Current)
- West Virginia UST Worker Class B
- West Virginia UST Class A/B Operator Training

**SKILLS**

- Designing and Implementing Technical Investigations
- Underground Storage Tanks
- Installation Direct Push Technology
- Sampling and Analysis Plans

**HIGHLIGHTS OF EXPERIENCE**

Mr. Wright is currently a Project Geologist-Licensed Remediation Specialist (LRS) with Triad's Scott Depot, West Virginia office. In this capacity, he is responsible for designing and implementing environmental investigations and remedial actions. Work scopes include Phase I and II, Brownfields, Voluntary Remediation Program (VRP), Uniform Environmental Covenants Act (UECA), Leaking Underground Storage Tank (LUST), and Superfund environmental site assessments. Assessment activities include logging of soil borings and installation of groundwater monitoring, as well as collection of soil, groundwater, soil vapor, surface water, and sediment samples. In addition, Mr. Wright develops sampling and analysis plans, evaluates environmental and hydrogeological data, and prepares reports and documents.

**RELEVANT PROJECT EXPERIENCE**

**Ashland Branded Marketing, Inc., Ohio, Kentucky and West Virginia**

As Project Manager, supervised underground storage tank (UST) system removals and closure activities at 10-20 sites. Removed and cleaned USTs at each site. Excavated and disposed of any contaminated soils and completed site restoration activities. Installed groundwater monitoring wells, collected soil and groundwater samples and prepared site assessment reports.

**American Electric Power, Cabin Creek Substation, WV**

As Project Geologist, performed quarterly sampling of groundwater monitoring wells as part of the ongoing remediation of the property. As the LRS, prepared the LUST/UECA Application, Agreement, Sampling and Analysis Plan, Site Characterization Report, and Remedial Action Work Plan.

**Bayer Crop Science, Institute, WV**

As a Project Geologist, performed environmental assessment that included advancement of soil borings and collection of soil samples in personal protective equipment (PPE) level B.

**Cabinet Suppliers, Inc., Huntington, WV**

As an LRS, prepared the VRP Sampling and Analysis Plan. Conducted the site assessment which included monitoring well installation, soil, soil vapor, and groundwater sampling. Conducted LNAPL transmissivity tests and product recovery.

**Columbia Gas Transmission Corp., Various States**

Project Manager on a natural gas transmission project that characterized and remediated several sites contaminated by PCBs, and/or pipeline liquids. Also served as field activities coordinator and characterization team member. Additional duties included client relations, field cost accounting, field equipment/supplies management, site health and safety and QA/QC of final reports. As a direct push technology rig operator, collected soil and groundwater samples during performance of environmental site assessments at compressor stations, production facilities, and decommissioned facilities.

**Chevron USA, Inc., KY and WV**

As Project Manager, responsible for LUST assessment and remediation at 10-20 operating retail and bulk petroleum facilities. Tasks included installation of groundwater monitoring wells, quarterly groundwater sampling, LNAPL collection, conducting environmental site assessments, installation of remediation systems. Prepared scopes of work and post estimates and prepared various reports for submittal to the proper state regulatory agency.

**Dominion Transmission, Inc., Hastings, WV**

As an LRS, prepared the VRP Application and Sampling and Analysis Plan. Conducted the site assessment which included monitoring well installation, soil, groundwater, sediment and surface water sampling. Prepared the Site Characterization Report and Remedial Action Work Plan and provided guidance for LNAPL recovery.

**Dominion Transmission, Inc., Lochney, WV**

As an LRS, prepared the VRP Application and Sampling and Analysis Plan. Conducted the site assessment which included monitoring well installation, soil, groundwater, sediment and surface water sampling. Prepared the Site Characterization Report and Remedial Action Work Plan.

**Dow Chemical Corporation, Charleston, WV**

As a direct push technology rig operator, collected soil, groundwater and soil vapor samples during performance of environmental site assessments at production facilities, landfills and decommissioned facilities.

**Estes Express, Charleston, WV**

As an LRS, prepared the LUST/UECA Application, Agreement and Sampling and Analysis Plan. Conducted the site assessment which included monitoring well installation, soil, and groundwater sampling.

**Green Oak Corporation, Charleston, WV**

As a LRS, prepared the LUST/UECA Application, Agreement and Sampling and Analysis Plan, Remedial Action Work Plan and Final Report. Conducted the site assessment which included monitoring well installation, soil, soil vapor and groundwater sampling. Conducted LNAPL recovery. Conducted vapor mitigation of storm water sewer system.

**Super America/Speedway, Inc., Various States**

As a direct push technology rig operator collected soil, groundwater and vapor sampling during performance of environmental site assessments. As Project Manager, responsible for LUST assessment and remediation at 10-20 operating retail and bulk petroleum facilities. Tasks included installation of groundwater monitoring wells, quarterly groundwater sampling, LNAPL collection, conducting environmental site assessments, installation of remediation systems. Also prepared scope of work and cost estimates and prepared reports for submittal to the proper state regulatory agency.

**US Methanol, Institute, WV**

As Project Geologist, performed an environmental assessment that included advancement of over 500 soil borings, collection of soil, groundwater, and ambient air samples; and waste characterization sampling. In addition, prepared a screening program for air monitoring during construction activities.

**West Virginia Department of Environmental Protection, South Charleston, WV**

As a direct push technology rig operator collected soil and sediment samples during performance of an environmental site assessment at an abandoned landfill.

**West Virginia Division of Highways, Mineral Wells, WV**

As an LRS, prepared the LUST/UECA Application, Agreement and Sampling and Analysis Plan. Conducted site assessment which included monitoring well installation, soil, groundwater, sediment and soil vapor sampling. Prepared Site Characterization Report, Remedial Action Work Plan, and Final Report. Oversaw removal of contaminated soil.

**West Virginia Division of Highways, Nitro, WV**

As a LRS, prepared the Sampling and Analysis Plan. Conducted the site assessment which included monitoring well installation, soil, groundwater, sediment and soil vapor sampling. Prepared the Site Assessment Report. Conducted LNAPL monitoring and recovery.

**West Virginia Division of Highways, Various Sites Throughout WV**

As a LRS, prepared Site Characterization Reports, Remedial Action Work Plans, Final Reports, Land Use Covenants for petroleum contaminated VRP and UECA sites. As a Project Geologist, conducted oversight of UST removals and prepared closure assessment reports.

**West Virginia Division of Highways, Various Sites Throughout WV**

As a Project Geologist, conducted oversight of UST removals and prepared closure assessment reports.

# Armando F. Benincasa

*Member*

Charleston, WV  
armando.benincasa@steptoe-johnson.com  
(304) 353-8147



## **Biography**

Armando Benincasa combines state agency experience, a real-world business perspective, and a deep understanding of complex environmental issues in a practice focused on energy and environmental law, environmental litigation, administrative law, government affairs, and lobbying. He manages cases involving permitting and regulatory requirements for natural resources, including coal, oil, and gas, solid waste, water resources, underground storage tanks, voluntary remediation, and the drafting of rules and statutes related to the environment. He has extensive experience in governmental matters, as well as in representing energy companies before state agencies and the West Virginia Legislature.

## **Representative Experience**

- Negotiated orders with multiple Appalachian regulatory agencies on behalf of client regarding status of oil and gas wells
- Represented energy companies with regard to permitting and compliance issues before state and federal regulators and boards, including multi-media Clean Air Act and Clean Water Act enforcement actions
- Represented energy companies, including coal and oil and gas clients, in performance of due diligence related to potential past, current, and future environmental liabilities, including review of compliance status, permitting and other regulatory issues related to transactions



- Represented production and midstream energy companies with regard to the negotiation and resolution of federal environmental claims pursuant to the Clean Water Act
- Represented production and midstream energy companies with regard to the negotiation and resolution of state air quality, water, and waste environmental claims pursuant to various state acts in Appalachia
- Represented energy, regulatory, and municipal clients with regard to permitting, enforcement and administrative matters before environmental agencies and boards in Appalachia, including claims regarding well contamination, permit issuance, permit terms and conditions, and permit/asset transfers

### **Licensed In**

- Pennsylvania
- Virginia
- West Virginia

### **Education**

- J.D. University of Virginia School of Law
- B.A. Washington and Lee University

### **Memberships**

- Water Environment Association
- Board of Directors, Air & Waste Management Association
- Past Chair, Environment Committee, West Virginia Chamber of Commerce
- Independent Petroleum Association of America
- West Virginia Oil & Natural Gas Association
- Marcellus Shale Coalition
- Energy & Mineral Law Foundation
- The Foundation for Natural Resources and Energy Law

## **Achievements**

- The Best Lawyers in America®, Energy Law (2011-Present), Energy Regulatory Law (2016-Present), Environmental Law (2011-Present), Litigation – Environmental (2011-Present), Natural resources Law (2013-Present), Oil and Gas Law (2012-Present), Water Law (2008-Present)
- Best Lawyers® 2016 Charleston, WV, Water Law, Lawyer of the Year
- Best Lawyers® 2013 Charleston, West Virginia Lawyer of the Year
- The State Journal, West Virginia’s Top Lawyers 2008

## **Speaking Engagements**

- “EPA Releases Draft Oil & Gas Wastewater Management Study,” Oil & Gas E-Report, Institute for Energy Law, Issue 3, September 2019
- “The Marcellus Shale: Challenges for Tomorrow,” Law360, April, 2009
- “Marcellus Shale and Water Resources: Use, Regulation and Unintended Consequences,” 2008, 3rd Mineral Law Conference (EMLF)

# Brian D. Gallagher

*Executive Committee / Member*

Morgantown, WV

[brian.gallagher@steptoe-johnson.com](mailto:brian.gallagher@steptoe-johnson.com)

(304) 598-8106



## **Biography**

Rarely does a commercial or residential development project happen in North Central West Virginia without Brian Gallagher being consulted for guidance, advice, and connections. Clients appreciate Brian's ability to bring resources and people to the table that reduce roadblocks and red tape, to help them get projects done efficiently. Brian helps clients develop commercial, recreational, industrial, and residential properties ranging from single-project sites to large, multi-tenant, mixed-use developments. Beyond helping clients with development projects, he is often called upon to help clients form entities, buy and sell assets, secure operating and expansion capital, and take advantage of tax incentives.

## **Representative Experience**

- Represented a real estate developer in all aspects of the development of a 1,100-acre mixed-use development including acquisition, conventional and public financing, acquisition of public grants and tax incentives, environmental remediation, construction, zoning and land use, state and federal and local environmental permitting, sales and ground leasing and build to suit leasing
- Represented a real estate developer in negotiating a joint venture agreement for a retail development involving multiple national retailers, national restaurant chains, and local retailers
- Represented an international manufacturing company with 20 locations operating in seven (7) states and four (4) countries with the sale of the stock of the company to an international

investment banking company

- General counsel for a regional privately owned company with over one hundred twenty (120) facilities. Work includes all aspects of the acquisition of sites, construction, financing, operations, negotiation of franchise agreements, supply chain contracts, leasing, dispositions, and general corporate governance.
- Represented a lender for construction and permanent financing credit facility for aquatic and track and field facility for use by major Division 1 University and by the community
- Represented a real estate developer in all aspects of the development and leasing of a one thousand five hundred (1,500) bed student housing project
- Represented a real estate developer in the acquisition of a championship golf course, leasing to a Division 1 University, encumbering the golf course with a conservation easement and ultimate charitable contribution of the golf course to the University
- Represented a real estate developer in the acquisition, re-development, and operation of an industrial park that was a former superfund site

## **Licensed In**

- West Virginia

## **Education**

- J.D. West Virginia University College of Law
- B.S. West Virginia University

## **Memberships**

- Former Member, Board of Directors, Morgantown Area Chamber of Commerce
- Former Member, Board of Directors, United Way of Monongalia/Preston County
- Former Member, Board of Directors, Wes Mon Youth Association
- Board Member, Holy Pursuits Dream Foundation

## **Achievements**

- *Chambers USA: America's Leading Lawyers for Business* – Real Estate (2022 -Present)
- The Best Lawyers in America®, Construction Law (2015-Present), Corporate Law (2021-Present), Real Estate Law (2007-Present), Venture Capital Law (2011-Present)
- Best Lawyers® 2020 Morgantown, WV Real Estate Law, Lawyer of the Year
- Super Lawyers® 2009

# Appendix D: Project Descriptions

## Atlas Technical Consultants, LLC

### APPENDIX D – RELEVANT PROJECT EXPERIENCE

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Atlas' West Virginia office is located at **125 Granville Square in Morgantown, West Virginia**. This office location allows Atlas to serve the majority of West Virginia's environmental, geological, and engineering needs, while also offering assistance to Western PA and Eastern / Southeastern Ohio markets. The office also provides easy communication with the WV Department of Environmental Protection, Department of Homeland Security, and many other WV-based agencies. Our project summaries below entail the type and location of each project, Atlas' key contact information, and the project goals and objectives and how they were met.

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#### **Superfund Site – Operations and Maintenance of Remediation System – Vienna, West Virginia - West Virginia Department of Environmental Protection - Atlas contact: Mait Walker; 440 262 2383**

Atlas has been responsible since April 2021 for the routine operation and maintenance (O&M) of a complex remediation system, located in Vienna, West Virginia (Site). This superfund project was initiated in 2005 to address Tetrachloroethene (PCE) present in the groundwater across the city. The Site's remediation system includes an air sparge (AS) system, a soil vapor extraction (SVE) system, and a groundwater (GW) pump and treat system to remove VOCs from the groundwater and vadose zone. To accomplish this, the site is currently remediated by two distinct systems, Treatment System (TU) 1 and TU3. The remedial goal for this site is the continued operation of both TU1 and TU3, as well as providing remedial improvement recommendations, when feasible, for both systems. Additional responsibilities are discussed in subsequent sections.

Included in the O&M responsibilities for the Site are weekly site visits to ensure proper working order of the system, to collect measured data points (pressure values, temperatures, flow rates, etc.), and to keep the site in good working order. Upon review of the weekly data, as well as review of additional data collected, such as semi-annual groundwater sampling, monthly influent and effluent air sampling, and total hours run, Atlas supplied various improvement recommendations for ensuring proper system operation, to prevent plume migration, and to maintain the overall effectiveness of the system. These improvements ranged from selection of additional monitoring wells for GW analysis to improvements to the air sparge cycles to maximize efficiency of the system. Monthly, quarterly, and semi-annual O&M responsibilities, including equipment inspections, repairs, etc. were also completed to maintain consistent system operations.

Atlas was additionally responsible for the generation of weekly, monthly, quarterly, and semi-annual O&M reports, detailing O&M activities completed at the Site during that timeframe, any deficiencies noted in the normal operations of the system, additional recommended improvements to the remedial system, and a comprehensive assessment of PCE removed from both air and groundwater during each quarter.

Atlas performed this work with a cost-effective mindset, ensuring the DEP was aware of what recommendations were priority for the operation of the remedial system. Atlas also worked with the DEP to efficiently complete groundwater gauging, sampling, and extraction events, as well as other system improvement work, such as AS/SVE line continuity evaluations, compressor repair/replacement cost comparisons, and supplemental figure generation to support ongoing discussions with the USEPA.

AutoCAD work for this project included generation of site maps, showing important treatment unit features, the shallow and intermediate / deep groundwater monitoring network, plume migration, and isoconcentration maps.

Due to the location of the treatment system adjacent to an urban residential area, an important aspect of the project is maintaining and fostering positive relationship with the surrounding community by ensuring the remediation system is operated in a safe and responsible manner, maintaining the cleanliness of the Site, and ensuring an open line of communication is available for concerned citizens to contact.

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# PROJECT DESCRIPTIONS

## **UECA Site Assessment and Remediation – Retail Petroleum Distribution Facility – Confidential Client - Ripley, West Virginia – Atlas contact: Kenneth Pasterak, PG, LRS; 412 337 8621**

Atlas was retained to conduct site assessment, baseline human health and ecological risk assessment, and remedial planning/implementation in response to a gasoline release from a UST system at an active retail petroleum distribution operation, pursuant to the WVDEP UECA program. Soil, groundwater, surface water and soil vapor were investigated, the extent of petroleum hydrocarbons were delineated, vapor intrusion to indoor air was evaluated, and a conceptual site model was developed. Off-site impacts were delineated following third-party property access agreement execution. A UECA LUST Agreement identifying a cost effective and feasible path to closure was developed and executed by WVDEP and the Client. A monitored natural attenuation approach with pathway elimination was selected as the remedy, and groundwater attainment monitoring is on-going.

## **UECA Program #18009 / WV DEP Leak # 89-013 / WVID #2002425 – Retail Petroleum Distribution Facility – Confidential Client - Glasgow, West Virginia – Atlas contact: Kenneth Pasterak, PG, LRS; 412 337 8621**

The former Kayo/Jet Convenience Store property, U.S. Route 60 East, Glasgow, Kanawha County, West Virginia operated as a retail petroleum facility and convenience store until 1989. Currently the Site is a vacant, inactive property that is situated on a terrace elevated approximately 50 feet above the Kanawha River. A release was discovered in February 1989 during manual tank gauging and gasoline was subsequently observed seeping into the Kanawha River, located approximately 130 feet south of the Site. A hole was noted in the super grade unleaded gasoline UST and all USTs at the Site were removed in June 1989. The Site was originally reported to the West Virginia Leaking Underground Storage Tank (WV LUST) program in February 1989 when the release was discovered. The client addressed on- and off-site contamination that resulted from the February 1989 release of unleaded gasoline.

Historical Site assessment activities in the form of monitoring well installation and soil and groundwater sampling were conducted from April 1989 through November 2008 and December 2010 through December 2011 [I don't know if ATC was the consultant back then]. In 2016, the client proposed to enter into a Remediation Agreement with the WVDEP, which was finalized in 2019 [(ATC) Atlas was the consultant]. A final RAWP was proposed in July 2020 to complete corrective actions for on and off-site impacts via land use restrictions and natural attenuation. The final land use covenant was issued in 2022.

## **North Central Regional Jail – Monthly Wastewater Sampling – West Union, West Virginia - West Virginia Department of Homeland Security - Atlas contact: Mait Walker; 440 262 2383**

Since February 2023, Atlas has been responsible for the monthly wastewater sampling at the North Central Region Jail (NCRJ), located at 1 Lois Lane Drive in West Union, West Virginia (Site). This Site utilizes a composite sampler to collect representative samples over a 24-hour period from the waste stream leaving the Site, before it enters the local Publicly Owned Treatment Works (POTW). These samples are collected according to relevant sampling and handling methods, and immediately kept on ice for delivery to a WV-approved laboratory.

Once the analytical lab report is received, Atlas compares the results against the Site's discharge limits and completes the electronic discharge monitoring report (eDMR) and submits it to WV's online database, on behalf of the NCRJ. A summary report is generated each month and sent to both the Site representative and the Homeland Security representative. Any deficiencies noted during the sampling event or any issues with the analytical report are discussed at this time.

## **AST Emergency Discharge Efforts– Lookout, West Virginia - West Virginia Department of Environmental Protection - Atlas contact: Mait Walker; 440 262 2383**

In early February 2023, an above-ground storage tank (AST) was overfilled during normal operations. Approximately 400 gallons of diesel fuel flowed out of the AST and into the secondary containment for the AST. This secondary containment was later determined to be deficient, and the fuel escaped the containment, impacting soils across the site. The fuel made its way into a nearby drainage swale and eventually into a catch basin that feeds an off-site pond. Said pond feeds into an unnamed tributary, which eventually runs into Keeney Creek. A sheen was initially observed impacting the pond and flowing towards the unnamed tributary.



# PROJECT DESCRIPTIONS

Atlas's objectives at this site included characterization of the soils to determine the overall extent of impact, to remediate impacted on-site soils, and to maintain oil adsorbent booms used in the pond on a weekly basis. Atlas characterized and arranged for disposal of the used booms in accordance with all applicable local, state and federal regulations.

Atlas was also responsible for completing a Wetland Delineation Report for the site, prior to beginning remediation, as the impacted site triggered wetland protection regulations. Atlas also submitted a summary report to the DEP, detailing the specific site incident summary, emergency actions taken, remedial measures implemented, and final site conditions. Atlas also coordinated the removal and disposal of all impacted soils at the Site.

## **Emergency Discharge Efforts – Saulsville, West Virginia - West Virginia Department of Environmental Protection - Atlas contact: Mait Walker; 440 262 2383**

In September 2022, an unleaded gasoline trailer truck was overturned along West Virginia Route 97, releasing between 700 and 1,200 gallons of unleaded gasoline. The released gasoline was contained around the spill location, impacting soils in an approximate 54 feet by 8 feet area. Atlas was then contracted to perform site characterization and soil sampling, to facilitate soil removal and Site clean-up.

Atlas performed a non-intrusive geophysical survey of the area using a ground penetrating radar and cable location tools to assess the impacted area for any underground utilities. Once underground utilities were located and appropriately marked, Atlas oversaw the removal of approximately 17.75 tons of impacted soils from the Site. The excavation efforts were guided by the combined use of a hand-held field PID and visual and olfactory characterization. During excavation, Atlas screened all soils for relative PID readings, and performed confirmatory soil sampling once the extent of the excavation was fully realized in a particular direction. All soil samples were collected according to applicable guidance documents and regulations, and all samples were kept on ice and under proper CoC procedures during delivery to a WV-approved laboratory for analysis. Following all excavation activities, the impacted areas were backfilled with #57 stone, according to all applicable regulations and procedures.

Atlas submitted an Incident Summary Report to the DEP, detailing the specific site incident, emergency actions taken, remedial measures implemented, and final site conditions.

## **Foundation Settlement Investigation – Fairmont, West Virginia - Retail Restaurant - Atlas contact: Mait Walker; 440 262 2383**

Atlas was retained to investigate the cause of interior floor slab cracking and settlement for a retail restaurant located in Fairmont, WV restaurant in July 2022. After an initial site visit, Atlas identified additional issues around the site including differential movement observed at the ceiling line of internal walls, settlement of the parking lot around existing catch basins, and reoccurring issues with exterior doors.

Atlas completed a review of historical documentation, including site civil and architectural plans, pre-construction designs, Phase I ESA, and Phase II Site Investigations, geotechnical reports, etc. Atlas then recommended and completed additional geotechnical exploration activities, including advancement of borings along the exterior of the building and a limited hand-cleared boring in the interior of the store. Atlas also performed video scoping efforts in the adjacent storm line for visible evidence of movement or structural failure.

After collection of data from the newly advanced borings, Atlas performed a settlement analysis based on data pulled from said borings and subsurface conditions noted across the site. This analysis was included in a limited geotechnical report, offering additional monitoring and remediation options through grout injections. Included in this report were observations regarding the subsurface conditions and possible soil compaction issues related to the observed settlement of the existing building.



# PROJECT DESCRIPTIONS

## **Geotechnical Investigation, Phase I ESA and ACM Survey – Weirton, West Virginia – Retail Store - Atlas contact: Mait Walker; 440 262 2383**

Atlas was contracted by a retail store in September 2022 to perform a geotechnical investigation, Phase I ESA and ACM Survey of an existing building for a proposed new building and adjacent parking lot for Dollar General Corporation. Atlas's objectives at this site were to obtain subsurface data to provide geotechnical recommendations for the above-mentioned planned site development. To accomplish this, Atlas oversaw the drilling of soil test borings to evaluate subsurface soils, performed laboratory analysis of collected soils, and the delivery of the geotechnical engineering report to the client.

Atlas oversaw the advancement of eleven test soil borings across the site, which were advanced to varying depths at auger refusal. All soil samples collected during these advancements were collected in accordance with all applicable standards and regulations and were analysed in an accredited PA soils lab. The results of the soil samples were used, in conjunction with soil boring information, to develop foundation, retaining wall, and pavement recommendations for the proposed store. Additional construction recommendations, including general surface conditions, design recommendations, and additional laboratory investigations, were included in the final construction report. Atlas is currently pursuing the construction monitoring and oversight work with the client.

Phase I investigation included a review of all applicable site documents, including previous owners and any underground storage tanks and utilities. The ACM survey was conducted, in accordance with all applicable regulations and procedures, including ASTM E1527-21, to assess potential impacts to health and safety of the construction crew during final construction activities.

## **Snow Hill Reclamation Project - Vigo County, Indiana - Atlas contact: Sendhil Kumar, PE; 317 579 4010**

The Snow Hill Reclamation Project site, located just north of Terre Haute, included two (2) previously reclaimed coal refuse hills that are separated by North Coal Creek. Despite the previous reclamation efforts, North Coal Creek remained significantly impacted by acid mine drainage (AMD) and discharged considerable acidity and metal loads to its receiving water bodies, Coal Creek and the Wabash River.

Quarterly surface water quality and flow data was obtained at various locations throughout the site over a year period to identify the intensity of the water quality problems at the site and to conduct a feasibility analysis to evaluate potential AMD treatment alternatives. In general, the feasibility analysis concluded that 1) the water quality had degraded to the extent that typical AMD treatment options were neither feasible nor cost effective and 2) there appeared to be a considerable AMD load entering North Coal Creek through groundwater flow through the reclaimed coal refuse hills.

In response, a hydrogeologic evaluation of the site was conducted to evaluate methods of preventing AMD generation at the site. The hydrogeologic evaluation included:

- Installing groundwater monitoring wells throughout the site to obtain groundwater quality and elevation data;
- Identifying groundwater elevations and flow paths in relation to acid-producing coal refuse;
- Estimating the horizontal and vertical extent of coal refuse;
- Evaluating the potential for use of the coal refuse as a fuel source;
- Estimating surface water flow through the site, as well as the portions of surface water flow that result from groundwater and infiltration through the reclaimed coal refuse hills.

The hydrogeologic evaluation generated the following significant conclusions:

- Surface water flows increased by about 40 gpm to 60 gpm through the Snow Hill project site and this increase could primarily be attributed to groundwater discharge to North Coal Creek.
- Groundwater discharge to North Coal Creek was estimated at ~ 50 gpm, with about 60% attributed to vertical infiltration through the two (2) reclaimed hills and about 40% attributed to horizontal groundwater flow through the reclaimed hills.
- Groundwater levels within the reclaimed hills did not decrease during an extended drought period, indicating groundwater base flows of upgradient horizontal flow sources into the project area.

# PROJECT DESCRIPTIONS

- A bedrock dip is present below the South Hill, with coal refuse being present below the base of North Coal Creek. Therefore, upstream groundwater flow and surface water flow could recharge the low-lying coal refuse in the South Hill.
- The summary report concluded that installing a geomembrane cap over the coal refuse (i.e., eliminating vertical infiltration into the reclaimed hills) could reduce about 63% of the AMD generated at the project site and eliminating horizontal groundwater flow into the reclaimed hills could reduce about 37% of the AMD generated at the project site.

The project then transitioned into the preliminary and final design phase to determine construction feasibility and costs associated with alternatives to reduce infiltration and/or horizontal groundwater flow into the reclaimed hills, and to develop construction drawings and specifications for the reclamation plan preferred by the Indiana Department of Natural Resources – Division of Reclamation (DOR).

The final design ultimately included capping the two (2) coal refuse hills with a geomembrane cap to prevent infiltration, stabilizing and improving stormwater runoff elements and a three-stage oxidation and sediment pond system near the downstream portion of the project.

## **Yankeetown Landslide Correction Project- Newburgh, Indiana - Atlas contact: Sendhil Kumar, PE; 317 579 4010**

A significant landslide had formed at an Abandoned Mine Lands (AML) site near Newburgh, Indiana. A house was reportedly constructed at the top of a hill above Old State Road 66 in about 2015. A portion of the top of the hill was cut to develop a relatively flat area to construct the house. A driveway was also cut into the hillside to provide access to the house. It is likely that fill may have been placed on the hillside as a result of cutting for the house and driveway.

Based upon available coal mine mapping as well as the results of test borings indicating the presence of voids in the underlying coal seam, it appears that the areas beneath the house and possibly beneath a portion of the slide area were undermined. Evidence of a drift mine opening reportedly exists east of the slide area.

The current slide is estimated to be about 65 ft to 70 ft from the crown of the main scarp to the toe and is estimated to be about 280 ft wide and about 285 ft laterally from the head of the main scarp to the toe of the slide at Old State Road 66. The current main scarp (head scarp) appears to be about 15 ft to 20 ft deep and is located just south of the existing house.

Atlas is currently developing reclamation alternatives to remove displaced soil, install surface and subsurface drainage systems designed to maintain an inundated underground mine, and redevelop a stable project area. The project will likely include an anoxic limestone drain (ALD), or at least an area for future installation, in order to treat reduced, low aluminum acid mine drainage that seeps from the underground mine.

## **Ash Storage Area Closure – Edwardsport, Indiana - Atlas contact: Sendhil Kumar, PE; 317 579 4010**

The site is a former coal-fired power generation station that operated from approximately 1918 to 2011. The station was decommissioned and demolished in 2012. Prior to 1974, coal ash was deposited in several ash storage areas near an adjacent river. These ash storage areas encompass approximately 25 acres, much of which has been developed to some extent and contain critical infrastructure such as active power lines and poles, underground utilities, and other structures.

Based on previous experience and expertise in site evaluation, restoration, permitting and design, Atlas was contracted to characterize the existing site conditions, evaluate feasible and cost-effective alternatives to restore the site, obtain environmental permitting/approvals, and develop final design plans and specifications. Specifically, Atlas conducted the following tasks:

- Conducted a detailed subsurface investigation to determine the vertical and horizontal extents of the coal ash and identify groundwater elevations in relation to the coal ash.
- Worked with sub-contract engineering firm Marino Engineering Associates, Inc. (MEA) to identify the extent, void depth and subsidence risk of an underground mine that exists beneath the ash storage areas and to evaluate the feasibility of grouting the void to stabilize the area.

# PROJECT DESCRIPTIONS

- Worked with a sub-contract subsurface engineering firm to identify the locations and depths of underground utilities.
- Worked with a power company to determine power line voltage and safe clearances as well as potential power line relocation costs.
- Developed nine restoration alternatives and preliminary cost estimates to consider the many challenges on-site, including utilities, power lines, an adjacent river, slope and site stability and the underground mine.
- Developed a final restoration plan that includes the consolidation of the coal ash and stabilizing with a compacted soil cover protected with a perimeter berm that extends above the 100-year flood elevation of the adjacent river.
- Developed a surface water control plan to safely convey storm discharges from the restoration area.
- Evaluated slope stability to confirm acceptable factors of safety.
- Currently in final negotiations with the Indiana Department of Environmental Management (IDEM) Office of Land Quality for approval of the site restoration and developing additional permit applications for approval by the US Army Corps of Engineers (404 permit), IDEM – Office of Water Quality (401 permit) and the Indiana Department of Natural Resources – Division of Water (Construction in a Floodway permit).
- In conjunction with the permitting process, Atlas is developing construction plans and specifications for the design, bid, build process, which includes a grouting plan and specifications for stabilizing the underground mine.

## **Ash and Mine Refuse Area Closure – Confidential Power Generation Client - West Terre Haute, Indiana - Atlas contact: Sendhil Kumar, PE; 317 579 4010**

The site is a former coal-fired power generation station that operated in West Terre Haute, Indiana, from the mid-1920s to 1975. The station was decommissioned and demolished in approximately 1976. At various times during station operations and during the operation of a nearby underground coal mine, “historic materials” consisting of coal ash, cinders, and mine refuse (aka, coal refuse) were deposited within the limits of material management areas at the site, adjacent to a river.

Atlas was contracted to characterize the existing site conditions, evaluate feasible and cost-effective alternatives to restore the ash and mine refuse areas, obtain environmental permitting/approvals, develop final design plans and specifications, and provide engineering support and quality assurance oversight during construction. Specifically, Atlas conducted the following tasks:

- Conducted a detailed subsurface investigation to determine the vertical and horizontal extents of the coal ash and mine refuse.
- Conducted a site inventory and evaluation of existing subsurface piping systems under and within the coal ash that, if degraded, could pose a risk of ash and or mine refuse release to the adjacent river.
- Conducted an asbestos survey to identify and mitigate asbestos-containing materials that had been mixed in with the coal ash.
- Developed a final restoration plan that included the consolidation of the coal ash and stabilizing with a compacted soil cover and the reclamation of the mine refuse by flattening the slopes and installing a compacted soil cover.
- Conducted a borrow soils evaluation to identify suitable cover material.
- Developed a surface water control plan to safely convey storm discharges from the restoration area, including an on-site stormwater retention system.
- Evaluated slope stability to confirm acceptable factors of safety for the coal ash and mine refuse restoration areas.
- Prepared permit drawings and a technical report to successfully permit the project with the Indiana Department of Environmental Management (IDEM) Office of Land Quality and obtain approval concurrence from the Indiana Department of Natural Resources – Division of Reclamation for the mine refuse aspects of the project.
- Developed supporting permit applications and approvals by the Indiana Department of Natural Resources – Division of Water (Construction in a Floodway permit) and the local soil and water conservation district, including the development of Stormwater Pollution Prevention Plan.
- Developed construction plans and specifications for the design, bid, build process, and provided engineering support and construction quality assurance during construction.

# PROJECT DESCRIPTIONS

## 207 Acre Ash Pond System Closure – Confidential Power Generation Client - West Haute, Indiana - Atlas contact: Sendhil Kumar, PE; 317 579 4010

The site is a former coal-fired power generation station that operated in West Terre Haute, Indiana, from the mid-1920s to 1975. The site is a former coal-fired power generation station that operated in West Terre Haute, Indiana, from 1953 to 2016. The station is currently being decommissioned and demolished. The station includes five coal ash storage areas that encompass approximately 207 acres and contain over 7 million cubic yards of coal ash.

Atlas was contracted to characterize the existing site conditions, evaluate feasible and cost-effective alternatives to close the ash storage areas, obtain environmental permitting/approvals, develop final design plans and specifications, and provide engineering support and quality assurance oversight during construction. Specifically, Atlas conducted the following tasks:

- Conducted a detailed subsurface investigation to determine the vertical/horizontal extents and in-place volume of coal ash and identify groundwater elevations in relation to the coal ash.
- Conducted an options analysis that evaluated five alternatives to close the ash storage areas with consideration of feasibility, financial impacts, environmental impacts, public health and safety impacts, and permitting issues.
- Developed a final closure plan that included in-place capping of two of the ash storage areas and ash removal and restoration of the remaining three ash storage areas that will be re-connected to the historic floodplain of the adjacent river. The project also included a natural channel design concept to drain the restored area.
- Coordinated with railroad company to remove ash from the railroad right-of-way.
- Coordinated with a local gas utility company to ensure the closure project could be executed without damage or interruption to gas lines located within the ash.
- The final cover system over the ash areas capped in-place included a geomembrane liner, a geocomposite drainage layer and a 3 ft thick vegetative layer seeded with pollinators.
- Conducted a geotechnical/borrow soils evaluation to identify suitable cover material.
- Developed a surface water control plan to safely convey storm discharges from closure areas that included diversion berms, downdrains and plunge pool outlets.
- Presented the restoration and closure concept to the public at a public meeting.
- Prepared permit drawings and a technical report to successfully permit the project with the Indiana Department of Environmental Management (IDEM) Office of Land Quality.
- Developed supporting permit applications and approvals by the Indiana Department of Natural Resources – Division of Water (Construction in a Floodway permit) and the local soil and water conservation district, including the development of Stormwater Pollution Prevention Plan.
- Developed construction plans and specifications for the design, bid, build process, and currently providing engineering support and construction quality assurance during construction.

## Adams County Landslide - Adams County, Ohio - Atlas contact: Cindy Taylor; 513 771 2112

Atlas performed the investigation of 12 landslides affecting various roadways and utilities along the Allegheny Escarpment and Appalachian Plateau areas of Adams County. We provided recommendations for remediation and remedial design parameters for the failures on cut, fill and natural slopes.

The project involved soil test borings with truck and all terrain-mounted drilling rigs, disturbed and undisturbed soil sampling, rock core sampling, triaxial shear and ancillary laboratory testing, field mapping and data collection and interpretation of field instrumentation (slope inclinometers).

Widely variable subsurface conditions included colluvial, residual, alluvial and lacustrine soil deposits as well as bedrock formations ranging from extremely soft, weathered and fissile shale to hard massively bedded sandstone and dolomitic limestone.

Atlas used LPILE v2012 software to analyze stability and evaluate remedial design options such as re-grading and retaining structures, including soil/structure interaction. Provided Engineer's construction cost estimates on all projects and served as Design Engineer-of-Record for 5 sites.

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# PROJECT DESCRIPTIONS

## Master Service Agreement – Geotechnical, Environmental, Construction Inspection – Cincinnati, Ohio - Atlas contact: Cindy Taylor; 513 771 2112

Atlas maintains two contracts with the City. We were selected by both Department of Transportation and the Office of Environmental Services (DOT-E) to provide geotechnical engineering, construction materials testing services and environmental engineering under multi-year master service agreements extended through 2023 throughout Greater Cincinnati for multiple city agencies for more than 25 consecutive years.

In addition to the Department of Transportation Engineering, Atlas has provided services for Metropolitan Sewer District, Cincinnati Water Works, Hamilton County Engineer, and University of Cincinnati. Tasks assignments have included hundreds of geotechnical investigations and construction materials testing projects.

Recent projects in the past five years have included Wasson Way Bike Trail, Hirsch Recreation Center, Multiple Street Rehab Projects, Gray Road & Groesbeck, Este Avenue Rehabilitation, Delta Avenue Reconstruction, Ida Street Bridge Rehabilitation, and numerous landslides.

The Wasson Way and Salem to Sutton Bike Trail expansion, is a specific project example encompassing Atlas's full range of environmental and geotechnical services, like those required to address the full scope requirements for ODNR/AML projects. Atlas's combined environmental/geotechnical scope included:

- **Environmental:** Coordination, management, and completion of environmental site assessment tasks per ODOT requirements, including field investigations and data collection across a portion of the former Wasson Way rail line per NEPA and ODOT RMR requirements. Project scope included evaluation and characterization of potentially contaminated sites in and around the project area to assess liability associated with acquisition as well as handling of affected media during construction and redevelopment.
- **Geotechnical:** Tasks included test borings, soils laboratory testing and subsurface characterization. Study areas for the Wasson Way Trail project included approaches to the bridge carrying the trail over the I-75 southbound ramp to Dana Avenue. Atlas also provided construction material testing and inspection for the bridge's reinforced concrete, and for the subgrade and asphaltic paving for the bridge approaches. The Salem to Sutton Trail is an approximately 2.2-mile-long paved hike/bike trail along the west side of Kellogg Avenue (an Ohio River Scenic Byway in this area), extending from Salem Road at the project's north end to Sutton Road at the south end. In addition to the trail paving itself, the project included infrastructure items such as fill embankments, traffic barriers and retaining walls. All geotechnical exploration, testing and reporting were performed in accordance with the Ohio Department of Transportation's Specifications for Geotechnical Explorations, and all construction testing and inspections per applicable American Society for Testing and Materials methods.

## Ash Pond A, B, and C Closure – Confidential Power Generation Client - Petersburg, Indiana - Atlas contact: Sendhil Kumar, PE; 317 579 4010

The site is a coal-fired power generation station operating near Petersburg, Indiana. The station includes three coal ash storage ponds that combined encompass approximately 152 acres. Ash Ponds B and C have been closed, and Ash Pond A is currently undergoing closure. At all three ponds, closure has been performed with the coal ash materials being left in place. The site also includes a landfill for coal ash disposal.

Atlas has been contracted to prepare applications for environmental permitting/approvals of the pond closure plan, develop final design plans and specifications, and provide engineering support and quality assurance oversight during construction. Atlas has also prepared plans and permit applications for expansion of the coal ash landfill.

The scope included the following tasks:

- Developed a final closure plan that included in-place capping of all three ash storage ponds.
- The final cover system over the ash capped in-place included a geomembrane liner, a geocomposite drainage layer and a 3 ft thick vegetative layer seed with pollinators.

# PROJECT DESCRIPTIONS

- Conducted a geotechnical/borrow soils evaluation to identify suitable cover material.
  - Developed a surface water control plan to safely convey storm discharges from closure areas that included diversion berms, downdrains and plunge pool outlets.
  - Prepared permit drawings and a technical report to successfully permit the project with the Indiana Department of Environmental Management (IDEM) Office of Land Quality.
  - Developed construction plans and specifications for the design, bid, build process, and currently providing engineering support and construction quality assurance during construction.
  - Conduct drilling investigations around the ash ponds for characterizing the nature and extent of possible groundwater impacts from the coal ash ponds.
  - Conduct subsurface investigation to delineate the extent of underground coal mines within the proposed footprint of the landfill expansion.
-

**CLIENT:**

Civil & Environmental  
Consultants, Inc.  
Barbour County, WV

**PROJECT MANAGER:**

JOHN HAYNES  
(304) 755-0721

**PROJECT TYPE:**

Energy – Coal Mining

**TRIAD SERVICES:**

- Dilling Services
- Soil Drilling with  
Standard Penetration  
Testing & Sampling
- Boring Access &  
Reclamation
- Observations of  
Groundwater Level
- Backfilled Test  
Borings



**OVERVIEW**

This WV Department of Environmental Protection Abandoned Mine Lands project was for the purpose of reclamation of the Blue Knob Complex in Barbour County, West Virginia. The work included the demolition of a portal, mining structures, and grading of existing refuse piles. TRIAD was the drilling subcontractor for this West Virginia Department of Environmental Protection Office of Abandoned Mine Lands (WVDEP) project.

**SERVICES**

TRIAD drilled (14) borings at the project site and provided boring logs. The boring logs included soil/rock descriptions, SPT results at ground water level, soil/rock layers, auger refusal, and bedrock surface. Depth to cave-in the open borehole when tools were pulled were also noted. The open borings were backfilled with auger cuttings at completion, and the drill access sites were reclaimed including cleanup of auger cutting, re-grading access roads, provisions for surface drainage including water bars, hay bales, seeding and mulching.





**CLIENT:**

Civil Tech Engineering  
Hurricane, WV

**PROJECT MANAGER:**

JOHN HAYNES  
(304) 755-0721

**PROJECT TYPE:**

Energy - Coal Mining

**TRIAD SERVICES:**

- Dilling Services
- Soil Drilling with Standard Penetration Testing & Sampling
- Boring Access & Reclamation
- Observations of Groundwater Level
- Backfilled Test Borings

## OVERVIEW

This project consisted of the reclamation of the Flatbush Highwall in Randolph County, West Virginia. Working with the prime engineer, TRIAD provided geotechnical surface drilling services.

## SERVICES

TRIAD drilled ten (10) borings at the project site and provided boring logs. The boring logs included soil/rock descriptions, SPT results at ground water level, soil/rock layers, auger refusal, and bedrock surface. Depth to cave-in the open borehole when tools were pulled were also noted. The open borings were backfilled with auger cuttings at completion, and the drill access sites were reclaimed including cleanup of auger cutting, re-grading access roads, provisions for surface drainage including water bars, hay bales, seeding and mulching. TRIAD also furnished a dozer to assist with boring access and reclamation as required.



## OVERVIEW

This WV Department of Environmental Protection Abandoned Mine Lands project consisted of the closure of the Winters Portals near the community of Winter, West Virginia. Working with the contractor, Wiseman Excavating, Inc., TRIAD provided surveying and layout services.

## SERVICES

Services provided by TRIAD included horizontal positioning, alignment staking, grade staking, and related professional services to include pre-and post-construction topo-location services in support of construction efforts undertaken by Wiseman Excavating, Inc.

### CLIENT:

Wiseman Excavating, Inc.  
Liberty, WV

### PROJECT MANAGER:

LLOYD KIRK  
(304) 755-0721

### PROJECT TYPE:

Energy – Coal Mining

### TRIAD SERVICES:

- Survey
- Construction Layout



**CLIENT:**

West Virginia Department  
of Environmental  
Protection  
Charleston, WV

**PROJECT MANAGER:**

JOHN HAYNES  
(304) 755-0721

**PROJECT TYPE:**

ENERGY – COAL MINING

**TRIAD SERVICES:**

- Geotechnical, Surface and Subsurface Drilling
- Standard Penetration Testing and Sampling
- Laboratory Testing

**OVERVIEW**

The West Virginia Department of Environmental Protection Office of Abandoned Mine Land and Reclamation (WVDEP) procured TRIAD for an open-ended contract for Geotechnical, Surface and Subsurface Drilling services for the Northern Counties of West Virginia. The purpose of the geotechnical investigations was to assist in the reclamation of construction projects.



**SERVICES**

TRIAD conducted geotechnical drilling investigation for WVDEP by providing a variety of tasks including soil borings, soil borings with standard penetration tests/split spoon sampling, Shelby tube sampling, rock borings, rock core borings, installation of casing, installation of piezometers, and conducting various other tests. The tests included: Atterberg limits testing, sieve analysis, hydrometer analysis, unconfined compression, in-place density, standard Proctor compaction, temperature probe readings, float sink analysis, and various content analysis (i.e., ash, volatiles, fixed carbon, and sulfur). TRIAD also provided reports on the data collected from the field and laboratory activities.



**CLIENT:**

West Virginia Department  
of Environmental  
Protection  
Charleston, WV

**PROJECT MANAGER:**

JOHN HAYNES  
(304) 755-0721

**PROJECT TYPE:**

ENERGY – COAL MINING

**TRIAD SERVICES:**

- Geotechnical, Surface and Subsurface Drilling
- Laboratory Testing

**OVERVIEW**

The West Virginia Department of Environmental Protection Office of Abandoned Mine Land and Reclamation (WVDEP) procured TRIAD for an open-ended contract for Geotechnical, Surface and Subsurface Drilling services for the Southern Counties of West Virginia. The purpose of the geotechnical investigations was to assist in the reclamation of construction projects.



**SERVICES**

TRIAD conducted geotechnical drilling investigation for WVDEP by providing a variety of tasks including soil borings, soil borings with standard penetration tests/split spoon sampling, Shelby tube sampling, rock borings, rock core borings, installation of casing, installation of piezometers, and conducting various other tests. The tests included: Atterberg limits testing, sieve analysis, hydrometer analysis, unconfined compression, in-place density, standard Proctor compaction, temperature probe readings, float sink analysis, and various content analysis (i.e., ash, volatiles, fixed carbon, and sulfur). TRIAD also provided reports on the data collected from the field and laboratory activities.



## OVERVIEW

This project consisted of the closure of the Meigs Mine in Langsville, Meigs County, Ohio. Working with the MCI Group, TRIAD provided testing services for this project.

## SERVICES

TRIAD Provided a variety of field-testing services for the closure of the Meigs Mine including subgrade stripping, compacted fill and backfill, and cast-in-place concrete. TRIAD also provided laboratory testing services for concrete and soil samples.

### CLIENT:

MCI Group  
Kingwood, WV

### PROJECT MANAGER:

JOBE HOPE  
(304) 755-0721

### PROJECT TYPE:

Energy – Coal Mining

### TRIAD SERVICES:

- Field Testing
- Subgrade Stripping
- Compacted Fill & Backfill
- Cast-in-Place Concrete
- Laboratory Testing



## OVERVIEW

This project consisted of the continual testing of the Quinwood Coal Company refuse piles in Leivasy, Nicholas County, West Virginia to meet regulatory permitting requirements. TRIAD provided testing services for this project.

## SERVICES

TRIAD provided compaction testing of the coal refuse materials. The quarterly testing consisted of in-place nuclear moisture-density testing. TRIAD also provided laboratory testing services for this project, testing for moisture content.

### CLIENT:

Quinwood Coal Company  
Leivasy, WV

### PROJECT MANAGER:

JOBE HOPE  
(304) 755-0721

### PROJECT TYPE:

Energy – Coal Mining

### TRIAD SERVICES:

- Field Testing Services
- In-place Nuclear Moisture-Density Testing
- Laboratory Testing



## OVERVIEW

This project involves the loss investigations and loss appraisals for state agencies and non-state entities insured by the Board of Risk and Insurance Management (BRIM). TRIAD was hired to provide engineering services in relation to these site investigations and has been providing this service for the Board for over 10 years.



### CLIENT:

Board of Risk & Insurance Management  
Charleston, WV

### Project Manager:

James "Bo" Criniti, PE  
(304) 755-0721

### PROJECT TYPE:

Civil – Site Investigation

### TRIAD SERVICES:

- Civil Engineering
- Geotechnical Drilling Services

## SERVICES

Services provided by TRIAD included surface and subsurface investigations possibly relating to mining activities. This included reviewing provided documentation, conducting a site visit, and preparing a report of our observations. The subsurface investigation also included geotechnical drilling activities.



**CLIENT:**

Region 2 Planning &  
Development Council  
Huntington, WV

City of Huntington  
Huntington, WV

**Project Manager:**

Heather Metz, LRS  
(304) 755-0721

**PROJECT TYPE:**

Environmental

**TRIAD SERVICES:**

- Phase I ESA
- Asbestos Inspection
- Owner/Occupant Interviews
- Site Reconnaissance
- Environmental Regulatory Database Reviews
- Historic Records Reviews
- Phase II ESA
- WV VRP
- Site Remediation
- Characterization Activities
- UST Removal

**OVERVIEW**

The Artistic Cleaners site, located at the intersection of 9<sup>th</sup> Avenue and 20<sup>th</sup> Street in Huntington, Cabell County was historically occupied by a dry cleaner, a gas station, and residential housing.



**SERVICES**

Triad completed the initial Phase I ESA, Asbestos Inspection, and Phase II ESA at the site utilizing the City of Huntington Hazardous Brownfield Assessment grant funding.

As additional parcels were purchased and the site area expanded, Triad completed additional Phase I ESA, Update and Phase II ESA activities utilizing the Region 2 Planning & Development Council Assessment grant funding. Assessment activities revealed multi-media contamination. Region 2 also used their brownfield grant funding to pay the Application fee for the City of Huntington to enter the site into the West Virginia Department of Environmental Protection (WVDEP) Voluntary Remediation Program (VRP), where assessment and remediation activities are still ongoing. However, the site currently being redeveloped into the Mayor Joseph L. Williams Jr. Fire Station.





# **Appendix E:** Applicable Staff Certifications



**West Virginia State Board of Registration  
for Professional Engineers**

**BENJAMIN T. STAUD**  
**WV PE #020372**

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

**EXPIRES December 31, 2024**

**Search: Details**

<b>Name:</b>	BENJAMIN T. STAUD		
<b>WV Professional Engineer:</b>	<b>PE License Number:</b> 020372		
	<b>PE License Status:</b> Active		
	<b>PE Issue Date:</b> 08/05/2013		
	<b>PE Expiration Date:</b> 12/31/2024		
<b>Continuing Education Claim:</b>	<b>Qualifying Hours from Last Renewal or Reinstatement:</b> 31.50		
	<b>Carryover Hours for Next Renewal:</b> 1.50		
	<b>Last Renewal or Reinstatement Date*:</b> 12/23/2022		
<b>WV Engineer Intern:</b>	<b>EI Certification Number:</b> 7096		
	<b>EI Issue Date:</b> 06/25/1997		
<b>Primary Address of Record:</b>	270 WILLIAM PITT WAY BUILDING A3 3RD FLOOR PITTSBURGH, PA 15238		
<b>Primary Employer of Record:</b>	ATLAS 270 WILLIAM PITT WAY BUILDING A3 3RD FLOOR PITTSBURGH, PA 15238		
	<table border="1"><tr><td><b>*</b></td><td>This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.</td></tr></table>	<b>*</b>	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.
<b>*</b>	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.		

This data was retrieved on 8/22/2023.

**Search: Details**

<b>Name:</b>	CHAD JOHN HARRISON		
<b>WV Professional Engineer:</b>	<b>PE License Number:</b> 023116		
	<b>PE License Status:</b> Active		
	<b>PE Issue Date:</b> 07/30/2018		
	<b>PE Expiration Date:</b> 12/31/2024		
<b>Continuing Education Claim:</b>	<b>Qualifying Hours from Last Renewal or Reinstatement:</b> 33.00		
	<b>Carryover Hours for Next Renewal:</b> 3.00		
	<b>Last Renewal or Reinstatement Date*:</b> 12/12/2022		
<b>WV Engineer Intern:</b>	<b>EI Certification Number:</b>		
	<b>EI Issue Date:</b>		
<b>Primary Address of Record:</b>	4612 SARDIS ROAD MURRYSVILLE, PA 15668		
<b>Primary Employer of Record:</b>	ATC GROUP SERVICES LLC 270 WILLIAM PITT WAY PITTSBURGH, PA 15238		
	<table border="1"><tr><td><b>*</b></td><td>This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.</td></tr></table>	<b>*</b>	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.
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This data was retrieved on 8/22/2023.



west virginia department of environmental protection

Division of Land Restoration  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

Harold D. Ward, Cabinet Secretary  
dep.wv.gov

February 6, 2023

Kenneth Pasterak  
Atlas Technical Consultants  
6825 Reynolds Street  
Pittsburgh, PA 15238

Renewal - Licensed Remediation Specialist Certification

Dear Mr. Pasterak:

Congratulations! We are pleased to inform you that you have filed your renewal application in accordance with appropriate time frames along with evidence of continuing education in the environmental remediation field. You have completed in a timely manner all of the license renewal requirements.

Please find your Licensed Remediation Specialist Renewed License Certificate enclosed and you may continue to practice as a licensed remediation specialist.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Rice', is positioned above the printed name.

Robert Rice  
Director

Enclosure: LRS License Renewal Certificate  
ec: LRS file: Registration Number 243

Renewal



**West Virginia**  
Department of  
**Environmental Protection**

*PASTERAK, KENNETH*  
Licensed Remediation Specialist

Registration Number: 243

A handwritten signature in black ink, appearing to read "K. Pasterak", is positioned above a horizontal line.

*Director, Division of Land Restoration*

04/01/2023 - 03/31/2025

*Date Issued - Date Expires*

## Search: Details

<b>Name:</b>	BENJAMIN G. CAMPBELL
<b>WV Professional Engineer:</b>	<b>PE License Number:</b> 020492
	<b>PE License Status:</b> Active
	<b>PE Issue Date:</b> 12/05/2013
	<b>PE Expiration Date:</b> 12/31/2024
<b>Continuing Education Claim:</b>	<b>Qualifying Hours from Last Renewal or Reinstatement:</b> 57.50
	<b>Carryover Hours for Next Renewal:</b> 15.00
	<b>Last Renewal or Reinstatement Date*:</b> 12/3/2022
<b>WV Engineer Intern:</b>	<b>EI Certification Number:</b> 8984
	<b>EI Issue Date:</b> 06/22/2009
<b>Primary Address of Record:</b>	29 MERLE YOST ROAD CORE, WV 26541
<b>Primary Employer of Record:</b>	TRIAD ENGINEERING INC. 1097 CHAPLIN ROAD MORGANTOWN, WV 26501
	<div style="border: 1px solid black; padding: 5px;"> <p>* This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.</p> </div>

This data was retrieved on 8/15/2023.



**West Virginia**  
Department of  
**Environmental Protection**

*WOODS, CADARIS LUBERTA*  
Licensed Remediation Specialist

Registration Number: 499

A handwritten signature in black ink, appearing to read "A. J. R.", is written over a horizontal line.

*Director, Division of Land Restoration*

09/28/2022 - 09/30/2024

*Date Issued - Date Expires*



# 2024 WEST VIRGINIA PROFESSIONAL SURVEYOR 2024

The West Virginia Board of Professional Surveyors certifies that the individual listed below is a PROFESSIONAL SURVEYOR who has qualified for a license under Chapter 30, Article 13A, Code of West Virginia, and has met the requirements for license renewal for the period ending June 30, 2024



## DAVID L. GRAHAM P.S. #2117



### Board Members

Sefton Stewart, PS, Chairman

Tom Rayburn, PS, Secretary

Gary Facemyer, PE, PS

Lantz Rankin, PS

Douglas McElwee, Esq.

**Issued**  
**07/01/2023**



**Expires**  
**06/30/2024**

Executive Director  
Amber Shawver Legg

## 2024

State of West Virginia  
Board of Professional Surveyors



### DAVID L. GRAHAM P.S.LIC. # 2117

**Expires:**  
**06/30/2024**

Is a PROFESSIONAL SURVEYOR who has qualified for a license under Chapter 30, Article 13A, Code of West Virginia, and has met the requirements for license renewal for the period ending June 30, 2024

State of West Virginia  
Board of Professional Surveyors  
1124 Smith Street, Suite 1200  
Charleston, WV 25301

Phone (304) 558-0350

Fax (304) 558-0352

Website: [www.wvbps.wv.gov](http://www.wvbps.wv.gov)

Email: [wvbps@wv.gov](mailto:wvbps@wv.gov)

**Search: Details**

<b>Name:</b>	DAVID W. HOOPER		
<b>WV Professional Engineer:</b>	<b>PE License Number:</b> 013515		
	<b>PE License Status:</b> Active		
	<b>PE Issue Date:</b> 10/09/1997		
	<b>PE Expiration Date:</b> 12/31/2024		
<b>Continuing Education Claim:</b>	<b>Qualifying Hours from Last Renewal or Reinstatement:</b> 49.50		
	<b>Carryover Hours for Next Renewal:</b> 15.00		
	<b>Last Renewal or Reinstatement Date*:</b> 12/19/2022		
<b>WV Engineer Intern:</b>	<b>EI Certification Number:</b>		
	<b>EI Issue Date:</b> 07/01/1994		
<b>Primary Address of Record:</b>	152 EDGEMEADE DRIVE MONROEVILLE, PA 15146		
<b>Primary Employer of Record:</b>	TRIAD ENGINEERING, INC 1097 CHAPLIN ROAD MORGANTOWN, WV 26501		
	<table border="1"><tr><td><b>*</b></td><td>This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.</td></tr></table>	<b>*</b>	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.
<b>*</b>	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.		

This data was retrieved on 8/21/2023.

## Search: Details

<b>Name:</b>	ERIC H. ISER		
<b>WV Professional Engineer:</b>	<b>PE License Number:</b> 015067		
	<b>PE License Status:</b> Active		
	<b>PE Issue Date:</b> 02/18/2002		
	<b>PE Expiration Date:</b> 12/31/2024		
<b>Continuing Education Claim:</b>	<b>Qualifying Hours from Last Renewal or Reinstatement:</b> 30.50		
	<b>Carryover Hours for Next Renewal:</b> 0.50		
	<b>Last Renewal or Reinstatement Date*:</b> 12/29/2022		
<b>WV Engineer Intern:</b>	<b>EI Certification Number:</b> 6934		
	<b>EI Issue Date:</b> 04/24/1996		
<b>Primary Address of Record:</b>	1723 BEAVER RUN ROAD BURLINGTON, WV 26710		
<b>Primary Employer of Record:</b>	TRIAD ENGINEERING, INC. 1075-D SHERMAN AVENUE HAGERSTOWN, MD 21740		
	<table border="1"> <tr> <td style="text-align: center;">*</td> <td>This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.</td> </tr> </table>	*	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.
*	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.		

This data was retrieved on 8/15/2023.

Renewal



**West Virginia**  
Department of  
**Environmental Protection**

*METZ, HEATHER*  
Licensed Remediation Specialist  
Registration Number: 269

  
\_\_\_\_\_  
Director, Division of Land Restoration

10/01/2021 - 09/30/2023  
\_\_\_\_\_  
Date Issued - Date Expires

**Search: Details**

<b>Name:</b>	JAMES RALPH CRINITI, JR
<b>WV Professional Engineer:</b>	<b>PE License Number:</b> 022418
	<b>PE License Status:</b> Active
	<b>PE Issue Date:</b> 06/23/2017
	<b>PE Expiration Date:</b> 12/31/2024
<b>Continuing Education Claim:</b>	<b>Qualifying Hours from Last Renewal or Reinstatement:</b> 33.50
	<b>Carryover Hours for Next Renewal:</b> 3.50
	<b>Last Renewal or Reinstatement Date*:</b> 12/28/2022
<b>WV Engineer Intern:</b>	<b>EI Certification Number:</b> 9007
	<b>EI Issue Date:</b> 07/06/2009
<b>Primary Address of Record:</b>	707 JEFFERSON STREET SOUTH CHARLESTON, WV 25309
<b>Primary Employer of Record:</b>	TRIAD ENGINEERING INC 10541 TEAYS VALLEY ROAD SCOTT DEPOT, WV 25560
	<p>* This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may not be used for future renewals.</p>

This data was retrieved on 8/14/2023.

**Search: Details**

<b>Name:</b>	JOHN J. HAYNES		
<b>WV Professional Engineer:</b>	<b>PE License Number:</b> 016856		
	<b>PE License Status:</b> Active		
	<b>PE Issue Date:</b> 06/16/2006		
	<b>PE Expiration Date:</b> 12/31/2024		
<b>Continuing Education Claim:</b>	<b>Qualifying Hours from Last Renewal or Reinstatement:</b> 36.00		
	<b>Carryover Hours for Next Renewal:</b> 6.00		
	<b>Last Renewal or Reinstatement Date*:</b> 12/29/2022		
<b>WV Engineer Intern:</b>	<b>EI Certification Number:</b> 8508		
	<b>EI Issue Date:</b> 01/11/2006		
<b>Primary Address of Record:</b>	770 SUPPER CLUB ROAD LETART, WV 25253		
<b>Primary Employer of Record:</b>	TRIAD ENGINEERING INC 10541 TEAYS VALLEY ROAD SCOTT DEPOT, WV 25560		
	<table border="1"><tr><td><b>*</b></td><td>This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.</td></tr></table>	<b>*</b>	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.
<b>*</b>	This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may <b>not</b> be used for future renewals.		

This data was retrieved on 8/21/2023.

# Your **ACTIVE PE** renewal fee has been received...

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Your ACTIVE PE renewal fee has been received. Your pocket card indicating you are entitled to practice engineering in West Virginia until the noted expiration date may be detached and used unless invalidated as a result of Board audit of your renewal form or formal disciplinary action.

## **IMPORTANT REMINDERS:**

- 1.** Please include your WV ACTIVE PE license number on any correspondence to this office.
- 2.** To use this license as a pocket card, please cut along the dotted line and laminate if desired.
- 3.** You are required to immediately notify the Board, in writing, of the following: loss or theft of license or seal, any name change, any address change, or any employment change.

## **West Virginia State Board of Registration for Professional Engineers**

*300 Capitol Street, Suite 910  
Charleston, West Virginia 25301  
304-558-3554 Phone  
800-324-6170 Toll Free  
[www.wvpebd.org](http://www.wvpebd.org)*

**THIS IS ONE FORM OF YOUR RENEWAL RECEIPT**

**PLEASE SAVE THIS FOR YOUR RECORDS**

**Date of Renewal: December 29, 2022  
Amount Paid: \$63.00**



**JOHN J. HAYNES  
770 SUPPER CLUB ROAD  
LETART, WV 25253**

2024 WEST VIRGINIA PROFESSIONAL SUR.....

2024

The West Virginia Board of Professional Surveyors certifies that the individual listed below is a PROFESSIONAL SURVEYOR who has qualified for a license under Chapter 30, Article 13A, Code of West Virginia, and has met the requirements for license renewal for the period ending June 30, 2024



**KEVIN M. BROCKETT**  
P.S. #2405



Board Members

Se. on Stewart, PS, Chairman

Tom Rayburn, PS, Secretary

Gary Facemyer, PE, PS

Lantz Rankin, PS

Douglas McElwee, Esq.

Issued  
07/01/2023



Expires  
06/30/2024

Executive Director  
Amber Shawver Legg

2024

State of West Virginia  
Board of Professional Surveyors



**KEVIN M. BROCKETT**  
P.S.LIC. # 2405

Is a PROFESSIONAL SURVEYOR who has qualified for a license under Chapter 30, Article 13A, Code of West Virginia, and has met the requirements for license renewal for the period ending June 30, 2024

Expires:  
06/30/2024

State of West Virginia  
Board of Professional Surveyors  
1124 Smith Street, Suite 1200  
Charleston, WV 25301

Phone (304) 558-0350  
Fax (304) 558-0352

Website: [www.wvbps.wv.gov](http://www.wvbps.wv.gov)  
Email: [wvbps@wv.gov](mailto:wvbps@wv.gov)





BOARD OF PROFESSIONAL SURVEYORS

To all to whom these presents shall come Greeting  
Know Ye that the Board of Professional Surveyors  
Of the State of West Virginia *reposing special confidence in the  
Intelligence, Integrity and Discretion of*

**Lloyd Allen Kirk**

*Does in Pursuance of Authority Vested In It  
by law, hereby certify that this person, having submitted  
satisfactory evidence of their ability and experience, is a*

**Professional Surveyor**

**License Number 2247**

*To Hold and use such title in the surveying profession, subject to the  
conditions prescribed by law.*



*Given under the hand and the Seal of  
the Board this 25<sup>th</sup> day of May in the  
year of our Lord Two Thousand and  
Twelve and of the State the 148<sup>th</sup>.*

**Board of Professional Surveyors**

*[Signature]*  
Roy C. Whittier, Jr.  
Chairman

*[Signature]*  
Melan B. Douglas  
Secretary



**BUREAU OF PROFESSIONAL AND OCCUPATIONAL AFFAIRS**

P. O. Box 2649

Harrisburg, PA 17105-2649

08/23/2023

**License Information**

MARIA AF ROLEN

MORGANTOWN, West Virginia 26501

Board/Commission: State Registration Board for Professional  
Engineers, Land Surveyors and Geologists

Status Effective Date: 05/04/2023

LicenseType: Professional Geologist

Issue Date: 05/04/2023

Specialty Type:

Expiration Date: 09/30/2025

License Number: PG005601

Last Renewal: 08/16/2023

Status: Active

**Disciplinary Action Details**

No disciplinary actions were found for this license.

This site is considered a primary source for verification of license credentials provided by the  
Pennsylvania Department of State.

Renewal



**West Virginia**  
Department of  
**Environmental Protection**

*WRIGHT, MATTHEW*  
Licensed Remediation Specialist

Registration Number: 233

Mike Sheehan

Digitally signed by: Mike Sheehan  
DN: CN = Mike Sheehan email = michael.  
p.sheehan@wv.gov C = US O = DEP OU  
= DLR  
Date: 2021.09.22 11:50:44 -0400

---

*Director, Division of Land Restoration*

10/01/2021 - 09/30/2023

---

*Date Issued - Date Expires*

# **Appendix F:** Required Forms

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

*(Check the box next to each addendum received)*

- |   |  |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

\_\_\_\_\_  
Company



\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.



Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Centralized Expression of Interest  
 Architect/Engr

<b>Proc Folder:</b> 1258505			<b>Reason for Modification:</b>
<b>Doc Description:</b> EOI - 2023 AML Contract S4			
<b>Proc Type:</b> Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2023-08-08	2023-08-28 13:30	CEOI 0313 DEP2400000004	1

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:** 000000189555  
**Vendor Name :** ATC Group Services, LLC dba Atlas Technical Consultants, LLC  
**Address :** 13215 Bee Cave Parkway, Building B, Suite 230  
**Street :** 13215 Bee Cave Parkway, Building B, Suite 230  
**City :** Austin  
**State :** Texas **Country :** United States **Zip :** 78738  
**Principal Contact :** Clayton K. Roderick  
**Vendor Contact Phone:** 304-533-0367 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**

Joseph E Hager III  
 (304) 558-2306  
 joseph.e.hageriii@wv.gov

**Vendor Signature X**

**FEIN#** 46-0399408

**DATE** 08/28/2023

All offers subject to all terms and conditions contained in this solicitation

**ADDITIONAL INFORMATION**

The Acquisitions and Contract Administration Section of the Purchasing Division ("Purchasing Division") is soliciting Expression(s) of Interest ("EOI" or "Bids") for the West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands and Reclamation (WVDEP-DLR-AML) ("Agency"), for A/E design, planning, realty, and construction services. Aspects of the design, planning, realty, and construction oversight services are to include, but not be limited to; Civil, Geological and Hydrological per the attached specifications and terms and conditions.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Professional Svcs - Branchland (Blankenship) Portal Drainage		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**

Professional Svcs - Branchland (Blankenship) Portal Drainage

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
2	Professional Svcs - Branchland (Crum) Drainage		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**

Professional Svcs - Branchland (Crum) Drainage

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
3	Professional Svcs - Branchland Portals Rt. 10		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Branchland Portals Rt. 10

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
4	Professional Svcs - Branchland Portal		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Branchland Portal



INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
5	Professional Svcs - Middle Fork (Adkins) Portals		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Middle Fork (Adkins) Portals

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
6	Professional Svcs - Cadbury Lane Drainage		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Cadbury Lane Drainage

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
7	Professional Svcs - Belcher Hollow Auger Holes		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Belcher Hollow Auger Holes

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
8	Professional Svcs - Guyan River Refuse		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Guyan River Refuse

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
9	Professional Svcs - Branchland Hubball A		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Branchland Hubball A

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
10	Professional Svcs - Harmonds Creek Portals Phase II		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Harmonds Creek Portals Phase II

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
11	Professional Svcs - W. Columbia "B" Phase II		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - W. Columbia "B" Phase II

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue
12	Professional Svcs - Lanham (Workman) Portals		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**  
Professional Svcs - Lanham (Workman) Portals

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
-------------	--------------	-------------------

	Document Phase	Document Description	Page
DEP2400000004	Final	EOI - 2023 AML Contract S4	8

**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions

ABANDONED MINELANDS (AML) CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement (OSMRE) to determine if you are eligible to receive an AML contract. This requirement can be found under OSMRE's regulations at 30 CFR 874.16. **NOTE:** This form must be signed and **dated within 30 days** of submission to be considered for a current bid.

**Part A: General Information**

Business Name: \_\_\_\_\_  
 Tax ID #: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, & Zip: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_  
 Email Address: \_\_\_\_\_

**Part B: Obtain an Organizational Family Tree (OFT) from the Applicant Violator System (AVS)**

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. Instructions for downloading an OFT from the AVS can be found at: <https://www.osmre.gov/sites/default/files/2022-02/OMB%201029-0119%20instructions.pdf>. If you require assistance you may contact the AVS Office by phone at: 800-643-9748, or by email at: [avshelp@osmre.gov](mailto:avshelp@osmre.gov).

**Part C: Certifying and updating information in the AVS**

Select one of the options, follow the instructions for the selected option, sign, and date below.

I, \_\_\_\_\_, have express authority to certify that:  
 (Print Name)

1. Our business is listed in the AVS. The information is accurate, complete, and up to date. (If you select this option, you must attach an Entity OFT from the AVS to this form). Do not complete Part D.
2. Our business is in the AVS. The information needs to be updated. (If you select this option, you must attach an Entity OFT from the AVS to this form). Complete Part D to provide the missing or corrected information.
3. Our business is not listed in the AVS. The information needs to be added. Complete Part D to provide the information.


\_\_\_\_\_  
Date\_\_\_\_\_  
Signature\_\_\_\_\_  
Title

**Part D: OFT Information**

Contractor's Business Name: \_\_\_\_\_

If the current Entity OFT information for your business is incomplete in the AVS, or if there is no information in the AVS for your business, you must provide all of the following information as it applies to your business. Please include additional copies of this page if the space below is not sufficient to capture all information.

- Every officer (President, Vice President, Secretary, Treasurer, etc.);
- All Directors, Partners, and Members;
- All persons performing a function similar to a Director;
- Every person or business that owns 10% or more of the voting stock in your business;
- Any other person(s) who has the ability to determine the manner in which the AML reclamation project is being conducted.
- **Please list an end date for any person who is no longer with your business.**

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Begin Date: \_\_\_\_\_  
 End Date: \_\_\_\_\_  
 % Ownership: \_\_\_\_\_  
 Position/Title: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Begin Date: \_\_\_\_\_  
 End Date: \_\_\_\_\_  
 % Ownership: \_\_\_\_\_  
 Position/Title: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Begin Date: \_\_\_\_\_  
 End Date: \_\_\_\_\_  
 % Ownership: \_\_\_\_\_  
 Position/Title: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Begin Date: \_\_\_\_\_  
 End Date: \_\_\_\_\_  
 % Ownership: \_\_\_\_\_  
 Position/Title: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_

**PAPERWORK REDUCTION STATEMENT**

The Paperwork Reduction Act of 1995 (44 U.S.C 3501) requires us to inform you that: Federal Agencies may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current valid OMB control number. This information is necessary for all successful bidders prior to the distribution of AML funds, and is required to obtain a benefit.

Public reporting burden for this form is estimated to range from 15 minutes to one hour, with an average of 30 minutes per response, including time for reviewing instructions, gather and maintaining data, and completing and reviewing the form. You may direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Office of Surface Mining Reclamation and Enforcement, 1849 C Street, NW, Room 4559, Washington, DC 20240.