# ORIGINAL

# EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE PEACH RIDGE COMPLEX PROJECT RFQ NO. DEP14949

#### Prepared for:

# West Virginia Department of Environmental Protection

Department of Environmental Protection
Office of Abandoned Mine Lands and Reclamation
601 57<sup>th</sup> Street, SE
Charleston, West Virginia 25304

Prepared by:

### Potesta & Associates, Inc.

7012 MacCorkle Avenue, SE Charleston, West Virginia 25304 Phone: (304) 342-1400 Fax: (304) 343-9031

E-mail: potesta@potesta.com

CONTACT: Mr. Dana Burns, Vice President

Project No. 0101-10-0083

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March 23, 2010

WY PURCHASING

POTESTA

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#### EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE PEACH RIDGE COMPLEX PROJECT RFQ NO. DEP14949

#### 1.0 QUALIFICATIONS

#### 1.1 Corporate History and Experience

Potesta & Associates, Inc. (POTESTA) proposes to provide professional engineering design services and construction monitoring services to the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands & Reclamation (WVDEP, AML). These services will consist of attendance at pre-bid and pre-construction conferences, construction monitoring, providing an updated revised Engineer's Cost Estimate, review of plan and specification and other miscellaneous services as may be required for the Peach Ridge Complex Project located in McDowell County, West Virginia. The project will consist of:

- Construction of diversion channels, ditches and/or underdrains to transport drainage.
- Installation of wet seals/bat gates.
- Regrading of refuse areas.
- Demolition/disposal of three old structures.
- Reclamation and revegetation of all areas disturbed during construction.

POTESTA is an engineering and environmental consulting firm providing professional services to deliver innovative, cost-effective solutions to complex problems. Our firm is multi-disciplinary and has a diversified practice covering engineering (civil, chemical, environmental, geotechnical, mechanical, and mining), permitting, site characterization and remediation, and general environmental consulting. Civil/site and geotechnical engineering are areas of extensive expertise at POTESTA. We have worked on numerous large projects (university dorms to power plant foundations) throughout the region. Our 17 registered professional engineers have over 250 years of experience among them and are supported by a large group of engineers, designers, surveyors and a landscape architect. Regulatory liaison and environmental compliance are areas of exceptional strength for POTESTA as the President of the company is a former director of the West Virginia Department of Natural Resources, and a Vice President is a former director of the West Virginia Division of Environmental Protection.

Our clients include state, local, and federal government agencies, mining companies, manufacturers, utility companies, waste management companies, chemical companies, architects, attorneys, financial institutions, insurance companies, land developers, and construction companies.

We carry a full line of insurance coverage including general liability, errors and omissions, and workers' compensation; Insurance and Workers Compensation Certificates are included in **Appendix A**. We also have quality control procedures to assist in providing our clients with quality projects.

#### POTESTA offers the following professional services.

- ► 404 Permit Preparation and Negotiation
- ► Acid Mine Drainage Control
- ► Asbestos Inspection
- ► Benthic and Biological Studies
- CADD Services (AutoCAD 2007, Various Software Design Packages, Digitizing and Plotting)
- ► Chemical Engineering
- Civil Engineering
- Clean Air Act Compliance
- ► Construction Monitoring
- Corporate Environmental Management
- Design of Slurry Impoundments and Refuse Disposal Sites
- ► Dewatering Plans
- ► Environmental Engineering
- ► Environmental Impact Studies
- ► Environmental Site Assessments
- ► Environmental Audits
- ► Environmental Engineering
- ► Erosion and Sedimentation Control Plans
- Expert Witness and Litigation Support
- ➤ Feasibility Studies
- Foundation Design
- ► Geological Services
- ► Geotechnical Engineering
- ► Ground and Surface Water Sampling
- ► Groundwater Investigation and Remediation
- ► Groundwater Protection Plans
- ► Hazardous Waste Management
- Hydrologic and Hydraulic Evaluations
- ► In-Situ and Ex-Situ
  - Biostimulation/Bioaugmentation
- Landfill Design and Land Use and Natural Resource Planning
- ► Landfill Closure Plans
- ► Land Use and Natural Resource Planning
- Mining Engineering

- Multimedia Sampling (Air, Fly Ash, Rock, Soil, Water)
- Pollution Prevention and Waste Minimization Planning
- Permitting (Air, FERC, Fly Ash Haulback, Mining, NPDES, Quarry and Solid and Hazardous Waste)
- ► Post Reclamation Land Uses
- Pre-Blast and Pre-Subsidence Surveys
- Preparation of Construction Documents (Calculations Brief, Construction Drawings, Contractor's Bid Sheet, Engineer's Cost Estimate, QA/QC Manual and Technical Specifications)
- Reclamation Design and Planning
- Reclamation Liability Assessments
- ► Regulatory Liaison Services
- ► Risk-Based Environmental Assessment
- ► SARA Title III, TIER II and Form R Inventory and Reporting
- Sewer Line Design
- ► Site Characterization and Remediation Planning
- Site Design/Planning
- ► Soil Science/Agronomy
- Spill Prevention Control and Countermeasure Plans
- Stabilization and Closure of Waste Impoundments
- Stormwater Management and Permitting
- Stream Benthic Macro-Invertebrate Surveys and Toxicity Evaluations
- Stream and Water Restoration
- Subsidence Studies
- Subsurface Investigations
- Surface and Groundwater Monitoring, Statistical Analysis and Reporting
- Surveying (Traditional and Global Positioning System)
- ▶ UST Closure and Site Remediation
- UST Installation Monitoring

- Waste Facility Permitting and Design
- Waste Disposal Design
- Water Line Design

- Water/Wastewater Treatment Design
- Wetland Investigation and Delineation, Mitigation Design and Monitoring

POTESTA has the following staff in our Charleston, West Virginia office:

- 16 Engineers, Including 12 Professional Engineers
- 19 Scientists (Biologists, Ecologists, Environmental Scientists, Etc.)
- 3 Geologists/Hydrogeologists/Geological Scientist
- 1 Hydrologist
- 10 Surveyors
- 6 CADD Operators/Designers
- 7 Technicians/Construction Monitors
- 2 Chemists
- 23 Support and Other Staff

POTESTA, since starting in 1997, has grown to over 100 employees in three offices. Included are 17 registered professional engineers (R.P.E.'s), three registered professional licensed land surveyors (P.L.S.'s), one registered professional geologist, and two PhD's whose specialties include aquatic biology and water quality. POTESTA has assembled a team that has historically served WVDEP, AML on numerous AML projects. In fact our staff has worked on over 75 AML projects for WVDEP (and more in other states) on four different WVDEP, AML contracts dating back into the mid 1980's. We have an ongoing workload with WVDEP, AML.

POTESTA will perform the work for this project from our Charleston, West Virginia office. Our proximity to WVDEP's Charleston office will facilitate immediate response to your needs and allow meetings to be attended within minutes notice; in addition, we can draw upon support from our Morgantown office which also has experience with AML projects. POTESTA emphasizes that we will make a priority commitment to this project.

POTESTA has completed projects involving civil, structural, geological, hydrological and reclamation engineering; land use and natural resource planning; soil science/agronomy; hydrology/geology; stream and water restoration; and post reclamation land uses. We also have open ended statewide contracts with the West Virginia Division of Highways (WVDOH) for survey services and asbestos inspection services. In addition, we have the preeminent staff in West Virginia for addressing issues regarding water quality and regulatory issues since (a) two of our principals are former heads of the state environmental regulatory agency and one was also chief of the water quality regulatory agency, and, (b) we have several PhD's and others with degrees whose specialty is water quality. As a result, POTESTA will provide the required expertise to complete this AML project in a timely, economical, and efficient manner.

POTESTA has assembled a successful team of employees that have historically worked on WVDEP, AML projects. In fact, our staff has 100+ years experience working on WVDEP, AML projects and AML projects in other states. Our staff's direct knowledge of the AML program guidelines and

personnel, our familiarity with the applicable state regulations, and our commitment to success will benefit WVDEP, AML.

POTESTA has 10+ employees with experience on WVDEP, AML projects. POTESTA employees have worked on and have experience in the following WVDEP, AML projects:

- ♦ Assessment of Contamination (e.g., PCB's, asbestos)
- ♦ Demolition of Structures
- ♦ Diversion of Stormwater
- ♦ Identifying and Controlling Acid Mine Drainage
- ♦ Landslides
- ♦ Mine Fires
- ♦ Passive Acid Mine Drainage Treatment
- ♦ Reclamation of Refuse Piles
- ♦ Sealing Mine Portals
- ♦ Stream Relocations
- ♦ Subsidence Assessment and Remediation
- ♦ USCOE Permitting
- ♦ Water Line Design
- ♦ Water Supply Feasibility Studies and Design
- ♦ Inventory of Residential Water Supplies
- ♦ Wetland Assessments

POTESTA has completed several AML projects and projects similar to a WVDEP, AML type project. These include water line design and construction administration and observation, design and permitting of refuse piles and slurry impoundments, evaluating mine drainage from pre-SMCRA sites, reclamation designs for WVDEP, LCAP, landslides, stream monitoring, development of grading plans, mine reclamation liability assessments, watershed assessments including evaluation of impact from AMD including AMD from pre-SMCRA sites, detention pond designs, wetland studies, mine site design and permitting and design of numerous storm water structures.

Appendix B contains the executed Request for Quotation form and Purchasing Affidavit form.

The following describes POTESTA's qualifications for the surveying, aerial mapping, subsurface exploration, and laboratory services necessary for this project:

POTESTA proposes to utilize our own survey crews on this project. POTESTA will perform all of the surveying required for this contract using in-house personnel. POTESTA has three licensed professional surveyors with over 40 years of combined surveying experience. Our surveyors are experienced in all aspects of surveying such as topographic mapping, boundary and property surveys, and construction surveys for layout of work, record drawings, and quantity measurements.

POTESTA's surveyors use state-of-the-art "Field to Finish" equipment such as total station instruments, data collectors, AutoCAD 2008, Autodesk Land Desktop 2007 and Autodesk Civil 3D

2008 design software, computer hardware for data management, and a Hewlett Packard Designjet 5500 color ink jet plotter.

POTESTA is equipped with modern surveying instruments allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products.

POTESTA utilizes state of the art computers and hardware, networked through Windows NT, for interfacing of drafting and surveying departments. Thus, drawing and surveying data files can be shared efficiently.

Surveys and mapping are completed to the standards as outlined by the National Map Standards as well as other applicable quality standards.

Additional information on POTESTA's corporate history and experience is included in the AML Consultant Confidential Qualification Questionnaire included in **Appendix C**.

#### 1.2 Experience, Qualifications, and Performance Data of Primary Staff

Primary staff POTESTA commits to this contract and their roles are as follows:

Mr. Dana L. Burns, PE, Vice President at POTESTA, will serve as principal-in-charge for this project. Mr. Burns has served as project manager or principal-in-charge on three open end contracts for WVDEP, AML from 1986 through 1997 totaling over 65 projects. In addition, Mr. Burns has served as the principal-in-charge for four other WVDEP, AML projects since 2003. Mr. Burns' experience includes 30 years of civil and environmental engineering and related projects including water line extensions, sealing portals, regrading refuse, site assessments, mine fires, preliminary feasibility evaluations, detailed design, and preparation of construction drawings, specifications, and bid documents. Mr. Burns will ensure that the AML workload is properly supported.

Messrs. Mark Kiser, P.E., and Terence Moran, P.E., will serve as a project manager/design team leader. Mr. Kiser has served as a project manager/project engineer for over 35 AML projects in West Virginia. Mr. Kiser has 25 years experience in civil and environmental engineering projects including evaluation, design, preparation of plans and specifications, and construction administration. He has worked on over 65 AML projects as well as extensive experience with the coal industry. Mr. Kiser performs constructability reviews on our projects during and after design. Mr. Kiser is currently POTESTA's project manager for POTESTA's WVDEP, LCAP contract. Mr. Moran has served as project manager/project engineer or assisted with over 60 AML projects in West Virginia and Virginia. Mr. Moran has 20 years experience in civil and environmental engineering projects, including evaluation, design, preparation of plans and specifications, and construction administration. Mr. Moran has co-authored multiple papers, including one on the abatement of AMD at the Omega Mine site and another on evaluating AMD of AML sites during

preaquisition site assessments. Messrs. Kiser and Moran have worked on AML projects that addressed such technical issues as AMD, sealing portals, regrading refuse, diverting stormwater, landslides, subsidence and water supply. Messrs. Kiser and Moran are both familiar with requirements of AML projects and will ensure that WVDEP is satisfied with POTESTA's work by ensuring that proper QA/QC and timeliness are adhered to.

NOTE: Since POTESTA has 17 professional engineers (P.E.), a combined significant track record with AML projects, POTESTA believes it can handle a substantial AML workload. Hence, POTESTA can adequately staff the Peach Ridge Complex Project.

POTESTA has four other P.E.s with AML and related design experience in Messrs. Vince Ammirato, Bill Drinkard, Patrick Ward, and Ryan McGlothen. Their individual experiences and capabilities are discussed in further detail later in this section and in **Appendix D**.

POTESTA has an additional project manager/project engineer in Mr. Chris Grose who has worked on numerous WVDEP, AML projects. Mr. Grose will serve as POTESTA's geotechnical scientist for work on this contract. Mr. Grose currently oversees aspects of geotechnical work at POTESTA and worked on WVDEP, AML projects from 1990 to 1997. Mr. Grose will evaluate slope stability issues with respect to regraded coal refuse, landslide abatement, or other steep slope applications.

Abbreviated personal history statements of primary staff and more detailed descriptions of staff experience are presented in the AML Consultant Confidential Qualification Questionnaire in **Appendix C**, and the AML and Related Project Experience Matrix in **Appendix D**.

#### 1.3 Experience, Qualifications, and Performance Data of Other Staff

POTESTA has a staff of over 100 technical and support personnel. Combined with our team of highly experienced subcontractors, POTESTA is exceptionally well suited to: (1) complete surveying and mapping; (2) perform geotechnical services including subsurface exploration and laboratory analysis; (3) design drainage diversion structures such as mine seals, reinforced concrete caps over vertical openings, channels and culverts, perform regrading plans for the refuse areas, and design dewatering plans, if necessary; (4) develop engineering drawings, contract specifications, permit applications and other contract documents; and (5) attend a pre-bid meeting and preconstruction conference as may be required for the Peach Ridge Complex Project. POTESTA can conduct all design engineering work required for this project with present personnel.

POTESTA's project managers will be supported by a team of engineers, scientists, surveyors, hydrologists, geologist/hydrogeologists, biologists, CADD operators, and other support personnel from POTESTA's staff. Included are geotechnical scientists and geotechnical engineers such as Mr. Chris Grose and Mr. Patrick Ward, P.E., who have both worked on numerous AML projects in the early to mid 1990's; project engineers such as Daniel Lipscomb, P.E., Ryan McGlothen, P.E., Robert Ammirato, E.I.T., Jarrett smith, P.E., and Kenneth Kinder, P.E.; Mr. Vince Ammirato, P.E., a civil engineer with an emphasis in structural engineering who has extensive experience in design of

reinforced concrete and steel structures; Mr. Bill Drinkard, P.E., a mining engineer whom has worked on numerous projects involving earthwork, site drainage, AMD, mine land reclamation, calculations, plans and specifications and construction administration; Mr. Denny Kohler, an environmental scientist who was in charge of surface mine reclamation for a major coal company for 18 years and has prepared numerous reclamation plans including reclamation of a coal waste impoundment in Kanawha County; Mr. Victor Dawson, P.L.S., who has worked on developing mapping or performing construction layout on projects dating back into the late 1980's; and POTESTA's team of CADD Operators whom have also worked on AML projects.

Abbreviated personal history statements of key personnel are presented in the AML Consultant Confidential Qualification Questionnaire presented in **Appendix C**. Additional information is included in Section 1.4 "Management Plan and Location of Facilities."

Our corporate and staff's experience involves civil (including water supply systems), structural, geological, hydrological, environmental, mining, geotechnical, and reclamation engineering; land use and natural resource planning; soil science/agronomy; hydrology/geology; surface/underground coal mining; environmental and ecological principles in land reclamation, stream and water restoration, and post reclamation land uses; and contract administration. Our capabilities, qualifications and expertise in design of AML projects are further exemplified in **Appendix E - Service Briefs** and **Appendix F- Project Abstracts**.

POTESTA provides multi-disciplinary services and can perform all of the professional services required under this contract.

#### 1.4 Management Plan and Location of Facilities

#### Management Plan

POTESTA's proposed project organization chart including key staff and subcontractors is contained in **Appendix G**. Work will be performed at POTESTA's Charleston, West Virginia office or on-site as may be required. Our Charleston location is convenient with respect to WVDEP's Charleston office; the effort will be supported by our Morgantown office if needed.

POTESTA's professional, technical, and support staff have extensive experience on water supply and WVDEP, AML projects. We are well qualified to serve WVDEP on this project. We stand ready to commit the personnel and resources required to complete this project in a timely, technically sound, and cost-efficient manner. POTESTA's large staff size will allow us to work on this project on an accelerated schedule if necessary.

POTESTA's principal-in-charge will be responsible for contract management (administration) and shall coordinate and direct all aspects of the project. The principal-in-charge will review the proposed project, assign a project manager, assemble a project team and appoint key staff to develop a proposed scope of work. The principal-in-charge and project manager will visit the site with WVDEP, AML to review site conditions and the proposed services to be completed and guide the

preparation of a detailed proposal and cost estimate. A written proposal including a detailed scope of work and an associated manhour and cost estimate will then be prepared and submitted to WVDEP, AML for review. The project manager will review the proposal with the WVDEP, AML including a task-by-task discussion of work items and the related costs. Upon WVDEP, AML's approval of the proposal, the project manager will arrange for the start of project activities. The principal-in-charge will provide the project manager the required staff necessary to complete the project activities, will review the project budget and schedule during performance of the project, and will provide a final OA/OC review of the documents prior to submittal to the WVDEP, AML. Mr. Dana Burns, P.E. will serve as the principal-in-charge on this project. Day-to-day project activities for this project will be performed under the direction of our project manager, Mr. Mark Kiser, P.E. Mr. Terence Moran, P.E. will serve as a "backup" project manager for quality assurance/quality control. The project manager will develop a detailed step-by-step project work plan so that the project activities are completed in a correct manner, on-budget, and on-time. They will also review work products at intermediate points and prior to project completion. They will conduct project status reports which may include weekly meetings, memos, or telephone calls with the WVDEP, AML project manager as required. The project manager will supervise the day to day work in progress, will coordinate with POTESTA's subcontractors to provide necessary services, and review work products at intermediate points and prior to submittal to the WVDEP, AML.

POTESTA will utilize the appropriate classification of staff to conduct activities required for the project. Our large, experienced staff allows us to respond quickly, provides flexibility, and will provide for the opportunity of high level input from in-house experts on complex multi-disciplinary projects. Our normal method of staffing projects is to assign a small project team with total responsibility for completion of the work to the client's satisfaction and budget. Where necessary, the team can draw on the expertise available within POTESTA's large staff. POTESTA offers a large staff with the efficiency and rates normally associated with a small firm.

WVDEP, AML has indicated that 60 days are required for submittal of deliverables for the Peach Ridge Complex Project. We stand ready to meet your timeframe.

#### **Project Budget Control**

The project manager will be responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. POTESTA's staff enters time into POTESTA's Timetrax computer system on a daily and/or weekly basis. POTESTA's project managers can access Timetrax at any time, thus allowing "real-time" control of project costs. In addition, field representatives routinely keep track of subcontractor costs on a daily basis. Thus we can, in effect, keep track of the total project costs on a weekly basis. Our subcontractors commonly invoice at monthly intervals and there is seldom a discrepancy between our field representative's pay items and our subcontractor's invoice.

#### **Schedule Control**

Direct responsibility for schedule control lies with the project manager. Initially, the project manager will review schedule requirements (understood to be 60 days for submittal of preliminary design documents) to see how they can be achieved given the anticipated scope of work. As the project progresses, the project manager will monitor progress and compare it with the established schedule on a weekly basis keeping the principal-in-charge aware of the schedule's status. In this manner, the principal-in-charge can make staff adjustments to allow the project manager to maintain the project schedule. If circumstances develop that make it impossible to maintain the project schedule, the project manager will contact the WVDEP project manager to develop a mutually acceptable adjustment to the schedule and/or work plan.

#### **Location of Facilities**

POTESTA will complete the work under this contract in our Charleston, West Virginia office. Our subcontractors are located in the Charleston area or other strategic regions and are quite familiar with the coalfields of West Virginia where the Peach Ridge Complex Project is located. Our close proximity to WVDEP's Charleston office will allow the project to be completed in a timely, economical manner as well as provide WVDEP, AML with easy access to us.

#### **Quality Assurance/Quality Control**

Submittals to the WVDEP will be reviewed and commented on by the project manager and the principal-in-charge prior to submittal to the WVDEP. Both the project managers and the principal-in-charge have worked on numerous WVDEP, AML projects, and thus understand the level of detail and expectations for WVDEP, AML projects. POTESTA utilizes standardized Quality Assurance/Quality Control (QA/QC) practices such as consistency checks, color coding of checked copies/calculations, and review of method of measurements versus quantity tallies to insure QA/QC expectations are met.

#### 2.0 CLOSING

We look forward to continuing to serve WVDEP, AML on the Peach Ridge Complex Project and bring it to completion. Our commitment is to provide quality service, rapid response and project completion, and to exceed your expectations for services performed under this project. We believe the track record of our professionals demonstrates our ability and commitment.

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

TERMS OF SALE

#### Request for Quotation

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FREIGHT TERMS

CHUCK BOWMAN

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Potesta & Associates, Inc.
7012 MacCorkle Avenue, SE
Charleston, WV 25304

ENVIRONMENTAL PROTECTION
DEPARTMENT OF
OFFICE OF AML&R
601 57TH STREET SE
CHARLESTON, WV
25304 304-926-0499

FO.B.

02/10/2010 BID OPENING DATE: 03/23/2010 OPENING TIME 01:30PM LINE QUANTITY UOP ITEM NUMBER UNITARICE AMOUNT d001 906-29 JΒ PEACH RIDGE COMPLEX DESIGN EXPRESSION OF INTEREST THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE PEACH RIDGE COMPLEX PROJECT IN MCDCWELL COUNTY, WEST VIRGINIA HER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS. IN THE EVENT THE VENDOR/CONTRACTOR FILES BANKRUPTCY: FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER. THIS IS THE END OF REQ DEP14949 \*\*\*\*\* TOTAL: SEE REVERSE SIDE FOR TERMS AND CONDITIONS March 23, 2010 SIGNATURE (304) 342-1400 Vice President 311509066 ADDRESS CHANGES TO BE NOTED ABOVE

# STATE OF WEST VIRGINIA Purchasing Division

#### **PURCHASING AFFIDAVIT**

West Virginia Code §5A-3-10a states: 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

#### **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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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 exceed five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (**West Virginia Code** §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

#### WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: Potesta & Associat	es, Inc.
Authorized Signature: <u>Lana L. Re</u>	
State of <u>West Virginia</u>	
County of <u>Kanawha</u> , to-wit:	
Taken, subscribed, and sworn to before me this $\underline{23}$ da	y of, 20 <u>10</u>
My Commission expires December 7	, 20 <u>14</u> .
AFFIX SEAL HERE	NOTARY PUBLIC Jan a. Juntan



WES	WEST VIRGINIA DEPARTMENT AML CONSULTANT CONFIDENTIAL	ENVIRONMENTAL AL QUALIFICATION	PROTECTION  QUESTIONNAIRE Attachment "B"
PROJECT NAME	DATE	AR)	
		,ro	311509066
. FIRM NAME	2. HOME OFFICE	E OFFICE BUSINESS ADDRESS	3. FORMER FIRM NAME
Potesta & Associates, Inc.	Charleston,	h.i	N/A
. HOME OFFICE TELEPHONE 5 (304) 342-1400	5. ESTABLISHED (YEAR) 1997	6. TYPE OWNERSHIP Individual Corporation Partnership Joint-Venture	ca. WV REGISTERED DBE (Disadvantaged Business Enterprise)
. PRIMARY AML DESIGN OFFICE: A	ADDRESS/ TELEPHONE/ PERSON	IN CHARGE/ NO.	OFFICE
7012 MacCorkle Avenue, SE, C	Charleston, WV 25304 /	(304) 342-1400 / Dana L. Bi	
8. NAMES OF PRINCIPAL OFFICERS OF Ronald R. Potesta, President Dana L. Burns, Vice President Laidley Eli McCoy, Vice President	ERS OR MEMBERS OF FIRM ident and Treasurer President and Secretary	8a. NAME, TITLE, & TELEPHONE NUMBER	PHONE NUMBER - OTHER PRINCIPALS
L BY DISCIPLINE			
ARCHITECTS ARCHITECTS BIOLOGIST CADD OPERATORS CHEMICAL ENGINEERS CONSTRUCTION INSPECTORS DESIGNERS DRAFTSMEN	3 ECOLOGISTS 1 ECONOMISTS ELECTRICAL ENGINEERS 1 ENVIRONMENTAL ENGINEER ESTIMATORS 3 GEOLOGISTS HISTORIANS HISTORIANS 1 HYDROLOGISTS 1 TOXICOLOGIST	1 LANDSCAPE ARCH-  1 MECHANICAL ENG- 2 MINING ENGINE 2 PHOTOGRAMMETRI PLANNERS: URBAI 1 SANITARY ENGINERA 3 SOILS ENGINEER 2 SPECIFICATION 7 ENVIRONMENTAL	ITECTS  INEERS  IO SURVEYORS  ERS  II TRANSPORTATION ENGINEERS STS  I INFORMATION TECHNOLOGIST  N/REGIONAL  I SAFETY/INDUSTRIAL HYGIENE EERS  CHEMIST  CHEMIST  S  WRITERS
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: *RPEs other than Civil and Mining must provide supporting documentation supervise and perform this type of work.	STERED PROFESSIONAL ENGIand Mining must provide this type of work.		12 that qualifies them to
	A state of the sta		
10. HAS THIS JOINT-VENTURE WORKED	KED TOGETHER BEFORE?	U YES U NO N	N/A

11. OUTS 'KEY CONSULTANTS/SUB-CONSULTANTS ANTICI	PATED TO USED.	Attach "AML Consultant Confidential Quali ation
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Digital Graphic Mapping 172 Imboden Drive, Suite 13 Winchester. Virginia 22603	Aerial Photography and Mapping	X Yes
	AND AT ADJUGUE	No WORKED WITH REFORE
NAME AND ADDRESS: Sturm Favironmental Services. Inc.	SPECIALLY:	WONNED WITH DEFOND
Brushy Fork Road	Environmental and Coal Related Laboratory	X Yes
Bridgeport, West Virginia 26330		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
140 Mong Road	Soil and Rock Boring	X Yes
Scenery Hill, Pennsylvania 15360		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
C1L of W V, inc. 510 C Street	Soils and Concrete Testing	X Yes
South Charleston, West Virginia 25303		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Xes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No Tanggar yangan sangan sanga
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No
	the state of the s	

Remediation/Mine Reclamation Engineering? Is your firm experienced in Abandoned Mine Lan

project managers, Messrs. Mark Kiser, P.E. and Terence Moran, P.E. have each worked on over 65 AML POTESTA's of the previous AML projects won reclamation awards including: Bear Run Refuse; Kimball Refuse Piles; Owings Mine Complex; Pine Creek (Omar) Refuse; Turner-Douglas Complex; Grass Run Refuse. projects dating back to 1986, including landslide investigation and abatement, mine subsidence Description and Number of Projects: POTESTA's principal-in-charge, Dana L. Burns, P.E. and two stabilization projects, acid mine drainage treatment, refuse piles, mine drainage, mine portal principal engineers have extensive experience with preparing design plans for refuse piles. POTESTA has 15 staff with experience on AML projects. These projects were completed by Dana Burns, Mark Kiser, and Terry Moran. seal, and water supply projects. YES

2

B. Is your firm experienced in Soil Analysis?

for Description and Number of Projects: POTESTA's staff is experienced in all aspects of soil analysis, excavated materials to generate acidity, and analysis of coal refuse to determine the potential experienced in soil analysis as it relates to this project. POTESTA's principal engineers have including geotechnical and environmental soil analysis. POTESTA's staff has worked on 30+ AML revegetation requirements, acid-base accounting of rock samples to evaluate the potential projects involving soil science, including slope stability and revegetation. POTESTA is developed and implemented plans for nutrient and lime requirements testing to determine reprocessing. YES

NO

C. Is your firm experienced in hydrology and hydraulics?

YES

that involved sizing channels, culverts, and waterlines. POTESTA has developed well over 100 storm Description and Number of Projects: POTESTA's staff is experienced in hydrology and hydraulics as it relates to AML projects in West Virginia. POTESTA's staff has worked on over 65 AML projects water management plans for mines, industrial facilities and new site development projects throughout West Virginia.

> S S

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

YES

Description and Number of Projects: POTESTA's staff routinely develop contour mapping for use with We subcontract aerial mapping development, but complete the ground control necessary for On smaller projects, we perform the topographic survey work and subsequently developing mapping. On smaller projects, we perform the topographic survey work and subsequently developing the contour mapping. POTESTA has completed 200+ mapping development projects in the last five years. design.

Z

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

Γz.

designs for municipalities, WVDEP AML, and private utilities. POTESTA's staff includes one project Our staff has worked on 80+ evaluations of aquifer degradation. POTESTA has performed over 35 water line design projects totaling several Cow Creek-Sarah Ann Extension and 30+ mile/2,800 GPM Water Treatment Plant Mill Creek designs and water treatment plant Description and Number of Projects: POTESTA's staff is exceptionally experienced at domestic We are also exceptionally well qualified to evaluate aquifer manager, Terence C. Moran, PE, who has managed design of numerous AML waterlines, including waterline design. POTESTA's staff has worked on waterline Regional Water Supply project. We are also exceptionally degradation, including aquifer degradation by AML sites. hundred miles of installed water line. 20+ mile YES

OZ.

. إكثر

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

YES

drainage evaluation and abatement design. POTESTA's staff has worked on 30+ projects involving AMD to prevent/abate AMD generation. Additionally, we worked extensively with Elk Run Coal Company to involved AML sites. We have worked extensively with Anker Energy, Dominion Generation, and the WVDOH, among others with acid-base accounting evaluations and the subsequent development of plans In both cases, many of the projects Description and Number of Projects: POTESTA has completed numerous projects addressing acid mine devise a plan to limit AMD generation and to treat the remaining AMD. evaluation and 10+ projects involving AMD abatement design.

13. PER AL HISTORY STATEMENT OF PRIN	OF PRINCIPALS AND ASSOCIATE' SSPON	ESPONSIBLE FOR AML PROJECT DESIGN	Furnish comple
(Tact Fit		YEARS OF EXPERIENCE	
C IIIII Anger, First, Anger, Co., C.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERTENCE.	YEARS OF DOMESTIC WATERLINE DESIGN
Vice President	21	30	EXPERIENCE: 19
Brief Explanation of Responsibilities		Administratory and the state of	A THE STATE OF THE
Mr. Burns will serve as principal-in-charge for Mr. Burns has served as the project manager or 1986 through 1997, totaling over 60 projects. project will be identified. He will coordinate	for this proj or principal- . He will en late contract	significant three open e sonnel requir the State of	icant experience with AML type projects. open end contracts for WVDEP, AML from required to efficiently complete this ite of West Virginia.
EDUCATION (Degree, Year, Specialization) MS, 1979, Civil Engineering with Environmental BS, 1978, Civil Engineering	Engineering	Emphasis	
	ONS	REGISTRATION (Type, Year, St	State)
West Virginia Coal Association American Society of Civil Engineers West Virginia Association of Consulting	ineers Consulting Engineers	PE, 1985, WV PS, 1995, WV	
13. PERSONAL HISTORY STATEMENT OF PRI data but keep to essentials)	ANI	NSIBLE FOR AML PROJECT DESIGN (Furnish complete	V (Furnish complete
(Last. Fir		YEARS OF EXPERIENCE	
Kiser, D. Mark	YEARS OF AML DESIGN EXPERIENCE: 18	YEARS OF AML RELATED DESIGN EXPERIENCE: 25	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 19
	ייס ל מיי	etabilization design and mine portal	ortal closures and
As Chief Engineer, with Significant experience drainage channelization, he will serve as a pr QA/QC for the various draft submissions and fi	in coal feluse oject manager. nal construction	3 7	ability
EDUCATION (Degree, Year, Specialization)	(uo-		
BS, 1984, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	SNO	ION (Type, Year, 1990, WV 1998, IN	State)
		PE, 1998, SC Licensed Remediation	Specialist, 1998, WV
ACCES MANAGEMENT AND ADMINISTRATION OF THE PROPERTY	The state of the s		

13. PEF 'AL HISTORY STATEMENT OF PRIN data out keep to essentials)	PRINCIPALS AND ASSOCIATF 'ESPONSIBLE	SIBLE FOR AML PROJECT DESIGN (Furnish	(Furnish compl
TLE (Last, First, Middle Int.)	The state of the s	YEARS OF EXPERIENCE	DAMPONIA BO DOCTOR
Moran, Terence C. Senior Engineer I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 20	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 20
Brief Explanation of Responsibilities	And the second s	A TANA CANADA AND AND AND AND AND AND AND AND AN	
Mr. Moran will serve as project manager coordisubconsultants. Mr. Moran has served as a probetween 1989 and 1999. More recently, he has including water studies and reclamation plans. will also serve as one of the principal design	-≓∩ • C	cordinating interaction between the WVDEP, design team members, and a project engineer/project manager for over 60 AML projects in West has served as principal engineer and project manager for WVDEP-AML plans. He will set the schedule and ensure it is met on a weekly bas lesigners of the reclamation design solution.	n members, and ojects in West Virginia for WVDEP-AML projects on a weekly basis. He
EDUCATION (Degree, Year, Specialization)	on)		The state of the s
MS, 1989, Civil Engineering BS, 1987, Civil Engineering			
P IN PROFESSI		REGISTRATION (Type, Year, St	State)
American Society of Civil Engineers	eers	PE, 1996, WV PE, 1998, VA	
13. PERSONAL HISTORY STATEMENT OF PRII data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPONSIBLE	SIBLE FOR AML PROJECT DESIGN	(Furnish complete
(Last, Fir		YEARS OF EXPERIENCE	**************************************
Taylor, Patrick A. Senior Engineer II	YEARS OF AML DESIGN EXPERIENCE: 19	YEARS OF AML RELATED DESIGN EXPERIENCE: 19	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 14
Brief Explanation of Responsibilities			
Mr. Taylor will serve as a project engineer, technical specifications, bid forms, and cos consisting of emergency slide remediation, r slurry pond reclamation. Mr. Taylor also se surface mining permitting, design and reclam	ar ef ar v	ncluding completing field work, design, and preparation estimates. Mr. Taylor has project engineer experience use fill and slurry pond reclamation, abandoned portaled as a branch manager for a private consulting firm recion.	and preparation of drawings, leer experience in AML projects andoned portal closures, and sulting firm responsible for
EDUCATION (Degree, Year, Specialization)	(no.	Andrewsky, and the second seco	
MS, 2006, Engineering Management BS, 1988, Civil Engineering	42		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	SNO	REGISTRATION (Type, Year, St	State)
American Society of Civil Engin	Engineering	PE, 1994, WV	

13. PERSUNAL HISTORY STATEMENT OF PR data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPON	AESPONSIBLE FOR AML PROJECT DESIGN (Furnish comple	(Furnish comple
(Last. Fir		YEARS OF EXPERIENCE	
Gandee, Project	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities	SO		
As project engineer, Jason will fielevaluate soil borrow areas, perform specifications. Mr. Gandee has work	nill field verify project mapping, acq perform hydrologic and hydraulic desig has worked on five AML projects over t	acquire utility information, devodesign calculations, develop contiver the last year.	develop grading plans, contract drawings and
EDUCATION (Degree, Year, Specialization)	tion)	The state of the s	74444
BS, 2007, Civil Engineering Technology	echnology		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	TIONS	REGISTRATION (Type, Year, St	State)
PERSONAL HISTORY STATEMENT OF lata but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPON	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (last, First, Middle Int.) Bria, R. Scott CAD Designer	YEARS OF AML DESIGN EXPERIENCE:	AME.	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities	es	and the second s	
As a CAD Designer, Scott will assister grading plans, compute volumes, genergineering staff.	assist in reducing survey data and ;, generate cross sections and profi	data and preparing base mapping, compi and profiles, customize details and of	compile all drawings, develop and offer support to
EDUCATION (Degree, Year, Specialization)	tion)	· · · · · · · · · · · · · · · · · · ·	The state of the s
1997, Certificate of Drafting			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	ATIONS	REGISTRATION (Type, Year, St	State)

MAL HISTO	SIBLE FOR AML PROJECT DESIGN	(Furnish complered
data but keep to essentias/	Ş	
THE PROPERTY OF THE PARTY OF TH	YEARS OF EXPERIENCE	CARACT TO SORBETTO
Lipscomb, Daniel H.  Engineer II	IEAKS OF AML KELAIED DESIGN EXPERIENCE: 3	LENG
Brief Explanation of Responsibilities		Attornments and the state of th
Mr. Lipscomb has extensive experience in design and permitting of water supply to gain easements. Mr. Lipscomb also has significant experience in subsurface	systems explorat	and interaction with the public ions and soil evaluations.
EDUCATION (Degree, Year, Specialization)	The state of the s	
BS, 2002, Civil Engineering Technology		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, St.	State)
	PE, 2008, WV	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE data but keep to essentials)	SIBLE FOR AML PROJECT DESIGN	(Furnish complete
** ***********************************	YEARS OF EXPERIENCE	
Potesta, Ronald R. President	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities	######################################	
As President, Mr. Potesta directs the full resources of the firm t WVDEP.	firm to meet the complete requirements	ents of this project for
EDUCATION (Degree, Year, Specialization)	Table of the control	TOTAL MARKET TOTAL
MS, 1975, Economics with a Concentration in Mineral Economics, BS, 1971, Business Administration	s, Econometrics, and Micro Economics	iconomics
P IN PRC mission; mission; servancy	REGISTRATION (Type, Year, St	State)

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES AESPONSIBLE data but keep to essentials)	FOR A	(Furnish comple
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE: WcCoy, Laidley Eli Vice President	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities		
Dr. McCoy will serve as a back-up principal-in-charge. In addition, Dr. McCoy managnatural science division of the company. He will coordinate required environmental completion of this reclamation design.	jes the e support	entire environmental and services for the
EDUCATION (Degree, Year, Specialization) PhD, 1981, Aquatic Ecology MS, 1974, Biological Science BS, 1972, Zoology		
P IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, St	State)
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE data but keep to essentials)	BLE FOR AML PROJECT DESIGN	(Furnish complete
- L	YEARS OF EXPERIENCE	
Grose, Christopher A. Senior Engineering Associate	YEARS OF AML RELATED DESIGN EXPERIENCE: 20	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 12
Brief Explanation of Responsibilities		
Mr. Grose will coordinate the drilling and geotechnical analysis for sites for soil cover, and investigation and design of solutions for s recommendations for mine seals.	slope stability design, ubsurface hydrogeology	identification of borrow within the deep mines and
EDUCATION (Degree, Year, Specialization)		
MS, 1990, Geological Engineering BS, 1988, Civil Engineering		
ZATIONS ngineering Geology Y Engineers	REGISTRATION (Type, Year, State) Licensed Remediation Specialist,	State) Specialist, 1998, WV

13. PERSONAL HISTORY STATEMENT OF PRIN data but keep to essentials)	PRINCIPALS AND ASSOCIATED AESPON	AESPONSIBLE FOR AML PROJECT DESIGN (Furnish	(Furnish comple
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Ammirato, Vincent J. Senior Engineer I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8
Brief Explanation of Responsibilities	and the state of t	A) and the state of the state o	Townserver to the contract of
Mr. Ammirato will provide structural engir Columbia Gas in plant design and pipeline this project may have.	engineering that may be required for this line distribution will be well suited for	project. His the possible	sextensive background with structural requirements
EDUCATION (Degree, Year, Specialization)	on)	Vandanousses-minister (1975)	
BS, 1970, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	ONS	REGISTRATION (Type, Year, St PE, 1980, WV PE, 1992, PA PE, 1992, OH PE, 1993, VA	State)
13. PERSONAL HISTORY STATEMENT OF PRIN data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPO	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
TIR (Last, Fir		YEARS OF EXPERIENCE	
Ward, Patrick E. Senior Engineer I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 12	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 4
Brief Explanation of Responsibilities			
Mr. Ward will serve as a project engineer and ha project engineer on refuse piles, mine drainage,	s extensive and subside	ensive experience on WVDEP, AML projects, havin subsidence projects in the early to mid-1990's.	having served as a 1990's.
EDUCATION (Degree, Year, Specialization)	on)	AT THE RESIDENCE OF THE PARTY O	
MS, 1992, Civil Engineering (Ge BS, 1990, Civil Engineering	(Geotechnical)		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	CONS	REGISTRATION (Type, Year, St	State)
		PE, 1997, WV	

13. PERSOWAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES KESP	AESPONSIBLE FOR AML PROJECT DESIGN (Furnish o	comple
Saca Mari	YEARS OF EXPERIENCE	
NAME & IIILE (Last, First, middle IIIC.) YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN	MESTIC
McGlothen, Ryan K. Senior Engineer	EXPERIENCE: 13 EXPERIENCE: 13 EXPERIENCE:	ESTGN 9
Brief Explanation of Responsibilities		
Mr. McGlothen will serve as a project engineer on this project. and preparation of the drawings and technical specifications. Hearthwork design, and monitoring of drilling, as well as hydrolo	project. Mr. McGlothen will assist with design castions. He has extensive experience with slope state hydrologic and hydraulic design.	calculations stability,
EDUCATION (Degree, Year, Specialization)		
BS, 1996, Civil Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)	**************************************
American Society of Civil Engineers	PE, 2002, WV	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESP data but keep to essentials)	RESPONSIBLE FOR AML PROJECT DESIGN (Furnish o	complete
TTT (Tact Riv	YEARS OF EXPERIENCE	
Kohler, Staff S	YEARS OF AML RELATED DESIGN YEARS EXPERIENCE: 35 EXPERI	OF DOMESTIC INE DESIGN ENCE:
Brief Explanation of Responsibilities		
Mr. Kohler will serve as a project scientist for issues regarding re extensive experience with the coal mining, having worked for the coa responsible for reclamation of surface operations for over 15 years.	reclamation, including revegetation. coal industry for numerous years and be	Mr. Kohler has sing directly
EDUCATION (Degree, Year, Specialization)		
BS, 1977, Environmental Science and Resource Management		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS data but keep to essentials)	AND ASSOCIATES	SPONSIBLE FOR AML PROJECT DESIGN	(Furnish comple.~
E 14		YEARS OF EXPERIENCE	***************************************
Sedosky, Timothy B. Staff Scientist I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 14	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities	- Andrews (Andrews Control of the Co	- Advantage Community	
Mr. Sedosky will review the site for possible w potential reclamation activities. He will prep wetland disturbance and mitigation.	r possible wetlands and delineate, as required, He will prepare required permit applications to	ite, as required, wetland areas to l capplications to the WVDNR, WVDEP,	as to be impacted by WVDEP, and USCOE for
EDUCATION (Degree, Year, Specialization)			The second secon
BS, 1995, Wildlife and Fisheries Resource	ssource		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, St.	State)
HISTORY	AND ASSOCIATES	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last Rirst Middle Int.)		YEARS OF EXPERIENCE	
Litwinowicz, Dennis L. Staff Scientist I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 30	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Mr. Litwinowicz will serve as a project gecassistance on evaluation of other geologic	geologist, including observation nc activities.	of subsurface	exploration activities and
EDUCATION (Degree, Year, Specialization)			
BS, 1980, Geology and Mineralogy			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	Printers	REGISTRATION (Type, Year, St	State)
American Association of Petroleum Geologists	3eologists	Certified Petroleum Geologist,	ologist, 1984

13. PERSONAL HISTORY STATEMENT OF PRING data but keep to essentials)	PRINCIPALS AND ASSOCIATESESPOI	ESPONSIBLE FOR AML PROJECT DESIGN	(Furnish comple
(Tact Riv		YEARS OF EXPERIENCE	
Dawson, Victor M.	YEARS OF AML DESIGN EXPERIENCE:	AML GB:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 12
Survey Supervis	- Transmission		The second secon
Brief Explanation of Responsibilities			
Mr. Dawson will coordinate required surveying fo topographic surveys, boundary surveys and/or prosignificant existing drainage courses not clearl and create topographic mapping for AML projects.	for aerial mapping roperty and deed retrly defined in the s.	if needed, establish survey of boring loca mapping. Mr. Dawson w	construction benchmarks, itions and profiling ill reduce survey data
EDUCATION (Degree, Year, Specialization)	(u		
AS, 1983, Surveying			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	MS	REGISTRATION (Type, Year, St	State)
American Congress Surveying and Mapping	Mapping of surveyors	PS. 1988, NC	
West virginia Association of Land B North Carolina Society of Surveyors	ors fors	1989,	
HISTORY STATEMENT OF these to essentials)	ALS AND ASSOCIATES	RESPONSIBLE FOR AML PROJECT DESIGN	N (Furnish complete
, ·		YEARS OF EXPERIENCE	
Osborne, Ralph E.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 33	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 17
Brief Explanation of Responsibilities	and the second s	HIRANIA CANADA C	redom/www.in.
Mr. Osborne will provide the CADD support reduce survey data at booster station and design.	in preparation of c water storage tank	construction drawings for the project. sites to provide sufficient mapping to	ject. He will also ing to complete the
EDUCATION (Degree, Year, Specialization)	no)	- Commission of the Commission	- A A A A A A A A A A A A A A A A A A A
AS, 1983, Mining Technology			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	ONS	REGISTRATION (Type, Year, St	State)

NAME & TITLE (last, First, widdle Int.)  Sankoff, Michael B.  Sankoff, Michael B.  Brief Explanation of Responsibilities  Mr. Sankoff will provide the CADD support in preparation of construct survey data to provide sufficient mapping to complete the design.  EDUCATION (Degree, Year, Specialization)  BS, 1987, Industrial Management AS, 1986, Mechanical Engineering Technology Ammirato, Robert J.  Brief Explanation of Responsibilities  Mr. Ammirato will serve as a project engineer for the project. His real calculations, layout, drawing preparation, design, technical specific calculations, layout, drawing preparation, design, technical specific calculations, layout, drawing preparation, design, technical specific collutions, layout, drawing preparation, design, technical specific collutions, layout, drawing preparation our Borderland (Matney) Port	SETENCE: YEARS OF EXPERIENCE  EXPERIENCE: 22  EXPERIENCE: 4 will recade sign.  REGISTRATION (Type, Year, State)  EXPERIENCE: 4 complete sign.  SERSPONSIBLE FOR AML PROJECT DESIGN (Furnish complete states)  EXPERIENCE: YEARS OF EXPERIENCE  EXPERIENCE: 4 complete states and 4 complete states of a complete states
Sankoff, Michael B.  CADD Designer/Supervisor  E Explanation of Responsibilities  Sankoff will provide the CADD support in preparation of constray data to provide sufficient mapping to complete the design.  PES, 1987, Industrial Management AS, 1986, Drafting and Design Engineering Technology AS, 1986, Mechanical Engineering Tech	TEARS OF AML RELATED DESIGN EXPERIENCE:  22  Truction drawings for the proje REGISTRATION (Type, Year, Stansible For AML PROJECT DESIGN YEARS OF EXPERIENCE YEARS OF EXPERIENCE TYBARS OF EXPERIENCE EXPERIENCE:
Sankoff will provide the CADD support in preparation of constructively data to provide sufficient mapping to complete the design.  CATION (Degree, Year, Specialization)  BS, 1987, Industrial Management AS, 1986, Drafting and Design Engineering Technology AS, 1986, Mechanical Engineering Technology BERSHIP IN PROFESSIONAL ORGANIZATIONS  B & TITLE (Last, First, Middle Int.)  E & TITLE (Last, First, Middle Int.)  E & TITLE (Last, First, Middle Int.)  E & TITLE (Last, First, Middle Int.)  Ammirato, Robert J.  E Ammirato, Robert J.  Ammirato will serve as a project engineer for the project. His culations, layout, drawing preparation, design, technical specific K. He has extensive experience in water supply and waste water s Ammirato was the project engineer on our Borderland (Matney) Por	REGISTRATION (Type, Year, StarnsIBLE FOR AML PROJECT DESIGN VEARS OF EXPERIENCE  YEARS OF EXPERIENCE  YEARS OF EXPERIENCE  YEARS OF EXPERIENCE
Sankoff will provide the CADD support in preparation of constructively data to provide sufficient mapping to complete the design.  CATION (Degree, Year, Specialization)  BS, 1987, Industrial Management AS, 1986, Drafting and Design Engineering Technology AS, 1986, Mechanical Engineering Technology BERSHIP IN PROFESSIONAL ORGANIZATIONS  BERSHIP IN PROFESSIONAL ORGANIZATIONS  E & TITLE (Last, First, Middle Int.)  E & TITLE (Last, First, Middle Int.)  E & TITLE (Last, First, Middle Int.)  Ammirato, Robert J.  E Ammirato, Robert J.  Ammirato will serve as a project engineer for the project. His culations, layout, drawing preparation, design, technical specific Remains was the project engineer on our Borderland (Matney) Por Ammirato was the project engineer on our Borderland (Matney) Por	REGISTRATION (Type, Year, Stansible FOR AML PROJECT DESIGN VEARS OF EXPERIENCE VEARS OF EXPERIENCE VEARS OF EXPERIENCE VEARS OF EXPERIENCE
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BS, 1987, Industrial Management AS, 1986, Drafting and Design Engineering Technology AS, 1986, Mechanical Engineering Technology AS, 1986, Mechanical Engineering Technology  RESTRICT IN PROFESSIONAL ORGANIZATIONS  PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSI  Rata but keep to essentials)  & TITLE (Last, First, Middle Int.)  E TITLE (Last, Robert J.  Bammirato, Robert J.  E Explanation of Responsibilities  Ammirato will serve as a project engineer for the project. His alations, layout, drawing preparation, design, technical specifications, layout, drawing preparation, design,	REGISTRATION (Type, Year, Stands: Stan
ERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSI  E TITLE (Last, First, Middle Int.)  Ammirato, Robert J.  E Explanation of Responsibilities  Ammirato will serve as a project engineer for the project. His lations, layout, drawing preparation, design, technical specifial He has extensive experience in water supply and waste water sammirato was the project engineer on our Borderland (Matney) Por	REGISTRATION (Type, Year, Statement of the control
PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSI  & TITLE (Last, First, Middle Int.)  Ammirato, Robert J.  Explanation of Responsibilities  Ammirato will serve as a project engineer for the project. His lations, layout, drawing preparation, design, technical specifiance in water supply and waste water symmetrato was the project engineer on our Borderland (Matney) Por	NSIBLE FOR AML PROJECT DESIGN YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:
Ammirato will serve as a project engineer for the project. His lations, layout, drawing preparation, design, technical specifiations as the project engineer on our Borderland (Matney) Por Ammirato was the project engineer on our Borderland (Matney) Por	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:
Ammirato, Robert J.  Explanation of Responsibilities  Ammirato will serve as a project engineer for the project. His alations, layout, drawing preparation, design, technical specifications as extensive experience in water supply and waste water symmicato was the project engineer on our Borderland (Matney) Por	YEARS OF AML RELATED DESIGN EXPERIENCE:
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Ammirato will serve as a project engineer for the project. His culations, layout, drawing preparation, design, technical specific. He has extensive experience in water supply and waste water s Ammirato was the project engineer on our Borderland (Matney) Por	
	ject. His responsibilities will include hydraulic cal specifications, bid forms, cost estimates, and fste water system design, permitting, and regulations Matney) Portals project.
EDUCATION (Degree, Year, Specialization)	
BS, 1999, Mechanical Engineering	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS REG	REGISTRATION (Type, Year, State)
	PE, 2010, WV

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE. AE data but keep to essentials)	AESPONSIBLE FOR AML PROJECT DESIGN (Furnish	v (furnish comple∵
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	THE PROPERTY OF THE PROPERTY O
	E: YEARS OF AML RELATED DESIGN EXPERIENCE: 7	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5
Brief Explanation of Responsibilities		
Mr. Kinder has extensive experience in hydrologic and hydraulic coal ash disposal facilities and preparation of cost estimates.	design as well as subsurface	explorations, design of
EDUCATION (Degree, Year, Specialization)		A CONTRACTOR OF THE PROPERTY O
BS, 2003, Civil Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, St	State)
	PE, 2008, WV	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE data but keep to essentials)	PONSIBLE FOR AML PROJECT DESIGN	N (Furnish complete
TLE	YEARS OF EXPERIENCE	**************************************
YEARS OF AML DESIGN EXPERIENCE: Engineer II	E: YEARS OF AML RELATED DESIGN EXPERIENCE: 6	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 6
Brief Explanation of Responsibilities		
Mr. Smith has been involved extensively with development of hydrologic and hydraulic calculations including preparation of NPDES stormwater construction permits. He also has significant expertise in the development grading plans and quantity/cost estimates. Mr. Smith was the project engineer on our Taylorville (Cantrell AML project.	of hydrologic and hydraulic calculations including also has significant expertise in the development the project engineer on our Taylorville (Cantrell	lic calculations including pertise in the development of site our Taylorville (Cantrell) Drainage
EDUCATION (Degree, Year, Specialization)		
BS, 2002, Civil Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, S	State)
National Society of Professional Engineers	PE, 2008, WV	

data but keep to essentials)		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
		YEARS OF DOMESTIC
Drinkard, William F. III Senior Engineer I	EXPERIENCE: 35	WAIEKLINE DESIGN EXPERIENCE: 9
Brief Explanation of Responsibilities		
Mr. Drinkard will serve as a project engineer and has extensive coal areas, mine facility construction utilities, access roads, drainage Mr. Drinkard will prepare NPDES permit applications for construction drainage calculations.	s extensive coal industry design experience in roads, drainage controls, and portal closings. for construction activities and other required	ce in refuse disposal ings. In addition, uired storm and mine
EDUCATION (Degree, Year, Specialization)	The state of the s	
MS, In Progress, Environmental Engineering MBA, 1981, Business Administration BS, 1980, Mining Engineering		
101	REGISTRATION (Type, Year, St PE, 1981, WV PS, 1992, WV	State)
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES <b>RES</b> data but keep to essentials)	RESPONSIBLE FOR AML PROJECT DESIGN	N (Furnish complete
7-1	YEARS OF EXPERIENCE	
Junker, Davi Senior Scien	3: YEARS OF AML RELATED DESIGN EXPERIENCE: 20	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities		
Mr. Junker will provide as needed geological/hydrogeological se	services for this project.	
EDUCATION (Degree, Year, Specialization)		
MS, 1990, Hydrogeology and Geology BS, 1973, Geology		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, St	State)
National Groundwater Association	Registered Professional Licensed Remediation Sp	nal Geologist, 1993, KY Specialist, 1998, WV
	The state of the s	

14. PROV <sub>EN</sub> E A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN 1 PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AM- DESIGN SERVICES
Microsoft Office XP (Excel, Access, Word, PowerPoint)
WordPerfect 11
Adobe PageMaker 7 (Publication Software)
MicroStation (Allows users to create 3D models of permanent assets - the models and all of their components are electronic simulations of real-world objects); used for CADD drawing preparation.
Autodesk Land Desktop 2007 (3D modeling software that provides topo analysis, real-world coordinate systems, volume totals, roadway geometry.)
software packages used for designing storm water structures [e.g., channels, culverts tribution systems.)
MapTech, Terrain Navigator (Combines regional collections of topo maps with powerful PC navigation software for 2D/3D viewing, customizing, printing and GPS use.)
AutoCAD, 2007 and 2008 Used for preparing CADD drawings.
Softdesk 8.0 Civil/Survey Design Software

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N WHICH YOUR FIRM IS THE DESIGNATEL LNGI	
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PROJECT NAME, TYPE AND	NAME AND ADDRESS OF	NATURE OF YOUR FIRM'S	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Jessop Highwall #10 AML Reclamation of Highwalls, Preston County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$1,357,000	\$ G
Lando (Edwards) Drainage, AML Reclamation of Refuse Pile and Drainage Problems, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$352,000	% W
Taylorville (Cantrell) Drainage, AML Reclamation of Acid Mine Drainage Problems, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$241,000	₩ ₩
Borderland (Matey) Portals, AML Reclamation of Mine Portals, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$94,000	လ က (၂)
Fairmont Bast Mine Drainage, AML Reclamation of Acid Mine Drainage, Fairmont, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$100,000	% O &
Sundial Refuse Piles, AML Reclamation of Coal Refuse Piles, Raleigh County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$4,800,000	<b>୬</b> ୧ ଫ

15. CUR T ACTIVITIES C	ON WHICH YOUR FIRM IS THE	HE DESIGNATE NGINEER OF 1	RECORD	
PROJECT NAME, TYPE AND	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Rachel Refuse, AML Reclamation of Mining Complex, Farmington, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	Unknown	50%
May Portal, AML Reclamation Mine Portal/Fill Slippage Project, Buchanan County, VA	Virginia Dept. of Mines, Minerals & Energy PO Drawer 900 Big Stone Gap, VA 24219	Rehabilitate former AML mine portal closure that had drainage and slip failure. Preparation of reclamation plan drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$130,000	% %
Lick Creek Waterline Extension - Phase I, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$1,200,000	ጭ ማ
Town of Ceredo Water Distribution System Upgrade - Contract No. 1, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$831,000	% 60 %
Town of Ceredo Water Distribution System Upgrade - Contract No. 2, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$885,000	% ⊙ .:

15. CUR T ACTIVITIES O	T ACTIVITIES ON WHICH YOUR FIRM IS THE	THE DESIGNATE NGINEER OF 1	RECORD	
PROJECT NAME, TYPE AND	NAME AND ADDRESS OF	NATURE OF YOUR FIRM'S	ESTIMATED CONSTRUCTION	PERCENT COMPLETE
LOCATION	OWNER		1000 000 V	866
Hattleld-McCoy/water	Boone County Fab PO Box 287	associated with	0000	
Ways watering Extension. Boone	Danville, WV 25053	extension of waterline		
County, WV		including preparation		
¥		of drawings,		
		specifications, and		
		contract documents and		
	1	Administration of allenses	74 000 000	70%
Landfill Closure	Solutia, inc.	on or	) ) ) ) ) ) ) ) ) )	
Design, Various	^	designs, conscinction		
Environmental	Nitro, WV 25143	drawings and		
Remediation Projects		specifications,		
Nitro, WV		environmental		
		sampling, and		
		regulatory liaison.		
The Villages at	Berkeley Springs	Engineering design and		80%,
		permitting for 1300	Excluding Home	(Design)
County, WV		home community	Construction Costs	
7	Berkeley Springs, WV	including water		
	1	treatment plant and		
		distribution system,		
		wastewater treatment	a para para para para para para para pa	
		prant and correcton		
		system, roads,		
		stormwater management	***************************************	
		system, and property		
Fort Martin Power	Alleqheny Energy	Wetland delineation,	\$10,000,000	% 00 1
Station Coal	1	engineering design,		(Design)
Combistion By-Product	800 Cabin Hill Drive			
Tandfill Expansion	Greensburg, PA 15601	100-acre landfill		40%
Monongalia County WV		including synthetic		(QA/QC Monitoring)
monday a composition		liner system, leachate		
		pumpback system,		
		stormwater management		
		system, access		
		roadways, and QA/QC		
		monitoring.	\$ 100 mm m m m m m m m m m m m m m m m m	
TOTAL NUMBER OF PROJECTS:	S:	TOTAL ESTIMATED	ATED CONSTRUCTION COSTS:	
15 (POTESTA has co	completed well over 1000 ]	projects.)		\$74,890,000

YOUR FIRMS
RESPONSIBILITY
\$750,000 \$20,000 ESTIMATED CONSTRUCTION COST ENTIRE PROJECT \$60,000,000 \$750,000 ESTIMATED
COMPLETION DATE 2009 2008 16. CURALAT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A L 3 NAME AND ADDRESS OF OWNER Andropogon Associates, Ltd. 10 Shurs Lane Philadelphia, PA 222 Lee Street, Charleston, WV 25302 ZMM, Inc. NATURE OF FIRMS RESPONSIBILITY Design Water Supply and Sanitary Sewer Systems Site Utilities, Stormwater Management and Agency Coordination PROJECT NAME, TYPE AND LOCATION Charleston Greenspace Project Bradshaw Schools Site Utilities

-CONSULTANT TO OTHERS

17 CC JETED WORK WITHIN LAST	5 YEARS ON WHICH YOUR FIRE.	AS THE DESIGNATED ENGINEER OF RECORD		
	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Waterline	Massey Coal Services 315 70 <sup>th</sup> Street, SE Charleston, WV 25304	\$550,000	2008	Yes
Spruce Laurel Stream Monitoring, Boone County, WV	WVDEP - AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$3,000,000 (Est.)	2008	Yes
Fleming Landfill Sewer Line, 2 Miles of Sewer Line, Kanawha County, WV	WVDEP - AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$1,100,000	2008	Yes
Pocahontas County Landfill Expansion, Closure, and Operations Consulting, Dunmore, WV	Pocahontas County Solid Waste Authority 910-C Tenth Avenue Marlinton, WV 24454	\$400,000	2008	Yes
Site Assessment and Closure/Capping Plan for Jackson County Landfill, Ripley, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$3,000,000	2008	Yes
Georges Creek Rockslide Retaining Wall, Kanawha County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$430,000	2005	Yes
William Nursing Home Landslide Retaining Wall, Mingo County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$2,500,000	2005	Yes
Fisher Ridge Waterline Extension - Phase II, Putnam County, WV	Putnam County Commission 3389 Winfield Road Winfield, WV 25213	\$400,000	2004	Yes
Stephens Auto/Betsy Lane Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$250,000	2005	Yes

Gampite (Ob	(YES OR NO)	Y es	NO	Yes	No	Yes	Yes		
C W CLLAY	IBAK	2006	2006	2006	2004	2006	2006	,	
AS THE DESIGNATED ENGINEER OF RECORD	ESTIMATED CONSTRUCTION COST	\$250,000	\$600,000	\$750,000	\$1,000,000	\$600,000	\$450,000		
FIRI	NAME AND ADDRESS OF OWNER	Boone County PSD PO Box 287 Danville, WV 25053	Boone County PSD PO Box 287 Danville, WV 25053	Boone County PSD PO Box 287 Danville, WV 25053	City of Philippi PO Box 460 Philippi, WV 26416	West Virginia American Water PO Box 1906 Charleston, WV 25327	Mingo-Logan Coal Company PO Box E Sharples, WV 25183		
17. Ct .ETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR	ProJECT NAME, TYPE AND LOCATION	Trace Branch at Robinson Waterline Extension, Boone County, WV	Six Mile to Corridor G Waterline Extension, Boone County, WV	Joes Creek Waterline Extension, Boone County, WV	City of Philippi Relocation of Waterline, Philippi, WV	Mifflin-Sharples Waterline Extension, Logan County, WV	Mountain Laurel Potable Water Supply Extension, Logan County, WV		

CC... LETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIR. ..AS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATL ...ASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE) 18.

	-,,,,,-,-,-,-			****************		
FIRM ASSOCIATED	BBL Carlton	BBL Carlton	Modjeski and Masters, Inc.	Pray Construction Company		
CONSTRUCTED	Yes	H B	NO	Yes		
YEAR	2005	2004	2004	2006		
TIMATED CONSTRUC	\$100,000	\$2,200,000	Unknown	\$6,000,000 Our Fee \$55,000		
OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)  ICT NAME, TYPE NAME AND ADDRESS ES	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304		
OF WORK FOR WHIC PROJECT NAME, TYPE	AND LOCATION Blackwell Field Redevelopment, Charleston, WV	Benedum Residence Hall Replacement, Charleston, WV	Dundon Bridge Replacement, Clay, WV	UC Pharmacy School, Charleston, WV		

POTESTA employees have worked on and have experience POTESTA's in-house staff includes 17 Professional Engineers including 12 in the primary office, three of whom Engineer POTESTA's staff have their Ph.D.'s, with offices Potesta & Associates, Inc.'s (POTESTA) "Expression of Interest for Professional Engineering Design Services and Construction Monitoring Services for the Peach Ridge Complex Project" supports this questionnaire in providing and subcontractors who have historically worked on AML projects. POTESTA's qualifications and resources for serving the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation on this project. In summary, POTESTA: Has a large local staff with a unique multidiscipline technical emphasis (including civil engineering, reclamation, with since POTESTA has two Professional 2010 and Remediation Passive Acid Mine Drainage Treatment to continue firm to WVDEP's Charleston office, 23, your March Reclamation of Refuse Piles resources supporting Staff has had a positive relationship with WVDEP, AML in the past, which we would like Subsidence Assessment mine land Sealing Mine Portals Date: Wetland Assessments Stream Relocations USCOE Permitting qualifications to perform work for the West Virginia . Indoned Mine Lands Program. structural engineering, geological engineering, hydrological engineering, emphasis on water quality and aquatic life and toxicity). Two members of Vice President θ Office is located in Charleston, West Virginia in close proximity Can handle a substantial AML workload (more than our competitors) (P.E.) Project Managers each with experience on 65+ AML projects. description Has 15+ employees with experience on WVDEP AML projects. Title: Assessment of Contamination (e.g., PCB's, asbestos) in Morgantown, West Virginia and Winchester, Virginia. information Water Supply Feasibility Studies and Design the following type of WVDEP AML projects: Inventory of Residential Water Supplies Has assembled a team of in-house personnel additional have worked on over 65 AML projects. Drainage acts. have their Masters Degree. Demolition of Structures Ö Identifying Acid Mine any Diversion Structures a statement Burns provide . ....i Dana Landslides Mine Fires Ç space 20. The foregoing his Printed Name: II. Signature: Ö . ⊘ 4 ω. ω. . ف

# Civil Engineering and Design

Potesta & Associates, Inc. (POTESTA) helps clients evaluate and plan projects by completing the following types of preliminary investigations and analyses.

- Phase I environmental site assessments
- Floodplain determination
- Geotechnical explorations including soil, bedrock, and groundwater characterization
- Foundation recommendations
- Monitoring well systems and site characterization plans
- Boundary, topographical and photogrammetric surveys
- Utility planning
- Earthwork evaluations including volume analysis
- Opinion of probable costs/engineer's construction cost estimates

Once the project has been determined feasible, POTESTA's design professionals complete preliminary and final designs. Frequent communication is made with the client and any other design professionals to review completed activities and obtain input for the design process. Our goal is to provide our services to achieve or exceed our clients' expectations.

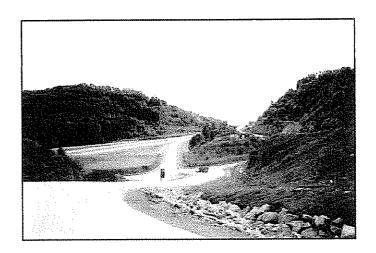
#### Our design services include:

- · Erosion and sediment control plans
- Earth retaining structures design
- · Geometric site layout
- Grading and drainage plans, including excavation and fill optimization
- Access road design
- Hydraulic structure design
- Water and sewer design
- Slope stability analysis
- Subsurface drainage system design
- Construction drawings, specifications and contract document preparation

POTESTA offers experienced environmental engineers and scientists to prepare applications for various environmental permits that may be required. These services include:

- Stormwater management permit/erosion and sediment control plans
- Office of Air Quality Permit to Construct
- Wetland delineation and permits
- National Pollutant Discharge Elimination System (NPDES) permits
- Floodplain management permits
- Groundwater protection plans
- Spill prevention control and countermeasure plans
- Environmental site assessments
- Environmental impact statements

POTESTA routinely provides professional services throughout construction of our projects. These services include survey layout, construction management, construction monitoring, record drawing preparation, and bid evaluation assistance.





# Computer Aided Drafting and Design

The Potesta & Associates, Inc. (POTESTA) computer-aided drafting and design (CADD) department provides state-of-the-art design and drafting services for in-house engineering and environmental consulting projects. We also provide personnel to clients who have a temporary need for additional drafting manpower. These services may be performed at your location or our office as required.

The CADD department utilizes the latest drafting/design software and computer hardware to maintain productivity at the high levels that clients demand and expect. We utilize AutoCAD, AutoCAD Land Development Desktop 3 civil/survey design software, and Microstation to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 1050c Plus color ink jet plotter. POTESTA's experienced and trained professionals allow clients' projects and assignments to be completed rapidly and at reasonable cost.

#### Our CADD services include:

 Survey data manipulation including development of topographic mapping, cross sections, profiles, isopach drawings, etc.

- Site design including grading plans, drainage plans, utilities plans, right-of-way plans, etc.
- Roadway design
- · Water and sewer design
- Permit drawings, maps, and exhibits
- Earthwork and planimetric quantity development
- Two and three dimensional graphics



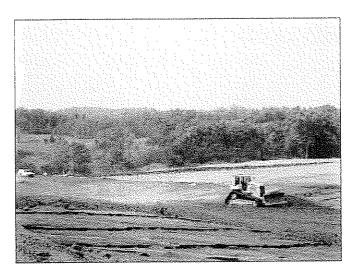
# Construction Monitoring

Potesta & Associates, Inc. (POTESTA) provides construction monitoring and construction management services to assist clients in achieving regulatory and contractual compliance; to document that contractor activities are in compliance with design requirements; and to serve as an extension of clients' staff. POTESTA can provide full-time or part-time field services utilizing one or more engineers or technicians.

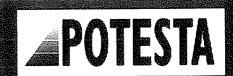
Regulatory compliance is often best documented by providing full-time construction monitoring services for a construction project. POTESTA can assist clients in observation of construction activities and documenting compliance. Our typical involvement in such projects includes:

- Conducting a pre-construction review of design and contract documents to identify potential problem areas, and consultation with the owner or client to develop strategies or procedures to avoid anticipated problems.
- Assistance in contractor selection. POTESTA can recommend construction contractors who specialize in the type of work associated with the project and can assist in bid evaluation by reviewing proposed quantities, unit costs, lump sum costs, and any proposed exceptions or qualifiers for the project. POTESTA can conduct pre-bid conferences to help contractors understand project requirements. We can also conduct pre-construction conferences prior to the start of the project to help establish lines of communication, review detailed plans, discuss testing requirements and establish proper reporting procedures.

POTESTA can provide surveying for construction layout, measurement for payment quantities, and documentation of as-built conditions. Survey results are downloaded to form computer-aided drafting (CAD) drawings allowing the efficient preparation of record drawings and any subsequent evaluations required.



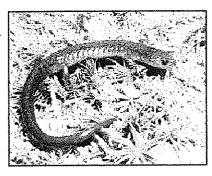
- Construction monitoring can include field testing to document compliance such as field density tests, concrete testing, sampling of materials for laboratory analysis, and documentation of site conditions and work performed on a daily basis or as required.
- Preparation of summary of construction reports including photographs, videotape documentation, test results, daily construction logs, industrial hygiene monitoring, and other documentation as may be required by the client.
- Preparation of certifications as may be required.



# **Endangered Species Consultation**

The Endangered Species Act (ESA) requirements can delay if not halt important projects. Being able to respond promptly and thoroughly to the Fish and Wild-

life Service's (Service) requests for an evaluation of probable project impacts on either endangered species, threatened species, or species of concern can facilitate needed regulatory approvals.



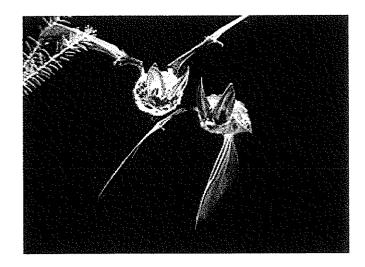
Potesta & Associates, Inc. (POTESTA) has extensive experience in biological assessments (BA) related to the ESA. We utilize a combination of inhouse professionals and recognized experts to complete projects for our clients. This arrangement allows us to provide a work product which is acceptable to the Service.

For the last several years, our office has worked with natural gas transmission companies preparing environmental reports which include assessments and remediation of impacts to rare, threatened, and endangered species. POTESTA's biologists have worked on natural gas projects within the core summer roosting and maternity range of the Indiana bat. This work provided the firm's biologists with considerable experience in identifying suitable Indiana bat habitat in Ohio, Kentucky, Virginia, and West Virginia. Other biologists within our office also have experience in bat surveys, echo location, bat identification and mussel surveys.

We have established professional relationships with local and regional experts on projects in our region. These relationships allow us to have access to recognized experts on the appropriate species on an as-needed basis. The advantage to the client is that this approach allows us to select the best individual for the task at hand.

These experts have specialized in the study of their species of interest for many years and are familiar with the life cycle, habitat requirements and sampling techniques for the species. POTESTA supplements these individuals with our experienced field staff, who are intimately familiar with the project, to constitute an effective team to respond quickly to threatened and endangered species issues. POTESTA provides final reports with additional information obtained from the noted expert, as well as relevant mapping and other supporting information.

This team approach allows for a complete evaluation of the potential impact a project may have on a species of concern. The most basic level of services in this area is a partial evaluation based only on literature reviews. An intermediate level of effort would be the literature review and a thorough field review of the project site to evaluate habitat. A complete evaluation would include the literature review, habitat evaluation, and extensive field collection program during the appropriate season of the year. Our subcontractors have the appropriate permits to collect the species in question.



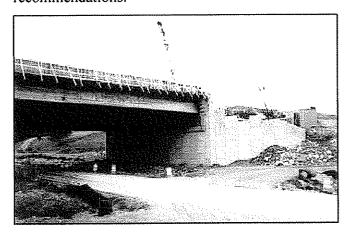


# Geotechnical Engineering

Potesta & Associates, Inc.'s (POTESTA) engineers and geologists have extensive experience related to the geotechnical engineering and geological disciplines. These areas include subsurface investigations, monitoring well and piezometer installations, foundation design recommendations, slope stability analysis, and remedial designs as they relate to construction, mining, waste disposal, environmental remediation, and other projects.

#### SUBSURFACE INVESTIGATIONS

POTESTA's diverse staff of engineers and geologists is experienced in the many different facets of subsurface investigations. Our usual procedure is to attend an initial meeting with the client to establish requirements and expectations, conduct a preliminary site reconnaissance, and develop a recommended exploration program for your review and approval. Supplemental information from the local area is then obtained from readily available sources to assist the engineer or geologist in making final recommendations.



POTESTA can provide field engineers and geologists who are knowledgeable using the latest

technologies to assist in collecting and analyzing samples. Our knowledge of the proper procedures and familiarity with local conditions allows office and field personnel to adjust the investigative plan if unanticipated field conditions are found.

Our staff is familiar with the following items which can be associated with subsurface exploration:

- Drilling and Rock Coring Techniques (augers, rotary bits, Geoprobe<sup>TM</sup>, etc.)
- Sample Collection Methods (split spoons, shelby tubes, Geoprobe™ sleeves, etc.)
- Classification and Logging of Soil and Rock Samples
- Monitoring Well and Piezometer Installation

#### SLOPE STABILITY ANALYSIS AND REMEDIAL DESIGN

Slope stability is often a major concern during the design and construction phases of many projects, especially those located in the Appalachian terrain. POTESTA's engineers are familiar with the various methods utilized to predict slope stability and are capable of performing the related analyses. Slope stability is critical for many projects such as analysis of existing or proposed soil embankments, rock fills, dam analysis and design, landfill design and operation, estimating the causation of slope failure, and designing remedial measures. Analyses can involve circular or sliding block methods, interface friction angles, and estimation of the strength parameters of the soil or rock. Slope stability analyses are performed on one of the most technologically advanced computer programs available and can be modified using site specific data.

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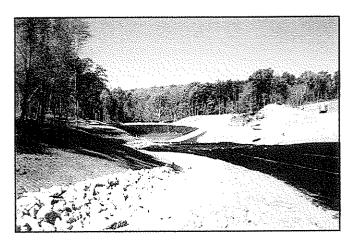


# - Hydrology and Hydraulics Design

Our engineers have extensive experience in the application of hydrology and hydraulic principles to the design of real world systems. These applications include:

- · Drainage structure sizing
  - Stream relocations
  - Culverts
  - Channels
- Pond and dam design
  - Sediment ponds and basins
  - Spillways
  - Design/rehabilitation
  - Slurry impoundments
  - Lagoons
  - Dams
- · Detention and detention systems
  - Ponds
  - Pipes
  - Underground bladders
- Floodplain Management Permits/Approval
- Floodway studies
  - FEMA (Federal Emergency Management Agency)
  - NFIP (National Flood Insurance Program)
  - Flood elevation surveys/certifications
  - Flood routing
- Dam break analysis
- · Hydrology surveys
- Stream gauging
- · Rainfall and flow data collection
- · Stormwater drainage system design
- · Pressure pipe systems
- Stream restoration plans
- Natural Stream Channel Design/Restoration
- Expert witness testimony

To complete these types of applications, our engineers, scientists, and surveyors work jointly to develop an effective and economical solution to your situation. Their analyses use widely accepted computer models.



Potesta & Associates, Inc. typically uses the following computer modeling programs:

- HEC RAS
- HEC HMS
- TR-20/TR-55
- StormCAD
- Culvert Master
- Flow Master
- Pond-Pac
- CORMIX

We have provided these services to a wide variety of public and private sector clients. Our staff not only understands the technical details, but is very experienced in working with the various state, federal, and local regulatory agencies. We know the level of detail they require and can obtain the necessary approvals in a timely manner.



# Permitting Services

Potesta & Associates, Inc. (POTESTA) offers its clients exceptional expertise and experience when it comes to the permitting process, including all phases of application preparation, negotiations, modifications, compliance and renewal at all levels of government. Our permit services cover air, mining, water and waste disposal permits.

#### **AIR**

Our firm offers complete air permitting and consulting services to assist industry in complying with today's complex air quality regulations. Our staff has experience in identifying, characterizing and permitting air pollution sources for a variety of industries, including:

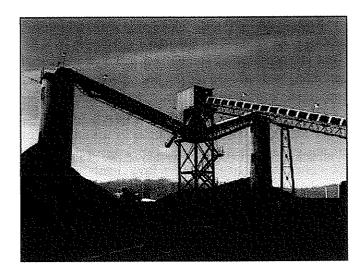
- · Coating operations
- · Petroleum and petrochemical operations
- · Chemical manufacturing
- · Manufacturing facilities
- Mining
- Quarries
- · Natural gas compressor stations
- Electric utilities

Our air quality experts have comprehensive knowledge of federal, state and local regulations, as well as experience in complex Title V applications. Our services include identification of potential air pollution sources, development of control strategies, preparation of permit applications, emissions inventories, compliance audits and regulatory liaison.

At both the state and federal levels, we help clients interpret and comply with air regulations, including the New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAPS). We can suggest emissions control strategies to meet both current and anticipated regulations, including BACT, MACT and LAER.

#### MINING

In recent years, mining permits have become increasingly complex, requiring diverse expertise in mining techniques, engineering, environmental regulations, benthic studies, hydrogeology and hydrology. Our staff has broad experience in providing innovative solutions to various mining problems.



Although the objective of a permit application is to receive agency approval in a timely manner, the client does not benefit if the application does not allow for effective operations. We work with our clients to ensure that your operational needs are met while allowing for essential flexibility. Several members of our staff have mining industry experience, and they understand the requirements vital to an effective operation.

From the beginning of the permit process, POTESTA involves the reviewing agency to allow its concerns to be addressed prior to submittal of the application. Often, this reduces the need for review comments and revisions which could slow the approval process. Our thorough knowledge of the various phases and requirements of the permitting

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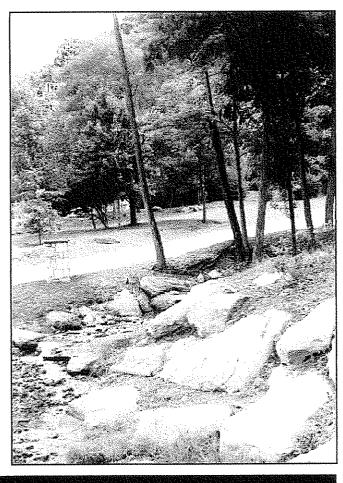
Potesta & Associates, Inc. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout West Virginia, and have been part of design teams for elementary, secondary and collegiate projects primarily associated with new building construction.

Our staff of civil, environmental, and geotechnical engineers; surveyors and environmental scientists can provide the following site planning and design services.

- Surveying topo and boundary
- Base mapping from aerial photography
- Geotechnical engineering
- Land planning
- Environmental issues evaluation and mitigation
- · Site grading
- Vehicular and pedestrian circulation
- Utility design
- Site features
- Stormwater management plans

Some clients who have used our site design services include:

- West Virginia Development Office
- Development Authorities: Tucker, Wood and Roane Counties
- Bright Enterprises
- BIDCO (Capital Area Development Corporation)
- University of Charleston
- Timberwolf Development Corporation
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Marshall University
- Architects: Associated Architects, Bastian & Harris, Architects, SEM Partners



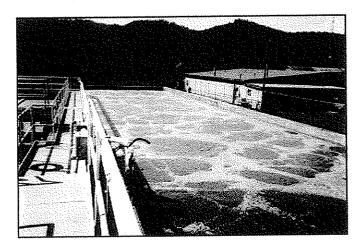


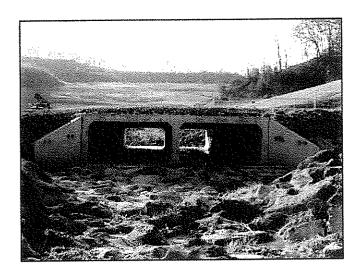
# Water and Wastewater Engineering

Our professional staff is dedicated to providing quality engineering services for various types of water treatment and distribution systems, as well as wastewater management, collection and treatment systems. The following is a list of some of the services Potesta & Associates, Inc. is capable of providing:

#### WATER AND WASTEWATER DESIGN

- Feasibility studies
- Conceptual design
- Final design
- · Bidding and construction
- Construction monitoring
- · Wastewater audits
- · Wastewater minimization studies
- Engineer's cost estimates
- Small flows design (traditional and innovative treatment systems for low volume flows)
- · Sewage collection and treatment
- Water treatment and distribution
- Industrial wastewater treatment
- Remediation systems
- · Landfill leachate treatment
- Storage tank design
- · Flow measurement
- Surveying/GPS and mapping
- Permitting and regulatory liaison
- Combined sewer overflow (CSO)
   Management, sampling and modeling





#### STORMWATER MANAGEMENT

- Hydraulic conveyance structure design (culverts, channels, drop inlets, etc.)
- Stormwater retention/detention pond design
- Stormwater pond modeling
- Floodplain identification and management strategies
- Hydrologic and hydraulic analysis and evaluations and modeling
- Construction monitoring
- Surveying
- Permitting and regulatory liaison



Wetlands play a significant role in business and industry. These unique aquatic habitats can present problems with regard to development of properties because they are protected by the Clean Water Act.

Potesta & Associates, Inc. (POTESTA) has a qualified staff of scientists and engineers who are trained and experienced in the identification and permitting of wetlands, the mitigation of displaced wetlands and the design of constructed wetlands.

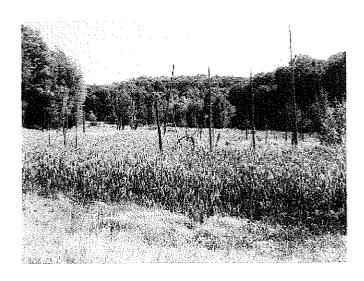
#### INVESTIGATION AND DELINEATION

Wetland investigations and delineations are conducted by POTESTA's scientists as part of pre-development site investigation and environmental impact assessments. During a wetland investigation, the site is examined for the presence of wetland indicators, including specific hydrology, soils and vegetation. Any wetlands discovered are delineated in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual (1987).

#### PERMITTING

Once wetlands have been identified and delineated, POTESTA can prepare application packages for permits to fill and/or dredge these areas for further development. The U. S. Army Corps of Engineers (COE) is the agency responsible for granting wetland permits under Section 404 of the Clean Water Act. In addition to the COE permit, individual states must approve each permit granted, certifying that it meets the state's water quality standards.

Our employees have established working relationships with both the federal and state agencies in this region. We are very familiar with the data required and can work with the agencies to obtain timely review and issuance of permits.



#### MITIGATION AND DESIGN

Wetland mitigation and design come into play when wetlands being displaced or filled are large enough to require mitigation under state and federal standards. In some cases, wetland mitigation can be achieved solely through the payment of a fee to a mitigation bank or fund, established for the creation, protection or enhancement of other wetland areas. In this case, POTESTA can prepare an appropriate mitigation offer and negotiate with state and federal authorities for its approval.

Depending upon the availability of suitable sites, wetland mitigation can also consist of the actual design and construction of new wetlands, or the enhancement of existing wetlands. Our staff includes qualified engineers experienced in the design of created wetlands. Working as a team with staff biologists, we can produce a cost-effective functional design for presentation to state and federal authorities. Once approved, we can provide monitoring of the construction of the new wetlands.



# ACID MINE DRAINAGE TREATMENT PROJECTS-SOVERN RUN AND UPPER MUDDY CREEK

Friends of the Cheat

Preston County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Friends of the Cheat (FOTC) to provide design assistance for two acid mine drainage treatment projects located in Preston County, West Virginia. POTESTA's services included review and modifications of conceptual designs, topographic surveying, courthouse research for property boundaries, preparation of construction drawings and technical specifications, development of bidding documents, and construction observation.

The Upper Muddy Creek project involved acid mine drainage from four (4) areas that discharged into Muddy Creek upstream of where it crosses beneath State Route 3 (Brandonville Pike). Muddy Creek has been significantly impacted by acid mine drainage, but the upper portion is a trout sream. The proposed design includes the construction of four (4) limestone leach beds and nearly 1,500 feet of open limestone channel. The project is scheduled for completion in 2004.

The Sovern Run (Tichenell) project involved highly acidic discharge from one source and mildly acidic discharge from two sources. The design included a limestone leach area and an open limestone channel to provide treatment for the main acid mine drainage source. The mildly acidic sources included a limestone leach bed for treatment and two (2) steel slag leach dams to add excessive alkalinity to the water in an effort to provide a net neutralization effect upon its confluence with the high acidity drainage further downstream. The project is scheduled for completion in 2004.





#### POTESTA & ASSOCIATES, INC.

# ALLEGHENY ENERGY SUPPLY COMPANY, LLC – FORT MARTIN CCB LANDFILL PERMIT APPLICATION/CONSTRUCTION INSPECTION

# Allegheny Energy Supply Company

#### Monongalia County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Allegheny Energy Supply Company, LLC to develop a permit renewal application associated with a coal combustion by-product (CCB) landfill expansion. The project is located in Fort Martin, West Virginia. POTESTA developed a West Virginia/NPDES permit renewal application related to the existing portion of the Class F Industrial Landfill as well as encompassing the expansion area of just under 100 acres.

POTESTA prepared a solid waste/NPDES water pollution control permit including: supplemental evaluation of candidate sites for the expansion area; field exploration involving collection of soil, geological, and hydrological data; wetland and stream impact delineation; "permit level" design of the landfill expansion. In conjunction, the project included two additional sedimentation ponds and a proposed alternative landfill liner system. The capacity of the full expansion area is approximately 8.7 million cubic yards of CCB.



Aerial view of power plant and landfill site

POTESTA also performed construction observation/construction administration for the landfill project. Services provided by POTESTA included soil density testing, concrete testing, nondestructive and destructive testing for liner system. Over a period of more than 12 months, POTESTA provided one (1) to four (4) construction technicians to cover the

#### POTESTA & ASSOCIATES, INC.

# **BEVINS LANDSLIDE EMERGENCY**

# Commonwealth of Virginia, Department of Mines, Minerals and Energy

#### Buchanan County, Virginia

Potesta & Associates, Inc. (POTESTA) has been retained to provide professional engineering design services to the Commonwealth of Virginia, Department of Mines, Minerals and Energy, Abandoned

Mine Land Program (DMME-AML) under the Small Purchase Procurement Program for Professional Services (09AML06). These services will consist of developing an engineering report, construction plans and specifications, and a material schedule for the Bevins Landslide Emergency Project in Buchanan County, Virginia.

#### The project will consist of:

- Stabilization/removal of a slide that has occurred behind the Bevins residence.
- Removal and disposal of slide material that has already been deposited on the old mine bench.
- Installation of temporary and permanent drainage control measures.
- Upgrade of the existing entrance roadway onto the mine bench where the Bevins residence is located.
- Installation of required erosion and sedimentation control measures including revegetation of disturbed areas of the site.





POTESTA will perform the surveying, subsurface exploration, and geotechnical design necessary to complete this project.

#### POTESTA & ASSOCIATES, INC.

# **BORDERLAND (MATNEY) PORTAL**

## West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Borderland, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands to prepare plans and specifications for installation of mine portal seals and a drainage system around a residence. The project consisted of correction of uncontrolled seepage from collapsed mine portals. The drainage presented problems for the property owners and was having an adverse impact on the environment. The discharge of impounded water from the underground mine works is a serious threat to life and property due to the potential it poses for a blow-out.





The project required six mine portal seals, three being double block wet seals and three conventional single block wet seals. Bat gates were installed in two seals. The portals were adjacent to a residence and required plans for drainage channels to divert discharge from the portals through the residence property to a nearby stream. Regrading and revegetation of all areas disturbed during construction were also required.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended

the pre-bid and pre-construction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

# BURNWELL (STANDARD/PAINT CREEK/COLLINSDALE) WATERLINE EXTENSION

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

Eastern Kanawha County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to prepare a study evaluating possible water line extensions to the Collinsdale/Burnwell area from neighboring public water systems. The WVDEP will review the study and select the preferred option. An initial study requested by the WVDEP determined that the area was 100 percent impacted by pre-1977 mining activities. The study recommended construction of a water treatment plant near Burnwell. Upon further review, WVDEP determined that Collinsdale/Burnwell did not have the personnel or financial ability to operate and maintain a water treatment plant.



POTESTA performed a file review of the public water systems in the area to verify their production and financial capabilities. Meetings were held with the WVDEP and public water systems to address concerns regarding the additional customers and service line. Based upon the aforementioned and site visits, POTESTA will prepare a preliminary engineering report, including preliminary water design, and a West Virginia Infrastructure and Jobs Development Council Preliminary Application. The water line extension is expected to require approximately 48,000 LF of water line, one booster station, a tank, fire hydrants, meter assemblies, and miscellaneous valves and fittings.

POTESTA will design the water line extension selected by the WVDEP from the preliminary engineering report. The extension will be mapped, including locating utilities, public water systems connection points, identifying easements via tax maps, and surveying tank and booster station sites. POTESTA will prepare and submit the necessary "clearance" letter and permits for construction.

Geotechnical exploration and assessment will be performed for tank and booster sites. Boundary surveys and plats will be prepared for the property transfer of the tank and booster station sites, and POTESTA will perform a hydraulic evaluation to estimate the impact of the additional demand on the selected public water system.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and preconstruction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

# CLENDENIN COMPRESSOR STATION LANDSLIDE EVALUATION/REPAIR

#### Columbia Natural Gas

#### Clendenin, West Virginia

POTESTA was retained by Columbia Natural Gas (Columbia) to evaluate and design remedial measures for a landslide at Columbia's Clendenin Compressor Station. The landslide was located adjacent to the office and maintenance building at the facility and threatened to damage the structure.

A landslide had occurred within the steep slope adjacent to the building in August 2002, threatening damage to the adjacent office and maintenance building.

POTESTA provided surveying services to map the project area and performed a subsurface exploration to assist in evaluating the landslide condition. The remedial measures to correct the landslide area included the design of an approximately 200-foot steel soldier beam and concrete lagging retaining wall. The retaining wall included a rock anchor tie-back system

As part of the project, POTESTA assisted Columbia with contract administration and performed construction observation services during the construction phase of the project.



During construction



Finished wall with anchors

#### POTESTA & ASSOCIATES, INC.

# EVALUATION OF MINE DRAINAGE FROM AML SITES, AS PART OF ENVIRONMENTAL SITE ASSESSMENT

Jackson & Kelly, PLLC

McDowell County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Jackson & Kelly to perform an environmental site assessment (ESA) of approximately 1,000 acres of mining property in McDowell County, West Virginia. The mining property consisted of Surface Mining Control and Reclamation Act (SMCRA) mining sites and pre-SMCRA mining sites (i.e., AML). Included in the ESA was an evaluation of mine drainage from the AML sites, as well as the SMCRA sites. AML sites included unreclaimed refuse piles, open and draining portals, and remnants of other mining structures. The intent of the mine drainage evaluation portion of the ESA was to identify acid mine drainage (AMD) sources on the property, and their potential liability for a property purchaser.

The evaluation of mine drainage included:

- 1. Records Review
- 2. Interviews with Regulators
- 3. Field Reconnaissance, Including Water Sampling

Records reviewed included the water quality sections of SMCRA permits (including attempting to identify documentation confirming whether AMD was from SMCRA or AML sites) and the 303(d) TMDL list of streams impaired by acid mine drainage. Regulatory officials were also asked about known AMD sites.

Field reconnaissance and water quality sampling was conducted to:

- 1. Identify and characterize mine drainage from pre-SMCRA (i.e., AML) and SMCRA mining operations.
- 2. Assess the quality of surface waters draining the property.

SMCRA sites were located based on the records review. Pre-SMCRA (i.e., AML) sites were located based on the records review, review of United States Geological Survey mapping, interviews with regulatory officials and other people familiar with the property, by chance encounter during the field reconnaissance, and by "chasing" low pH and/or high specific conductivity field readings and/or stream discoloration up a stream until a mine drainage source was identified.

# EVALUATION OF MINE DRAINAGE FROM AML SITES, AS PART OF ENVIRONMENTAL SITE ASSESSMENT Jackson & Kelly PLLC

Mingo County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Jackson & Kelly to perform an environmental site assessment (ESA) of approximately 5,000 acres of mining property in Mingo County, West Virginia. The mining property consisted of Surface Mining Control and Reclamation Act (SMCRA) mining sites and pre-SMCRA mining sites (i.e., AML). Included in the ESA was an evaluation of mine drainage from the AML sites, as well as the SMCRA sites. AML sites included unreclaimed refuse piles, open and draining portals, and remnants of other mining structures. The intent of the mine drainage evaluation portion of the ESA was to identify acid mine drainage (AMD) sources on the property, and their potential liability for a property purchaser.

The evaluation of mine drainage included:

- 1. Records Review
- 2. Interviews with Regulators
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Records reviewed included the water quality sections of SMCRA permits (including attempting to identify documentation confirming whether AMD was from SMCRA or AML sites) and the 303(d) TMDL list of streams impaired by acid mine drainage. Regulatory officials were also asked about known AMD sites.

Field reconnaissance and water quality sampling was conducted to:

- 1. Identify and characterize mine drainage from pre-SMCRA (i.e., AML) and SMCRA mining operations.
- 2. Assess the quality of surface waters draining the property.

SMCRA sites were located based on the records review. Pre-SMCRA (i.e., AML) sites were located based on the records review, review of United States Geological Survey mapping, interviews with regulatory officials and other people familiar with the property, by chance

# EVALUATION OF MINE DRAINAGE FROM AML SITES, AS PART OF ENVIRONMENTAL SITE ASSESSMENT

Jackson & Kelly, PLLC

McDowell County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Jackson & Kelly to perform an environmental site assessment (ESA) of approximately 1,000 acres of mining property in McDowell County, West Virginia. The mining property consisted of Surface Mining Control and Reclamation Act (SMCRA) mining sites and pre-SMCRA mining sites (i.e., AML). Included in the ESA was an evaluation of mine drainage from the AML sites, as well as the SMCRA sites. AML sites included unreclaimed refuse piles, open and draining portals, and remnants of other mining structures. The intent of the mine drainage evaluation portion of the ESA was to identify acid mine drainage (AMD) sources on the property, and their potential liability for a property purchaser.

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# FAIRMONT EAST MINE DRAINAGE

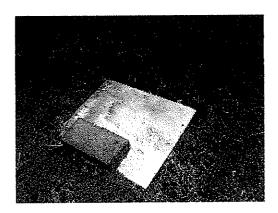
# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Fairmont, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to provide engineering services regarding the conveyance of mine seepage around residential areas and into the City of Fairmont's storm sewer system. The project area is located along Palatine Avenue and Mason Street. Abandoned underground mine works caused flooding problems along these streets.

POTESTA performed the following tasks to complete this project:

- Mine map review
- · Survey to develop mapping
- Subsurface exploration
- Design of mine drainage collection system and storm sewer system to convey runoff to the City of Fairmont's storm sewer system
- Design of collection system consisting of 15-inch corrugated plastic pipe to City of Fairmont's standards, including pavement overlay to impacted streets.





#### POTESTA & ASSOCIATES, INC.

# FEASIBILITY STUDY AND PREPARATION OF FUNDING APPLICATION FOR WATER SYSTEM EXPANSION City of Philippi

#### Philippi, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the City of Philippi to perform a feasibility study and subsequent funding application for a project involving upgrades to their existing potable water distribution system.

The project included the following:

- 402,000 gallon storage tank
- 16,000 gallon storage tank
- 600 gpm booster statio
- 300 gpm booster station
- -1,800 feet of 8" pipe
- -2,000 feet of 6" pipe
- Pressure reducing station

POTESTA prepared a preliminary engineering report and compiled the information necessary for a funding application with the United States Department of Agriculture - Rural Utilities Service (USDA-RUS). Additional services will included final design of the project components, preparation of construction drawings and technical specifications, permit applications, and nearly full-time construction monitoring.



#### POTESTA & ASSOCIATES, INC.

# GENERAL CONSULTING SERVICES Kanawha Eagle, LLC

#### Winifrede, West Virginia

Kanawha Eagle, LLC operates a deep mine complex in eastern Kanawha County. Potesta & Associates, Inc. (POTESTA) has provided a wide variety of engineering services to assist in their day-to-day and long-term operations. Among the many services that have been provided are:

- Surveying.
- Design of new decant system including WVDEP and MSHA approvals.
- Redesign of Stages 6 and 7 of the slurry impoundment.
- Assistance with slurry injection permit.
- Compaction tests on the coarse coal refuse placement in both the slurry impoundment and the side hill embankment.
- Foundation recommendations for a new conveyor belt line and coal storage silos.
- Weekly inspections of the impoundment and preparation of quarterly reports.
- Performance of an environmental/reclamation liability assessment, including evaluation of abandoned mine lands (pre-1977 mining) on the property.
- Construction monitoring during rehabilitation of emergency spillway.
- Assistance with a permit modification including drainage calculations.
- Preparation and annual update of Emergency Response Plan.
- Modification of underdrain system.
- Ownership and control change for a river loadout.

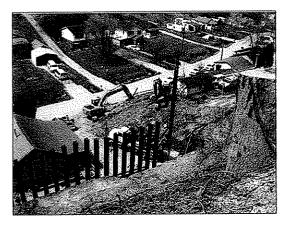
# POTESTA & ASSOCIATES, INC.

# GEORGE'S CREEK (LUCAS) LANDSLIDE MAINTENANCE

# West Virginia Department of Environmental Protection-Office of Abandoned Mine Lands

#### Kanawha County, West Virginia

POTESTA was retained by the West Virginia Department of Environmental Protection - Office of Abandoned Mine Lands (WVDEP) to evaluate and perform geotechnical engineering services for a landslide related to historic mining activity which was threatening a nearby residential structure.



A portion of the existing hillside immediately adjacent to the rear of the residential structure was excavated prior to construction of the structure to a near vertical slope exposing weathered shale and a coal seam near the slope's base. The exposed coal seam was determined to be the No. 2 Gas seam which was reportedly mined in the 1950s. Some drainage was noted flowing from the coal seam and the resulting water was conveyed through a nearby culvert to Georges Creek. Attempts were made by WVDEP to excavate loose rock and soil from the hillside in an effort to improve stability of the slope. Following this initial work the slope continued to slough with periodic small slides and slope

movement believed to be caused by continued subsidence of the underground mine works.

POTESTA performed a subsurface exploration to assist in evaluating the landslide condition, including the type and condition of the rock located in the slope as well as the attitude, thickness and condition of the underlying coal seam. POTESTA survey crews also completed a topographic survey of the affected area including the surrounding residential structure, drains and wooded hillside. The remedial measures to correct the landslide area included the design of a 25-foot high steel soldier beam and concrete lagging retaining wall with sloped, compacted backfill constructed from on-site materials. The retaining wall design required the application of a rock anchor tie-back system due to mine voids existing at the base of the hillside slope that were encountered during the subsurface exploration

As part of the project, POTESTA assisted the WVDEP with contract administration and performed construction observation services during the construction phase.

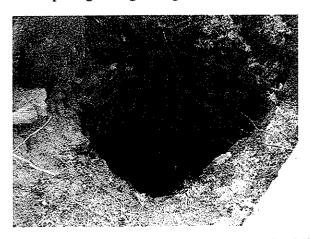
#### POTESTA & ASSOCIATES, INC.

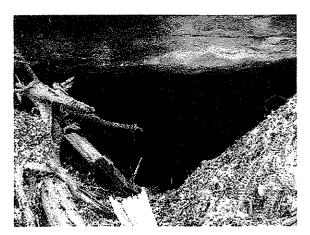
## **GEORGES CREEK PORTALS**

## West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

Georges Creek, Kanawha County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands to design mine seals for abandoned mine openings along Georges Creek and U. S. Route 60.





Design included a total of 28 mine seals. The following types of seals were utilized:

- Urethane foam with applied mortar
- Typical West Virginia wet seals
- Wet seals with bat gates
- Dry seals

In addition to mine seals, the design included piping to convey mine drainage to receiving streams. The conveyance piping layout required two West Virginia Division of Highways road crossing permits. An underdrain was utilized to convey subsurface drainage.

#### POTESTA & ASSOCIATES, INC.

### **JESSOP HIGHWALL #10**

## West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Tunnelton, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection (WVDEP) to prepare design plans and specifications to reclaim three abandoned mine land (AML) sites located near Tunnelton, West Virginia. Work to reclaim the three sites included sealing of abandoned mine portals, regrading of highwalls and collection of drainage from some of the abandoned mine portals and seeps. POTESTA utilized aerial mapping and ground survey to create topographic mapping of the sites.



#### Site 1

- Regraded approximately 1,150 feet of highwall averaging approximately 25 feet in height.
- Monitored test borings at the proposed mine portal sites to determine the location and the depth of mine voids, and the amount of water in the voids.
- Designed the closure of seven abandoned mine portals using a wet seal or bat gate mine seal.
- Designed drainage channels to collect water from the mine portals to discharge into a nearby stream.
- Designed a mine portal collection system that included 18 HDPE manholes.
- Incorporated a previously designed acid mine drainage collection and treatment system into our design.

#### Site 2

- Regraded approximately 7,500 feet of highwall averaging approximately 20 feet in height.
- Monitored test borings at the proposed mine portal sites to determine the location and depth of mine voids, and the amount of water in the voids.
- Designed the closure of three abandoned mine portals using a wet seal or modified mine seal.
- Designed drainage channels to collect water from the mine portals to discharge into a nearby stream.



#### Site 3

 Designed an underdrain system behind a residence and garage to prevent damage to the structures from a seep discharging acid mine drainage.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

# LANDO (EDWARDS) DRAINAGE

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Lando, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) for a project that included the regrading of mine spoil that had been formerly disposed of in this area, as well as installation of mine portal seals and drainage improvements. The project consisted of three sites:

- A refuse pile graded to flattened slopes and topped with a soil cover;
- Channeling and diverting into nearby streams some drainage affecting nearby residences; and,
- Rehabilitating two existing mine seals and installing one new mine seal.





POTESTA's work on the project included surveying and development of mapping, as well as development of the repair, drainage and reclamation plans.

POTESTA prepared drawings, technical specifications, contractor's bid form, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

## LANDSLIDE STABILIZATION PROJECT

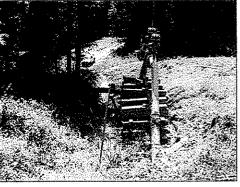
#### Columbia Gas Transmission

#### Blue Creek, West Virginia

Columbia Gas Transmission (Columbia) operates and maintaines a natural gas storage field north of Charleston, West Virginia at Blue Creek. Potesta & Associates, Inc. (POTESTA) was contacted during the fall of 2004 to provide professional geotechnical services related to the preparation of a stabilization plan for a localized soil slope failure approximately one acre in size. The affected area was associated with a valve set and feeder line servicing a storage field well which was unhooked taking the well out of service.

POTESTA worked with Columbia over the winter of 2004-05 to design a regrading plan for the slide mass which included perimeter ditches and drainage control as well as the construction of an underdrain and toe-key for the slide. A high pressure gas main located immediately above the top of the slide had to remain in service. During the work the slide mass continued to move up the hill threatening the integrity of the active high pressure gas main. POTESTA worked with Columbia and the contractor during the regrading to provide an emergency plan to stabilize the gas main which included the excavation of sandstone riprap from an area immediately





adjacent to the site which was utilized as buttressing material stabilizing the gas main and the slide area.

The project, which was finalized during the late winter months, resulted in many field changes which were coordinated with both the owner and the contractor to insure the integrity of the gas main resulting in the continued service of natural gas produced from the field during peak demand months.

#### POTESTA & ASSOCIATES, INC.

# LYNN BROOK (BOYD) DRAINAGE AML RECLAMATION PROJECT

J&B Excavating, Inc.

Kanawha County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by J&B Excavating, Inc. to provide construction layout for the Lynn Brook (Boyd) Drainage AML Project in Kanawha County, West Virginia. J&B Excavating, Inc. was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML landslide.

Proposed reclamation included mobilization and demobilization, construction layout, clearing and grubbing, unclassified excavation, permanent erosion control matting, channels, mine seals, subsurface drain, manhole, culvert headwall, sediment control, and revegetation. Total proposed excavation was approximately 5,540 cubic yards. Construction documents for the project were prepared by another consultant.

#### POTESTA's tasks for the project include:

- 1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
- 2. Computation of (or assistance with) certain as-built quantities, including earthwork, channels, and revegetation.
- 3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

POTESTA & ASSOCIATES, INC.

#### Project Abstract

# MAHAN TIPPLE AND REFUSE AML MAINTENANCE PROJECT

### **Thaxton Construction Company**

Fayette County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Mahan Tipple and Refuse Maintenance AML Project in Fayette County, West Virginia. Thaxton Construction Company had been contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform maintenance on an AML refuse pile, originally reclaimed in the late 1980's, that had a significant failure near the toe of the refuse pile.

Proposed maintenance included excavation of material near the toe, installation of a rock buttress at the toe (approximately 1,000 cubic yards), installation of two grouted riprap channels totaling approximately 300 feet, and regrading and revegetation. Total proposed excavation was approximately 10,000 cubic yards. Construction documents for the project were prepared by another consultant.

#### POTESTA's tasks for the project included:

- 1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
- 2. Construction layout of proposed channels.
- 3. Computation of (or assistance with) certain as-built quantities, including earthwork, channels, and revegetation.
- 4. Submittal of "post-construction" cross section drawings depicting existing and final grades.

POTESTA & ASSOCIATES, INC.

# MAY PORTAL HOME LANDSLIDE MAINTENANCE Virginia Department of Mines, Minerals and Energy Abandoned Mine Land Unit

#### Buchanan County, Virginia

POTESTA was retained by the Virginia Department of Mines, Minerals and Energy – Abandoned Mine Lands (VAAML) to reestablish and stabilize a previously reclaimed deep mine portal site in Buchanan County, Virginia. The previous project included stabilization of a localized slide area, backfill and reclamation of the existing highwall; and construction of wet seals in the existing portals.

A slide area had developed above and within the limits of the highwall backfill material previously placed at the portal site. There were also reports that the riprap material used as the toe buttress provided habitat for snakes which were often seen at or near the existing residence. During heavy rainfall events, an existing ditch located near the toe of a previously reclaimed slope reached capacity and overflowed across the lawn areas of the adjacent residence. Riprap was also displaced in the primary riprap-lined drainage conveyance channel. There was also no defined ditch to convey mine discharge water from the wet mine seal area.





POTESTA prepared a regrading plan and design to re-stabilize the failed section of slide, including installing a new grouted riprap buttress; designing drainage at the toe of the buttress and around the existing residence; and restoring other problem drainage structures and areas that were installed as part of the original reclamation project. This work required the construction of a fence to protect the existing well house and adjacent occupied residence located on the site.

As part of the project, POTESTA assisted the VAAML with the contract bidding and evaluation of bids.

#### POTESTA & ASSOCIATES, INC.

# MINE DRAINAGE TREATMENT SYSTEM Elk Run Coal Company

#### Boone County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by a large coal company to design a collection and treatment system for mine seeps from a previously reclaimed surface mine site. The mine seepage had levels of iron and manganese above allowable discharge levels, and the downstream area below the valley fill was limited in space available for treatment. POTESTA assisted the company in locating the problem seepage and designing a proposed treatment system. POTESTA's scope of work included:

- Field walkovers.
- Record and data reviews.
- Topographic surveying of the area proposed for the treatment system and location of the seeps.
- Measurement of seep flow rates.
- Detailed hydrologic and hydraulic modeling of the contributing watershed and anticipated base flow of mine seepage. Based on the initial calculations and space available on interconnected system of seven ponds was proposed. Interconnected pond hydraulic modeling was performed to determine the appropriate spillway sizes and estimated 100-year, 24-hour storm elevation.
- Excavation/grading plans for the seven pond systems including pond storage volumes and excavation quantities.
- Calculation of required liming rates to reduce iron and manganese to acceptable concentrations.
- Design of the pumping and piping network to collect the problem seepage and direct it to the proposed pond treatment system.

#### POTESTA & ASSOCIATES, INC.

# MINE WATER TREATABILITY STUDY Eastern Associated Coal Corp.

#### Guyses Run of Tygart Valley River, Marion County, West Virginia

A major coal company was having difficulty meeting permit limits from an AMD treatment facility which discharged into a tributary of the Tygart Valley River. Several vendors had visited the site and attempted to meet the permit limits with an assortment of chemical treatment options. Potesta & Associates, Inc. (POTESTA) determined that the wastewater was supersaturated with carbon dioxide and that when the pH of the wastewater was adjusted the carbonate radical became insoluble and formed a precipitate on the bed of the stream. POTESTA did stream sampling (water chemistry and benthic macroinvertebrates), upstream and downstream of the discharge, to determine the extent of the impact on the discharge on the receiving stream. Substrate sampling plates were also placed in the stream to determine the rate of deposition on the streambed.

The field work and reporting were completed in 1998. POTESTA billed approximately \$10,000 to the client for this work. The overall project costs are unknown but the company spent approximately \$3,500,000 to construct the treatment facility.

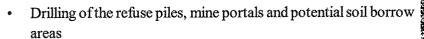
#### POTESTA & ASSOCIATES, INC.

### MOUNTAIN RUN REFUSE AND PORTALS

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Masontown, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to evaluate the Mountain Run Refuse and Portals project. This project consisted of 15 collapsed mine portals, five refuse piles covering three acres, and the demolition/removal of miscellaneous areas of mining debris, garbage, abandoned mine structures, and rail timbers. Our services included:



- Field survey to develop site mapping
- · Regrading of the refuse piles to stabilize the slopes
- Design of drainage control channels including a limestone channel to reduce acid mine drainage
- Design of five wet mine seals and 11 dry mine seals, with the wet seals including a modified outlet
  pipe to maintain the current discharge from the portal which is used as a portion of a local
  resident's water supply.



POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.



# NEW WEST HOLLOW IMPOUNDMENT Kanawha Eagle Limited Liability Company

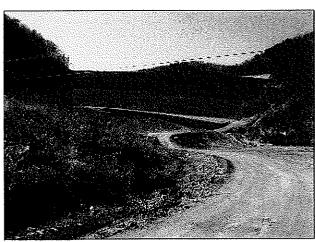
#### Winifrede, West Virginia

Potesta & Associates, Inc. (POTESTA) has provided a number of different services to Kanawha Eagle Limited Liability Company over the past three years. Kanawha Eagle operates a slurry impoundment and a coarse refuse side hill embankment with slurry cells. The following is a list of services provided:

- Development of new and/or revised staging plans for refuse disposal.
- Preparation of permit modifications that are required as a result of changes in the refuse disposal plans.
- Seven-day inspections at both refuse disposal facilities; required by MSHA.
- Annual certifications required by MSHA (for both facilities).
- Quarterly inspections and reports required by WVDEP (also for both facilities).
- Nuclear density testing of the coarse refuse used to construct the embankments.
- Decant pipeline design.
- Underdrain design.
- Construction monitoring.
- Surveying.
- ▶ Development and annual updating of the Monitoring and Emergency Warning Plan and Procedures.

POTESTA has also provided Kanawha Eagle with geotechnical services including exploratory drilling and foundation recommendations for a new refuse belt and two concrete silos.

POTESTA is currently preparing an Underground Injection Control permit (required by WVDEP, Office of Water Resources) for Kanawha Eagle so that they can dispose of slurry in an underground mine.



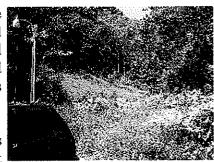
#### POTESTA & ASSOCIATES, INC.

# PUCKETT/ELY CREEK ACID MINE DRAINAGE REMEDIATION PROJECT I

# Commonwealth of Virginia, Department of Mines, Minerals and Energy

Puckett Creek and Ely Creek Watersheds near St. Charles, Virginia

Potesta & Associates, Inc. (POTESTA) was selected by the Commonwealth of Virginia's Department of Mines, Minerals and Energy to develop an engineering report, construction plans and specifications, and a material schedule for Puckett/Ely Creek Acid Mine Drainage Remediation Project I. The project responsibilities are more specifically described as follows:



- Development of engineering reports and construction plans and specifications to remediate acid mine drainage (AMD) at three sites using AMD passive treatment systems.
- Final designs to meet Natural Resource Conservation Service (NRCS) practice standards and requirements from other agencies involved with this project, including Virginia Department of Transportation, U. S. Army Corps of Engineers, Virginia Department of Environmental Quality, Virginia Marine Resources Commission, Virginia Department of Game and Inland Fisheries, the U. S. Fish and Wildlife Service and the Daniel Boone Soil and Water Conservation District.
- Placement of spoil and sediments on previously disturbed areas identified by the Agency.
- Inclusion of stream habitat structures in plans and specifications where feasible.
- Provision of plans and specifications that include, but are not limited to, plan views, cross sections, maps, photographs, and drawings.



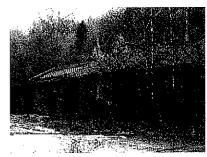
#### POTESTA & ASSOCIATES, INC.

### RACHEL REFUSE AND STRUCTURES

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Williamson, West Virginia

Potesta and Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to evaluate three sites to upgrade access roads, regrade/cover all refuse material with at least twelve inches of topsoil, and to dismantle and remove all buildings, equipment and debris from the site. The project also included construction of drainage control structures to carry water safely off-site and revegetation of all areas disturbed by the construction.



Site 1 was regraded and all refuse was covered with one foot of soil. An access road for a gas well was regraded across this site.

Site 2 was a refuse pile located behind a residence. This area was regraded to lower the pile



by ten feet and flatten the slopes on the sides. A drainage ditch was placed between the refuse pile and the house.

Site 3 was an existing impoundment. The site was regraded to remove the dam and place a grouted riprap drainage system at an existing drainage structure. All buildings and debris were removed from this site.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

# RED JACKET REFUSE PILE CONSTRUCTION LAYOUT-AML RECLAMATION PROJECT

### **Thaxton Construction Company**

Mingo County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Red Jacket Refuse Pile AML Project in Mingo County, West Virginia. Thaxton Construction Company was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML refuse pile.

Proposed reclamation included regrading a 500-foot long coal refuse pile and revegetation. Construction documents were prepared by others.

#### POTESTA's tasks for the project include:

- 1. Survey of "pre-construction" and "post-construction" cross sections.
- 2. Computation of (or assistance with) certain as-built quantities, including earthwork and revegetation.
- 3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

POTESTA & ASSOCIATES, INC.

# SUNDIAL (HATFIELD) REFUSE PILES West Virginia Department of Environmental ProtectionOffice of Abandoned Mine Lands

#### Raleigh County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to prepare a reclamation design for the Sundial Refuse Piles in Raleigh County, West Virginia. The site was a former mining complex and included four distinct refuse piles that lacked vegetation and were eroding, open mine portals, and abandoned structures such as hoist houses.



As part of this project, the following were completed:

- · Ground survey
- · Geotechnical exploration
- Preparation of construction drawings, technical specifications, bid form, and engineer's estimate of probable construction costs.

The reclamation design anticipated approximately 372,000 cubic yards of earthwork, 15,000 feet of drainage channel, 3,000 feet of underdrains, 26 mine seals, and demolition and removal of numerous structures, including historic mine cars.



The project was bid at a construction price of approximately \$3,700,000.

As part of the project, POTESTA assisted the WVDEP with contract administration and performed construction observation services during the construction phase of the project.

#### POTESTA & ASSOCIATES, INC.

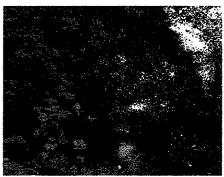
# TAYLORVILLE (CANTRELL) DRAINAGE

## West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

Mingo County, West Virginia



Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to evaluate and develop a reclamation design for mine drainage impacting a community in Taylorville, Mingo County, West Virginia. POTESTA completed field reconnaissance and surveying to develop topographic mapping, and prepared construction bid documents for the reclamation design.



The Taylorville project included three different sites. The first site included mine drainage along the hillside behind a mobile home. The second site included mine drainage impacting a driveway and parking area. The third site included mine drainage above a house.

POTESTA designed underdrains to collect and convey drainage from the first two sites to the West Virginia Division of Highways (DOH) right of way. Approximately 1,100 feet of new corrugated plastic pipe with DOH Type G drop inlets were designed to convey mine drainage to Pigeon Creek, while also

handling storm water from the DOH roadway. A standard wet mine seal was designed with riprap channels to handle the mine drainage at the third site.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

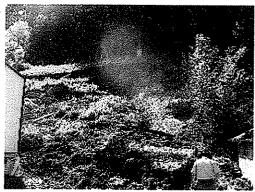
#### POTESTA & ASSOCIATES, INC.

# TAYLORVILLE (RAY) LANDSLIDE EMERGENCY

## West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Mingo County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands (WVDEP) to develop a stabilization plan for a landslide project at Taylorville, Mingo County, West Virginia. Following a period of heavy precipitation, a landslide occurred on a steep hillside behind a mobile home. The landslide pushed the mobile home off its foundation and destroyed a one-room extension along the rear of the mobile home.



POTESTA surveyed the landslide area to develop topographic mapping, prepared a stabilization plan to remove the landslide soils and backfill the area with a rock buttress. The stabilization plan also included an underdrain at the base of the rock buttress to convey drainage to the Taylorville (Cantrell) project drainage system. The plan called for 2,000 cubic yards of unclassified excavation, 1,750 cubic yards of shot rock backfill (buttress construction), 200 cubic yards of soil cover, and 400 feet of underdrain.

POTESTA prepared drawings, technical specifications, contractor's bid form, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

# TUPPERS CREEK-(LAYNE) LANDSLIDE AML RECLAMATION PROJECT

# **Thaxton Construction Company**

Kanawha County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Tuppers Creek (Layne) Landslide AML Project in Kanawha County, West Virginia. Thaxton Construction Company was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML landslide.

Proposed reclamation included mobilization and demobilization, construction layout, quality control, site preparation, access road resurfacing, unclassified excavation, erosion control matting, gravity line, manholes, wet mine seals, underdrain, energy dissipater, erosion and sediment control, and revegetation. Total proposed excavation was approximately 2,600 cubic yards. Construction documents for the project were prepared by another consultant.

POTESTA's proposed tasks for the project include:

- 1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
- 2. Computation of (or assistance with) certain as-built quantities, including earthwork and revegetation.
- 3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

POTESTA & ASSOCIATES, INC.

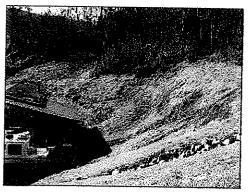
# WILLIAMSON (HATFIELD) NURSING HOME LANDSLIDE MAINTENANCE

# West Virginia Department of Environmental Protection-Office of Abandoned Mine Lands

#### Williamson, West Virginia

POTESTA was retained by the West Virginia Department of Environmental Protection - Office of Abandoned Mine Lands (WVDEP) to evaluate and perform geotechnical engineering services for a landslide below the parking lot of the Mingo Manor Nursing Home and above the Hatfield residence. The project area was the site of a former WVDEP reclamation project 15 years earlier. The previous project included regrading of the mine spoil that had been formerly disposed of in this area as well

as drainage improvements.



A landslide occurred in the hillside in December 2003, threatening damage to the residence at the base of the hillside, as well as causing damage to the nursing home parking lot at the top of the hillside and potentially threatening damage to structures at the nursing home facility.



POTESTA performed a subsurface exploration to assist in evaluating the landslide condition. The remedial measures to correct the landslide area included the design of a 456foot steel soldier beam and concrete lagging retaining wall. The retaining wall included a rock anchor tie-back system to minimize the potential for additional settlement of the nursing home parking lot area and potential future damage to the structures within the nursing home facility.

As part of the project, POTESTA assisted the WVDEP with contract administration and performed construction observation services during the construction phase of the project.

#### POTESTA & ASSOCIATES, INC.