ORIGINAL

EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE ED GOWER HW #2 PROJECT RFQ NO. DEP16433, CEOI 0313 DEP160000006

Prepared for:

West Virginia Department of Environmental Protection

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

Prepared by:

Potesta & Associates, Inc.

125 Lakeview Drive Morgantown, West Virginia 26508 Phone: (304) 225-2245 Fax: (304) 225-2246

Email: potesta@potesta.com

Project No. 0102-15-0370

September 15, 2015

09/15/15 09:02:19 WV Purchasine Division





TRANSMITTAL MEMO

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

To: Ms. 1	Beth Collins	_ Date:	September 15, 2015
WV	Department of Environmental Protection	_ Project No.:	0102-15-0370
Purc	hasing Division	_	
2019	Washington Street, East	_	
Char	leston, West Virginia 25305-0130	_	
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1	CD of Expression of Interest for Profession and Construction Monitoring Services for t RFQ No. DEP16433, Solicitation No. CEC	he Ed Gower HW	[#] 2 Project,
Remarks:			
By: Dana l	L. Burns/clr	_	ñ

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EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE ED GOWER HW #2 PROJECT RFQ NO. DEP16433, CEOI 0313 DEP160000006

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 a revised Engineer's Cost Estimate, review of plan and specification and other miscellaneous services as may be required for the Ed Gower HW #2 Project located in Upshur County, West Virginia. The project will consist of:

- Design of drainage conveyances.
- Installation of mine seals.
- Regrading of mine spoil to eliminate highwall.
- Access road construction.
- Off-site disposal of unsuitable material.
- Revegetation of disturbed areas.

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, geotechnical and mining engineering are areas of extensive expertise at POTESTA. We have worked on numerous engineering projects (ranging from site grading and drainage plans for university dorms and commercial/presidential developments, to power plant foundations to mine layouts/reclamation of abandoned mine lands) throughout the region. Our 13 registered professional engineers have over 300 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.

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 Explorations
- 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 Morgantown, West Virginia office:

- 6 Engineers, Including 2 Professional Engineers
- 3 Scientists (Biologists, Ecologists, Environmental Scientists, Etc.)
- 2 CADD Operators/Designers
- 1 Support and Other Staff

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

- 19 Engineers, Including 11 Professional Engineers
- 18 Scientists (Biologists, Ecologists, Environmental Scientists, Etc.)
- 3 Geologists/Hydrogeologists/Geological Scientist
- 1 Hydrologist
- 8 Surveyors
- 6 CADD Operators/Designers
- 14 Technicians/Construction Monitors
- 17 Support and Other Staff

POTESTA, since starting in 1997, has grown to over 100 employees in three offices. Included are 13 registered professional engineers (R.P.E.'s), four registered professional licensed land surveyors (P.L.S.'s), and one Ph.D. 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 160 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 Morgantown, West Virginia office. Our Charleston office is in close proximity to WVDEP's Charleston office and 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 Charleston 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 environmental remediation 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) one of our principals is a former head of the state environmental regulatory agency, and (b) we have one Ph.D. and numerous others with master's 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 125+ 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 Solicitation, Certification and Signature Page, Addendum Acknowledgement 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 four licensed professional surveyors with over 50 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. We have three survey crews and the capability to add a fourth crew if necessary.

POTESTA's surveyors use state-of-the-art "Field to Finish" equipment such as total station instruments, Trimble R-8 Glonass, data collectors, AutoCAD 2014, Autodesk Land Desktop and Autodesk Civil 3D design software, computer hardware for data management, and a Hewlett Packard Designjet 7100 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 numerous other WVDEP, AML projects since 2003. Mr. Burns' experience includes over 36 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.

Mr. David B. Sharp, PE, will serve as a project manager/design team leader. Mr. Sharp is the Branch Manager of POTESTA's Morgantown office. Mr. Sharp is a registered professional engineer in Maryland, West Virginia, Pennsylvania, Ohio, and Kentucky. Mr. Sharp has over 21 years of experience with engineering and environmental consulting projects throughout the region. Mr. Sharp obtained his bachelor's and master's degrees from West Virginia University and has spent a large part of his career involved with geotechnical engineering, construction observation/management, and municipal projects. Mr. Sharp has worked on and managed numerous projects involving mine permitting, mine reclamation, acid mine drainage, hydrology, geotechnical stability analysis, and many other components that would typically be encountered on an abandoned mine reclamation project. Many of these projects have included preliminary planning and assessments, as well as geotechnical engineering, assessments of potential treatment technologies, and preparation of bidding and construction documents.

Mr. Tim Rice will serve as a senior engineer and the primary contact for this project. Mr. Rice has over 32 years of full-time experience and has worked on nearly 80 different AML projects for West Virginia, Maryland, Ohio and Pennsylvania. His AML experience includes abandoned surface and deep mine reclamation; mine portal and shaft closures; hydraulic and hydrologic design/evaluation; remining explorations; mine refuse and deep mine fire abatement and extinguishing plans; subsidence explorations and mitigation plans; hazardous waste abatement plans; water feasibility studies and water system design; construction observation and management plans; natural stream restoration projects; geotechnical explorations; slope stability analyses; preparation of construction drawings, specifications and engineers estimates; and directing both pre-bid and pre-construction meetings. Mr. Rice is familiar with management of subcontractors, as well as managing staff and equipment needs for the design team.

Mr. Chad Griffith, PE, has worked as a project manager for multiple surface mining permits. Mr. Griffith has over 11 years of engineering experience and his work has involved civil design aspects including drainage structures, storm water control, and haul road design to name a few.

Messrs. Mark Kiser, PE, and Terence Moran, PE, will serve as project advisors if needed. Mr. Kiser has served as a project manager/project engineer for over 40 AML projects in West Virginia. Mr. Kiser has over 31 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 26 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 13 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 Ed Gower HW #2 Project.

POTESTA has one other PE with AML and related design experience in Mr. Patrick Ward. His individual experience 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 has 25 years of experience and will serve as POTESTA's geotechnical scientist for work on this contract. Mr. Grose currently oversees aspects of geotechnical work at POTESTA and has worked on WVDEP, AML projects since 1990. 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 pre-construction conference as may be required for the Ed Gower HW #2 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, PE, who have both worked on numerous AML projects; project engineers such as Jason Gandee, Robert Ammirato, PE, and Jarrett Smith, PE; Mr. Victor Dawson, PLS, 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 Morgantown, West Virginia office or on-site as may be required. Our Morgantown office will be supported, if needed, by our Charleston office.

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 QA/QC review of the documents prior to submittal to the WVDEP, AML. Mr. Dana Burns, PE 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. Dave Sharp, PE. Mr. Tim Rice, EIT, 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 90 days are required for submittal of deliverables for the Ed Gower HW #2 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 InFocus computer system on a daily and/or weekly basis. POTESTA's project managers can access InFocus 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 90 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 Morgantown, West Virginia office. Our subcontractors are located in the Morgantown area or other strategic locations and are quite familiar with the coalfields of West Virginia where the Ed Gower HW #2 Project is located.

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 Ed Gower HW #2 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.

POTESASS

REVISION NUMBER:

ACORD.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 3/10/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	TANKATA!					
USI Ins Svcs C/L Charleston	NAME: Brenda Samples					
1 Hillcrest Drive East	PHONE (A/C, No, Ext): 304-347-0661 [FAX (A/C, No): 3	304-347-0605				
Charleston, WV 25311	E-MAIL ADDRESS: brenda.samples@usi.biz					
304 347-0611	INSURER(S) AFFORDING COVERAGE	NAJC#				
	INSURER A: Hartford Casualty Insurance Com	29424				
INSURED Potesta & Associates, Inc.	INSURER B: Trumbull Insurance Company	27120				
7012 MacCorkle Avenue SE	INSURER C: Catlin Specialty Insurance Comp	15989				
Charleston, WV 25304	INSURER D ;					
	INSURER E :					
	INSURER F:					
COVERAGES CERTIFICATE NUMBER:	REVISION NUMBED					

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В	AND EMPLOYERS' LIABILITY		- 14	40WEBU6524	03/07/2015	03/07/2016	X WC STATU- OTH-	
	OFFICER/MEMBER EXCLUDED?	N/A		J		1		\$1,000,000
	(Mandatory in NH)		1		İ		E.L. DISEASE - EA EMPLOYEE	s1,000,000
_	If yes, describe under DESCRIPTION OF OPERATIONS below		\dashv				E.L. DISEASE - POLICY LIMIT	\$1,000,000
С	Pollution		- 10	CPV6743700316	03/07/2015	03/07/2016	5,000,000	
	Professional					i	5,000,000	
							Ded. 25,000	
DES	CRIPTION OF OPERATIONS / LOCATIONS / VEHIC	LES (Atta	ich A	CORD 101, Additional Remarks Schedule	, If more space k	required)		-

CERTIFICATE HOLDER	CANCELLATION
Potesta & Associates, Inc, 7012 MacCorkle Avenue SE Charleston, WV 25304	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE
	A A di



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

State of West Virginia **Centralized Expression of Interest**

02 - Architect/Engr

Proc Folder: 114035

Doc Description: Expression of Interest Ed Gower HW #2 DEP16433

Proc Type: Central Contract - Fixed Amt

Date Issued Solicitation Closes Solicitation No Version 2015-08-12 2015-09-15 CEQI 0313 DEP1600000006 13:30:00

EB RESEVOIG ROSANON

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

US

25305

VENDOR

Vendor Name, Address and Telephone Number:

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

(304) 342-1400

FOR INFORMATION CONTACT THE BUYER

Beth Collins (304) 558-2157 beth.a.collins@wv.gov

ilgnature X

FEIN# 311509066

September 15, 2015

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

Page: 1

FORM ID: WV-PRC-CEOI-001

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTE OFFICE OF AML&R 601 57TH ST SE	CTION	ENVIRONMENTAL PROTE OFFICE OF AML&R 601 57TH ST SE	ECTION
CHARLESTON	WV25304	CHARLESTON	WV 25304
us		US	

Line	Comm Ln Desc	Qty	Unit Issue	
1	EOI Engineering Design Services	_		 ,

Comm Code	Manufacturer	Specification	Model #	
81100000		-		

Extended Description:

^{*}Dates of Service are estimated for bidding purposes only.

CERTIFICATIONAND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Potesta & Associates, Inc.

(Company)

Dana L. Burns, PE - Vice President

(Authorized Signature) (Representative Name, Title)

(304) 342-1400 / (304) 343-9031 / September 15, 2015

(Phone Number) (Fax Number) (Date)

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

	umbers Received: ox next to each addendum rece	eived)	(NO ADDENDA RECEIVED.)
	Addendum No. I		Addendum No. 6
	Addendum No. 2		Addendum No. 7
	Addendum No. 3		Addendum No. 8
	Addendum No. 4		Addendum No. 9
	Addendum No. 5		Addendum No. 10
I further under discussion hel	rstand that any verbal represe d between Vendor's represen	ntation tatives	Idenda may be cause for rejection of this bid. made or assumed to be made during any oral and any state personnel is not binding. Only e specifications by an official addendum is
Potesta & Assoc	ciates, Inc.		
Company Authorized Sig	a L Burn gnature	<u>\</u>	
September 15, 2 Date	2015		
NOTE: This document proc	addendum acknowledgemeressing.	nt shou	d be submitted with the bid to expedite

RFQ No. DEP16433	
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Purchasing Affidavit (Revised 07/01/2012)

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:
Vendor's Name: Potesta & Associates, Inc.
Authorized Signature: Date: September 15, 2015
State ofWest Virginia
County of Kanawha, to-wit:
Taken, subscribed, and sworn to before me this 15 day of September, 2015.
My Commission expiresFebruary 14, 20_24
AFFIX SEAL HEREEST Rhonda L. Henson Notary Public Runda Riverson Notary Public

State of West Virginia

My Commission Expires February 14, 2024 1978 Wolf Pen Drive Charleston, WV 25312

WEST VIRG	INIA DEPARTMEN	T ENVIRONM	ENTAL PI	ROTECTION	T		
AML CONSUI	LTANT CONFIDENT		ATION QU	ESTIONNA	IRE .	Attachment	"B"
PROJECT NAME	DATE (DAY, MONTH	I, YEAR)		FEIN			
Ed Gower HW #2		September, 2015	 		311509066		
1. FIRM NAME	0 1017 000						
I. FIRM NAME	2. HOME OFFICE E	BUSINESS ADDRESS Drkle Avenue, SE		3. FORMER	FIRM NAME		
Potesta & Associates, Inc.		n, West Virginia		N/A			
4. HOME OFFICE TELEPHONE 5. ESTABL	ISHED (YEAR)	6. TYPE OWNERSH	IP '	· .	6a. WV REGIS	TERED DBE	
(304) 342-1400 199		Individual	Corporat		(Disadvantag	ed Business	
(304) 342-1400 199	7	Partnership	Joint-Ve	nture	Enterprise)		
7. PRIMARY AML DESIGN OFFICE: ADDRESS/	TELEPHONE / PERSON	I TM CHAPGE / NO	AMI DECT	TN DEDCOMM	YES	NO	
January 1112 Japan Grind, Ibbridge	IBBBINONE, PERSON	IN CHARGE/ NO.	WHI DESIG	JN PERSONN	EL EACH OFFI	CE	
7012 MacCorkle Avenue, SE, Charlesto		04) 342-1400 / D	ana L. Bu	rns / 87			
8. NAMES OF PRINCIPAL OFFICERS OR MEMBE	RS OF FIRM	8a. NAME, TITLE	, & TELEP	HONE NUMBE	R - OTHER PR	INCIPALS	
Ronald R. Potesta, President Dana L. Burns, Vice President and Tr	'Azeuror	N/A					
	easurer	N/A					
9. PERSONNEL BY DISCIPLINE							
16 ADMINISTRATIVE 3 ECOLOG	TÖRG	1 1 3310 003 000					
ARCHITECTS 1 ECONOM	· ·	1 LANDSCAPE		-	1 STRUCTURAL		
-	ICAL ENGINEERS	_1 MECHANICAL ENGINEERS 2 MINING ENGINEERS			10 SURVEYORS	; ATION ENGINEER	
	NMENTAL ENGINEER	PHOTOGRAM		-		ON TECHNOLOGI	
1 CHEMICAL ENGINEERS ESTIMA		PLANNERS:	URBAN/RE	GIONAL	1 SAFETY/IN	DUSTRIAL HYGI	ENE
17 CIVIL ENGINEERS 3 GEOLOG		_1 SANITARY		_	2 CHEMIST		
6 CONSTRUCTION INSPECTORS HISTOR 1 DESIGNERS 1 HYDROL	IANS OGISTS	3 SOILS ENG. 2 SPECIFICA		mp.c	OTHER		
DRAFTSMEN 1 TOXICO		7 ENVIRONME					
			DIVITAL DOLL	311101			
MOMAL ANDRED OF THE DEGLOSTED DOOR				-	102 TOTAL :	PERSONNEL	
TOTAL NUMBER OF WV REGISTERED PROS *RPEs other than Civil and Mining	FESSIONAL ENGINEE	RS IN PRIMARY OF	FFICE:	11			
supervise and perform this type of	must provide sup f work.	porting document	tation tha	st qualific	es them to		
						<u> </u>	
							$\neg \neg$
10. HAS THIS JOINT-VENTURE WORKED TOGETH	HER BEFORE?	YES 🗆 NO	N/A	1			
						<u>.</u>	-

11. OUT: F KEY CONSULTANTS/SUB-CONSULT Que: onnaire".	ANTS ANTICIPATED TO USED. Attach "AML (Consultant Confidential Quali 'ation
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Digital Graphic Mapping		
172 Imboden Drive, Suite 13	Aerial Photography and Mapping	X Yes
Winchester, Virginia 22603		
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Sturm Environmental Services, Inc.		
Brushy Fork Road	Environmental and Coal Related Laboratory	X Yes
Bridgeport, West Virginia 26330		
NAME AND ADDRESS		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Test Boring Services		
140 Mong Road	Soil and Rock Boring	X Yes
Scenery Hill, Pennsylvania 15360		NT-
NAME AND ADDRESS:	SPECIALTY:	No WORKED WITH BEFORE
CTL of WV, Inc.	SPECIALIT.	WORKED WITH BEFORE
510 C Street	Soils and Concrete Testing	_X_Yes
South Charleston, West Virginia 25303	Sons and Concrete Testing	
Sodai Charleson, West Vilginia 25505		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		=
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		V
		Yes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		WORKED WITH BELOW
		Yes
		-
<u> </u>		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		•
		Yes
		N-
		No

	4-1-0-10		, that the street with the first of the contract of the first of the f
12.	A	Is yo	ur firm experienced in Abandoned Mine Lan Remediation/Mine Reclamation Engineering?
		YES	Description and Number of Projects: POTESTA's principal-in-charge, Dana L. Burns, P.E. and three project managers, Messrs. Mark Kiser, P.E., Terence Moran, P.E., and Tim Rice, E.I.T. have each worked on over 70 AML projects dating back to 1986, including landslide exploration and abatement, mine subsidence stabilization projects, acid mine drainage treatment, refuse piles, mine drainage, mine portal seal, and water supply projects. POTESTA has 15 staff with experience on AML projects. POTESTA's principal engineers have extensive experience with preparing design plans for refuse piles. Many 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. These projects were completed by Dana Burns, Mark Kiser, and Terry Moran.
		NO	
	B.	Is yo	ur firm experienced in Soil Analysis?
		YES	Description and Number of Projects: POTESTA's staff is experienced in all aspects of soil analysis, including geotechnical and environmental soil analysis. POTESTA's staff has worked on 30+ AML projects involving soil science, including slope stability and revegetation. POTESTA is experienced in soil analysis as it relates to this project. POTESTA's principal engineers have developed and implemented plans for nutrient and lime requirements testing to determine revegetation requirements, acid-base accounting of rock samples to evaluate the potential of excavated materials to generate acidity, and analysis of coal refuse to determine the potential for reprocessing.
		NO	
	C.	Is yo	ur firm experienced in hydrology and hydraulics?
		YES	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 70 AML projects that involved sizing channels, culverts, and waterlines. POTESTA has developed well over 100 storm water management plans for mines, industrial facilities and new site development projects throughout West Virginia.
		NO	
	D.	Does	your firm produce its own Aerial Photography and Develop Contour Mapping?
		YES	Description and Number of Projects: POTESTA's staff routinely develop contour mapping for use with design. We subcontract aerial mapping development, but complete the ground control necessary for developing mapping. On smaller projects, we perform the topographic survey work and subsequently develop the contour mapping. POTESTA has completed 200+ mapping development projects in the last five years.
		NO	

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

Description and Number of Projects: POTESTA's staff is exceptionally experienced at domestic waterline design. POTESTA's staff has worked on waterline designs and water treatment plant designs for municipalities, WVDEP AML, and private utilities. POTESTA's staff includes one project manager, Terence C. Moran, PE, who has managed design of numerous AML waterlines, including 20+ mile Cow Creek-Sarah Ann Extension and 30+ mile/2,800 GPM Water Treatment Plant Mill Creek Regional Water Supply project. We are also exceptionally well qualified to evaluate aquifer degradation, including aquifer degradation by AML sites. Our staff has worked on 80+ evaluations of aquifer degradation. POTESTA has performed over 40 water line design projects totaling several hundred miles of installed water line.

NO

YES

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

Description and Number of Projects: POTESTA has completed numerous projects addressing acid mine drainage evaluation and abatement design. POTESTA's staff has worked on 30+ projects involving AMD evaluation and 10+ projects involving AMD abatement design. In both cases, many of the projects 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 to prevent/abate AMD generation. Additionally, we worked extensively with Elk Run Coal Company to devise a plan to limit AMD generation and to treat the remaining AMD.

	the state of the s	the second secon			
13. PER' 'AL HISTORY STATEMENT OF PR dat. ut keep to essentials)	INCIPALS AND ASSOCIATE' ESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish compl		
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE			
Burns, Dana L. Vice President	YEARS OF AML DESIGN EXPERIENCE: 23	YEARS OF AML RELATED DESIGN EXPERIENCE: 32	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 21		
Brief Explanation of Responsibilitie	g				
Mr. Burns will serve as principal-in-charge for this project with his significant experience with AML type projects. Mr. Burns has served as the project manager or principal-in-charge on three open end contracts for WVDEP, AML from 1986 through 1997, totaling over 60 projects. He will ensure the personnel required to efficiently complete this project will be identified. He will coordinate contract issues with the State of West Virginia.					
EDUCATION (Degree, Year, Specializat MS, 1979, Civil Engineering wi BS, 1978, Civil Engineering	th Environmental Engineering	Emphasis			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT		REGISTRATION (Type, Year, St	ate)		
West Virginia Coal Association American Society of Civil Engi West Virginia Association of Co American Consulting Engineering	neers onsulting Engineers g Council - Trans Committee	PE, 1985, WV PS, 1995, WV			
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete		
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE			
Kiser, D. Mark Chief Engineer	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 27	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 21		
Brief Explanation of Responsibilities	5				
As Chief Engineer, with significant of drainage channelization, he will sero QA/QC for the various draft submission (Degree, Year, Specialization)	ve as a project manager. Mr. ons and final construction do	Kiser will also provide cons	rtal closures and tructability reviews and		
BS, 1984, Civil Engineering					
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (Type, Year, St PE, 1990, WV PE, 1998, IN PE, 1998, SC Licensed Remediation S			

13. PER' VAL HISTORY STATEMENT OF PR	INCIPALS AND ASSOCIATE ** ESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish compl	
dat out keep to essentials)	A Company of the Comp		- · · · · · · · · · · · · · · · · · · ·	
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE		
Marron Harran C	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC	
Moran, Terence C. Senior Engineer	19	EXPERIENCE:	WATERLINE DESIGN EXPERIENCE: 22	
senior Engineer	1,	22	EAFERIENCE: 22	
Brief Explanation of Responsibilitie	s			
Mr. Moran will serve as project mana	ger coordinating interaction	between the WVDEP, design tear	m members, and	
subconsultants. Mr. Moran has serve	d as a project engineer/proje	ct manager for over 60 AML pro	ojects in West Virginia	
between 1989 and 1999. More recentl	y, he has served as principal	engineer and project manager	for WVDEP-AML projects	
including water studies and reclamat will also serve as one of the princi	ion plans. He will set the s	chequie and ensure it is met o	on a weekly basis. He	
will also serve as one of the princi	par designers of the reclamat	ion design solution.		
EDUCATION (Degree, Year, Specializat	ion)	-		
MS, 1989, Civil Engineering				
BS, 1987, Civil Engineering				
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (Type, Year, Sta	ate)	
American Society of Civil Engi	neers	PE, 1996, WV		
inclination bootes, of civil big.	neers	PE, 1998, WV PE, 1998, VA		
13. PERSONAL HISTORY STATEMENT OF PR	THETDALS AND ACCOUNTED BESDO		/ Thomas i who was word at a	
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data but keep to essentials)			,	
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data but keep to essentials) NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE	YEARS OF DOMESTIC	
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Taylor, Patrick A.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN	
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN	YEARS OF DOMESTIC	
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Taylor, Patrick A. Senior Engineer	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN	
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Taylor, Patrick A.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN	
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data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Taylor, Patrick A. Senior Engineer Brief Explanation of Responsibilitie Mr. Taylor will serve as a project e	YEARS OF AML DESIGN EXPERIENCE: 21 s ngineer, including completing	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 21 field work, design, and prepare	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 16	
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data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Taylor, Patrick A. Senior Engineer Brief Explanation of Responsibilitie Mr. Taylor will serve as a project e technical specifications, bid forms, consisting of emergency slide remedi slurry pond reclamation. Mr. Taylor	YEARS OF AML DESIGN EXPERIENCE: 21 s ngineer, including completing and cost estimates. Mr. Tay ation, refuse fill and slurry also served as a branch management.	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 21 field work, design, and preparence to the project engineer expension pond reclamation, abandoned reclamation.	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 16 aration of drawings, rience in AML projects cortal closures, and	
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data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Taylor, Patrick A. Senior Engineer Brief Explanation of Responsibilitie Mr. Taylor will serve as a project e technical specifications, bid forms, consisting of emergency slide remedi slurry pond reclamation. Mr. Taylor surface mining permitting, design an EDUCATION (Degree, Year, Specializat MS, 2006, Engineering Manageme	YEARS OF AML DESIGN EXPERIENCE: 21 s ngineer, including completing and cost estimates. Mr. Tay ation, refuse fill and slurry also served as a branch manad reclamation. ion)	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 21 field work, design, and preparation as project engineer expension pond reclamation, abandoned properties of the provided prov	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 16 Aration of drawings, rience in AML projects portal closures, and Eirm responsible for	
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Taylor, Patrick A. Senior Engineer Brief Explanation of Responsibilitie Mr. Taylor will serve as a project e technical specifications, bid forms, consisting of emergency slide remedi slurry pond reclamation. Mr. Taylor surface mining permitting, design an EDUCATION (Degree, Year, Specializat MS, 2006, Engineering Manageme BS, 1988, Civil Engineering MEMBERSHIP IN PROFESSIONAL ORGANIZAT	YEARS OF AML DESIGN EXPERIENCE: 21 s ngineer, including completing and cost estimates. Mr. Tay ation, refuse fill and slurry also served as a branch manader reclamation. ion) nt	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 21 field work, design, and preparence to the project engineer expension pond reclamation, abandoned reclamation.	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 16 Aration of drawings, rience in AML projects portal closures, and Eirm responsible for	
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13. PER. (AL HISTORY STATEMENT OF PR	INCIPALS AND ASSOCIATEL KESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	1	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:		YEARS OF DOMESTIC
Gandee, Jason G.	1	EXPERIENCE:	WATERLINE DESIGN
Project Engineer	6	6	EXPERIENCE:
riojece ingineer	ı		
Brief Explanation of Responsibilities	g	<u> </u>	
As project engineer, Jason will field	d verify project mapping, acc	suire utility information, dev	rolon aradina nlana
evaluate soil borrow areas, perform h	budrologic and hydraulic desi	an coloristions develop cont	etop grading plans,
specifications. Mr. Gandee has worke	ad on five AMT. projects over	the lest men develop come.	race drawings and
Specificación. Fil. Canaco nas notico	a on live Am projects over	the tast year.	
EDUCATION (Degree, Year, Specializati	J 1		
EDUCATION (Degree, real, Specialization	LON)		1
BS, 2007, Civil Engineering Tec			1
BS, 2007, CIVIT ENGINEERING TEC	Suporoda		1
ODGENITE ODGENITE			
MEMBERSHIP IN PROFESSIONAL ORGANIZATI	LONS	REGISTRATION (Type, Year, Sta	ate)
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data but keep to essentials)	INCIPALIS AND ASSOCIATED RESEAR	NOTIFIE FOR WATE LYCOPECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	1	YEARS OF DOMESTIC
Potesta, Ronald R.	,	EXPERIENCE:	WATERLINE DESIGN
President		1	EXPERIENCE:
	· · · · · · · · · · · · · · · · · · ·		1
Brief Explanation of Responsibilities	3		
As President, Mr. Potesta directs the	e full resources of the firm	to meet the complete requirem	ents of this project for
WVDEP.			
			1
			1
EDUCATION (Degree, Year, Specializati	ion)		
			1
MS, 1975, Economics with a Conc	centration in Mineral Economi	cs Econometrics and Micro E	conomica
BS, 1971, Business Administrat	tion	so, neonomectron, and thoro a.	COHORICS
	.1011		
MEMBERSHIP IN PROFESSIONAL ORGANIZATI	TOME	TRECTORDARTON /Thmo Vene Ct	- * ~ \
Commissioner, Ohio River Valley		REGISTRATION (Type, Year, Sta	ate)
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		l.	
Commission; Board of Directors,	, WV Chapter of the Nature		
Commission; Board of Directors, Conservancy; National Institute	, WV Chapter of the Nature e for Chemical Studies; WV		
Commission; Board of Directors,	, WV Chapter of the Nature e for Chemical Studies; WV		

JAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE		
, , , , , , , , , , , , , , , , , , , ,	YEARS OF AML DESIGN EXPERIENCE:		YEARS OF DOMESTIC	
Sharp, David B.		EXPERIENCE:	WATERLINE DESIGN	
Morgantown Branch Manager	21	21	EXPERIENCE: 2	
ef Explanation of Responsibilities				
. Sharp will serve as a project man roughout the region. Mr. Sharp has rsonnel required to efficiently con e State of West Virginia. Mr. Shan volved in geotechnical engineering	s served as the Branch Manage mplete this project will be i rp has worked on and managed	er in Morgantown for 11 years. dentified. He will coordinat AML projects and has spent mo	He will ensure the	
UCATION (Degree, Year, Specializati	ion)			
MS, 1995, Civil Engineering wit BS, 1993, Civil Engineering	th Geo-environmental Engineer	ing Emphasis		
MBERSHIP IN PROFESSIONAL ORGANIZATI	IONS	REGISTRATION (Type, Year, St	ate)	
West Virginia Coal Association		,	·	
American Society of Civil Engir	neers	PE, 1999, WV PE,	2001, KY	
West Virginia Association of Co	onsulting Engineers	PE, 1999, MD PE, 2001, OH		
American Consulting Engineering	Council - Trans Committee	PE, 2000, PA		
. PERSONAL HISTORY STATEMENT OF PRI data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO		(Furnish complete	
ME & TITLE (Last, First, Middle Int.)	· · · · · · · · · · · · · · · · · · ·	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:		YEARS OF DOMESTIC	
Grose, Christopher A.		EXPERIENCE:	WATERLINE DESIGN	
Senior Engineering Associate	17	21	EXPERIENCE: 13	
ef Explanation of Responsibilities	3		<u></u>	
. Grose will coordinate the drilling tes for soil cover, and investigating commendations for mine seals.	ng and geotechnical analysis ion and design of solutions f	for slope stability design, i or subsurface hydrogeology wi	dentification of borr	
	on)		····	
UCATION (Degree, Year, Specializati	og.			
•	IG.			
MS, 1990, Geological Engineerin	-5			
•	-5			
MS, 1990, Geological Engineering		REGISTRATION (Type Year St	ate)	
MS, 1990, Geological Engineerin BS, 1988, Civil Engineering	ONS	REGISTRATION (Type, Year, St	ate)	
MS, 1990, Geological Engineering BS, 1988, Civil Engineering MBERSHIP IN PROFESSIONAL ORGANIZATI	ONS neering	REGISTRATION (Type, Year, St		
BS, 1988, Civil Engineering		DECTORDANTON /There Was a	- L - V	

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13. PERAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATEL LESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
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NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
,	YEARS OF AML DESIGN EXPERIENCE:		YEARS OF DOMESTIC
Rice, Timothy M.		EXPERIENCE:	WATERLINE DESIGN
Senior Engineer	28	32	EXPERIENCE: 28
Brief Explanation of Responsibilitie	s		
As senior engineer and primary contact	at Mr. Bisa will communicate	between IMPER and the decima	
and project advisors for this project	t Wid 29 years of AMI proje	: Detween wydre and the design	teams, subcontractors,
and various types of projects will p	rovide the technical knowledo	cts in west virginia, maryian e and experience to complete	d, Ohio and Pennsylvania
			ents Am project.
EDUCATION (Degree, Year, Specializat:	ion)		
BS, 1982, Civil Engineering			,
,,			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (Type, Year, St	ate)
		122 / 123 /	
	4		
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:		YEARS OF DOMESTIC
Ward, Patrick E.		EXPERIENCE:	WATERLINE DESIGN
Senior Engineer	7	14	EXPERIENCE: 5
B1-8 B -1		<u></u>	
Brief Explanation of Responsibilities	5		
Mr. Ward will serve as a project enq	ineer and has extensive exper	ience on WVDEP, AML projects,	having served as a
	ineer and has extensive exper	ience on WVDEP, AML projects, rojects in the early to mid-1	having served as a 990's.
Mr. Ward will serve as a project enq	ineer and has extensive exper	ience on WVDEP, AML projects, rojects in the early to mid-1	having served as a 990's.
Mr. Ward will serve as a project engineer on refuse piles, min	ineer and has extensive exper ne drainage, and subsidence p	ience on WVDEP, AML projects, rojects in the early to mid-1	having served as a 990's.
Mr. Ward will serve as a project engaproject engineer on refuse piles, min	ineer and has extensive exper ne drainage, and subsidence p	ience on WVDEP, AML projects, rojects in the early to mid-1	having served as a 990's.
Mr. Ward will serve as a project engageroject engineer on refuse piles, min EDUCATION (Degree, Year, Specializations, 1992, Civil Engineering (George)	ineer and has extensive exper ne drainage, and subsidence p	ience on WVDEP, AML projects, rojects in the early to mid-1	having served as a 990's.
Mr. Ward will serve as a project engaproject engineer on refuse piles, min	ineer and has extensive exper ne drainage, and subsidence p	ience on WVDEP, AML projects, rojects in the early to mid-1	having served as a 990's.
Mr. Ward will serve as a project engineer on refuse piles, min EDUCATION (Degree, Year, Specializations, 1992, Civil Engineering (General BS, 1990, Civil Engineering)	ineer and has extensive exper ne drainage, and subsidence p ion)	ience on WVDEP, AML projects, rojects in the early to mid-1	having served as a 990's.
Mr. Ward will serve as a project engageroject engineer on refuse piles, min EDUCATION (Degree, Year, Specializations, 1992, Civil Engineering (George)	ineer and has extensive exper ne drainage, and subsidence p ion)	ience on WVDEP, AML projects, rojects in the early to mid-1	990's.
Mr. Ward will serve as a project engineer on refuse piles, min EDUCATION (Degree, Year, Specializations, 1992, Civil Engineering (General BS, 1990, Civil Engineering)	ineer and has extensive exper ne drainage, and subsidence p ion)	rojects in the early to mid-1	990's.

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13. PER. AL HISTORY STATEMENT OF PR	INCIPALS AND ASSOCIATE. LESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
data but keep to essentials)			I
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN	YEARS OF DOMESTIC
Litwinowicz, Dennis L.		EXPERIENCE:	WATERLINE DESIGN
Senior Scientist		31	EXPERIENCE:
		-	
Brief Explanation of Responsibilitie	s		J
_			
Mr. Litwinowicz will serve as a proj	ect geologist, including obse	rvation of subsurface explora-	tion activities and
assistance on evaluation of other ge	ologic activities.		
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			!
EDUCATION (Degree, Year, Specializat	ion)		
	2011,		!
BS, 1980, Geology and Mineralo	nav		!
by 1900) couldy will intiduct	A)		l de la companya de
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	TOTA	Tarana managaran (m	
MEMBERSHIP IN PROPESSIONAL ORGANIZAL	IONS	REGISTRATION (Type, Year, Sta	ate)
American Managinting of Makes 1	· ·		_
American Association of Petrol	eum Geologists	Certified Petroleum Geo	ologist, 1984
13. PERSONAL HISTORY STATEMENT OF PR	INCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
data but keep to essentials)		Manda aver rem anyong panaga	(Fullitali Complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
NATES & IIIIII (Dast, FILSt, FILGULE INC.)	YEARS OF AML DESIGN EXPERIENCE:		T
Dawson, Victor M.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC
	11	EXPERIENCE:	WATERLINE DESIGN
Survey Supervisor	1	29	EXPERIENCE: 13
Brief Explanation of Responsibilitie			<u> </u>
Prizer expranacion of reshonainilicie	S		
Mr. Pawgon will goordinate required		7 7 7 7 3.3	
Mr. Dawson will coordinate required	surveying for aerial mapping of	control, if needed, establish	construction
benchmarks, topographic surveys, bou	ndary surveys and/or property	and deed research, survey of	boring locations and
profiling significant existing drain	age courses not clearly define	ed in the aerial mapping. Mr	. Dawson will reduce
survey data and create topographic m	apping for AML projects.		1
EDUCATION (Degree, Year, Specializat	ion)		
			!
AS, 1983, Surveying			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	TONS	REGISTRATION (Type, Year, Sta	ate)
American Congress Surveying an		\	ace,
West Virginia Association of L		PS, 1988, NC	
North Carolina Society of Surv	and bulveyors	PS, 1988, NC PS, 1989, SC	
South Carolina Society of Surv	cycra		
bouch carotina booledy of buly	eyors	PS, 1993, WV	
		1	

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13. PER. JAL HISTORY STATEMENT OF PR	INCIPALS AND ASSOCIATE. LESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:		YEARS OF DOMESTIC
Sankoff, Michael B.		EXPERIENCE:	WATERLINE DESIGN
CADD Designer/Supervisor	11	24	EXPERIENCE: 13
		<u> </u>	
Brief Explanation of Responsibilitie)S		
Mr. Sankoff will provide the CADD su	pport in preparation of const	ruction drawings for the proj	ect. He will reduce
survey data to provide sufficient ma	apping to complete the design.	-	
EDUCATION (Degree, Year, Specializat	ion)		
BS, 1987, Industrial Managemen			
AS, 1986, Drafting and Design	Engineering Technology		
AS, 1986, Mechanical Engineeri			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (Type, Year, St	ate)
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			-
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13. PERSONAL HISTORY STATEMENT OF PR	INCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO		(Furnish complete
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials) NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.)	RINCIPALS AND ASSOCIATES RESPO	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN	YEARS OF DOMESTIC
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN	YEARS OF DOMESTIC
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie	YEARS OF AML DESIGN EXPERIENCE: 5	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. H	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 8 is responsibilities will incl	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. Heation, design, technical spec	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: Is responsibilities will incl ifications, bid forms, cost e	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar work. He has extensive experience i	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. Heation, design, technical specent water supply and waste wate	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: is responsibilities will incl ifications, bid forms, cost e r system design, permitting,	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. Heation, design, technical specent water supply and waste wate	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: is responsibilities will incl ifications, bid forms, cost e r system design, permitting,	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar work. He has extensive experience i Mr. Ammirato was the project enginee	YEARS OF AML DESIGN EXPERIENCE: 5 2 engineer for the project. He ration, design, technical spectation, design, and waste wate ar on our Borderland (Matney)	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: is responsibilities will incl ifications, bid forms, cost e r system design, permitting,	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar work. He has extensive experience i Mr. Ammirato was the project enginee	YEARS OF AML DESIGN EXPERIENCE: 5 2 engineer for the project. He ration, design, technical spectation, design, and waste wate ar on our Borderland (Matney)	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: is responsibilities will incl ifications, bid forms, cost e r system design, permitting,	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic
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data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar work. He has extensive experience i Mr. Ammirato was the project enginee EDUCATION (Degree, Year, Specializat BS, 1999, Mechanical Engineeri	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. Heation, design, technical specen water supply and waste wateer on our Borderland (Matney) eion) eng	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: Is responsibilities will incl ifications, bid forms, cost e r system design, permitting, Portals project.	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic estimates, and field and regulations.
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar work. He has extensive experience i Mr. Ammirato was the project enginee EDUCATION (Degree, Year, Specializat	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. Heation, design, technical specen water supply and waste wateer on our Borderland (Matney) eion) eng	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: is responsibilities will incl ifications, bid forms, cost e r system design, permitting,	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic estimates, and field and regulations.
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar work. He has extensive experience i Mr. Ammirato was the project enginee EDUCATION (Degree, Year, Specializat BS, 1999, Mechanical Engineeri	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. Heation, design, technical specen water supply and waste wateer on our Borderland (Matney) eion) eng	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: Is responsibilities will incl ifications, bid forms, cost e r system design, permitting, Portals project.	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic estimates, and field and regulations.
data but keep to essentials) NAME & TITLE (Last, First, Middle Int.) Ammirato, Robert J. Engineer Brief Explanation of Responsibilitie Mr. Ammirato will serve as a project calculations, layout, drawing prepar work. He has extensive experience i Mr. Ammirato was the project enginee EDUCATION (Degree, Year, Specializat BS, 1999, Mechanical Engineeri	YEARS OF AML DESIGN EXPERIENCE: 5 es engineer for the project. Heation, design, technical specen water supply and waste wateer on our Borderland (Matney) eion) eng	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: Is responsibilities will incl ifications, bid forms, cost e r system design, permitting, Portals project.	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8 ude hydraulic estimates, and field and regulations.

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13. PERL .AL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATEL _ESPO	NSIBLE FOR AML 1	PROJECT DESIGN	(Furnish complete
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NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXP	ERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML REL	ATED DESIGN	YEARS OF DOMESTIC
Smith, Jarrett M.		EXPERIENCE:		WATERLINE DESIGN
Senior Engineer	6		8	EXPERIENCE: 8
	<u></u>			
Brief Explanation of Responsibilitie	·s			
Mr. Smith has been involved extensiv	ely with development of hydro	logic and hydrau	ulic calculati	ons including
preparation of NPDES stormwater cons	truction permits. He also ha	s significant ex	xpertise in th	e development of site
grading plans and quantity/cost esti	mates. Mr. Smith was the pro	ject engineer or	n our Taylorvi	lle (Cantrell) Drainage
AML project.			-	
EDUCATION (Degree, Year, Specializat	ion)			
BS, 2002, Civil Engineering				
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (7	Ivpe Year St.	ate)
		(-	-1F-, - , 55.	400,
National Society of Profession	al Engineers	PE, 2008,	wv.	
•	J	12, 2000,	, ,,,	
13. PERSONAL HISTORY STATEMENT OF PR	TNCTDALC AND ACCOCTAMES BESTS	NOTITE TOD NO. T		7-
data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	N2IRTE LOK WWT F	PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXP	ERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:		ATED DESIGN	YEARS OF DOMESTIC
Griffith, Chad	_	EXPERIENCE:		WATERLINE DESIGN
Staff Engineer	2		4	EXPERIENCE: 7
Design Templement in the Research				
Brief Explanation of Responsibilitie	S			
Man Contestin land and a second				
Mr. Griffith has extensive experience	e with site grading plans and	stormwater mana	agement. He al	lso has experience with
mine plans and permitting.				
EDUCATION (Degree, Year, Specializat	ion)	-		
BS, 2004, Civil Engineering				
				_
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (T	ype, Year, Sta	ate)
		, -	11 , , , , , , , , , , , , , , , , , ,	,
		PE, 2009,	WV	Į.
		,,		

14. PRO LE A LIST OF SOFTWARE AND FOULDMENU AVAILABLE TV
14. PRO LE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN L. PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AND DESIGN SERVICES
Microsoft Office 2003 (Excel, Access, Word, PowerPoint) and Microsoft Office 2010 (Excel, Access, Word, PowerPoint)
WordPerfect 11
Adobe PageMaker 8 (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.
Haestead Methods (Numerous software packages used for designing storm water structures [e.g., channels, culverts, ponds, etc.] and water distribution systems.)
MapTech, Terrain Navigator (Combines regional collections of topographic maps with powerful PC navigation software for 2D/3D viewing, customizing, printing and GPS use.)
AutoCAD, 2012 Used for preparing CADD drawings (3D modeling software that provides topographic an alysis, real-world coordinate systems, volume totals, roadway geometry.)
2014 Civil/Survey Design Software

15. CURT ACTIVITIES	ON WHICH YOUR FIRM IS TH	HE DESIGNATE. INGINEER OF	PECOPD	
		DEDICARIES MOINEER OF	RECORD	
PROJECT NAME, TYPE AND LOCATION	OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Sundial Refuse Piles, AML Reclamation of Coal Refuse Piles, Raleigh County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$4,000,000	Project is Under Construction
Landfill Closure Design, Various Environmental Remediation Projects Nitro, WV	Solutia, Inc. 1 Monsanto Road Nitro, WV 25143	Preparation of closure designs, construction drawings and specifications, environmental sampling, and regulatory liaison.	\$4,000,000	85%
The Villages at Coolfont, Morgan County, WV	Berkeley Springs Develop, LLC 99 N. Washington Ave. Berkeley Springs, WV	Engineering design and permitting for 1300 home community including water treatment plant and distribution system, wastewater treatment plant and collection system, roads, stormwater management system, and property surveys.	\$50,000,000 Excluding Home Construction Costs	98% (Design)
Flipping Hollow Complex Mercer County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$160,000	98%
East Lynn II Wayne County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$1,220,000	95%

WVDEP 601 57 th Street, SE Charleston, WV 25304 WVDEP 601 57 th Street, SE Charleston, WV 25304	Preparation reclamation drawings, specificati form, engin constructio estimate, a calculation Preparation feasibility engineer's constructio estimate.	ons, bid eer's n cost nd s brief. of study and	\$400,000	98%
601 57 th Street, SE	feasibility engineer's construction	study and	\$400,000	90%
	estimate.			
WVDEP 601 57 th Street, SE Charleston, WV 25304	Preparation of feasibility study and engineer's construction cost estimate.		\$450,000	10%
S:		TOTAL ECTIM	ATTED CONCEDITION COORD	
	601 57 th Street, SE Charleston, WV 25304	601 57 th Street, SE Charleston, WV 25304 feasibility engineer's constructio estimate.	Charleston, WV 25304 feasibility study and engineer's construction cost estimate. TOTAL ESTIM	Charleston, WV 25304 feasibility study and engineer's construction cost estimate. TOTAL ESTIMATED CONSTRUCTION COSTS:

PROJECT NAME, TYPE NATURE OF FIRMS AND LOCATION RESPONSIBILITY		NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
			ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY	
Armstrong Mineral Wool Plant, Jackson County, WV	Stormwater Design and Permitting	Armstrong Industries 2500 Columbia Ave. Lancaster, PA 17604		Unknown	\$20,000 (fee)

17. C LETED WORK WITHIN LA	ST 5 YEARS ON WHICH YOUR FIRE	AS THE DESIGNATED ENGINEER OF RECORD)	
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Peach Ridge Complex, AML Reclamation of Refuse Pile and Mine Portals, McDowell County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$500,000		Yes
Measle Fork Refuse Pile, AML Reclamation of Refuse Pile and Drainage Problems, Wyoming County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$1,200,000		Yes
Georges Creek Portals, AML Reclamation of Acid Mine Drainage Problems, Mingo County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$250,000		Yes
Putney Impoundment, AML Reclamation of Mine Portals, Mingo County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$226,000		Yes
Kopperston (John's Branch) Refuse Emergency, AML Reclamation of Refuse Pile Drainage, Wyoming County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$1,300,000		Yes
Marmet (Wells Drive) Landslide Emergency Project, AML Reclamation of Landslide, Kanawha County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$475,000		Yes
Marmet (Clark) Drainage, AML Reclamation of Drainage, Kanawha County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$100,000		Yes
Pringle Run#2, AML Reclamation of Refuse Pile, Portals, and Structures, Preston County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$675,000		Yes
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	\$130,000		Yes
Lick Creek Waterline Extension - Phase I, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$1,200,000		Yes

17. CC LETED WORK WITHIN LAS		AS THE DESIGNATED ENGINEER OF RECOR	2D	
JECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	COL RUCTED (YES OR NO)
Town of Ceredo Water Distribution System Upgrade - Contract No. 1, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	\$831,000		Yes
Town of Ceredo Water Distribution System Upgrade - Contract No. 2, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	\$885,000		Yes
Hatfield-McCoy/Water Ways Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$900,000		Yes
Fort Martin Power Station Coal Combustion By-Product Landfill Expansion, Monongalia County, WV	Allegheny Energy Supply 800 Cabin Hill Drive Greensburg, PA 15601	\$24,000,000		Yes
Jessop Highwall #10 AML Reclamation of Highwalls, Preston County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$1,357,000 ;, SE 25304		Yes
Lando (Edwards) Drainage, AML Reclamation of Refuse Pile and Drainage Problems, Mingo County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$352,000	2009	Yes
Taylorville (Cantrell) Drainage, AML Reclamation of Acid Mine Drainage Problems, Mingo County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	57 th Street, SE		Yes
Borderland (Matey) Portals, AML Reclamation of Mine Portals, Mingo County, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$94,000	2009	Yes
	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$100,000	2009	Yes

JECT NAME, TYPE	T 5 YEARS ON WHICH YOUR FIRM NAME AND ADDRESS	AS THE DESIGNATED ENGINEER OF RECOR		
AND LOCATION	OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CON RUCTED (YES OR NO)
Rachel Refuse, AML Reclamation of Mining Complex, Farmington, WV	WVDEP 601 57 th Street, SE Charleston, WV 25304	\$300,000	2010	Yes
Wash Branch Waterline Extension, Boone County, WV	Massey Coal Services 315 70 th Street, SE Charleston, WV 25304	\$550,000	2008	Yes
Spruce Laurel Stream Monitoring, Boone County, WV	WVDEP - AML 601 57 th 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 th 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 th Street, SE Charleston, WV 25304	\$3,000,000	2008	Yes

					-
18. C LETED WORK W	VITHIN LAST 5 YEARS ON WHI	CH YOUR FIR. AS BEEN A SUB-CO	NSULTANT '	TO OTHER FIRMS	(INDICAT, HASE
OF MORY FOR MUI	CH TOUR FIRM WAS RESPONSI	IBLE)			,
PROJECT NAME, TYPE	NAME AND ADDRESS	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED	FIRM ASSOCIATED
AND LOCATION	OF OWNER	OF YOUR FIRM'S PORTION		(YES OR NO)	WITH
Bradshaw Schools	Design Water Supply and	\$750,000	2009	Yes	ZMM, Inc.
Site Utilities	Sanitary Sewer Systems	·		100	Zirit, Tile
Charleston	Site Utilities,	\$20,000	2008	Yes	Andropogon
Greenspace Project	Stormwater Management	4-0,000	2000	169	Associates, Ltd.
	and Agency Coordination				Associates, Ltd.
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10	TTo						
129.	dr	this space to provide any additional information description of resources supporting your firm's andoned Mine Lands Program.					
	POT	otesta & Associates, Inc.'s (POTESTA) "Expression of Interest for Professional Engineering Design Services and onstruction Monitoring Services for the Ed Gower HW #2 Project" supports this questionnaire in providing OTESTA's qualifications and resources for serving the West Virginia Department of Environmental Protection, ffice of Abandoned Mine Lands and Reclamation on this project. In summary, POTESTA:					
	1.	Has assembled a team of in-house personnel and subcontractors who have historically worked on AML projects. POTESTA's in-house staff includes 13 Professional Engineers including 11 in the primary office, three of whom have worked on over 75 AML projects.					
	2.	Has a large local staff with a unique multidiscipline technical emphasis (including civil engineering, structural engineering, geological engineering, hydrological engineering, mine land reclamation, with a strong emphasis on water quality and aquatic life and toxicity). One member of POTESTA's staff has their Ph.D. and 12 have their master's degree.					
	3.	Has 15+ employees with experience on WVDEP AML projects. POTESTA employees have worked on and have experience in the following type of WVDEP AML projects:					
		- Water Supply Feasibility Studies and Design - Assessment of Contamination (e.g., PCB's, asbestos) - Demolition of Structures - Diversion Structures - Identifying Acid Mine Drainage - Inventory of Residential Water Supplies - Landslides - Mine Fires - Passive Acid Mine Drainage Treatment - Reclamation of Refuse Piles - Sealing Mine Portals - Stream Relocations - Subsidence Assessment and Remediation - USCOE Permitting - Wetland Assessments					
	4.	Can handle a substantial AML workload (more than our competitors) since POTESTA has two Professional Engineer (P.E.) Project Managers each with experience on 75+ AML projects.					
	5.	Offices located in Charleston, West Virginia in close proximity to WVDEP's Charleston office, with offices in Morgantown, West Virginia close to WVDEP Philippi office and Winchester, Virginia.					
	6.	Staff has had a positive relationship with WVDEP, AML in the past, which we would like to continue.					
20.	The	foregoing is a statement of facts.					
Sign	atur	re: Alana L. Durno Title: Vice President Date: September 15, 2015					
		Date: September 15, 2015					
Prin	tea	Name: Dana L. Burns					
	, ,						

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
- 5 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

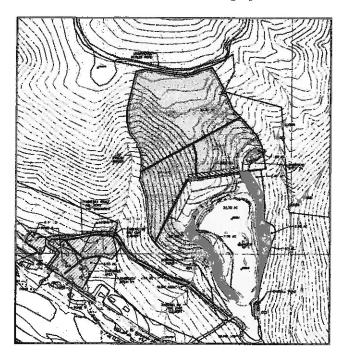
The Potesta & Associates, Inc. (POTESTA) computer-aided drafting and design (CADD) department provides state-of-the-art design and drafting services for in-house engineering and environmental consulting projects. We also provide personnel to clients who have a temporary need for additional drafting manpower. 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 the latest version in AutoCAD Civil 3D civil/survey design software to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 4000 and 5500 color ink jet plotters. 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 selection. contractor 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 & Wildlife 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 in-house 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.



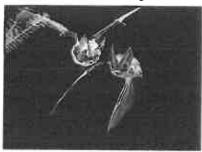
For the last several years, our office has worked with natural gas transmission companies preparing environmental reports which include assessments and remediation of impacts to rare, threatened, and endangered species. POTESTA's biologists have worked on natural gas projects within the core summer roosting 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.





- 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
- CulvertMaster
- FlowMaster
- PondPack
- S 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.



- 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, GeoprobeTM, etc.)
- Sample Collection Methods (split spoons, shelby tubes, GeoprobeTM 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.

POTESTA's engineers can also develop preventive measures during initial project design or recommendations to repair slope failures. Based upon the project circumstances, our engineers will consider various remedial measures such as regrading the site to obtain more suitable conditions, management of groundwater, and design of retaining



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 process, coupled with our technical expertise, may



·Site Design



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





Surveying and Mapping

Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions), ALTA surveys, control surveys, flood certificate surveys, well location surveys, construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse research, preparation of right-of-way plans, and verification of property owners. Potesta & Associates. Inc. (POTESTA) has licensed professional surveyors registered in West Virginia, North Carolina, South Carolina, Ohio, Virginia, and Pennsylvania. Their total combined surveying experience comes to well over 50 years.

POTESTA's surveyors use state-of-the-art equipment such as Topcon total stations, Trimble R-8 GNSS, and SMI Version 8 data collectors with SMI software. Reduction and design software used includes AutoCAD, Softdesk Civil/Survey design, Autodesk Land Design, Microstation, and InRoads design software.

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. These products can be supplied to our clients in AutoCAD and/or Microstation format.

Small topographic mapping projects can be completed in-house using the aforementioned process. Larger projects are better suited for mapping using aerial photography.

POTESTA can provide the necessary surveying required for establishing ground control for aerial mapping. As a quality control measure, aerial mapping is field checked for accuracy by surveying cross sections or random points.



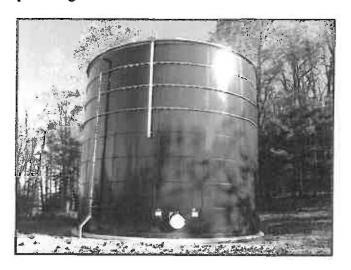
Surveys completed by POTESTA are performed by or under the direction of a professional licensed surveyor. Surveys and mapping are completed to the standards outlined by the National Map Standards, as well as other applicable quality standards.

Our staff is experienced in global positioning surveys (GPS). GPS equipment, Trimble R-8 GNSS, and existing base stations are among POTESTA's surveying tools. Based upon the site location and ultimate use of the survey information, a recommendation is made to the client as to whether or not traditional survey or GPS is most applicable to their project.



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:



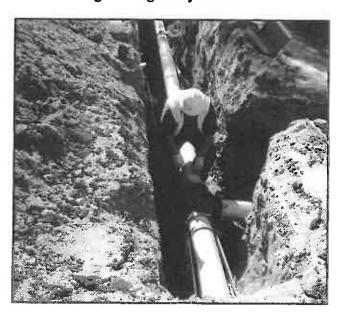
WATER AND WASTEWATER DESIGN

- 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

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 construction monitoring 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

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.

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 pre-construction 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.

Project Abstract

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 Page 2

Streams and mine drainage sources were assessed via intensive field sampling including field sampling of most "unnamed tributaries" with follow-up water quality sampling/analyses of certain streams and mine drainage sources via a laboratory.

Field sampling primarily consisted of field readings of pH, specific conductivity, temperature, and visual estimates of flow. Laboratory analysis primarily consisted of pH, acidity, alkalinity, total iron, total aluminum, total manganese, total dissolved solid, total suspended solids, and sulfates.

A total of 24 field readings were taken with a follow-up 12 samples being collected for laboratory analyses. The water quality sampling confirmed a limited amount of AML AMD (actually alkaline, but with high total iron). However, the water quality sampling did not indicate that the AMD was causing violations of receiving stream water quality standards.

The results of the mine drainage evaluation were summarized in a report, along with other findings of the ESA.

POTESTA & ASSOCIATES, INC.

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
- 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

EVALUATION OF MINE DRAINAGE Page 2

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.

Streams and mine drainage sources were assessed via intensive field sampling including field sampling of most "unnamed tributaries" with follow-up water quality sampling/analyses of certain streams and mine drainage sources via a laboratory.

Field sampling primarily consisted of field readings of pH, specific conductivity, temperature, and visual estimates of flow. Laboratory analysis primarily consisted of pH, acidity, alkalinity, total iron, total aluminum, total manganese, total dissolved solid, total suspended solids, and sulfates.

A total of 29 field readings were taken with a follow-up 24 samples being collected for laboratory analyses. The water quality sampling confirmed AML AMD from several deep mine sites. However, the water quality sampling did not indicate that the AMD was causing violations of receiving stream water quality standards.

The results of the mine drainage evaluation were summarized in a report, along with other findings of the ESA.

POTESTA & ASSOCIATES, INC.

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.
Charleston, WV • Morgantown, WV • Winchester, VA
(304) 342-1400/www.potesta.com

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:



- 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.

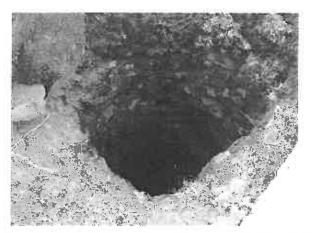
POTESTA & ASSOCIATES, INC.

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.

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.

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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.

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.

Project Abstract

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.

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:



- Drilling of the refuse piles, mine portals and potential soil borrow areas
- 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.



RACHEL REFUSE AND STRUCTURES

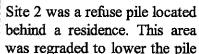
West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

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.





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.

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 Protection-Office 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.

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.

200 cubic yards of soil cover, and 400 feet of underdrain.



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),

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 preconstruction conferences to assist WVDEP with the project.

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.
- 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 456-foot 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.

AML AND RELATED PROJECT EXPERIENCE MATRIX

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

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Project	Exp. Basis C=Corporate P=Personal *	Additional Information Provided in Section(s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Evaluation	temining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Miticalion	Hazardous Waste Disposal	Project Specifications	Water Quality valuation/Witigation/	Construction pection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	ne Design and Article 3 Permitting	NPDES Permitting	USACE Permitting	Dana L. Burns	D. Mark Kiser	Terence C. Moran	John R. Spencer	Jason Gandee	Chris A. Grose	Michael Sankoff	Tim M. Rice	Jarrett Smith	Robbert Ammirate	Pat Taylor	David B. Sharp	Scott A. Bolyard	Chad Griffith	Peter Potesta
Union Carbide Process Wastewater Flow Measurement	С			<u> </u>		=	F				<u> </u>	<u>8</u>	<u>į</u>		i ii		ğ	Mine	-											Ř			92		
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Project	Exp. Basis C=Corporate P=Personal *	Additional Information Provided in Section(s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	PortaVShaff Closure	Hydrologic/Hydraulic Design/Evaluation	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation		Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction nspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Mine Design and Article 3 Permitting	NPDES Permitting	USACE Permitting	Dana L. Burns	D. Mark Kiser	Terence C. Moran	John R. Spencer	Jason Candee	Chris A. Grose	Michael Sankoff	Tim M. Rice	Jarrett Smith	Robbert Ammirato	Pat Taylor	David B. Sharp	Scott A. Bolyard	Chad Griffith	Peter Potesta
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List whether project experience is corporate or personnel based or both.
 Use this area to provide specific sections or pages if needed for reference.
 List Primary Design personnel and their functional capacity for the projects listed.

West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation

Principal-in-Charge

Dana L. Burns, PE – 36 Yrs.

Project Manager

Dave Sharp, PE – 21 Yrs.

Field Reconnaissance, Preliminary Design, and Final Design of Reclamation Plan, Preparation of Construction Documents

Tim Rice, EIT – 32 Yrs.
Chad Griffith, PE – 11 Yrs.
Jarrett Smith, PE – 14 Yrs.
Patrick Ward, PE – 23 Yrs.
Patrick Taylor, PE – 23 Yrs.
Robert Ammirato, PE – 16 Yrs.
Jason Gandee – 11 Yrs.

Soils, Geological, and Hydrological Evaluations

Dave Sharp, PE – 21 Yrs. Chris Grose – 25 Yrs. Dennis Litwinowicz – 35 Yrs.

Subcontractors

Drilling of Soil Borings, Laboratory Soils, and Water Testing

Surveying

Victor Dawson, PS – 34 Yrs. Brad Starkey – 27 Yrs. Charles Shaffer – 16 Yrs.

Construction Monitoring

Robert Lamm – 17 Yrs. Gary Bridgette – 12 Yrs.

CAD Designers

Scott Bolyard – 24 Yrs. George Durbin – 3 Yrs. Michael Sankoff – 28 Yrs. Brian Leedy – 19 Yrs.

Project Advisors (as needed)

D. Mark Kiser, PE – 31 Yrs. Terence C. Moran, PE – 26 Yrs.

Potesta & Associates, Inc.

Figure 1