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About



Welcome, Lu Anne Cottrill

Procurement

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Solicitation Response(SR)

Dept: 0313

ID: ESR02131700000003798

Ver.: 1

Function: New

Phase: Final

Modified by batch , 02/14/2017

Header 1

List View

General Information

Contact


Default Values

Discount

Document Information

Procurement Folder: 254223


Procurement Type: Central Master Agreement

Vendor ID:  

Legal Name: ECS MID ATLANTIC LLC

Alias/DBA:

Total Bid: \$280,343.30

Response Date:  

Response Time:

SO Doc Code: CRFQ

SO Dept: 0313

SO Doc ID: DEP1700000013

Published Date: 2/3/17

Close Date: 2/14/17

Close Time: 13:30

Status: Closed

Solicitation Description:

Total of Header Attachments: 1

Total of All Attachments: 1



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

State of West Virginia  
Solicitation Response

Proc Folder : 254223

Solicitation Description : Addendum 1- Op., Maint. and Monitoring Vienna PCE Site

Proc Type : Central Master Agreement

Date issued	Solicitation Closes	Solicitation Response	Version
	2017-02-14 13:30:00	SR      0313    ESR02131700000003798	1

VENDOR

VC0000014501

ECS MID ATLANTIC LLC

Solicitation Number:    CRFQ    0313      DEP1700000013

Total Bid :      \$280,343.30                      Response Date:    2017-02-13                      Response Time:    17:43:07

Comments:

FOR INFORMATION CONTACT THE BUYER

Jessica S Chambers  
(304) 558-0246  
jessica.s.chambers@wv.gov

Signature on File

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	See pricing page for item listing				\$280,343.30

Comm Code	Manufacturer	Specification	Model #
77121707			

Extended Description :	All references in the Specifications, Exhibits, and Drawings to brand or manufacturer specific items are included only to establish a quality level for materials, products or equipment provided to fulfill the Contract, and thus should be considered to be followed by the words, or equal.
------------------------	---

Ms. Jessica S. Chambers  
Department of Administration  
Purchasing Division  
2019 Washington St. E.  
Charleston, WV 25305

# State of West Virginia

Request for Quotation: Proc Folder 254223  
Operation, Maintenance and Monitoring of the Vienna PCE Site

Solicitation No. CRFQ 0313 DEP1700000013

Closes: February 14, 2017 – 13:30:00

GUTS



GEOTECHNICAL

CONSTRUCTION MATERIALS



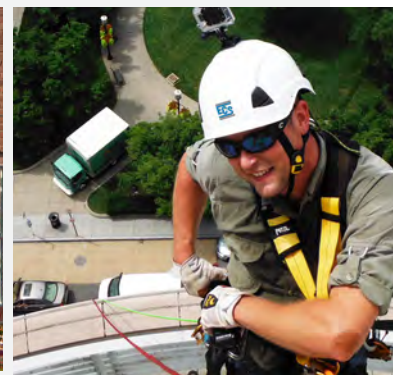
RESILIENCE

INITIATIVE



ENVIRONMENTAL

FACILITIES



TENACITY



February 14, 2017

Bid Clerk  
Department of Administration  
Purchasing Division  
2019 Washington St. E  
Charleston, WV 25305

RE: ECS Mid-Atlantic, LLC – Response to Request for Quotation (Solicitation No. CRFQ 0313 DEP1700000013), Operation, Maintenance and Monitoring of the Vienna PCE Site

## BY THE NUMBERS

72  
Mid-Atlantic  
Environmental Staff

873  
ECS Ongoing  
Environmental Projects

100%  
Ready for  
More!!

ECS Mid-Atlantic, LLC (ECS), an environmental consulting, geotechnical engineering, construction materials testing, and facilities engineering firm with more than 50 office locations, is pleased to present our response to your Request for Proposal. An employee-owned Subchapter S Corporation whose principal owners are engineers, geologists, and environmental scientists, ECS employees more than 1,350 personnel and is ranked 86 in *Engineering News-Record's* Top 500 Design Firms. The ECS project team has the necessary experience, depth of resources, logistical capabilities, and expertise required to successfully provide the environmental services required for this contract.

This effort will be led by Project Manager Philip M. Donmoyer, Licensed Remediation Specialist (LRS), PG who will be the primary point of contact for the State of West Virginia Purchasing Division and Department of Environmental Protection. Mr. Donmoyer will coordinate ECS and subcontractor activities. He will be assisted by an experienced project team that includes three additional Professional Geologists (PGs), two additional West Virginia (LRSs), a Professional Engineer (PE), and a Certified Industrial Hygienist (CIH).

We appreciate the opportunity to present our qualifications for the operations and maintenance of the air sparge and soil vapor extraction remediation systems, groundwater remediation system, and groundwater and soil vapor monitoring at the site. Please feel free to contact us regarding our services, credentials, and professional capabilities.

Respectfully Submitted,



James D. Succop, PG  
Vice President, Director  
Subsidiary Environmental Services  
703.471.8400  
[JSuccop@ecslimited.com](mailto:JSuccop@ecslimited.com)



Philip M. Donmoyer, PG, LRS  
Senior Environmental Scientist/Project Manager  
Primary Point of Contact  
717.767.4788 (direct)  
[PDonmoyer@ecslimited.com](mailto:PDonmoyer@ecslimited.com)

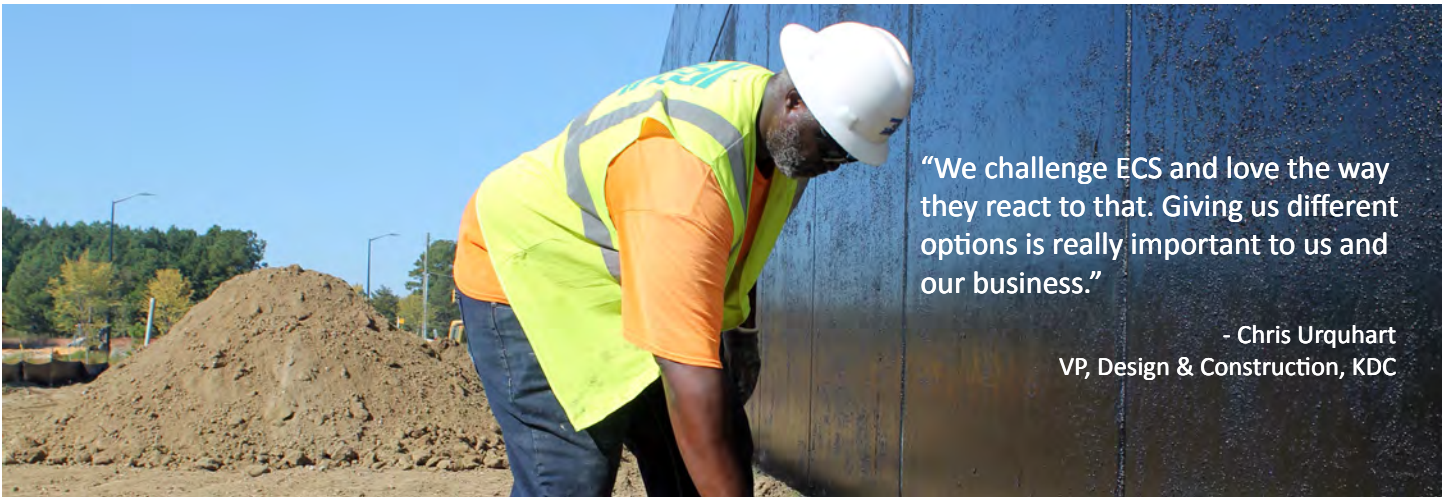




A close-up, profile view of two construction workers wearing white hard hats and high-visibility safety vests. The worker in the foreground has a beard and is wearing dark sunglasses. The background shows a construction site with dirt and equipment under a clear blue sky.

# Mission Statement

Founded in 1988, the ECS Group of Companies is a leader in developing the people, systems, and expertise that allow us to focus on our clients' needs. Our experience spans the nation and multiple industry sectors. Our commitment is to provide high quality and innovative services. Our mission is to be the consulting firm of choice in the markets we serve.



“We challenge ECS and love the way they react to that. Giving us different options is really important to us and our business.”

- Chris Urquhart  
VP, Design & Construction, KDC

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01

Firm Overview



# FIRM OVERVIEW



“What I like most about ECS are the people. They are experts with a wide-range of knowledge. I never hesitate using ECS on projects.”

— Crystal Morphis, Founder and CEO  
Creative Economic Development Consulting, LLC

## ABOUT OUR COMPANY

**Local:** ECS Mid-Atlantic, LLC is a premier provider of geotechnical engineering, construction materials testing, environmental consulting and facilities engineering services across Maryland, Pennsylvania, New Jersey, and Virginia. With more than 600 employees and over 25 years of experience, ECS is equipped to help clients through the entire project cycle for both the private and public sectors.

**Company:** ECS Mid-Atlantic, LLC is one of the operating entities of the ECS Group of Companies. ECS currently operates in 50 locations throughout Eastern, Southeastern and Midwestern states. Utilizing the strengths, experience, and expertise of more than 1,350 staff across the company, ECS is able to save our clients time and money.

1350+  
employees

50  
offices locations

1988  
company founded

## OUR VALUE

ECS embodies its philosophy of “*Setting the Standard for Service*” by using technology and experience to assist clients in the development of cost-effective, practical solutions. For nearly three decades, our engineering consulting services have helped our clients meet project requirements and overcome project challenges.

## ECS SAFETY

Our employees are committed to making safety an integral part of everyday operations. We conduct team safe behaviors that include observation and feedback using a Behavior Based Safety process we call STAR, (a program that is more fully described on the following page). We also hold monthly safety meetings, train employees to help lead those efforts as an office Safety Officer and talk about safe practices at the beginning of any ECS meeting. At ECS, safety is not just a priority; it is a core value that defines how we do business.

# FIRM OVERVIEW

## ECS SAFETY (CON'T.)

In 2010 we launched an initiative to entrench safety as a core value and an integral part of our culture. The STAR initiative places safety at the forefront of everything we do. Adopting the principles of behavior-based safety, STAR focuses on reinforcing safe practices and increasing safety awareness. We conduct regular safety observations and track leading indicators that enable us to better anticipate at-risk situations and prevent accidents and injuries.

STAR is led by our full-time Director of Corporate Safety Services and supported by all ECS operational managers and local branch safety managers. Yet a distinctive of our safety culture is the grassroots engagement of employees at all levels who help us define safer work practices and improve the overall process. We understand that the best safety cultures are driven by employee commitment, not just compliance.



ECS's BBS program includes many of the same components as those of other world-class organizations, including:

- Activity hazard analyses and pre-task planning
- Weekly, monthly, and annual refresher field and supervisory training, including:
  - Radiation safety for non-users
  - Fall protection
  - Defensive driving
  - Hazardous Waste Operations and Emergency Response
  - Materials handling
- Comprehensive quarterly office safety audits
- Weekly site safety audits
- Radiation safety

At ECS, we believe that “Being safe is a choice...a choice that you and your family can live with!”

## ECS CORE VALUES

ECS Mid-Atlantic, LLC is an employee owned company dedicated to providing high quality engineering services to meet our clients' needs. Quality is a concept that is integrated throughout our product and service mix, and is not an “add on” after the fact. Critical to the ECS culture are our core values. Our core values guide our decision process and ensure that both the client and ECS have the most fulfilling experience with the project. The ECS Core Values include:

- ***Honesty/Integrity: With Clients and Employees, Always Mean What You Say and Do What You Say***
- ***Respect: Treat All Others The Way You Want To Be Treated***
- ***Service: Make Your Clients Heroes and Your Employees Superstars***
- ***Value: Quality Is A Given – Value Is Measured By The Recipient***
- ***Accountability: What Gets Measured Gets Done***



## 02

### Environmental Qualifications



# ENVIRONMENTAL QUALIFICATIONS



ECS's experience with environmental site characterizations, environmental remediation, and knowledge of federal, state, and local regulations helps clients resolve environmental conditions that pose significant risk to human health or the environment. ECS services include:

## Evaluations

- Environmental Site Assessment Phases I and II
- Wetland & Stream Determinations/Delineations/Permitting
- Vapor Evaluations / Vapor Intrusion Sampling
- Voluntary Remediation / Clean up Programs
- Brownfield and Risk-Based Assessments
- Remedial Investigations / Feasibility Studies
- Hazardous Waste Assessment and Cleanup
- Hydrogeological Studies
- Soil and Water Testing
- Compliance Audits
- Vapor Extraction Tests
- Aquifer Pump Tests
- Waste Management / Minimization Studies
- Air Sampling and Modeling
- Asbestos and Lead-Based Paint Management Studies
- Microbial Investigations
- Indoor Air Quality (LEED certifications)
- Industrial Hygiene Services
- Erosion Control Monitoring
- NPDES
- SPCC Plans
- NEPA Studies
- CAMA Permitting

## Design

- Pilot Studies
- Corrective Action and Remedial Action Plans
- Quality Assurance Project Plans
- Remediation Systems
- Groundwater Modeling
- Bio-restoration Modeling
- Emerging /Innovative Technologies
- Asbestos and Lead-Based Paint Abatement
- Landfill Investigations
- Injection Wells
- Passive and Active Vapor Mitigation Systems
- Vapor Barriers
- Remediation System Design and Operations

## Operation

- Remediation System Operation and Maintenance
- Hazardous Material Abatement Oversight
- Contaminated Soil Excavation Oversight
- Compliance Sampling and Reporting



# ENVIRONMENTAL QUALIFICATIONS

## THE ECS ENVIRONMENTAL GROUP

The ECS Environmental Services Group is a full services environmental organization offering innovative solutions to complex environmental problems. We specialize in supporting the development community, industrial clients, and federal, state, and local governmental agencies. ECS expertise includes due diligence activities for property transfers, mergers, and acquisitions along with environmental site characterizations, environmental remediation, permitting, operation and maintenance of remediation systems, industrial hygiene, construction phase environmental services, and groundwater treatment systems. Our team of geologists, environmental scientists, risk assessors, and engineers can rapidly assess both indoor and subsurface environmental contamination issues and offer cost effective remediation approaches that are based on meeting realistic and immediate client needs.

More information about the ECS Environmental Group's organization and experience can be found in Section 4.

## ECS TEAM — ENVIRONMENTAL SITE CHARACTERIZATION AND REMEDIATION EXPERIENCE

ECS routinely successfully completes environmental site characterization and remediation projects in remote locations across the country and in far-flung locations, regardless of whether an ECS office is physically present. Recent work has included international projects at US Embassies and various other government agencies, large-scale dewatering treatment operations in and around Washington, DC, management of state environmental contracts for Florida, North Carolina, and Virginia, management of local municipality environmental contracts, and remediation system design, installation, and operation for large petroleum releases. With 50 offices in the United States and our proven track record of successfully managing projects domestically and abroad, ECS is committed to reliably offering a quick response time for our work at the Vienna PCE Superfund Site







# 03

## ECS Approach to the Scope of Work

# ECS APPROACH TO THE SCOPE OF WORK



ECS report was excellent; the attention to detail and interpretation of results is very much appreciated.”

- Christina Schroeter  
NC Dept. of Environmental Quality



## SCOPE OF WORK

ECS will provide a capable project team to operate and maintain the air sparge and soil vapor extraction (AS/SVE) remediation systems, groundwater remediation system, and monitor groundwater and soil vapor conditions at the site in accordance with the current specifications developed by the West Virginia Department of Environmental Protection (WV DEP). ECS will assist in the redesign/expansion of the remediation systems proposed for 2017 and adapt to alterations in the frequency of groundwater or soil vapor sampling accordingly. ECS is pleased to assist with any modifications to the current remedial approach following contract award and will be flexible to handle changes which may occur.

In order to keep the RFQ response to a reasonable size, the following abbreviated Work Plan outline briefly summarizes our understanding of the project and our proposed approach to accomplish the primary services to be provided in the RFQ package and associated attachments.

## ABBREVIATED WORK PLAN

### *I. Understanding of Existing Site Conditions*

A release from two dry cleaning facilities that produced elevated concentrations of chlorinated solvents under a 20-block area of Vienna that impacts both residential and commercial properties. Tetrachloroethylene (PCE) was identified beneath the former source area at concentrations of 34,000 micrograms per liter (ug/L). The plume is currently being remediated using three Air Sparge/Soil Vapor Extraction remediation systems and a groundwater remediation system intended to provide hydraulic control over the plume. As described during the pre-bid meeting, the plume is escaping the radius of influence of the remediation systems and continues to migrate towards the Ohio River.

The intent of the remediation systems is to reduce the concentration of PCE in groundwater and to minimize the potential impacts associated with the off-site migration of impacted groundwater. This abbreviated work plan addresses the operation and maintenance (O&M) of the remediation systems currently in use at the site for a one-year period. This work plan is not intended to address remedial endpoints or goals or provide recommendations for the redesign of the remediation systems. The remediation systems have been designed by others, and the design specifications and O&M Manual were provided in the RFQ package. The ECS proposed scope of work was prepared based on information supplied as part of the RFQ process.



# ECS APPROACH TO THE SCOPE OF WORK

## II. General Requirements

ECS understands the scope and objectives of this project and has the capabilities necessary to meet West Virginia's short- and long-term goals. ECS and/or ECS personnel maintain the licenses and certification requirements identified within the RFP and associated specifications. ECS is fully insured with a credit line of over \$8 million dollars. The personnel selected to work on this project are trained for the tasks they will perform including specialty training such as OSHA 40 hr. and HAZWOPER training. The site specific training will be completed by individuals responsible for field operations working on the project prior to the start of work. ECS takes great pride in our responsiveness to client needs and will serve WV DEP to the best of our ability throughout the duration of this project.

## III. Health & Safety

Health and safety (H&S) is of the utmost importance to ECS. We encourage safe work practices through safety awareness. Our STAR program includes regular safety meetings, as well as safety observations in the field, offices, and laboratories. Conducted by both managers and peers, our safety assessments are tracked anonymously to encourage employees to speak freely and without fear of reprisal.

In addition to the ECS specific training, the ECS staff and subcontractors maintain OSHA 40 hour and HAZWOPER training. Certificates of completion will be provided to WV DEP before on-site activities begin. Before the start of onsite activities, all ECS staff and subcontractors will receive any site-specific safety training. A more detailed Health and Safety approach will be developed for the project in the Health and Safety Plan (HASP) following award of the project.

## IV. Project Planning

The ECS approach to project planning begins at the kick-off meeting, where our personnel and WVDEP meet to refine project requirements and management philosophies with each other. This will enable the production of detailed work plans containing the background information and identify project goals, training requirements, data quality objectives (DQOs), laboratory methods and quality control procedures, and other information required to ensure project success. Our process is intended to ensure collection of the right quantity and quality of data to support the decisions and/or actions that may be required. Project planning continues throughout the project lifecycle.

Health and Safety Plan (HASP) – ECS has an established corporate health and safety program and accompanying medical monitoring program as required under OSHA standards according to 29 CFR 1910. We believe that Health and Safety responsibility and accountability involves every employee. The health and safety policies established by ECS are not designed as static, passive or on the shelf documents. They are designed to give active and consistent direction and provide a foundation for health and safety practices that will protect employees from occupational health or safety hazards. The policies and procedures change and are updated as necessary to reflect not only regulatory requirements, but changes in industry standards and good health and safety practices in general.



## ECS CLIMBS MOUNTAINS!



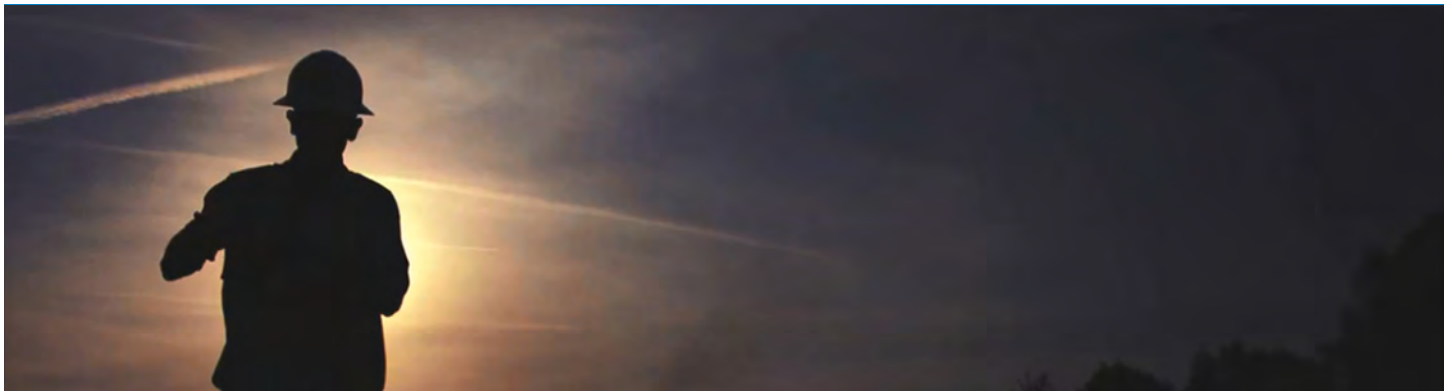
"Thanks so much for accommodating our needs for our Deck Expansion!

Not only myself, but Capital Projects really appreciate ECS revising your schedules and **climbing mountains** to do the borings this week!

We truly appreciate your efforts and assistance to help move this project forward on an expedited schedule. Thank you again and again!"

- Jeanine Bachtel  
UNC Charlotte

# ECS APPROACH TO THE SCOPE OF WORK



## QUALITY ASSURANCE PROJECT PLAN (QAPP)

ECS understands that the level of quality of the entire ECS Team is of critical importance to the successful completion of each and every project task. To this end, ECS develops a contract-specific QAPP to guide the team through the quality assurance/quality control process. This plan establishes project protocols, provides a means to verify that everyone on the team is following the plan, and includes a process to make any needed improvements. Quality is integrated into our tasks. The main indicator of ECS's quality is the repeat clientele and feedback. The quality assurance process includes process project feedback at all levels from ECS personnel ranging from field personnel to senior management. As a team and as individuals, we strive to achieve consistent quality during each step of a project. Elements of this process include:

- Maintaining an effective, ongoing quality control program to measure and verify performance
- Monitoring daily operational performance of the team and providing timely corrective action for unforeseen events
- Tracking corrective actions and changing project and safety procedures as appropriate
- Reviewing data and reporting requirements for accuracy, precision, and completeness
- Maintaining field data records and reports generated by the team
- Providing training to employees and to other team members to educate and increase understanding of operating procedures, roles, and responsibilities.

Quality control is focused on preventive actions and review of ongoing activities, rather than fixing problems after-the-fact. It is important that team members be educated regarding site safety protocols, quality control measures, testing procedures, and workmanship requirements prior to their arrival at the job site.

A team review in the initial phase is followed by daily checks to assure continuing compliance with contract requirements. The team leader for each type of work assigned is responsible for ensuring that procedures are communicated and carried out by team members. Our internal quality assurance review program exceeds industry standards. At ECS, it is not just about getting the job done—it's about getting the job done right.

Through the internal project management and accounting systems, project managers track various tasks and associated timing for deliverables to assist in meeting project deadlines. The internal controls allow ECS project managers to follow each project's progress with regard to cost expenditures (including subconsultants). The elements that ECS uses to ensure that quality is maintained on our contracts and delivery orders and incorporated in the QAPP are:

- Engineering work products review
- Monthly internal technical reviews and cost analysis
- Open lines of communications with clients
- Continuous training of team personnel
- Identification and resolution of procedural issues
- Development of detailed and realistic schedules



# ECS APPROACH TO THE SCOPE OF WORK



The QAPP specifies the means by which ECS will meet project deliverable schedules and deadlines. ECS has developed a system of electronic tracking and delivery systems to facilitate timely completion of project deliverables. This not only includes final report tracking but also can be utilized to track milestone events (i.e. system repairs, system modifications, laboratory results) that ultimately impact the overall project schedule. Our Action Items, Letters and Follow Up system (ALF) is an electronic scheduling and tracking tool that is real time and includes nearly all milestone events from project proposal through final report delivery. ALF links directly to both our electronic proposal and report registration systems and populates itself with project milestone dates. ALF can only be modified by the designated project manager to ensure they stay informed on progress. Not only does this give management the ability to track deliverables, it assists with the management of personnel needed in specific areas for the purpose of ensuring the projects are proceeding in a timely manner.

To control the collection and distribution of field data, ECS has developed a Field Report Electronic Distribution system (FRED) that allows field personnel to deliver data obtained remotely to project managers or other appropriate personnel. The FRED system employs hand held PC devices to allow field personnel to upload figures, field data, photos, etc. that can be viewed and manipulated, real time, by office personnel. In addition, in cases where routine daily reports are produced on a given project, the report can be completed remotely, uploaded (to include figures, photos, etc.) reviewed by a senior manager, finalized and transmitted to the client completely paperless and within a very short time frame.

These systems provide consistent presentation of data, a smooth work flow for data review, and same day delivery of this information to the project manager and/or client. They also allow the stakeholders to receive consistently formatted information from all of our offices. The electronic input and delivery systems, particularly during the investigation phase, allow the team to review potential problems in near real time to facilitate decision making that can save the client money and time. The implementation of FRED has significantly improved efficiency in the review and approval process of field reports and allows our managers to efficiently monitor progress of the project. These reports are generally submitted and on the client's desk in electronic format within 24 to 48 hours of the performance date.

## V. SAMPLE AND ANALYSIS PLAN

As requested in the specifications package, ECS will prepare a Sample and Analysis Plan (SAP) within 15 days of contract award. The SAP will take into account the various elements of Attachments, 1, 2, and 3, but will also incorporate additional information regarding laboratory responsibilities, field staff responsibilities, and include copies ECS Standard Operating Procedures pertinent to the site.

ECS will coordinate the receipt of appropriate laboratory supplies from the WV DEP selected contract laboratory for the groundwater samples and the WV DEP approved laboratory for the soil vapor samples.

# ECS APPROACH TO THE SCOPE OF WORK

The laboratory's responsibilities include, but are not limited to, the following:

- Providing complete and correct data for requested analyses
- Submitting data reports for each sample delivery group using an appropriate format
- Noting any issues affecting the analytical process in the case narrative included in each report
- Laboratories supporting this project must be accredited under all applicable programs and accreditations must be maintained and renewed as necessary during the lifetime of the project.

The SMP will be used in unison with the QAPP to achieve the overall quality control (QC) objective for this project, which implements the procedures for sample collection, laboratory analysis, field measurement, and data reporting that will provide data of a degree of quality consistent with its intended use.

## VI. RECORD KEEPING AND REPORTING

Following award of the contract, ECS will obtain and review the previous studies completed at the site and incorporate this new information into the necessary reports. ECS will immediately begin work on the project and prepare the HASP, QAPP, and SMP. ECS anticipates that these tasks will be completed during the first 15 days of February.

Documents will be supplied to WV DEP staff as drafts initially with the exception of daily work reports, field notes, and requests for work authorization the following day. All documents will be stored electronically on the ECS main server and a data share site will be created allowing WV DEP to retrieve any documentation for the project in a timely fashion. The data share site will be updated weekly with all major correspondence, field reports, work summaries, and major reports created during that week. The document storage process will be managed by the project manager and a full time administrative assistance assigned to the project.



We were all impressed with the ECS Environmental team's work!"

- Andrew Weddle, Weddle  
Real Estate Investments

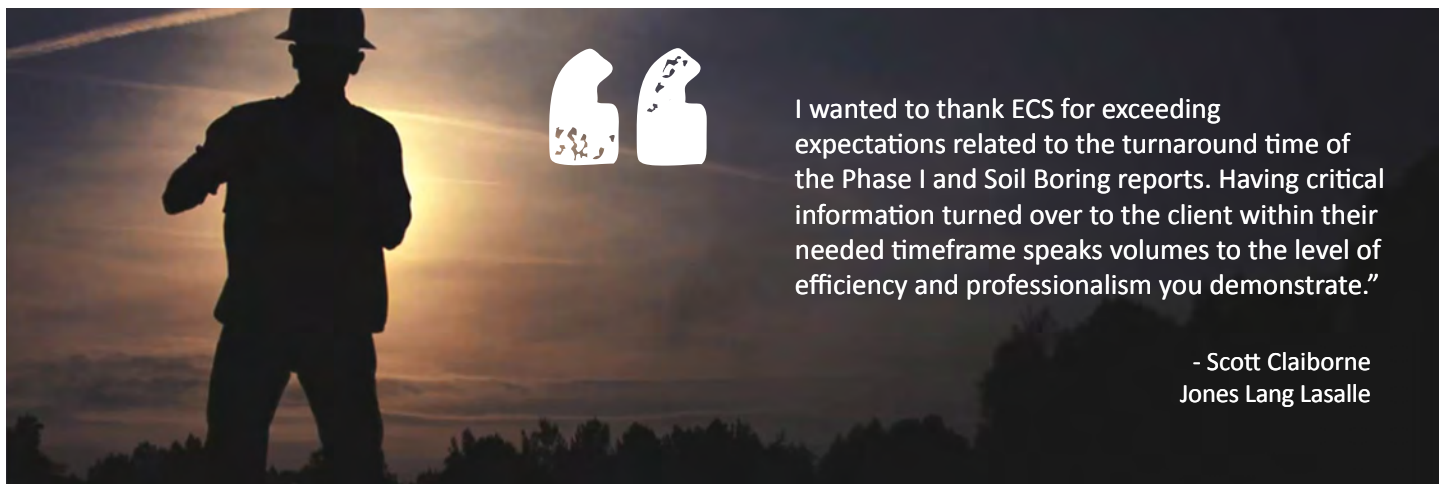




04

ECS Environmental Team

# ECS ENVIRONMENTAL TEAM



I wanted to thank ECS for exceeding expectations related to the turnaround time of the Phase I and Soil Boring reports. Having critical information turned over to the client within their needed timeframe speaks volumes to the level of efficiency and professionalism you demonstrate.”

- Scott Claiborne  
Jones Lang Lasalle

## Environmental Team Organization

The ECS Environmental Group consists of approximately 130 experienced staff members spread across our local offices. The management of the Environmental Group is geographically based to help ensure that appropriate staff is assigned to a particular project based on that project’s specific needs. We are not limited by operating areas, which enables local project managers to rely on the technical and managerial expertise of the entire group. This structure allows team assignments to be commensurate with the needs of the project. Professional staff are registered West Virginia LRSs and/or certified in multiple jurisdictions to provide our clients with the ability to work with recognized professionals in each field when interfacing with regulating agencies.

## Environmental Team Experience

Our staff has the experience needed to work cooperatively with regulatory officials to solve the challenges associated with assessing, evaluating, permitting and reporting in response to environmental conditions and considerations. In addition, we have solid technical experience necessary to resolve issues that result in solutions amenable to all parties involved. Our staff has an exceptional working knowledge of environmental issues and requirements generally encountered in the regulatory environment. We have built that experience by building relationships with various agencies and developing a collaborative approach to working with them. Many of our staff serve on technical advisory committees, regulatory boards and task groups at the local, state and federal level.

The following pages include a fold-out organizational chart depicting our key personnel. A summary of these individuals is included as part of the abbreviated Work Plan. What follows is more specific information about the team’s hierarchy and reporting structure, together with resumes that provide details of our team’s professional experience, certifications and registrations, and select project experience. Copies of personnel certifications can be provided upon request.

Resumes are followed by specific project experiences. Information includes a general project description, environmental services provided, project schedule, and client contact information. We invite WV Purchasing Division and WV DEP personnel to reach out to our client references and speak with them directly about their experiences with our team.



## KEY PERSONNEL



### **PHILIP DONMOYER, LRS, P.G. – PROJECT MANAGER/PRIMARY POINT OF CONTACT**

The Project Manager and Primary Point of Contact for the project will be Philip Donmoyer, who has over 27 years of experience. Mr. Donmoyer has completed projects ranging from small scale site assessments to the management of large West Virginia state contracts involving remediation systems, including soil vapor extraction, air sparge, and groundwater recovery systems. Mr. Donmoyer formerly served as the Service Practice Leader for the SW Region for a large WV-based environmental consulting firm. In this position, Mr. Donmoyer was responsible for the management of the environmental department and technical guidance on numerous projects.

Mr. Donmoyer will provide management of an anticipated staff of seven individuals work on the project on any given day. Decisions that may affect the safety, quality, or performance of the remediation systems must have the input and approval of Mr. Donmoyer. Mr. Donmoyer will review all reports for the project and will ensure project deliverables are prepared and submitted in a timely manner. Mr. Donmoyer's responsibilities will also extend into the financial aspects of the project including weekly budget reviews, and invoicing.

### **NOEL SIMMONS, LRS, P.G., PMP – PRINCIPAL-IN-CHARGE**

The Principal-in-Charge of the project Quality Assurance Project Plan (QAPP) will be Noel Simmons who has over 30 years of experience managing large federal NPL, state, and private environmental site characterizations and remediation projects under CERCLA. He has successfully managed numerous critical, time-sensitive projects such as fast turnaround environmental surveys and regulatory compliance assessments for large real estate transfers, acquisitions, and divestitures. Other areas of expertise include CERCLA RI/FS, RCRA facility assessments and compliance inspections, litigation support, expert witness, and program planning support.

Mr. Simmons' primary responsibilities will be to provide Principal oversight and enforce QAPP procedures. In this role Mr. Simmons will provide report review for documents generated on a daily basis, such as daily field reports, and for annual summary reports. Decisions that may affect the safety, quality, or performance of the AS/SVE system must have the input and approval of Mr. Simmons. Mr. Simmons is a senior member of ECS management and provides WVDEP with a direct line of communication in the event that WVDEP has any concerns regarding execution of this contract. Mr. Simmons will be copied on all substantive email correspondence so that he is kept abreast of the project's execution.

### **CHRISTOPHER CHAPMAN, CIH – HEALTH AND SAFETY**

The health and safety (H&S) Principal for the project will be Chris Chapman who is a Certified Industrial Hygienist. Mr. Chapman serves as the Director of Industrial Hygiene for ECS Mid-Atlantic, LLC. Mr. Chapman has more than 25 years of experience in industrial hygiene and H&S consulting services.

Mr. Chapman's primary responsibilities for the Vienna PCE project will be the preparation of the H&S plan, senior management of H&S protocol for the project during installation and operation and maintenance, and direct management of any site safety incidents.



# KEY PERSONNEL

## **JASON BECK, LRS, CPG, SECONDARY POINT OF CONTACT**

The Assistant Project Manager and Secondary Point of Contact for the project will be Jason Beck. Mr. Beck's nine years of experience includes large-scale petroleum investigations and remediation, dry cleaner characterization and remediation, contaminated soil excavations, groundwater discharge treatment system design and implementation, and due diligence consulting services. Mr. Beck is very familiar with the design, installation, and operation of soil vapor extraction, air sparge, and groundwater recovery systems having worked on and managed projects involving remediation systems his entire career.

Mr. Beck's responsibilities will be to assist Mr. Donmoyer with the management of the project staff, monitoring correspondence, reviewing quality and safety protocol and alerting Mr. Simmons or Mr. Chapman of any variations from the project plans. He will assist in determining if adjustments to the remediation systems are needed, and work with Ms. Fu, Project Engineer, to make the necessary design changes, review all reports for the project, and ensure project deadlines are being met. In the event that Mr. Donmoyer is unavailable for any reason, Mr. Beck will assume the role of the Project Manager.

## **AMY FU, P.E. – PROJECT ENGINEER**

Ms. Fu is a licensed Professional Engineer with 15 years of environmental engineering experience. Her project experience includes contamination assessment and remediation of petroleum, chlorinated solvent, metals, and polychlorinated biphenyls (PCB) impacted soil and groundwater, environmental permitting and compliance, groundwater modeling, and staff, budget, and project management.

Ms. Fu will serve as the Project Engineer and will be responsible for technical review of all equipment and material specifications, warranties, and factory testing information provided from the equipment and material vendors and ensure remedial systems are operating in accordance with the intended design. In the event Ms. Fu identifies a potential quality issue with any equipment, those products will not be used on the project until the issue can be resolved to Ms. Fu's satisfaction. Should the remediation systems need to be redesigned or expanded, Ms. Fu will prepare the plans for the redesign and oversee remediation system optimization efforts.

## **JONATHAN HORNER – SITE SUPERVISOR**

Jonathan Horner has over ten years of experience performing and managing environmental site characterizations of federal NPL sites, state sites, and privately held sites. He has extensive experience in the installation, operation, and maintenance of various types of remediation systems including soil vapor extraction and air sparge systems. Mr. Horner currently serves as one of the primary ECS technical leads on projects relating to groundwater recovery/treatment systems including several projects which are ongoing treating between 100 gallons per minute to 1,500 gallons per



## KEY PERSONNEL



ECS report was excellent; the attention to detail and interpretation of results is very much appreciated.”

- Christina Schroeter  
NC Dept. of Environmental Quality



minute of contaminated groundwater. Mr. Horner is also experienced with the remediation of chlorinated solvent plumes having formerly worked on the Brandywine Defense site in Maryland and an ongoing chlorinated solvent investigation and remediation effort in Alexandria, VA impacting several blocks of residential houses.

Mr. Horner’s responsibilities will include the daily management of the Primary and Secondary System Operators and collaboration with the Project Engineer on any issues that may arise. Mr. Horner will be responsible for the scheduling of onsite activities including the weekly operation and maintenance visits, investigation of system shut downs, and organizing daily field reports for distribution. Mr. Horner will also be responsible for the preparation of reports for review by the project management team. In the event that Mr. Beck is unavailable or is acting as Project Manager due to Mr. Donmoyer’s absence, Mr. Horner will assume the role of Secondary Point of Contact.

### **CHRIS SOMMER – PRIMARY SYSTEM OPERATOR**

Chris Sommer is a retired Staff Sergeant with the U.S. Marine Corps who also served in the U.S. Army. During those years, he gained significant experience in the deployment, operation, and maintenance of various advanced communications systems. Mr. Sommer has been with ECS for more than two years and has become an integral part of our Environmental Group. He brings a mindset of dedication to work and team, and a strong work ethic where challenges are overcome and project objectives are achieved. Since joining ECS, Chris has completed environmental site characterizations, hazardous materials surveys, performed hazardous material removal oversight, and groundwater sampling events using low flow sampling procedures.

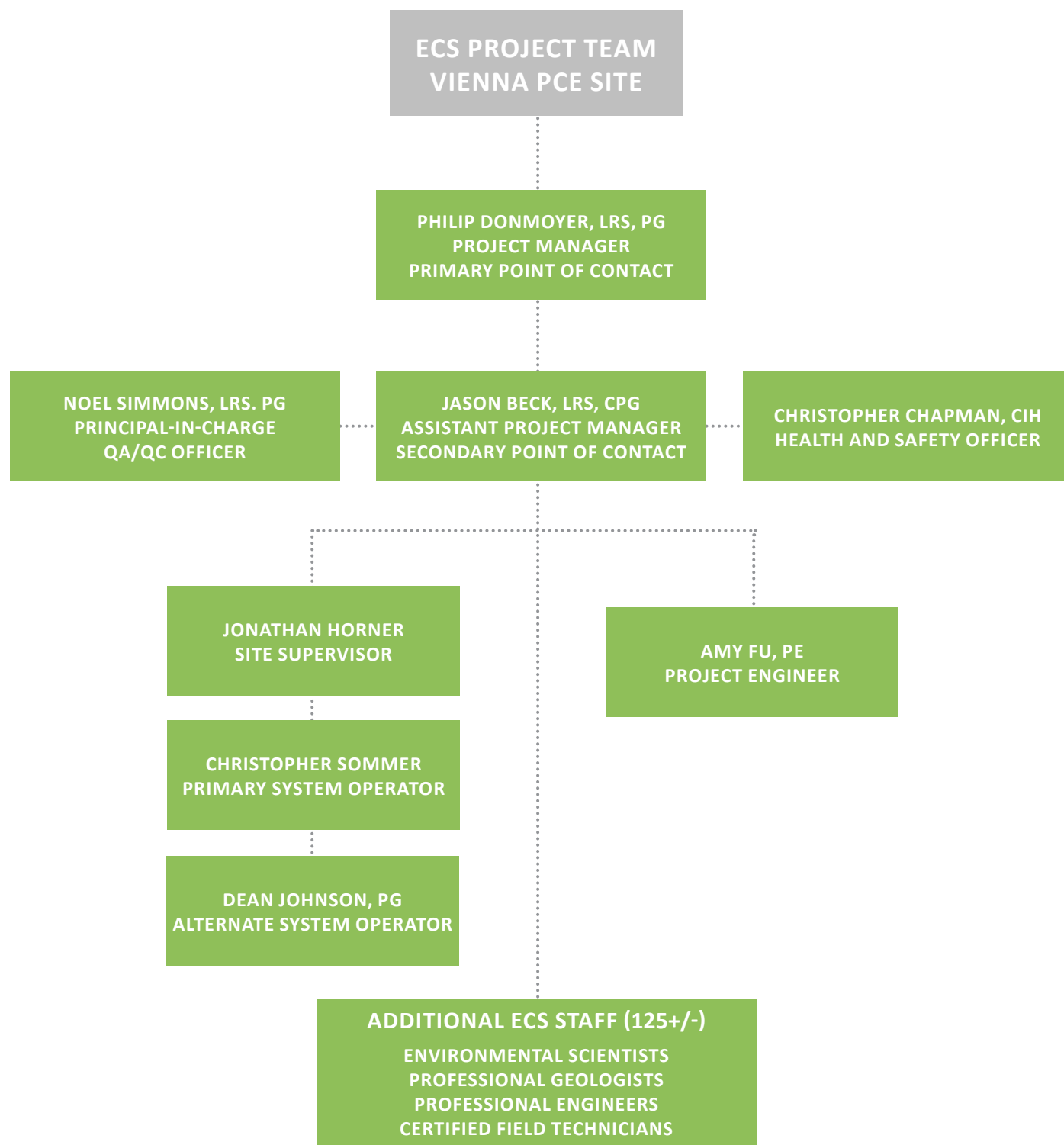
Mr. Sommer’s responsibilities will include the daily monitoring of remediation system conditions remotely to ensure optimal system performance, completion of the weekly/monthly/annual maintenance tasks, completing and maintaining daily field reports, identifying issues with the system and conveying this information to Mr. Horner immediately, and completing groundwater or soil vapor monitoring events.

### **DEAN JOHNSON, PG – ALTERNATE SYSTEM OPERATOR AND SAMPLING ASSISTANT**

The Alternate System Operator is Dean Johnson who has over seven years of experience including the oversight of monitoring well installation, aquifer testing, groundwater sampling using low flow sampling techniques, as well as operation and maintenance of remediation systems on NPL sites. Mr. Johnson currently supervises data collection at various sites and is responsible for the regulatory reporting requirements for them.

Mr. Johnson will be copied on all daily project documents when distributed by Mr. Sommers so that Mr. Johnson can assume the daily responsibilities typically assigned to the Primary System Operator in the event that Mr. Sommers is unavailable. In the event that Mr. Horner is unavailable or is acting as Assistant Project Manager in Mr. Beck’s absence, Mr. Johnson will assume the role of Site Supervisor.

# ORGANIZATION CHART



# PHILIP DONMOYER, LRS, PG

PRIMARY POINT OF CONTACT/PROJECT MANAGER

## REGISTRATIONS

Professional Geologist: PA  
Licensed Remediation Specialist: WV

## CERTIFICATIONS

OSHA HAZWOPER 40-Hour Training  
OSHA HAZWOPER Supervisor Training  
OSHA HAZWOPER 8-Hour Refresher Training  
OSHA Confined Space Training  
Project Management Training  
ASTM Phase I/II Training  
ASTM Vapor Intrusion Training

## SKILLS

PA Voluntary Cleanup Program (VCP/ Act 2) and Corrective Action Reports  
Phase I/II Environmental Site Assessments  
Soil and Groundwater Quality Investigations  
Geophysical Investigations

## EDUCATION

Bachelor of Science, 1989,  
Geology, University of Maryland,  
College Park, MD

## YEARS OF EXPERIENCE

ECS: 1 Other: 26

## PROFESSIONAL PROFILE

Mr. Donmoyer has performed and managed numerous projects involving site characterization; underground storage tank closures and corrective action investigations; soil and groundwater remediation systems including groundwater pump and treat systems, soil vapor extraction systems, vacuum enhanced groundwater extraction systems, chemical oxidation, and ozone and air sparge systems; geophysical investigations; public and community water supply and wastewater treatment systems; and environmental due diligence for real estate property transfers.

## PROJECT EXPERIENCE

**Hurricane, Putnam County; Mineral Wells, Wood County; Buckhannon, Upshur County; French Creek, Upshur County; and Flat Top, Mercer County, WV** - Program Manager for West Virginia State UST support contract, which included preparing proposals, reviewing deliverables, calculating and submitting invoices, and functioning as the primary point of contact. Projects involved underground storage tank closure and reporting, site characterization to determine extent of release, determine and complete appropriate remedial actions through feasibility analysis and pilot testing, and obtain Certificate of Completion/No Further Action letter from regulators by obtaining state health standards or risk-based closure.

**Cabin Creek, Kanawha County, WV** - Project Manager for remediation system design and operations for a national energy client. Managed the operation and maintenance of dual-phase groundwater and soil vapor extraction system, review system data, groundwater, and soil vapor quality to determine effectiveness of remedial efforts.

**St Marys, Pleasants County, WV** - Project Manager overseeing remediation services for a national chemical manufacturing client. Determined suitable locations and well construction specifications for monitoring wells to maintain RCRA Corrective Action compliance for light non aqueous phase liquid monitoring and removal.

**Energy/Power Company Transfer Station/Storage Yard, Cabin Creek, WV** - Managed soil and groundwater characterization, delineation, and remediation of a petroleum hydrocarbon release from multiple USTs. Performed O&M for a dual phase (vacuum enhanced groundwater extraction/soil vapor extraction) remediation system.

**Former Glass Manufacturer VRP, Vienna, WV** - This project included enrolling the site into the WV VRP; Phase I and II Environmental Site Assessments; and interaction with WVDEP Project/Case Managers.

# NOEL SIMMONS, LRS, PG, PMP

PRINCIPAL-IN-CHARGE

## REGISTRATIONS

Project Management Professional  
Licensed Remediation Specialist:  
WV  
Professional Geologist: VA, PA, GA,  
DE

## SKILLS

CERCLA RI/FS at NPL Sites  
RCRA RFIs  
UST Investigations  
Petroleum Pipeline and Terminal  
Investigations and Remediation  
Groundwater Modeling  
Detailed Geologic Mapping

## EDUCATION

Master of Business Administration,  
1985, Virginia Polytechnic Institute  
and State University,  
Blacksburg, VA  
Master of Science, 1983, Geology,  
Virginia Polytechnic Institute and  
State University,  
Blacksburg, VA  
Bachelor of Science, 1981, Geology,  
Virginia Polytechnic Institute and  
State University,  
Blacksburg, VA

## YEARS OF EXPERIENCE

ECS: 2 Other: 30

## PROFESSIONAL PROFILE

Mr. Simmons has successfully managed numerous critical, time-sensitive projects, such as fast turnaround environmental surveys and regulatory compliance assessments for large real estate transfers, acquisitions, and divestitures, as well as RI/FS and remediation at CERCLA and NPL sites.

Other areas of interest include RCRA facility assessments and compliance inspections, litigation support, expert witness, and program planning support.

## PROJECT EXPERIENCE

**Heritage Shopping Center, Annandale, VA** - Developed and implemented a Corrective Action Plan and groundwater modeling for contamination resulting from overlapping PCE and petroleum plumes at a large suburban shopping center located in a residential area for this \$1.5 million project.

**Fairlington Dry Cleaners, Arlington, VA** - Principal-in-Charge of site investigations of PCE releases from a former dry cleaner that impacted offsite residential areas. ECS installed a sub-slab depressurization system to eliminate vapor intrusion risks for the center's tenants and performed pilot-testing of numerous in situ chemical treatment technologies including permanganate and molasses. He is currently completing mapping of the offsite plume in cooperation with the local HOA.

**Fort Monroe, Hampton, VA, Remedial Investigation/Risk Assessment (RI/RA)** - ECS recently completed a \$15,000 task order to assist the Fort Monroe BRAC office in addressing regulatory comments received from regulators (VDEQ) on the Draft Final RI/RA Report. This project is the culmination of a \$606,000 CERCLA RI/FS of former industrial site impacted by chlorinated solvents, PAHs, and metals.

**Tinker AFB Area A RFI/RA, AFCEE, Oklahoma City, OK** - Project Manager for a \$2.42 million RFI/RA of a former industrial area, releases from a fuel hydrant system, and three large TCE plumes within high security areas of Tinker AFB. RFI including human health and ecological risk assessments was completed and submitted in May 2014.

**Former Air Force Facility RI/FS, USACE, Independent Hill, VA** - Project Manager for a \$603,000 RI/FS of a former NIKE missile communications/control facility that evaluated TCE contamination in groundwater and potential for radiological contamination from historical military activities at a site now occupied by an office complex, maintenance facilities, and a special needs public school.



# JASON BECK, LRS, CPG

SENIOR ENVIRONMENTAL PROJECT MANAGER/SECONDARY POINT OF CONTACT

## REGISTRATIONS

Licensed Remediation Specialist:  
WV  
Certified Professional Geologist: VA

## CERTIFICATIONS

OSHA HAZWOPER 40-Hour Training  
OSHA HAZWOPER Supervisor  
Training  
OSHA HAZWOPER 8-Hour  
Refresher Training  
DOT Security Awareness Training  
ECS Project Management Training  
ECS Future Leaders Training

## SKILLS

Large-Scale Petroleum Investigations  
and Remediation  
Dry-Cleaner Characterization and  
Remediation  
Contaminated Soils Excavation  
Due Diligence Consulting Services

## EDUCATION

Bachelor of Science, 2008,  
Geology, George Washington  
University, Washington, DC

## YEARS OF EXPERIENCE

ECS: 5 Other: 4

## PROFESSIONAL PROFILE

Mr. Beck is responsible for managing large environmental remediation and site characterizations projects to meet regulatory requirements or as part of a due diligence process. He has designed and installed groundwater treatment systems with capacities from 20- to 300-gallons-per-minute. Mr. Beck performs feasibility studies and pilot tests for groundwater treatment, air sparge, and soil vapor extraction systems. He is currently managing several projects with ongoing remediation efforts. Mr. Beck serves on the ECS Site Characterization/Remediation Quality Assurance Group and is the Chair of the local Young Professionals Group.

## PROJECT EXPERIENCE

**Possum Point, Dumfries, VA** - As a part of the unlined coal ash pond landfill remediation, Mr. Beck manages a staff of nine environmental technicians to assist with the operation and maintenance of this \$35-million dollar water treatment system. The system was designed to handle a flow of 2,000-gallons-per-minute. This complex treatment system is operated by trained ECS Personnel working on rotating shifts 24-hours per day/7-days per week.

**Miller Chrysler Remediation, Martinsburg, WV** - Managed the environmental remediation following identification of a significant oil release from an oil water separator that had been improperly installed. The site was located in complex karst topography and migration of the oil was found to have been controlled by two large limestone pinnacles that acted as channels to funnel the oil to a ponding area. Managed the excavation of the impacted soil and removed the accumulated free product identified within the excavation. Following removal of the most contaminated material, directed the application of 500 pounds of chemical oxidizer and activator between the limestone to address residual contamination.

**Former Heritage Mall Citgo, Annandale, VA** - Managed and completed a phased site characterization that involved installing over 30 groundwater monitoring wells, and completing several studies, including a passive soil vapor and deep soil vapor, groundwater sampling and modeling, hydraulic conductivity, soil vapor extraction pilot studies, membrane interface probe, and interim remedial actions. Mr. Beck designed and managed the installation of vapor extraction systems beneath the slabs of the neighboring buildings and a groundwater pump and treat system using a low-profile air stripper with GAC off-gas treatment. A surfactant, PetroCleanze was injected into the release area using direct push technology to liberate the product from the tight saprolite and degraded bedrock more quickly. Remediation efforts continue, and a soil vapor extraction system has been designed and may be initiated to further shorten the remediation timeframe.

# CHRISTOPHER CHAPMAN, CIH

SUBSIDIARY DIRECTOR OF INDUSTRIAL HYGIENE

## REGISTRATIONS

ABIH: Certified Industrial Hygienist

## CERTIFICATIONS

OSHA: 29 CFR 1926, Construction  
Safety and Health, 10-Hour

OSHA: 20 CFR 1910.146, Confined  
Space Entry

OSHA Authorized Instructor  
(General Industry and  
Construction)

VA: Asbestos Inspector,  
Management Planner, Project  
Designer, Project Monitor, Lead  
Risk Assessor

## SKILLS

Microbial Assessments and  
Remediation

Expert Witness Testimony  
Phase I and II Environmental Site  
Assessments

## EDUCATION

Master of Science, 1996, Biomedical  
Engineering, Medical College of  
Virginia, Richmond, VA

Bachelor of Science, 1988, Biology  
Education, Virginia Commonwealth  
University, Richmond, VA

Bachelor of Science, 1986,  
Anthropology, Virginia  
Commonwealth University,  
Richmond, VA

## YEARS OF EXPERIENCE

ECS: 6 Other: 22

## PROFESSIONAL PROFILE

Mr. Chapman serves as the Director of Industrial Hygiene for ECS Mid-Atlantic. In addition to overseeing industrial hygiene services and training throughout the Mid-Atlantic region, his experience includes ventilation assessments, providing inspections for lead and asbestos, preparing management plans for asbestos and lead, specifications and abatement plans for lead and asbestos removal projects, monitoring abatement contractors, and performing final clearance testing. Mr. Chapman is also experienced with hazardous materials removal in occupied buildings.

## PROJECT EXPERIENCE

**Hampton Roads Housing Authority-Lincoln Park Demolition, Hampton, VA** - Certified Industrial Hygienist who provided Senior oversight for conducting hazardous materials surveys, development of abatement specifications, and title ii services for the demolition of approximately 40 + residential buildings in the Lincoln park housing development including the implosion of a nine-story apartment tower.

**City of Danville/Housing and Development- Demolition of approximately 200+ houses/other structures, Danville, VA** - Industrial Hygienist who provided Senior management for conducting asbestos surveys, development of abatement specifications, and monitoring for the demolition of 200 + residential buildings in the city as part of special funded programs to remove dilapidated and abandoned structures.

**Better Housing Coalition, Cary Street Apartments, City of Richmond, VA** - Certified Industrial Hygienist: Provided Senior management for conducting mold surveys, protocol development, and clearance testing for both mold and lead based paint following remediation in 13 low-income apartment units.

**Virginia Department of General Services** - Mr. Chapman was the project manager for this multi-year contract to the Commonwealth of Virginia. Mr. Chapman provided supervision and oversight for various industrial hygiene related projects in buildings owned by the commonwealth. Projects included asbestos/radon/lead-based paint surveys, abatement specifications, and project monitoring, industrial hygiene services, and indoor air quality evaluations.

**Virginia Military Institute, Term Contract for Geotechnical and Environmental Services, Lexington, VA** - Senior Reviewer who provided industrial hygiene services for various projects conducted under this contract.

# AMY FU, PE

PRINCIPAL ENGINEER

## REGISTRATIONS

Professional Engineer: FL, GA, SC,  
NC, VA, PE, MD

## CERTIFICATIONS

OSHA 40 Hours Training

OSHA 8 Hours HAZWOPER  
Refresher

NCCER's Construction Site Safety  
Orientation

JEA Supervisor Safety Leadership

## SKILLS

Contamination Assessment and  
Remediation Services

Environmental Permitting and  
Compliance

## EDUCATION

Ph.D Program Environmental  
Engineering, University of Florida  
(Ongoing)

Master of Science, 1999,  
Chemistry, University of Notre  
Dame, Notre Dame, IN

Master of Science, 1995,  
Chemistry, Xiamen University,  
China

Bachelor of Engineering, 1992,  
Chemical Engineering, Tsinghua  
University, China

## YEARS OF EXPERIENCE

ECS/E&A: 4 Other: 15

## PROFESSIONAL PROFILE

Ms. Fu is the Environmental Department Manager for Ellis & Associates, Inc. (E&A), an ECS Group of Companies. Her project experience includes contamination assessment and remediation of petroleum, chlorinated solvent, metals, and polychlorinated biphenyls (PCB) impacted soil and groundwater, environmental permitting and compliance, groundwater modeling, and staff, budget, and project management.

## PROJECT EXPERIENCE

**JEA Northside Generating Station, #2 Fuel Oil Bulk Product Piping Line, Jacksonville, FL** - Ms. Fu served as Senior Review for the Post-Active Remediation Monitoring (PARM) Semi-Annual Report, (Discharge Date: 2/7/07 (Non-Program); FDEP Facility ID No. 16-9102483). Activities related to this site have been conducted under voluntary cleanup. The site was undeveloped wooded land prior to development in 1969, and has operated as a major electricity generation plant since 1969. This remediation monitoring program has been ongoing under the direction of Ms. Fu from 2007-2013. E&A issued an Initial Remedial Actions and Site Assessment Report in November 2007 detailing activities. Within this report, E&A recommended soil impacts be further delineated and that free product recovery be initiated. The City of Jacksonville Environmental Quality Division (EQD) concurred with E&A's recommendations.

**Florida Department of Environmental Protection (FDEP) program, Various Locations, FL:** Project Manager and Lead Engineer for nearly 30 FDEP Petroleum Pre-approval Program and Dry Cleaner Solvent Cleanup Program sites. Ms. Fu designed and implemented various remedial technologies in addressing petroleum or chlorinated solvent cleanup including AS, SVE, MPE, Biosparging, Bio-stimulation Injection, Chemical Oxidation, Soil Excavation, and Site Capping.

**JEA Pearl Street, Jacksonville, FL:** Project Manager and Lead Engineer for the development of a site-wide Feasibility Study, Interim Remedial Action Plan (IRAP) for Light Non-aqueous Phase Liquids (LNAPL) source removal, IRAP for Dense Non-aqueous Phase Liquid (DNAPL) source removal using in-situ thermal (IST) heating, SVE, and multi-phase extraction (MPE) technologies, and Soil RAP consisting of source removal and capping to address site-wide soil impacts. The DNAPL remediation system achieved reduction of average groundwater concentrations of VOCs by approximately 97 percent and reduction of soil concentrations by nearly 100 percent comparing to baseline conditions during its first eight months of operation, meeting its active remediation goals.



# JONATHAN HORNER

SITE SUPERVISOR

## CERTIFICATIONS

OSHA 30-Hour Construction  
Construction Management Course  
(USACE)  
40-Hour HAZWOPER  
8-Hour HAZWOPER Refresher  
CPR/First Aid Training  
ArcGIS Certification

## SKILLS

Groundwater Excavation  
Soil Vapor/Dual-Phase Extraction  
Air Sparging  
Quantitative Evaluation of Natural  
Bioremediation

## EDUCATION

Bachelor of Science, 2006,  
Geo-Environmental Studies,  
Shippensburg University,  
Shippensburg, PA

## YEARS OF EXPERIENCE

ECS: 3.5 Other: 6.5

## PROFESSIONAL PROFILE

Mr. Horner is an Environmental Scientist responsible for performing environmental investigations at site impacted by petroleum hydrocarbons and chlorinated solvents from retail dry cleaning operations, including at least four sites enrolled in the Virginia Department of Environmental Quality (VDEQ) Voluntary Remediation Program (VRP). Mr. Horner has assisted with remediation activities of sites enrolled in the VRP, which typically involved excavation, soil vapor/dual-phase extraction, air sparging, and/or quantitative evaluation of natural bioremediation.

## PROJECT EXPERIENCE

### **Brandywine Defense Reutilization and Marketing Office, Brandywine, MD**

- Conducted a site investigation and multiple groundwater sampling events to delineate and evaluate the extent of a chlorinated solvent at the former Brandywine Defense Reutilization and Marketing Office (DRMO). After completing the delineation over 1,200 injection points were utilized to actively remediate the chlorinated plume through bioremediation. At the same time an active pump and treat system was installed to actively remediate the groundwater in the core of the plume. Groundwater monitoring events were conducted to study the effectiveness of the bioremediation and pump and treat system.

**So Others May Eat (SOME), Washington, DC** - Provided environmental services to delineate the extent of the groundwater contamination plume. This included groundwater well installation and soil sampling. Responsible for the treatment of groundwater during site dewatering. Designed and installed a treatment system capable of handling 300-gallons-per-minute, equipped with sediment filtration, pH adjustment, and activated carbon filtration. Provided operation and maintenance of the treatment system and conducted monthly monitoring of the system.

**Fairlington Drycleaner, Alexandria, VA** - Conducted the delineation of a PCE groundwater contamination plume. Completed the installation and sampling of 15 groundwater wells. Coordination of sub-slab sampling beneath over 20 residential properties. Installation of sub-slab depressurization systems within homes and businesses. Coordinated property access agreements with homeowners associations and individual homeowners. Continued monitoring of PCE plume migration and reporting of findings to state official and local homeowners.

# CHRISTOPHER SOMMER

PRIMARY SYSTEM OPERATOR

## CERTIFICATIONS

EPA AHERA Asbestos Building Inspector Certification (multiple states)

EPA AHERA Asbestos Management Planner Certification (multiple states)

OSHA 40-Hour HAZWOPER

OSHA 8-Hour HAZWOPER Supervisor

ICC Soils Special Inspector

ACI: Concrete Field Testing Technician – Level 1

## SKILLS

Phase II Subsurface Investigations

Asbestos Surveys and Abatement Oversight

UST Assessments

Contaminated Soils Excavation

Groundwater Sampling

## EDUCATION

Bachelor of Science, 2006,  
Environmental Geoscience, Clarion  
University of Pennsylvania, Clarion,  
PA

## YEARS OF EXPERIENCE

ECS: 3 Other: 23

## PROFESSIONAL PROFILE

Mr. Sommer serves as an Environmental Scientist for ECS Mid-Atlantic, LLC. His responsibilities include Phase I and II Environmental Site Assessments, Hazardous Materials Surveys, Indoor Air Quality Surveys, Operations and Maintenance of Remediation Systems, Asbestos Surveys, and Abatement Oversight.

## PROJECT EXPERIENCE

**United Brass Works, Erie, PA** – Assisted with site characterization activities for soil, groundwater, and soil vapor, including sampling and evaluation of results to guide site into PADEP Act 2 program using a Site Specific Standard. Tasks included performing the initial Phase I Environmental Site Assessment, a Phase II subsurface investigation, and subsequent groundwater sampling using bailers, submersible pumps, and low-flow purging techniques.

**Former U.S. Steel Corporation McDonald Works, McDonald, OH** – Performed a Phase I Environmental Site Assessment, including data review, historical records review including environmental database and public records search and a site reconnaissance to identify past and current uses of the properties.

**MedStar Southern Maryland Hospital Center, Clinton, MD** – Performed various soil and groundwater characterization activities. Tasks included locating and advancing hollow stem auger borings, collection and logging of surface and subsurface samples, and field screening samples for the presence of volatile organic compounds.

**Butler Veterans Affairs Health Clinic, Butler, PA** – Performed an asbestos survey and subsequent oversight of asbestos abatement activities. Tasks included bulk sampling of suspect asbestos-containing building materials, oversight of abatement activities and post-removal air monitoring and reporting.

# DEAN JOHNSON, PG

ASSISTANT SYSTEM OPERATOR

## REGISTRATIONS

Professional Geologist: PA

## SKILLS

Phase I/Phase II Environmental Site Assessments

Environmental Site Characterization and Reporting

Contaminant Remediation

In-Situ Remediation Techniques

## EDUCATION

Bachelor of Science, 2008,  
Geology, University of Pittsburgh,  
Johnstown, PA

## YEARS OF EXPERIENCE

ECS: 1 Other: 6

## PROFESSIONAL PROFILE

Mr. Johnson serves as Environmental Project Manager for ECS Mid-Atlantic, LLC. His responsibilities include coordinating, preparing, and reporting under Pennsylvania Land Recycling Program (Act 2). Mr. Johnson supervises data collection at various sites, conducts and supervises data evaluation efforts, and frequently interacts with regulatory agencies to discuss project objectives and goals. He also has experience in contaminant remediation using in-situ remediation techniques such as catalyzed hydrogen peroxide, nZVI, and potassium permanganate injection.

## PROJECT EXPERIENCE

**Superfund, Logan Township, NJ** - Assisted in efforts for deep groundwater characterization. Tasks included oversight of the installation of deep groundwater monitoring wells, aquifer testing for treatment system design, groundwater sampling using low flow purging techniques, and oversight of groundwater remediation using catalyzed hydrogen peroxide.

**United Brass Works, Erie, PA** - Performed site characterization activities for soil, groundwater, and soil vapor including sampling and evaluation of results to guide site into PADEP Act 2 program using a Site Specific Standard.

**Trafford, PA and East Pittsburgh, PA** - Performed tasks for weekly operation and maintenance of groundwater treatment systems designed for chlorinated solvents. Tasks included changing of high pressure bag filters, carbon unit backwashing, effluent compliance sampling, and reporting.

**Norvelt, PA** - Performed tasks for monthly operation and maintenance of soil vapor extraction system. Tasks included maintenance of blowers, obtaining air flow readings, and effluent compliance sampling.

**Former Lamp Manufacturing Facility, Bloomfield, NJ** - Performed various soil and groundwater characterization activities including aquifer testing for treatment system design and soil modeling for development of Site Specific Standards.





05

Team and Project Experience



# TEAM AND PROJECT EXPERIENCE



## ECS TEAM EXPERIENCE

ECS has extensive project experience and familiarity with the requirements of EPA and West Virginia regulations to environmental investigation, remediation, assessment, monitoring, and compliance. Our staff has the LRS certifications, as well as the practical experience needed to work with regulatory officials to solve issues associated with assessing each situation as it arises and bringing the issue to closure or in compliance. In addition, we have experience negotiating with regulators to resolve issues that result in solutions amenable to all parties involved. This is an important qualification as this directly impacts each project's viability.

Our staff has an exceptional working knowledge of the environmental issues and regulations generally encountered in the regulatory environment and have built that experience through working with various agencies and developing good working relationships with them through our history. Many of our staff serve on technical advisory committees, regulatory boards, and task groups at the local, state, and federal level. This further allows us to keep abreast of current and proposed regulations and have a voice in how proposed changes will impact our clients.

In summary, the broad depth of the ECS Team correlates well with the diverse scope of services required to evaluate, plan, and execute environmental services. Our vast private and public sector experience in this field gives us a unique perspective in viewing the "bigger picture" required in a contract such as this. Having a thorough understanding of the rules and regulations is important, but knowing how best to apply design principles, work with the WV DEP case managers to determine solutions, and present findings, in our opinion, is of more importance. These value engineering skills come with experience in a wide variety of sectors, and, given the diverse makeup of the ECS Team and the broad scope items which may be encountered, is the reason we believe our team will bring substantial value during the execution of this contract.

A select sample of projects is provided. We invite WV DEP to reach out directly to the client references we have provided in this section to discuss their experiences with the ECS team.

## HERITAGE MALL

ANNANDALE, VA

Heritage Mall is a Northern Virginia retail center site surrounded by high density residential housing. During an ECS preliminary site assessment, petroleum hydrocarbons and chlorinated solvents were identified in soil and groundwater samples, which resulted in the creation of a Pollution Complaint (PC) case managed by the Virginia Petroleum Storage Tank Fund. The PC case involved a corner of the property that contained a former gasoline station. The property owner elected to enroll the remaining portion of the property, not included in the PC case, into the Virginia Voluntary Remediation Program (VRP).

### PROJECT HIGHLIGHTS

- ECS completed site characterization in a phased approach that involved installing over 30 groundwater monitoring wells, conducted a passive soil vapor study and deep soil vapor study, groundwater sampling and modeling, hydraulic conductivity testing, and soil vapor extraction pilot studying. Air samples assessing vapor intrusion risks determined that the release occurred from the dispenser islands and associated piping, rather than from the USTs. ECS also identified a very large co-mingled chlorinated solvent/petroleum hydrocarbon plume that extended across eight acres below the adjacent residential apartment buildings.
- ECS has completed its evaluation of remedial options, including installing vapor extraction systems and a groundwater pump and treat system, which used a low-profile air stripper with GAC off-gas treatment. A surfactant, PetroCleanze, was injected into the release area using direct push technology (DPT) to liberate the product from the tight saprolite and degraded bedrock.
- Remediation efforts are ongoing, but to-date, a 50% reduction in dissolved phase contamination has been observed in many wells.

### CLIENT CONTACT

Jon Farmelo  
Bristow Shopping Center, LLP  
5900 Fort Dr., Suite 405  
Centerville, VA 20121  
Phone: 703.750.7841 ext. 230

### ECS KEY STAFF

Noel Simmons, PG, PMP  
*Principal-in-Charge*

Jason Beck  
*Senior Environmental Project Manager*

Jonathan Horner  
*Environmental Project Manager/  
Site Supervisor*





## **FORMER NATIONAL DRY CLEANING INSTITUTE**

**SILVER SPRING, MD**

The redevelopment of the former National Dry Cleaning Institute (NDCI) presented multiple challenges. The NDCI was registered on the Maryland Historical Trust, which required special consideration when designing the environmental remediation for the property. For nearly 20 years, the property lay in disrepair due to the costs associated with remediation of the environmental contamination.

### **PROJECT HIGHLIGHTS**

- Prior to Priderock Capital Partners purchasing the NDCI property, ECS completed a full environmental site characterization consisting of multiple environmental soil borings, hazardous materials assessments of the existing buildings, ground penetrating radar surveys, and monitoring well installations. The results identified significant quantities of hazardous soil in one portion of the property. Multiple underground storage tanks were also identified which still contained hazardous materials from the operation of the NDCI. With these results in hand, ECS was able to provide costs estimates to the client for construction phase budgeting and provided sufficient information to enroll the property in the Maryland Voluntary Cleanup Program (VCP).
- ECS oversaw asbestos and lead abatements, provided final clearance, completed a Hazardous Materials Removal report, and prepared a Corrective Action Plan (CAP) to complete the remediation of the property to achieve case closure from the Maryland VCP program.
- Following completion of construction, ECS completed multiple rounds of indoor air sampling to fulfill the requirements of the VCP. Environmental groundwater monitoring continues to meet the requirements of the Maryland Discharge Permit.

### **CLIENT CONTACT**

Chris Todd  
Priderock Capital Partners, LLC  
4031 University Blvd., Suite 418  
Fairfax, VA22030  
Phone: 703.277.7736

### **ECS KEY STAFF**

Jason Beck  
*Senior Environmental Project Manager*



## **FORMER ANDY'S AMOCO**

JACKSONVILLE, FL

The subject site was previously used as a retail petroleum facility and automotive garage from the late 1920s to the early 1990s. The facility is listed as formerly containing two 2,000-gallon gasoline underground storage tanks (UST), one 1,000-gallon gasoline UST, one 550-gallon gasoline UST, and one 1,500-gallon waste oil UST. They were removed from the facility in 1992. During tank removal, petroleum impacted soils were discovered associated with the soils and groundwater at the tank pit.

### **PROJECT HIGHLIGHTS**

- A Template Site Assessment Report (TSAR) was prepared by E&A on July 13, 2006. The site was found to be underlain by fine sand from 0 to 22 feet below land surface (bls). Based on the historical depth to water measurements, the vadose zone was identified to extend from the surface to approximately 2.5 feet bls, and the smear zone extended from approximately 2.5 feet bls to approximately 5 feet bls. The average depth to water was approximately 3.5 feet bls, and the groundwater impacts were limited to the shallow surficial aquifer. E&A estimated a volume of approximately 3,250 cubic feet of petroleum impacted vadose zone soils.
- A Level 4 Limited Scope Remedial Action Plan (RAP) was prepared by E&A dated September 7, 2007. This plan included the installation of an Air Sparge/Soil Vapor Extraction (AS/SVE) remediation system and included the installation of two AS wells and three horizontal SVE wells. Due to the site layout, the remediation trailer was installed remotely approximately 150 southwest of the area of contamination and a Horizontal Directional Drilling was employed for the installation of AS/SVE lines and the horizontal vapor extraction wells.

### **CLIENT CONTACT**

Terry Moore  
GrayRobinson, P.A./Nest Holdings Group,  
Inc.  
1951 Largo Road  
Jacksonville, FL 32207  
Phone 904.598.9929

### **ECS KEY STAFF**

Amy Fu P.E.  
*Principal Environmental Engineer*



## POSSUM POINT

### DUMFRIES, VA

As a part of the coal ash pond remediation at the active Possum Point Power Station, ECS is providing a staff of nine environmental technicians to assist with the operation and maintenance of the \$35-million dollar water treatment system.

The treatment system was designed to handle a flow of 2,000 gallons per minute and consists of four 22,000 gallon aeration tanks, pH adjustment tanks, two automated chemical injection trailers used for water clarification, 16 dewatering boxes containing Geotubes to allow for larger particle separation, four sand filter skids, four 8 bag duplex bag filter skids, four 20,000 lb. resin C104Na vessels, four 20,000 lb. activated alumina vessels, two polishing bag filter skids, and three 100,000 gallon holding tanks with a footprint over an 800 feet long.

This complex treatment system is operated by trained ECS personnel, with all personnel working on rotating shifts.

### PROJECT HIGHLIGHTS

- ECS services were provided around the clock (24-hours per day, seven days per week).
- To date, ECS staff has worked over 5,800 hours, with no reportable onsite injury or incident
- The ECS team has never missed a day on the project, regardless of weather conditions

### CLIENT CONTACT

Kyle Leng  
CarbonAir/ProAct  
4003 West Main St.  
Salem, VA 24153  
Phone 651.202.2958  
kleng@carbonair.com

### ECS KEY STAFF

Jason Beck  
*Senior Environmental Project Manager*





## CONFIDENTIAL COMMERCIAL DEVELOPMENT

LOCK HAVEN, PA

For a proposed commercial development located on a property managed under the Pennsylvania Department of Environmental Protection (PADEP) General Technical Assistance Contracts (GTAC) program due to a large chlorinated hydrocarbon release.

Following years of passing from one consultant to another with little to show for it, ECS enrolled the site into the Voluntary Remediation Program (Act 2) and completed site characterization activities such as advancement of soil borings, drilling and installation of groundwater monitoring wells, installation of soil vapor points, and the collection of soil, groundwater, and soil vapor samples

### PROJECT HIGHLIGHTS

- As a part of the remediation of the property, ECS provided oversight of the excavation of chlorinated hydrocarbon-impacted soil and collected confirmatory soil samples following excavation.
- Reporting requirements for the site included the preparation of state voluntary cleanup program reports for industrial sites including sensitive receptor evaluation, fate and transport analyses, contaminant isoconcentration contour map preparation, and groundwater elevation contour maps.

### CLIENT CONTACT

Confidential

### ECS KEY STAFF

Philip Donmoyer, LRS, PG  
*Senior Environmental Project Manager*

Jason Beck  
*Senior Environmental Project Manager*





06

Fees and Pricing/Bid Document



# FEES AND PRICING

To accomplish the project objectives of operating and maintaining air sparge/soil vapor extraction (AS/SVE) and a groundwater recovery remediation systems, and the monitoring of groundwater and soil vapor conditions at the site in accordance with specifications developed by CDM Smith and the West Virginia Department of Environmental Protection (WV DEP); ECS has prepared a cost proposal which is included within the following pages describing the anticipated costs for a period of one year as outlined in the referenced RFQ. The following documents were reviewed as a part of the proposal preparation process:

- Request for Quotation (Solicitation No. CRFQ 0313 DEP1700000013), Operation, Maintenance and Monitoring of the Vienna PCE Site;
- Attachment 1, Standard Operating Procedure for Vapor Collection;
- Attachment 2 and 3, QAPP Groundwater Sampling Procedures and QAPP Table;
- Attachment 4, Well Sampling Frequency;
- Attachment 5 and 6, Routine Maintenance and Spare Parts List;
- Attachment 7A to 7E, Revised Final Operations and Maintenance (O&M) Manual Groundwater Treatment Systems (TU1, TU2, and TU3), prepared by CDM Smith, dated October 2015.
- Attachment 8, Vienna Well Details
- Addendum #1, Sign-in Sheet and Response to Questions

The cost estimate includes the Pricing Page included in the RFQ documents as Exhibit A. The cost estimate is the result of a review of the information provided and coordination with equipment vendors to provide a cost estimate for the services to be rendered. If supply quantities vary from those provided within the specifications, the cost for these additional materials or equipment will be billed in accordance with the Pricing Page.

ECS is pleased to have had this opportunity to provide WV Purchasing Division and WV DEP with this proposal. If you would like to discuss the proposal or pricing, the ECS project management team will be more than happy to discuss it with you. Please contact Philip Donmoyer at 717.767.4788 or Jason Beck at 703.995.6548 if you have any questions or would like to discuss any elements of the proposal.



You can build on it, just...

**DON'T EAT  
THE DIRT!"**



"ECS helps you know what you can and can't do on a contaminated site. They help you build and not let the site go to waste."

- Crystal Morphis, Founder  
and CEO of Creative Economic  
Development Consulting, LLC



EXHIBIT "A"  
PRICING PAGE  
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Operation, Maintenance, and Monitoring of Vienna PCE

Item	Specification	Description	(Or Equal)Brand Bid	Unit of Measure	Unit Cost	Est.Qty	Extended Cost
1	4.1.2	Sampling of groundwater monitoring wells		Per Well	211.77	39	8259.03
2	4.1.2	Sampling of AS/SVE monitoring wells		Per Well	282.93	26	7356.18
3	4.2.2	Project Manager (for tasks not listed)		Hour	90	750	67500.00
4	4.2.3	System Operator (for tasks not listed)		Hour	42	1,100	46200.00
5	4.2.8	Report Writing		Hour	90	500	45000.00
6	4.2.3	Check/record readings from all instruments, meters, and gauges		Each	92.62	52	4816.24
7	4.2.3	Check overall plant operations		Each	92.62	52	4816.24
8	4.2.3	Check Operator Interface Terminal/Programmable Logic Controller for alarm conditions (per event)		Each	92.62	52	4816.24
9	4.2.3	Check all valve positions		Each	92.62	52	4816.24
10	4.2.3	Check oil levels on air blowers and air compressors		Each	92.62	52	4816.24
11	4.2.3	Check differential pressure across inline air inlet filters (SVE blowers)		Each	92.62	52	4816.24

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Operation, Maintenance, and Monitoring of Vienna PCE

<b>12</b>	4.2.3	Check differential pressure across bag filters Treatment Unit 3		Each	92.62	52	4816.24
<b>13</b>	4.2.3	Check differential pressure across liquid-phase Granular Activated Carbon vessels Treatment Unit 3		Each	92.62	52	4816.24
<b>14</b>	4.2.3	Check DD range (coalescing) and PDX (particulate) filter service indicators on air compressors		Each	92.62	52	4816.24
<b>15</b>	4.2.3	Check oil temperature on all equipment		Each	92.62	52	4816.24
<b>16</b>	4.2.3	Log system flow rates air sparge system, vacuum system, groundwater		Each	92.62	52	4816.24
<b>17</b>	4.2.3	Clean inside and outside of unit building		Each	92.62	52	4816.24
<b>18</b>	4.2.3	Start system for maintenance and readiness		Each	92.62	52	4816.24
<b>19</b>	4.2.3	Check air compressors for possible leaks		Each	92.62	52	4816.24
<b>20</b>	4.2.3	Check off-gas treatment vessels and stacks for moisture collection, and drain as necessary		Each	42	12	504.00

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Operation, Maintenance, and Monitoring of Vienna PCE

<b>21</b>	4.2.3	Check SVE sumps and drains (pump out) as necessary		Each	42	12	504.00
<b>22</b>	4.2.3	Grease SVE blower drive shaft bearings with National Lubricating Grease Institute (NLGI) #2		Each	49.83	12	597.96
<b>23</b>	4.2.3	Inspect air filter, oil cooler, condenser, and air cooler, and clean as necessary (air compressors)		Each	42	12	504.00
<b>24</b>	4.2.3	Inspect the condensate trap and clean flow valve as necessary (air compressors)		Each	21	12	252.00
<b>25</b>	4.2.3	Check tension and condition of belts and adjust as necessary (SVE blower and air compressor)		Each	21	12	252.00
<b>26</b>	4.2.3	Restart computers		Each	21	12	252.00
<b>27</b>	4.2.3	Turn all valves		Each	21	4	84.00
<b>28</b>	4.2.3	Grease all motors with NLGI #2 (SVE blower and air compressors)		Each	49.83	4	199.32
<b>29</b>	4.2.3	Lubricate air conditioner fan motors		Each	29.63	4	118.52
<b>30</b>	4.2.3	Change gear-box oil (SVE blowers)-every 1,000 hours		Each	42	2	84.00



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<b>31</b>	4.2.3	Lubricate exhaust fan motors with SAE20 non- detergent oil		Each	31.8	2	63.60
<b>32</b>	4.2.3	Lubricate roll up doors		Each	31.8	2	63.60
<b>33</b>	4.2.3	Change eye wash liquid		Each	33.37	2	66.74
<b>34</b>	4.2.3	Clean / drain moisture separator (SVE)		Each	42	2	84.00
<b>35</b>	4.2.3	Grease fittings on SVE blowers		Each	22.5	1	22.50
<b>36</b>	4.2.3	Grease transfer pump motors with NLGI #2, disassemble and inspect and clean impeller housing as needed		Each	49.83	1	49.83
<b>37</b>	4.2.3	Have safety relief valves tested on air compressors (separator tank)	Annual Service by Certified Tech.	Each	2971.22	1	2971.22
<b>38</b>	4.2.3	Perform comprehensive test on air compressors by certified service technician	Annual Service by Certified Tech.	Each	2971.22	1	2971.22
<b>39</b>	4.2.3	Replace DD and PDX, oil/air filters on air compressors	Annual Service by Certified Tech.	Each	2971.22	1	2971.22
<b>40</b>	4.2.3	Change oil in air compressors (separator tank)	Annual Service by Certified Tech.	Each	2971.22	1	2971.22
<b>41</b>	4.2.3	Clean air compressors	Annual Service by Certified Tech.	Each	2971.22	1	2971.22
<b>42</b>	4.2.3	Inspect fire extinguishers		Each	21	1	21.00
<b>43</b>	4.2.3	Change bag filters when DP reaches 12 psig		Each	21	1	21.00

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44	4.2.3	Change out or backwash liquid phase when GAC media becomes spent	Cost includes carbon disposal/purchase	Each	5419.08	1	5419.08
45	4.2.3	Check EW-1 well vault for leaks		Each	21	1	21.00
46	4.2.3	Check pull boxes for leaks		Each	42	1	42.00
47	4.2.3	Clean or replace blower inlet air filers		Each	42	1	42.00
48	4.2.3	Clean AC intake filter		Each	21	1	21.00
49	4.2.3	Empty condensate collection drums at TU2		Each	42	1	42.00
50	4.2.3	Pull and check extraction well pump for bio-fouling		Each	84	1	84.00
51	4.2.3	Shock chlorinate extraction well as needed		Each	21	1	21.00
52	4.2.3	Clean transformers		Each	42	1	42.00
53	4.2.3	Clean exhaust fan blades and motor		Each	42	1	42.00
54	4.2.3	Clean or replace SVE blower filter element		Each	42	1	42.00
55	4.2.6	Oil filter for air sparge systems		Each	81	2	162.00
56	4.2.6	Air filter for air sparge systems		Each	41.04	2	82.08
57	4.2.6	Belts for air sparge systems		Each	77.76	2	155.52
58	4.2.6	Solenoid Valve for Air Sparge Systems	*H2K Model 8210G94	Each	224.64	2	449.28

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<b>59</b>	4.2.6	Flow meter for Air Sparge Systems	*King Instruments Model 7450	Each	427.68	2	855.36
<b>60</b>	4.2.6	Demister pad for SVE Systems	*H2K Model 4x23-SST	Each	313.2	2	626.40
<b>61</b>	4.2.6	Vacuum Gauge (0-60" wc vacuum) for SVE Systems	*H2K model 611.10	Each	55.08	2	110.16
<b>62</b>	4.2.6	32-inch level switch assembly for SVE Systems	*H2K	Each	410.4	2	820.80
<b>63</b>	4.2.6	Differential pressure gauge for SVE Systems	*H2K model 2-5003NPT	Each	110.16	2	220.32
<b>64</b>	4.2.6	2"B+ venturi for SVE Systems	*H2K	Each	348.84	2	697.68
<b>65</b>	4.2.6	Belt set for SVE Systems		Each	70.2	2	140.40
<b>66</b>	4.2.6	Filter element for SVE Systems	*H2K model 235P	Each	192.24	2	384.48
<b>67</b>	4.2.6	Oil for SVE Systems		Per Gallon	34.88	20	697.60
<b>68</b>	4.2.6	Screen 18x18 mesh for VC Vessels	*H2K model SST	Each	129.6	2	259.20
<b>69</b>	4.2.6	23" Gasket for VC Vessels	*H2K	Each	51.84	2	103.68
<b>70</b>	4.2.6	Mechanical shaft seal Transfer pumps	*H2K model CT-SEAL	Each	97.2	2	194.40
<b>71</b>	4.2.6	Oil-food grade for air sparge systems		Per Gallon	113.4	20	2268.00
<b>72</b>	4.2.6	SST Lateral for TU 3 liquid phase carbon	*H2K model LC-007SSTLAT	Each	162	2	324.00
<b>73</b>	4.2.6	SST Hub for TU 3 liquid phase carbon	*H2K model LC-007SSTHUB	Each	2052	2	4104.00



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74	4.2.6	Manway gasket for TU 3 liquid phase carbon	*H2K model 12x16GAS	Each	48.6	2	97.20
75	4.2.6	25 micron bag filter for TU 3 Bag Filters	*H2K model KE25	Each	7.56	2	15.12
76	4.2.6	O-ring for bag filter housing lid for TU 3 Bag Filters	*H2K model KK-ORING 2	Each	27	2	54.00
77	4.2.6	Differential pressure switch (4-80 PSI) TU3 Bag Filters	*Barksdale model DPD1T-GH80SS	Each	388.8	2	777.60
78	4.2.6	Filter basket for TU3 Bag Filter		Each	291.6	2	583.20
					TOTAL BID AMOUNT		280343.30

Quantities listed are for bidding purposes only. Actual quantities may differ.

# BID DOCUMENT (EXHIBIT "A")

EXHIBIT "A"  
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Operation, Maintenance, and Monitoring of Vienna PCE

\* All references in the Specifications and Attachments to brand or manufacturer specific items are included only to establish a quality level for materials, products or equipment provided to fulfill the Contract, and thus should be considered to be followed by the words, "or equal".

Company Name: ECS Mid-Atlantic, LLC  
Contact: James D. Succop, C.P.G.  
Street Address: 500 Bursca Dr., Suite 506  
City, State, and Zip: Bridgeville, PA 15017  
Phone Number: D:703-810-1224 C:571-237-2080  
Fax Number: 703-834-5527





07  
Value Added



## VALUE ADDED

During the pre-bid meeting, WV DEP personnel indicated that the treatment system may not be operating as effectively as possible. Additionally, WVDEP is concerned that the chlorinated solvent plume is passing the outer radius of influence of the air sparge/soil vapor extraction wells, resulting in the plume encroaching nearer the Ohio River. The operative groundwater recovery well was originally intended to provide hydraulic control of the contaminant plume, but generally it does appear to provide sufficient hydraulic control to prevent the downgradient expansion of the contaminant plume.

ECS can add a unique perspective to assist WV DEP with the redesign of the remediation system and any additional site characterization activities to better understand the chlorinated solvent plume and develop a cost-effective means of controlling it.

Our proposed project manager, Philip Donmoyer, has extensive experience with the site specific hydrogeology and the downgradient site. No learning curve is required to assist in future site characterization. We already possess intimate knowledge of the downgradient area toward which the plume is expanding. Following contract award and further review of the property historical reports, ECS feels the following may be appropriate to provide WV DEP a better understanding of site conditions:

- Increase the frequency of groundwater elevation monitoring by using level-loggers to evaluate the radius of influence of the groundwater recovery well;
- Complete a low cost passive soil gas survey to determine the outer extent of the plume to optimize the location and effectiveness of future well placements, better characterize the concentrations of contaminants in shallow soil gas, and provide more input on radius of influence of the remediation system;
- Complete subslab soil gas sampling in residential structures located directly above the plume;
- If potential impact to residents is indicated, install subslab depressurization systems beneath each building impacted (average cost \$1,500 to \$2,500 each);
- If data indicates the radius of influence of the recovery well is minimal, complete a feasibility study and aquifer testing to determine if additional recovery wells are warranted and optimize well screen placement; and
- Evaluate the cyclical nature of the SVE/AS wells to determine if the cycles need to be increased or decreased based on contaminant levels within that particular area.

Generally, the immediate goals of any additional investigations or modifications to the remediation systems will need to focus on maximizing performance, lowering the remediation duration, and protecting the health of the community. ECS has extensive experience with remediating contaminant plumes in a highly transmissive aquifer such as this. While the challenges may be great, the use of a practical staged approach has a demonstrated ability to produce effective solutions that are satisfactory to the EPA, WV DEP, and ultimately to the residents of Vienna, WV. ECS would be pleased to discuss our recommendations or other aspects of our RFQ response with WV DEP.



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**DON'T EAT  
THE DIRT!"**



"ECS helps you know what you can and can't do on a contaminated site. They help you build and not let the site go to waste."


- Crystal Morphis, Founder  
and CEO of Creative Economic  
Development Consulting, LLC



08

Additional Required Documents

# ADDITIONAL REQUIRED DOCUMENTS

Client#: 214		ECSMIDA		DATE (MM/DD/YYYY) 11/17/2016			
<b>ACORD™</b>		<b>CERTIFICATE OF LIABILITY INSURANCE</b>					
<p>THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.</p> <p>IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).</p>							
<b>PRODUCER</b> <b>Andersen Insurance Group</b> <b>5870 Trinity Parkway</b> <b>Suite 130</b> <b>Centreville, VA 20120</b>			<b>CONTACT NAME:</b> Meg S. Lee, CIC <b>PHONE (A/C, No, Ext):</b> 703-988-0900 <b>FAX (A/C, No):</b> Ext. 102 <b>E-MAIL ADDRESS:</b> meg@theandersengrp.com				
<b>INSURED</b> <b>ECS Mid-Atlantic, LLC</b> <b>14026 Thunderbolt Place</b> <b>Suite 100</b> <b>Chantilly, VA 20151</b>			INSURER(S) AFFORDING COVERAGE		NAIC #		
			INSURER A : Cincinnati Insurance Company		10677		
			INSURER B : Hartford Fire Insurance Company		19682		
			INSURER C : Federal Insurance Company		20281		
			INSURER D : Trumbull Insurance Company		27120		
			INSURER E : Chubb Custom Insurance Company		38989		
			INSURER F :				
<b>COVERAGES</b>		<b>CERTIFICATE NUMBER:</b>		<b>REVISION NUMBER:</b>			
<p>THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.</p>							
INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> <b>Contractual Liab</b> <input checked="" type="checkbox"/> <b>X C U</b> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	X	X	CAP5225008	12/01/2016	12/01/2017	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
B	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	X	X	42ABMS9643	12/01/2016	12/01/2017	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
C	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$0	X	X	79891345	12/01/2016	12/01/2017	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
D	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	X	X	42WNMS9634 All States Endt	12/01/2016	12/01/2017	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
A	<b>Excess Liability</b>	X	X	XS1168042	12/01/2016	12/01/2017	\$10,000,000 Limit
E	<b>Pollution Liab</b>	X	X	37313671	12/01/2016	12/01/2017	\$5,000,000 Aggr Limit \$50,000 Deductible
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)							
<b>CERTIFICATE HOLDER</b>				<b>CANCELLATION</b>			
Verification of Coverage				SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.			
				AUTHORIZED REPRESENTATIVE 			

ACORD 25 (2010/05) 1 of 1 The ACORD name and logo are registered marks of ACORD  
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# ADDITIONAL REQUIRED DOCUMENTS

	<b>Purchasing Division</b> 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	<b>State of West Virginia</b> <b>Request for Quotation</b> <b>34 – Service - Prof</b>
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<b>Proc Folder:</b> 254223			
<b>Doc Description:</b> Addendum 1- Op., Maint. and Monitoring Vienna PCE Site			
<b>Proc Type:</b> Central Master Agreement			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2017-02-03	2017-02-14 13:30:00	CRFQ 0313 DEP1700000013	2

<b>BID RECEIVING LOCATION</b>			
BID CLERK DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON ST E CHARLESTON WV 25305 US			

<b>VENDOR</b>
<b>Vendor Name, Address and Telephone Number:</b>  ECS Mid-Atlantic, LLC 500 Bursca Dr., Suite 506 Bridgeville, PA 15017 412.206.1470

<b>FOR INFORMATION CONTACT THE BUYER</b> Jessica S Chambers (304) 558-0246 jessica.s.chambers@wv.gov		
<b>Signature X</b> 	<b>FEIN #</b> 20-1067637	<b>DATE</b> February 10, 2017

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



# ADDITIONAL REQUIRED DOCUMENTS

## ADDITIONAL INFORMATION:

Addendum

Addendum No.01 issued to publish and distribute the attached information to the vendor community.

\*\*\*\*\*

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Department of Environmental Protection to establish an open-end contract for the operation and maintenance of the groundwater remediation system at the Vienna Perchloroethylene (PCE) Superfund site in Vienna, West Virginia per the specifications and terms and conditions as attached.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF ENVIRONMENTAL REMEDIATION 601 57TH ST SE CHARLESTON WV 25304 US	304-926-0499 EXT1661 DEP PCE SUPERFUND SITE 405 29TH STREET VIENNA WV 26105 US


Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	See pricing page for item listing				

Comm Code	Manufacturer	Specification	Model #
77121707			

### Extended Description :

All references in the Specifications, Exhibits, and Drawings to brand or manufacturer specific items are included only to establish a quality level for materials, products or equipment provided to fulfill the Contract, and thus should be considered to be followed by the words, or equal.


# ADDITIONAL REQUIRED DOCUMENTS

	<b>Purchasing Division</b> 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	<b>State of West Virginia</b> <b>Request for Quotation</b> <b>34 — Service - Prof</b>
---	---	---

<b>Proc Folder:</b> 254223 <b>Doc Description:</b> Operation, Maintenance and Monitoring of the Vienna PCE Site <b>Proc Type:</b> Central Master Agreement			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2017-02-03	2017-02-14 13:30:00	CRFQ 0313 DEP1700000013	2

BID RECEIVING LOCATION	
BID CLERK DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON ST E CHARLESTON WV 25305 US	

VENDOR
<b>Vendor Name, Address and Telephone Number:</b> <b>ECS Mid-Atlantic, LLC</b> <b>500 Bursca Dr., Suite 506</b> <b>Bridgeville, PA 15017</b> <b>412.206.1470</b>

<b>FOR INFORMATION CONTACT THE BUYER</b> Jessica S Chambers (304) 558-0246 jessica.s.chambers@wv.gov		
<b>Signature X</b> 	<b>FEIN #</b> 20-1067637	<b>DATE</b> February 10, 2017

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





# ADDITIONAL REQUIRED DOCUMENTS

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## 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 checked="" 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.

\_\_\_\_\_  
ECS Mid-Atlantic, LLC

Company



\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
February 10, 2017

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.  
Revised 6/8/2012



# ADDITIONAL REQUIRED DOCUMENTS

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STATE OF WEST VIRGINIA  
Purchasing Division

## PURCHASING AFFIDAVIT

**MANDATE:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

### DEFINITIONS:

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

### WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: ECS Mid-Atlantic, LLC

Authorized Signature: [Signature] Date: February 10, 2017

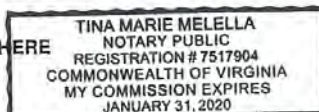
State of VA

County of Fairfax, to-wit:

Taken, subscribed, and sworn to before me this 10 day of Feb., 2017

My Commission expires 1-31, 2020

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]

Purchasing Affidavit (Revised 08/01/2015)