

December 9, 2010

EXPRESSION OF INTEREST

RECEIVED

2010 DEC -9 P 12:44

RECEIVING DIVISION
STATE OF WV

ORIGINAL

**SHINNSTON (SHINNS RUN)
PORTALS AND AMD DESIGN
DEP15235**

HARRISON COUNTY, WEST VIRGINIA

E.L.ROBINSON

the Challenge. the Choice.™

E.L. Robinson Engineering Co.
5088 Washington Street, West
Charleston, WV 25313
Phone: (304) 776-7473
Fax: (304) 776-6426
www.elrobinson.com

December 9, 2010

West Virginia Department of Environmental Protection
Office of AML & R
601 57th Street
Charleston, WV 25304

Attn: Eric J. Coberly, P.E., Chief

Re: Shinnston (Shinns Run) Portals and AMD Design
DEP15235
Expression of Interest

Dear Mr. Coberly:

E. L. Robinson Engineering Co. (ELR) is pleased to submit this proposal in response to your request to perform professional engineering design services, and construction monitoring services associated with the design of the Shinnston (Shinns Run) Portals and AMD Design project located in Harrison County.

We have completed plans and specifications for numerous reclamation and waterline projects for WVDEP/AML over twelve years. In addition, we have completed numerous projects with ODNR. We have descriptions of these projects in the attached proposal. Please note that the majority of staff that worked on these projects are still with ELR.

The ELR staff has combined experience in the design of more than 125 AML projects.

We are able to assemble multiple design teams with our current staff. The Charleston office has:

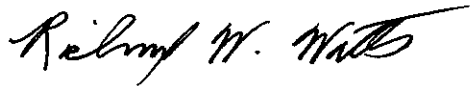
- A. Thirteen (13) registered professional engineers (civil or mining), two (2) geologists, two (2) Landscape architects, four (4) engineers in training as well as several CADD technicians that may be used on these teams.
- B. ELR Corporate experience in designing nearly fifty (50) abandoned mine land remediation projects. Personal experience on approximately one hundred sixty-eight (168) AML projects. This number does not include surveying/mapping/drilling projects.

E. L. Robinson Engineering Co. has grown from 13 employees in 1996 to over 80 employees today. Throughout this growth period we have continued to meet project deadlines while providing a high quality engineering product.

Our office location in Charleston is centrally and conveniently located in respect to the WVDEP offices and the referenced project.

We at E.L. Robinson Engineering Co. look forward to serving your agency under this contract. If you have any questions or need clarification, please feel free to contact me at (304) 776-7473.

Sincerely,
E. L. Robinson Engineering Co.
By:

A handwritten signature in cursive script, reading "Richard W. Watts".

Richard W. Watts, P.G.
Project Manager

Table of Contents

Executive Summary.....	Page 1
Project Approach.....	Page 2
Our Project Team.....	Pages 3-4
Our Capabilities.....	Page 5
Previous Experience.....	Page 6
CCQQ.....	Attachment B
Abandoned Mine Lands Reclamation Experience.....	Section 12A
Soil Analysis.....	Section 12B
Hydrology and Hydraulics.....	Section 12C
Aerial Photography and Contour Mapping.....	Section 12D
Key Personnel.....	Section 13
RPEM.....	Attachment C
Purchasing Affidavit	

Executive Summary

For more than 10 years, E.L. Robinson Engineering Company has been a prime and preferred engineering and surveying consultant to the WV Division of Environmental Protection, Office of Abandoned Mine Lands and Reclamation (WVDEP/AML) program. We have provided this Executive Summary to directly respond to the Expression of Interest and provide ease for the evaluators to score this proposal.

Understanding of Project Requirements

E.L. Robinson Engineering Co. fully understands the requirements for this project and is committed to giving the WVDEP/Office of Abandoned Mine Lands and Reclamation the time and attention that is necessary for the reclamation project. Professional services may include: civil; structural; geological; surveying and mapping; preparation of all necessary permit applications; construction monitoring and other services that may be required.

Firm's Capacity

E.L. Robinson Engineering Co. approaches all engineering projects with the same attention to detail and fiscal responsibility to ensure the client receives the most cost effective plan, design and operationally functional project possible. Our approach truly makes the WVDEP/AML engineering staff an integral part in the design of the project. We want to make sure that the review staff is comfortable with the design concept before the project is submitted for review. During this process, we evaluate all technical alternatives to determine the most cost effective plan and technically acceptable project for the WVDEP/AML staff.

E.L. Robinson Engineering Co. has more than 50 professionals on staff and individuals experienced in mine reclamation. This capacity allows for the development of innovative and alternative methods to address complex issues involved in reclamation projects of this nature. Our QA/QC process also allows for a different perspective to be brought to the project before submission to the client and for review. E.L. Robinson Engineering Co. has the capacity to take this project from conception to completion with a wide variety of experienced professionals with in-house staff for planning, design, permitting, bidding and construction monitoring.

E.L. Robinson Engineering Co. will work diligently to deliver the highest quality, cost effective solution that the WVDEP/AML deserves. We have extensive knowledge in mine reclamation and are currently working with WVDEP/AML and Ohio DNR on similar projects. We have an excellent understanding of the requirements for this type of project and a good working relationship with NEPA, permitting and regulatory issues.

Project Approach

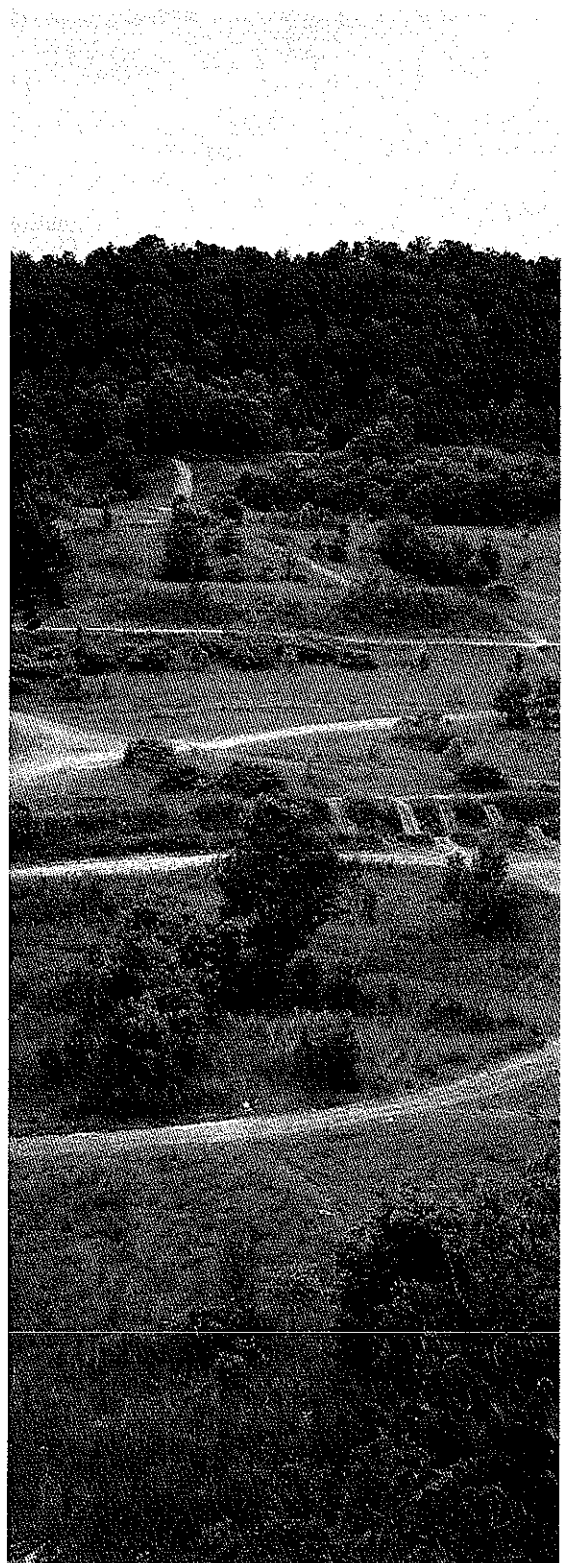
E.L. Robinson is familiar with the project area and the type of project for which you are seeking engineering services. We believe that we have a thorough understanding of the work to be provided to the WVDEP/AML for the subject reclamation project.

We are anxious to become an extension of your staff by providing prompt planning, design and construction monitoring services as needed. We interact with the various review and permitting agencies. As you will see from our resumes, we are uniquely diversified to provide quality engineering services to your agency.

E.L. Robinson will work closely with the WVDEP/AML and all regulatory and permitting agencies to complete this project. We feel that our extensive knowledge and experience in the planning and design of similar projects are significant assets in developing a cost-effective solution to your reclamation project.

The scope of services will include but are not limited to:

- Conceptual engineering and identification of permitting requirements
- Surveying and contour mapping
- Geotechnical services
- Design
- Preparation of plans and specifications
- Participation in the pre-bid meeting
- Participation in the pre-construction meeting
- Preparation of all necessary permit applications
- Construction monitoring
- Other services that may be required by the WVDEP/AML





Our Project Team

Our firm has put together a project team that is experienced in the design and construction of mine reclamation projects and has the capacity to perform the project's scope in a timely and efficient manner.

Mr. Rich Watts, P.G. will be assigned as the Project Manager.

Mr. John Kelly, II, E.I. will be assigned the CADD designer and principal production person for the project. He has performed this role for numerous mine reclamation projects.

Mr. Timothy Cart, P.E., Mr. Randall Lackey, P.E. and Mr. Mark McGettigan, P.E. will be assigned as the Project Engineers.

Mr. James Rayburn, P.S. will be assigned to oversee all surveying and mapping activities.

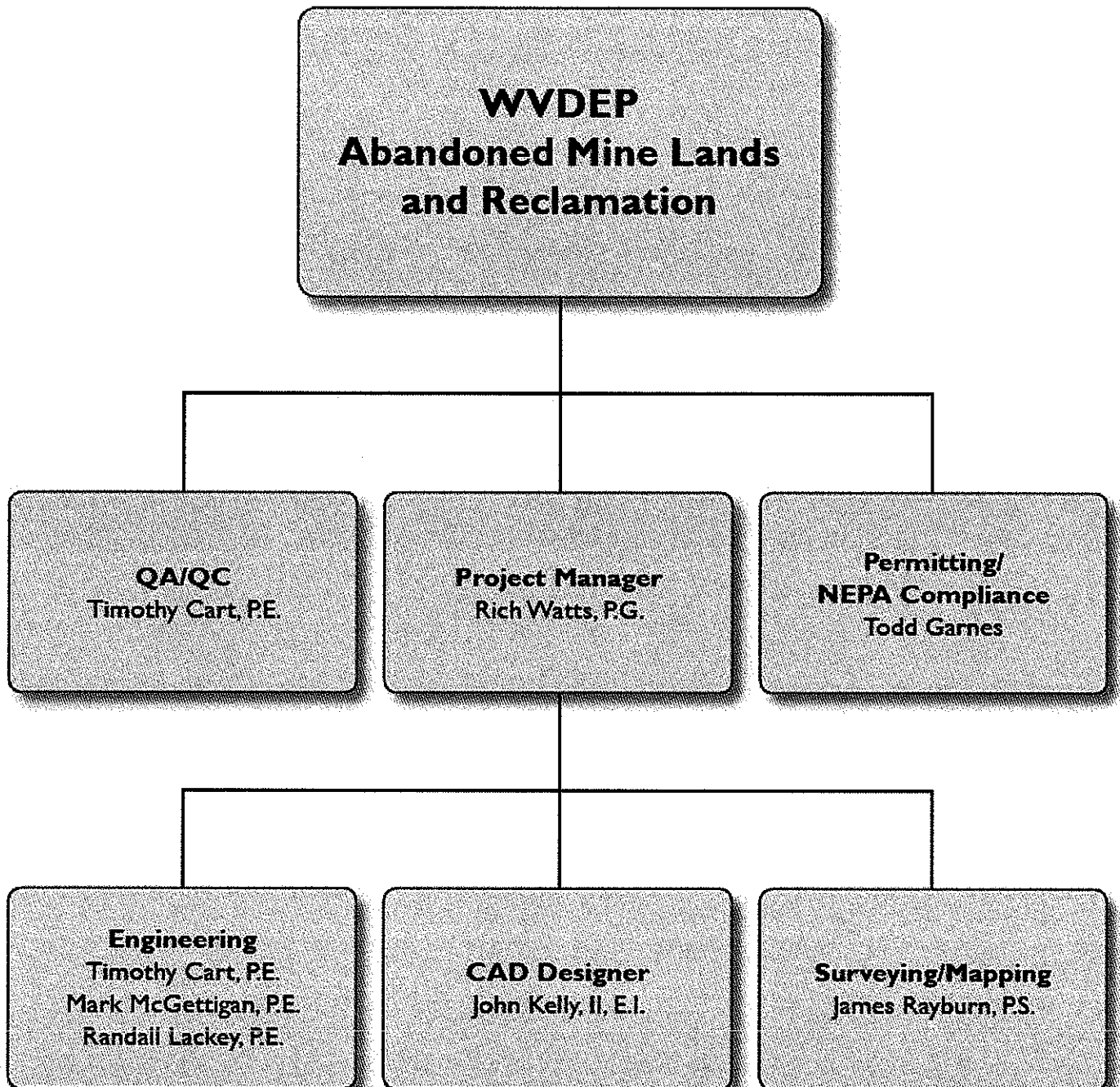
Our staff is well-qualified and experienced in related reclamation projects. They have the knowledge and capabilities to perform all of the tasks required for your project.

In addition to your primary project team, other members of our organization may be called upon from time to time to provide their expertise and assistance to ensure this important project is completed on time and on budget.

Our team of construction inspectors, led by Ronnie Williams, offers years of experience with construction monitoring.

Also, our team of surveyors, managed by James Rayburn, P.S., provides the WVDEP/AML with the latest in technology and experience in surveying and mapping. By using GIS-based mapping and high-tech instrumentation, E.L. Robinson's survey team can evaluate any type of surface. Other services pertaining to surveying that our company specializes in are aerial photogrammetric consulting, hydrographic surveying, land surveying and GPS surveying.

Our Project Team





Our Capabilities

Over the past 30 years, E.L. Robinson Engineering Co. has focused its efforts on delivering quality projects to our clients and building strong relationships based on trust and partnership. We believe building lasting relationships with our clients is key to delivering exceptional service for many years to come.

E.L. Robinson provides WVDEP/AML with the capabilities, expertise and resources of one of the top-notch civil engineering firms in the region. Our offices are staffed with professionals experienced in AML reclamation mapping, permitting, design and construction monitoring projects with more than 50 employees, including 10 registered professional engineers, degreed design engineers, construction inspectors and a support team of administrative and technical personnel to assist the WVDEP/AML.

We are very familiar with the requirements of the permitting and regulatory agencies. This experience expedites the completion of projects.

As part of our commitment to quality, E.L. Robinson realizes that every project, client and location is very different. As a result, we look at each project independently to determine the most cost-effective solution. Specifically, we look at ways we can maximize the project benefit and minimize the construction cost while at the same time completing projects on time and within budget.



Previous Experience

E.L. Robinson is well-qualified and experienced in mine reclamation projects. We are very familiar with the requirements of the project. We have demonstrated abilities in developing practical and cost-effective reclamation and improvement projects and are dedicated to meeting project schedules and budgets.

Such demonstrations can be seen in our recent and past work on reclamation projects, including:

- **Brownton (McCord) Landslide –2010**
- **Island Creek #18 Mine Complex –2010**
- **Keystone (Avery) Landslide and Portal –2010**
- **Jacob's Fork Complex –2008**
- **Rhodell Refuse and Portals –October 2008**
- **Gilmer B Sites 3-8 –2008**
- **Ohio DNR Emergency Reclamation – 19 sites completed**
- **Toney Fork Landslide Emergency –2006**
- **North Matewan –2005**
- **Big Creek "C" Refuse –2004**
- **Charleston Romeo Landslide –2004**
- **Gooney Otter Refuse –2004**
- **Chapmanville (Gorby) Mine Blowout – December 2003**



**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE**

Attachment "B"

PROJECT NAME Shinnston (Shimms Run) Portals and AMD Design DEP15235		DATE (DAY, MONTH, YEAR) December 9, 2010	FEIN 55-0594633
1. FIRM NAME E.L. Robinson Engineering Co.	2. HOME OFFICE BUSINESS ADDRESS 5088 Washington Street, West Charleston, WV 25313		3. FORMER FIRM NAME
4. HOME OFFICE TELEPHONE 304-776-7473	5. ESTABLISHED (YEAR) 1978	6. TYPE OWNERSHIP Individual <input checked="" type="checkbox"/> Corporation Partnership <input type="checkbox"/> Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 5088 Washington Street, West Charleston, WV 25313 304-776-7473/Tim Cart, P.E./56 Staff in Charleston Area			
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Ed Robinson, P.E. 304 776-7473 Ext 211		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS	

9. PERSONNEL BY DISCIPLINE			
6 ADMINISTRATIVE	— ECOLOGISTS	2 LANDSCAPE ARCHITECTS	6 STRUCTURAL ENGINEERS
ARCHITECTS	— ECONOMISTS	— MECHANICAL ENGINEERS	7 SURVEYORS
BIOLOGIST	— ELECTRICAL ENGINEERS	— MINING ENGINEERS	— TRAFFIC ENGINEERS
7 CADD OPERATORS	— ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	— OTHER
— CHEMICAL ENGINEERS	— ESTIMATORS	— PLANNERS: URBAN/REGIONAL	
10 CIVIL ENGINEERS	2 GEOLOGISTS	— SANITARY ENGINEERS	
15 CONSTRUCTION INSPECTORS	— HISTORIANS	1 SOILS ENGINEERS	
— DESIGNERS	— HYDROLOGISTS	— SPECIFICATION WRITERS	56 TOTAL PERSONNEL
— DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 13
***RPES other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.**

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? ☐ YES ☒ NO ☒ This is not applicable

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire" for each if copy is not on file with A

[illegible]

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

☒ YES Description and Number of Projects: Eighty (80) Projects - See Attached Sheet

- NO

B. Is your firm experienced in Soil Analysis?

☒ YES Description and Number of Projects: Eighteen (18) Projects Listed - See attached Sheet

- NO

C. Is your firm experienced in hydrology and hydraulics?

☒ YES Description and Number of Projects: Ten (10) Projects Listed - See attached sheet

- NO

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

☒ YES Description and Number of Projects: > 200 - in Firm History - 65 Recent Projects Listed

All ELR WV & OH AML Projects since 2003 have been surveyed with ELR Surveying Staff

- NO

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

☒ YES Description and Number of Projects: Sixty-eight (68) Total
Eleven (11) Domestic Waterline Experience (AML Related)
Thirty-two (32) Evaluation of Aquifer Degradation
Twenty Five (25) Non-AML Domestic Water Lines

- NO

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

☒ YES Description and Number of Projects: Seven (7) Projects

- NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Edward L. Robinson, President		YEARS OF AML DESIGN EXPERIENCE: 11	YEARS OF AML RELATED DESIGN EXPERIENCE: 25
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 33	
Brief Explanation of Responsibilities Mr. Robinson worked in the Right of Way Division of the WV Department of Highways for ten years where he reviewed major utility plans. He has extensive experience in property surveys, property title searches, aerial mapping and land acquisition. He has provided quality control on all projects designed by this firm for the past 25 years. Provide and coordinate Quality Control on all design projects.			
EDUCATION (Degree, Year, Specialization) Bachelor of Science 1969 Civil Engineering Master of Science 1981 Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
American Society of Civil Engineers - Past President WV American Council of Engineering Companies National Society of Professional Engineers		1975 Civil Engineering Registered in West Virginia and Kentucky Professional Licensed Surveyor No. 1150	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Richard W. Watts, P.G.		YEARS OF AML DESIGN EXPERIENCE: 28	YEARS OF AML RELATED DESIGN EXPERIENCE: 33
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 1	
Brief Explanation of Responsibilities Mr. Watts has served as project geologist on more than ninety (90) abandoned mine land projects. Responsibilities include project management, field reconnaissance, drilling coordination, laboratory testing and analysis, stability analysis, specification writing, quantity determinations, cost estimates, pre-bid and pre-construction meetings. Projects included surface and deep mine reclamation, subsidence, AMD treatment and waterline feasibility studies.			
EDUCATION (Degree, Year, Specialization) B.S./1977/Geology M.S./1994/Geography			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
Geological Society of America Association of Engineering Geologists		Professional Geologist/1992/Virginia Professional Geologist/1993/Kentucky	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
John Kelly II, E.I.		YEARS OF AML DESIGN EXPERIENCE: 13	YEARS OF AML RELATED DESIGN EXPERIENCE: 13
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 13			
<p>Brief Explanation of Responsibilities</p> <p>Mr. Kelly has worked on many AML projects since joining ELR. His responsibilities have included drilling inspection, sampling of coal refuse materials, hydrology, hydraulics design of drainage structures, and development of regrading plans. Estimation of quantities developed estimated cost. Mr. Kelly is proficient with Auto Cadd. Mr. Kelly has performed layout and inspection of core drilling operations for bridge and roadway projects. In addition, he has designed cut slopes for large-scale roadway projects such as the US Route 52 Kermit Bypass in Mingo County, WV and Meadowbrook Road in Harrison County, WV.</p>			
EDUCATION (Degree, Year, Specialization)			
B.S. Civil Engineering/1998/WVU			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Engineer Intern, WV	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Timothy B. Cart, P.E.		YEARS OF AML DESIGN EXPERIENCE: 28	YEARS OF AML RELATED DESIGN EXPERIENCE: 28
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 21			
<p>Brief Explanation of Responsibilities</p> <p>Mr. Cart has completed numerous mine reclamation projects under the AML program, including regrading of coal refuse materials, re-establishment of vegetation cover, disposal of acid producing materials, and developing methods for extinguishing burning materials and disposal of old mining structures. Designed passive AMD treatment systems. Conducted Phase I and Phase II Studies to determine if groundwater had been affected by pre-law mining. Mr. Cart has extensive experience in the design and construction management of waterline extension projects. Mr. Cart has recently completed water projects in Mingo; Kanawha; Putnam; and Cabell counties. Mr. Cart has performed geotechnical engineering calculations and designs for settlement analysis of dams and other embankments.</p>			
EDUCATION (Degree, Year, Specialization)			
Bachelor of Science 1981 Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Engineer WV OH	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Mark McGettigan, P.E.	YEARS OF AML DESIGN EXPERIENCE: 7	YEARS OF AML RELATED DESIGN EXPERIENCE: 7	7
Brief Explanation of Responsibilities			
Mr. McGettigan has worked on several AML projects since joining our firm. He has developed grading plans, cross sections, estimated and checked quantity calculations. He has also served as a field inspector for several waterline projects designed by E. L. Robinson Engineering Co. He has been the lead designer on waterlines over the past five years. Mr. McGettigan also has experience with surveying and equipment including; theodolites, levels, and total stations. He has also performed various concrete and soil tests and is certified on Troxler nuclear density gage.			
EDUCATION (Degree, Year, Specialization)			
B.S. Civil Engineering Technician/Fairmont State/1999			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Engineer WV	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Randall L. Lackey, P.E.	YEARS OF AML DESIGN EXPERIENCE: 1	YEARS OF AML RELATED DESIGN EXPERIENCE: 8	1
Brief Explanation of Responsibilities			
Mr. Lackey has performed hydraulics and scour for Ripley Town Bridge; Tallman Bridge; Meadowbrook Road Bridge; Simpson Creek Bridge; Kermit Bypass Bridge; Left Hand Fork Bridge; and Blennerhassett Bridge. Mr. Lackey has also performed calculations for deck drainage; performed girder design and analysis; pier design and analysis; prepared design study reports; type, size and location reports and final plans on many of our Division of Highways projects.			
EDUCATION (Degree, Year, Specialization)			
B.S. Civil Engineering/1999			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Engineer WV	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
J. Todd Garnes		YEARS OF AML DESIGN EXPERIENCE: 5	YEARS OF AML RELATED DESIGN EXPERIENCE: 5
Brief Explanation of Responsibilities			
Mr. Garnes experience surveying and providing CADD Design for mine reclamation projects and waterline and sewer extrusions. He has provided construction inspection services for landslides and subsidence projects in Ohio. Mr. Garnes has performed numerous water feasibility studies, which involved interviews, water sampling and analysis, mapping, mine research, and development of final reports.			
EDUCATION (Degree, Year, Specialization)			
A.S. Architectural Design/ 1999			
A.S. Computer Aided Drafting and Design/ 1999			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Thomas Rayburn, P.S.		YEARS OF AML DESIGN EXPERIENCE: 30	YEARS OF AML RELATED DESIGN EXPERIENCE: 5
Brief Explanation of Responsibilities			
Mr. Rayburn has experience in mine mapping and surveying, formulated short term and long range mining plans for all types of coal mining, designed mine drainage and water supply systems for underground and surface mines, designed mine ventilation plans and systems which include precision pressure quality surveys and computer simulation of ventilation systems. He has performed slope stability analysis and hydrology calculations, provides computer analysis for mining applications, work with leases and land management as well as reclamation and environmental permits. By utilizing "state of the art" electronic total stations and/or GPS (Satellite) equipment, he performs control surveys for aerial mapping and collects data and develops GIS for utility mapping. Mr. Rayburn has also performed surveying and mapping for large scale highway projects.			
EDUCATION (Degree, Year, Specialization)			
A.S. Mechanical Engineering, WVIT/1970			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Surveyor WV	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Scott LeRose, P.E.		YEARS OF AML DESIGN EXPERIENCE: 1	YEARS OF AML RELATED DESIGN EXPERIENCE: 1
<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 1</p> <p>Brief Explanation of Responsibilities</p> <p>Mr. LeRose is experienced in developing major highway and right of way plans; Bridge Construction Inspections; Core Drilling Operations; Groundwater Sampling/Monitoring; UST Removal/Replacement and Mine Permitting/Reclamation. Specific major highway design and right of way plan development projects include: Meadowbrook Road, a 2 mile design of new four lane highway; US 52(I-73), a 3.5 mile design and ROW plans for a new four lane highway with two major interchanges; design of 2 mile section of Appalachian Corridor H from Davis to Bismark; design of 5.2 mile section of Corridor H from Grant/Hardy County line to Moorefield.</p> <p>While working on these projects, he has gained experience in major drainage design, site grading design, utility relocation, MOT, signing and pavement stripping. He has performed quantity calculations for pavement, drainage, seeding, pollution control quantities, and other items associated with roadway plans. He is also experienced in the development of ROW plans, including deed plots and legal descriptions.</p>			
EDUCATION (Degree, Year, Specialization)			
B.S. Civil Engineering/1997			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Engineer WV	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Ray Tilley, P.E.		YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 5
			YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 30
<p>Brief Explanation of Responsibilities</p> <p>Mr. Tilley has over 30 years experience in water and wastewater design as a Project Manager/Engineer. In addition, Mr. Tilley is a certified Water Plant Operator. Mr. Tilley has successfully completed numerous waterline design projects over his career. His current duties include managing both water and wastewater design projects for ELR.</p>			
EDUCATION (Degree, Year, Specialization)			
B.S. Civil Engineering/WV Tech 1975; M.S. Sanitary Engineering Virginia Tech, 1976			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Engineer WV	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
James Eric Gwinn, E.I.	YEARS OF AML DESIGN EXPERIENCE: 10	YEARS OF AML RELATED DESIGN EXPERIENCE: 10	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 11
Brief Explanation of Responsibilities			
Mr. Gwinn has experience in construction layout for waterline projects. He performs calculation and permit requirements. He has worked on the Cabell County Water Project and the raw water intake structure for the Fayette Plateau Regional Water Project. He has performed calculations on various AML project.			
Mr. Gwinn has designed approach slabs, decks and extensive detailing on several bridge projects.			
EDUCATION (Degree, Year, Specialization)			
B.S. Civil Engineering/1998/ West Virginia Institute of Technology			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
Brian D. Morton, P.E.	YEARS OF AML DESIGN EXPERIENCE: 2	YEARS OF AML RELATED DESIGN EXPERIENCE: 2	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 11
Brief Explanation of Responsibilities			
Mr. Morton has worked on waterline extension projects in Putnam and Kanawha County. He also has completed numerous waterline relocation projects involving the West Virginia Division of Highways.			
Mr. Morton has prepared signing and pavement marking plans and performed hydrologic and hydraulic calculations for culverts and other drainage structures and highway construction. Also prepared site development plans, specifications, bid documents, and has performed construction administration for these projects.			
EDUCATION (Degree, Year, Specialization)			
B.S. Civil Engineering/1998			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Engineer WV	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Carney, Joseph T. P.E.		YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 35
Brief Explanation of Responsibilities			
Mr. Carney has extensive experience in design engineering, preparation of contract documents, construction inspection, and contract administration. He has worked on a variety of Civil Engineering projects including grading, earthwork, storm sewer, drainage studies, roadway, bridge design, hydrologic/hydraulic reports, sanitary sewer and water systems. EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		Professional Engineer, 1976, WV	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Workman, Gary A., CADD Senior Technician		YEARS OF AML RELATED DESIGN EXPERIENCE: 22	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 3
Brief Explanation of Responsibilities			
Mr. Workman is responsible for CADD design on AML projects, as well as geotechnical soil analysis. He Worked on 44 WYDEP/AML projects while employed at Ackenheil, and has worked on 18 AML projects while at E. L. Robinson.			
EDUCATION (Degree, Year, Specialization)			
Technical School/1987/CADD			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		WVDOH certifications compaction, aggregates and concrete.	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data, but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Mayes, Jason M.		YEARS OF AML DESIGN EXPERIENCE: 2	YEARS OF AML RELATED DESIGN EXPERIENCE: 2
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 2			
Brief Explanation of Responsibilities			
Provides CADD Design for site development, waterline and sewer extensions, and layout on AML Projects. Mr. Mayes has Nearly ten years experience in WV DOR design with a prior firm.			
EDUCATION (Degree, Year, Specialization)			
B.S. Industrial Technology 1997 WVU Tech A.S. Drafting and Design 1996 WVU Tech			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Scott A. Pratt		YEARS OF AML DESIGN EXPERIENCE: 11	YEARS OF AML RELATED DESIGN EXPERIENCE: 11
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:			
Brief Explanation of Responsibilities			
Mr. Pratt has extensive experience as a Field Geologist, performing test boring over-sight, logging soil and core samples, and obtaining water levels. He has also performed many geotechnical soil tests in the laboratory. He is also experienced in mine map research, specification writing, and quantity and cost calculations for AML projects.			
EDUCATION (Degree, Year, Specialization)			
B.S. Geology, 1999, Marshall University			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

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

Various computer hardware and software including: Microstation, InRoads, AutoCAD, ELRSoil, Microsoft Office applications, Haested, Water CADD, Culvert Master, Flow Master

Various surveying equipment:

Instruments - Topcon Total Station (6), Trimble Robotic DR200+ (2)

GPS Equipment - Trimble 5700 Receiver (6), Trimble TSCE Controller/Handheld (5)

*all equipment lists have various misc. survey equipment to go along (poles, tape measures, data collectors, etc.)

Riegl LMS - 360 3D Laser Scanner - surface imaging system based upon accurate distance measurement by means of electro-optical range measurement and a two axis scanning mechanism.

15. CUF IT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATE ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Keaton Branch Complex Raleigh County	McDowell County	Surveying, Mapping and Design	\$512,500	95
Gordon 'C' Complex Boone County	WVDEP/AML&R	Surveying, Mapping and Design	\$381,700	95
Newtown (Kinder) Portals Mingo County	WVDEP/AML&R	Surveying, Mapping and Design	\$250,000	65
Shinnston-Lumberport Subsidence Harrison County	WVDEP/AML&R	Surveying, Mapping and Design	\$500,000	50
Holden Water System Upgrade Logan County	Logan County PSD P. O. Box 506 Logan, WV Attn: Rick Roberts	Design and Construction Management	\$6.0 M	80
Gilbert Slabtown Waterline Extension	Town of Gilbert P.O. Box 188 Gilbert, WV Attn: John White	Design and Construction Management	\$2.3 M	15
Lavalette PSD Rt. 37 Waterline Extension	Lavalette PSD 5308 Route 152 Lavalette, WV	Design and Construction Management	\$5.0 M	85
TOTAL NUMBER OF PROJECTS:			TOTAL ESTIMATED CONSTRUCTION COSTS: \$	

15. CUF IT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATE ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Danese Waterline Extension	Danese Public Service District	Design and Construction Management	\$6.0 M	85
Miller Mountain Water Extension, Webster County	Webster County EDA Webster Springs, WV	Design and Construction Management	\$3.0 M	80
McDowell PSD Jolo Phase II Water McDowell County	McDowell Public Service District	Design and Construction Management	\$4.0 M	85
Dille/Widen Water Extension Clay County	Birch River PSD	Design and Construction Management	\$4.0 M	85
Dutch Ridge/Sanderson Water Extension, Kanawha County	Kanawha County RDA	Design and Construction Management	\$2.5 M	85
Williamson Sanitary Sewer Improvements	City of Williamson	Design and Construction Management	\$1.1 M	50
Lubeck Sanitary Sewer Extension, Wood County	Lubeck PSD Lubeck, WV	Design and Construction Management	\$2.1 M	0
TOTAL NUMBER OF PROJECTS:14			TOTAL ESTIMATED CONSTRUCTION COSTS: \$ 37.6 Million	

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD			ESTIMATED CONSTRUCTION COST	YEAR	COMPLETED (YES OR NO)
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER				
Glen Rogers Waterline Extension Wyoming County	WVDEP-AML 601 57 th Street Charleston, WV 25304		\$1.2 M	2007	Yes
Guyandotte River Bridge I-64 Cabell County	WV Dept. of Transportation Engineering Division Charleston, WV 25301 Attn: Gregory Bailey		\$2.25 M	2006	Yes
Corridor H Davis-Bismark X347-H-64.85 00 Tucker County	WV Dept. of Transportation Engineering Division Charleston, WV 25301 Attn: Gregory Bailey		\$9.0 M	2008	No
WVDEP-Emergency East Bank (Willis) Mine Blowout	WVDEP AML&R 601 57 th Street Charleston, WV 25304		\$0.8 M	2009	Yes
Chief Logan Recreational Center Logan County	WV State Parks		\$4.0 M	2007	Yes
Mt View Streeter Water Raleigh County	Flat Top PSD		\$2.5 M	2007	Yes
Gilmer B Sites 3-8 Gilmer County	WVDEP-AML&R 601 57 th Street Charleston, WV 25304		\$675,000	2009	Yes
Upshur County Industrial Park Upshur County	Upshur County EDA		\$4.0 M	2009	Yes

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)					
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Appalachian Corridor D Blennerhassett Island Bridge X354-D-0.00	Sub to Michael Baker, Jr., Inc. Post Design Services	\$7,500,000	2008	Yes	Michael Baker, Jr., Inc.
Appalachian Corridor H Section 6 X316-H-100.40	Sub to Michael Baker Jr., Inc. Surveying, ROW questionnaires, Hydraulic Studies	\$950,000	2008	Yes	Michael Baker, Jr., Inc.
Appalachian Corridor H Section 3 Davis to Bismark	Sub to Modjeski & Masters Survey, Geotech & ROW Plans	\$9,000,000	2008	No	Modjeski & Masters
Robinson Creek Bridge S303-85-27.81 Boone County	Sub to EDG Roadway, Surveying, Structures, Hydraulic Studies, ROW Plans	\$1,000,000	2008	Yes	EDG
<p>19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.</p> <p>E. L. Robinson Engineering Co. is committed to the WVDEP/AML program to provide professional design, surveying and mapping and construction monitoring services in a timely and cost-efficient manner. Our business plan relies heavily on the work offered by the WVDEP/AML program.</p>					
<p>20. The foregoing is a statement of facts.</p> <p>Signature: <u>Richard W. Watts</u> Title: PROJECT MANAGER Date: December 9, 2010</p> <p>Printed Name: Richard W. Watts</p>					

NOTE: THIS DOCUMENT WILL BECOME VOID AFTER DECEMBER 31 IN CALENDAR YEAR OF DATE HEREON.



12A Abandoned Mine Land Reclamation Experience

Project:	Jacob's Fork Complex Boone County, WV
Year:	2008-2009
Client:	WVDEP-AML Charleston, WV
Description:	Field surveying and mapping, subsurface investigation, design work for mine seals, drainage, and reclamation.
<hr/>	
Project:	Rhodell Refuse & Portals Wyoming County, WV
Year:	2008
Client:	WVDEP-AML Charleston, WV
Description:	Performed survey, drilling, design for refuse and spoil regarding and mine drainage control.
<hr/>	
Project:	Gilmer B Site 3.8 Gilmer County, WV
Year:	2008
Client:	WVDEP-AML Charleston, WV
Description:	Performed survey, drilling, design for refuse and spoil regarding and mine drainage control.
<hr/>	
Project:	Gouge Landslide Emergency Scott Town, OH
Year:	September 2007
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Performed site survey, drilling and prepared landslide abatement design.
<hr/>	
Project:	Brown Landslide Emergency Rayland, OH
Year:	August 2007
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Performed site survey and prepared landslide abatement design.



12A Abandoned Mine Land Reclamation Experience

Project:	Rodgers Subsidence Emergency Wellston, OH
Year:	January 2007
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Performed site survey and prepared subsidence abatement design.

Project:	McAdams Subsidence Emergency Stark County, OH
Year:	April 2006
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Performed investigation and prepared report of findings.

Project:	Athens Rt. 13 Refuse Fire Emergency Athens County, OH
Year:	March 2006
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Performed site survey, prepared abatement design and monitored on site construction for fire extinguishment.

Project:	Toney Fork Landslide Emergency Boone County, WV
Year:	February 2006
Client:	WVDEP-AML Charleston, WV
Description:	Performed site survey, drilling and prepared plans and specifications to stabilize an emergency landslide area.



12A Abandoned Mine Land Reclamation Experience

Project: Cox Refuse Fire Emergency
Gallia County, OH
Year: December 2005
Client: ODNR-AML
1855 Fountain Square
Columbus, OH
Description: Performed abatement design for fire extinguishment.

Project: Lavender Refuse Fire Emergency
Meigs County, OH
Year: November 2005
Client: ODNR-AML
1855 Fountain Square
Columbus, OH
Description: Performed abatement plan and monitored construction.

Project: Goetz Subsidence Emergency
Columbiana County, OH
Year: November 2005
Client: ODNR-AML
1855 Fountain Square
Columbus, OH
Description: Performed investigation and prepared report of findings.

Project: Adkins Landslide Emergency
Gallia County, OH
Year: December 2005
Client: ODNR-AML
1855 Fountain Square
Columbus, OH
Description: Performed surveying, drilling, landslide abatement and construction monitoring.

Project: North Matewan (Sipple Drainage)
Mingo County, WV
Year: February 2005
Client: WVDEP-AML
Description: Performed surveying, drilling and design for drainage project abatement.



12A Abandoned Mine Land Reclamation Experience

Project:	Phalen Landslide Emergency
Year:	Martins Ferry, OH
Client:	January 2005
	ODNR-AML
	1855 Fountain Square
	Columbus, OH
Description:	Performed site surveying and landslide abatement design.
<hr/>	
Project:	Baisden Subsidence Emergency
Year:	Jackson, OH
Client:	January 2005
	ODNR-AML
	1855 Fountain Square
	Columbus, OH
Description:	Performed drilling to develop subsidence abatement solutions.
<hr/>	
Project:	Parsons Landslide Emergency
Year:	New Philadelphia, OH
Client:	December 2004
	ODNR-AML
	1855 Fountain Square
	Columbus, OH
Description:	Performed site review and report concerning landslides relation to mining and potential solutions.
<hr/>	
Project:	Treadway Landslide Emergency
Year:	Rayland, OH
Client:	October 2004
	ODNR-AML
	1855 Fountain Square
	Columbus, OH
Description:	Performed site surveying, drilling and landslide abatement design.
<hr/>	
Project:	Big Creek "C" Refuse
Year:	Logan County, WV
Client:	July 2004
Description:	WVDEP-AML
	Performed surveying and drilling for design.



12A Abandoned Mine Land Reclamation Experience

Project: Imboden Landslide Emergency
Rutland, OH
Year: June 2004
Client: ODNR-AML
1855 Fountain Square
Columbus, OH
Description: Performed drilling and surveying to develop landslide abatement solutions and cost estimates.

Project: Titus Road Landslide Emergency
Rutland, OH
Year: June 2004
Client: ODNR-AML
1855 Fountain Square
Columbus, OH
Description: Performed surveying, drilling and prepared plans and specifications to stabilize and emergency landslide area.

Project: Jefferson County Road 26 Landslide Emergency
Winterville, OH
Year: May 2004
Client: ODNR-AML
1855 Fountain Square
Columbus, OH
Description: Performed surveying, drilling and prepared plans and specifications to stabilize and emergency landslide area.

Project: Charleston Romeo Landslide
Kanawha County, WV
Year: May 2004
Client: WVDEP-AML
Description: Performed surveying, drilling and design of landslide abatement.



12A Abandoned Mine Land Reclamation Experience

Project:	Roush Landslide Emergency
Year:	Pomeroy, OH March 2004
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Prepared plans and specifications to stabilize an emergency landslide area.
<hr/>	
Project:	Lewis Landslide Emergency
Year:	Pomeroy, OH March 2004
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Performed surveying, drilling, prepared plans and specifications to stabilize an emergency landslide area, and provided construction monitoring.
<hr/>	
Project:	Moran Subsidence
Year:	Clinton, OH January 2004
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Prepared plans and specifications to stabilize an emergency subsidence area.
<hr/>	
Project:	Ron Bobar Subsidence
Year:	Flushing, OH January 2004
Client:	ODNR-AML 1855 Fountain Square Columbus, OH
Description:	Investigation and report of an emergency subsidence area.



12A Abandoned Mine Land Reclamation Experience

Project: Gooney Otter Refuse
Wyoming County, WV
Year: January 2004
Client: WVDEP-AML
Description: Performed surveying, drilling and site design for refuse regarding project.

Project: Chapmanville (Gorby) Mine Blowout
Logan County, WV
Year: December 2003
Client: WVDEP-AML
Description: Performed surveying, drilling and design of landslide regrading and retaining wall design.

Project: Tappers Creek (Layne) Landslide
Kanawha County, WV
Year: July 2003
Client: WVDEP-AML
Description: Performed surveying, drilling and design of landslide abatement.

Project: Maidsville (Tennant) Landslide
Monongalia County, WV
Year: February 2003
Client: WVDEP-AML
Description: Performed surveying, drilling and design of landslide abatement.

Project: Whittington Hill (Walker Landslide)
Kanawha County, WV
Year: June 2002
Client: WVDEP-AML
Description: Performed surveying, drilling and design for an emergency landslide.



12A Abandoned Mine Land Reclamation Experience

Project: Minden Refuse Pile Reclamation Project
Fayette County, WV
Year: September 2001
Client: WVDEP-AML
Description: Performed surveying and design for emergency project to upgrade drainage control.

Project: Jeffrey Mine Complex Reclamation Project
Boone County, WV
Year: July 2001
Client: WVDEP-AML
Description: Performed surveying and design regrading refuse.

Project: Hot Coal Reclamation Project
Raleigh County, WV
Year: October 2000
Client: WVDEP-AML
Charleston, WV
Description: Performed surveying and design for regrading refuse.

Project: Bull Run #27
Preston County, WV
Year: October 2000
Client: WVDEP-AML
Description: Performed surveying and design for regrading refuse.

Project: Rich Fork (Thaxton) Landslide
Kanawha County, WV
Year: July 2003
Client: WVDEP-AML
Description: Performed surveying, drilling and design of landslide abatement.

Project: Maidsville (Tennant) Landslide
Monongalia County, WV
Year: February 2003
Client: WVDEP-AML
Description: Performed surveying, drilling and design of landslide abatement.



12A Abandoned Mine Land Reclamation Experience

Project: Whittington Hill (Walker Landslide)
Kanawha County, WV
Year: June 2002
Client: WVDEP-AML
Description: Performed surveying, drilling and design for an emergency landslide.

Project: Minden Refuse Pile Reclamation Project
Fayette County, WV
Year: September 2001
Client: WVDEP-AML
Description: Performed surveying and design for emergency project to upgrade drainage control.

Project: Jeffrey Mine Complex Reclamation Project
Boone County, WV
Year: July 2001
Client: WVDEP-AML
Description: Performed surveying and design regrading refuse.

Project: Hot Coal Reclamation Project
Raleigh County, WV
Year: October 2000
Client: WVDEP-AML
Charleston, WV
Description: Performed surveying and design for regrading refuse.

Project: Bull Run #27
Preston County, WV
Year: October 2000
Client: WVDEP-AML
Description: Performed surveying and design for regrading refuse.



12A Abandoned Mine Land Reclamation Experience

Project: Riffe Branch Impoundment
Fayette County, WV
Year: June 2000
Client: WVDEP-AML
Description: Performed surveying and design for regrading refuse and drainage control.

Project: Ven's Run Landslide
Harrison County, WV
Year: September 1999
Client: WVDEP-AML
Description: Performed surveying and design for regraded landslide area.

Project: Fickey Run
Preston County, WV
Year: September 1999
Client: WVDEP-AML
Description: Performed surveying and design for refuse and spoil regrading and drainage control.

Project: Bull Run #35
July 1999
Client: WVDEP-AML
Description: Performed surveying and design for refuse and spoil regrading.

Project: Secorro Mine Drainage Site 1 & 2
Fairmont, WV
Year: July 1998
Client: WVDEP-AML
Description: Performed surveying and design for mine drainage system.

Project: Brown's Creek #10 Reclamation Project
1997
Client: WVDEP-AML
Description: Performed surveying and design for refuse regrading and mine seal installation.



12B Soil Analysis Geotechnical Experience

US-52 Kermit By-Pass

Solicited Bids from core boring contractors and performed core borings for highway and bridges for a planned four-lane highway in Mingo County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a total of six bridges.

Meadowbrook Road

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Harrison County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a bridge spanning the West Fork River.

US 60 Coal River Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge, which spans the Coal River in Kanawha County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the existing fill slopes.

US 60 CSX-Overpass Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans mainline tracks of the CSX Railroad in Kanawha County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the existing fill slopes.

Indian Creek Bridge Boone County West Virginia

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans the Coal River in Boone County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

Camp Creek Bridge – Lavalette

Layout and directed core boring operations using WVDOH forces for a replacement bridge on US 152 in Wayne County West Virginia. Prepared Geotechnical report with recommended foundation alternatives.



12B Soil Analysis Geotechnical Experience

Jackson Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans Middle Island Creek in Tyler County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

Tallman Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans Middle Island Creek in Tyler County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

Corridor H-Section 7 (Foreman to Moorefield)

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Hardy County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a bridge spanning the South Branch of Potomac River.

Corridor H-Section 12 Section 01(Davis to Bismarck)

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Tucker/Grant Counties West Virginia.

Corridor H-Section 12 Section 03 (Davis to Bismarck)

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Tucker/Grant County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a bridge spanning the West Fork River.

I-79 Lodgeville Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.



12B Soil Analysis Geotechnical Experience

I-79 Simpson Creek Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill.

I-79 Meadowbrook Road Over Pass

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill.

Ripley Town Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans Mill Creek in Jackson County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

Ripley Route 21 Road Widening

Performed slope stability analysis of a landslide area and designed a method to stabilize the area so the existing roadway could be widened. Developed Plans and specifications, which were included in the bid, package for the road-widening project.

I-64 Cross Roads Overpass Bridge

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill.

I-79 Left Hand Fork Bridge

Reviewed existing core boring data, and performed slope stability analysis on the existing bridge abutment that had moved. Reviewed data from slope inclinometers and design pile lagging and rock buttress to stabilize the embankment.



12C Hydrology and Hydraulics

Project: Blennerhassett Island Bridge Over Ohio River
Year: 1999-2003
Client: Michael Baker Jr., Inc.
5088 Washington Street, West
Charleston, WV 25313

Contact: Pi Amin, P.E.
Vice President Michael Baker Jr, Inc. (Southwest Region)
304-769-0821

Description: Prepared an analysis of the hydraulic impact of the proposed bridge on the Ohio River flow, and prepared an appropriate hydraulic report. The analysis utilized HEC-RAS and as a part of the hydraulic report, a scour analysis was performed. E. L. Robinson Engineering Co. developed a computer model of the Ohio River using hydrographic survey mapping provided by our survey group.

Two – Dimensional Hydraulic was also developed to model complex flows for various bridge configurations and to provide more accurate predictions of hydraulic behavior anticipated in the area. The 2-D and 3-D models allow derivation of design details and design analyses and provide more accurate simulations of scour hole geometry.

Project: US 52 Mainline Bridge
KY 40 Bridge/Kermit Bypass over Marrowbone Creek
Year: 2000
Client: West Virginia Department of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd. East
Charleston, WV 25305

Contact: James Sothen, P.E., Director, Engineering Division
304-558-0501

Description: Prepared an analysis of the hydraulic impact of the Kermit Bypass Project over Marrowbone Creek and a partial relocation of the creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.



12C Hydrology and Hydraulics

Project: Bridge No. 2922.1 NB & SB
I-79 Over Left Hand Creek & US 119
Year: 2000
Client: West Virginia Department of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd. East
Charleston, WV 25305
Contact: James Sothen, P.E., Director, Engineering Division
304-558-0501
Description: Prepared an analysis of the hydraulic impact of the placement of a retaining wall for slope protection of the Left Hand Fork Bridge over Left Hand Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.

ELR also prepared Section 404 permitting documents outlining the effects a temporary cofferdam, which would be used during the construction phase, would have on the outlying areas upstream of the projects.

Project: Bridge No. 2448.1 – Simpson Creek Bridge
I-79 Over Simpson Creek
Year: 2000
Client: West Virginia Department of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd. East
Charleston, WV 25305
Contact: James Sothen, P.E., Director, Engineering Division
304-558-0501
Description: Prepared an analysis of the hydraulic impact of the widening of the Simpson Creek Bridge over Simpson Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.

ELR also prepared Section 404 permitting documents outlining the effects temporary cofferdams, which would be used during the construction phase, would have on the outlying areas upstream of the projects.



12C Hydrology and Hydraulics

Project: Bridge No. 10059 – Ripley Town Bridge
US 33 Over Mill Creek

Year: 1999

Client: West Virginia Department of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd. East
Charleston, WV 25305

Contact: James Sothen, P.E., Director, Engineering Division
304-558-0501

Description: Prepared an analysis of the hydraulic impact of the replacement Ripley Town Bridge over Mill Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program. ELR also prepared Section 404 permitting documents outlining the effects temporary causeways, which would be used during the construction phase, would have on the outlying areas upstream of the projects.

Project: Bridge No. 4732 – Jackson Bridge
WV 18 Over Point Pleasant Creek

Year: 1999

Client: West Virginia Department of Transportation
Division of Highways
Office of the District Engineer, District 6
903 3rd Street
Moundsville, WV 26041

Contact: Daniel W. Sikora, P.E., District Engineer
304-843-4008

Description: Prepared an analysis of the hydraulic impact of the replacement Jackson Bridge over Point Pleasant Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.



12C Hydrology and Hydraulics

Project: Bridge No. 4636 – Indian Creek Bridge
CR 3/25 Over Big Coal River

Year: 1999

Client: West Virginia Department of Transportation
Division of Highways
Office of the District Engineer, District 1
1334 Smith Street
Charleston, WV 25301

Contact: John W. Dawson, P.E., District Engineer
304-558-3001

Description: Prepared an analysis of the hydraulic impact of the Indian Creek Replacement Bridge over the Big Coal River and prepared the appropriate hydraulic and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-2 program and the FHWA WSPRO program.

Project: Bridge No. 4769 – Tallman Bridge
CR 24 Over Middle Island Creek

Year: 1999

Client: West Virginia Department of Transportation
Division of Highways
Office of the District Engineer, District 6
904 3rd Street
Moundsville, WV 26041

Client: Daniel W. Sikora, P.E., District Engineer
304-843-4008

Description: Prepared an analysis of the hydraulic impact of the replacement Tallman Bridge over Middle Island Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.



12C Hydrology and Hydraulics

Project: Bridge No. 10058 – Meadowbrook Road Bridge
CR 24 Over West Fork River

Year: 1999

Client: West Virginia Department of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd. East
Charleston, WV 25305

Contact: James Sothen, P.E., Director, Engineering Division
304-558-0501

Description: Prepared an analysis of the hydraulic impact of the new Meadowbrook Road Bridge over the West Fork River and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process and the Harrison County Flood Insurance Study model of the West Fork River was also used. Computer modeling was prepared using the USACE 1-D HEC-RAS program.

Prepared Section 404 permitting documents outlining the effects temporary sheet piling, which would be used during the construction phase, would have on the outlying areas upstream of the projects.

Project: Bridge No. 4426 – Lower Gassaway Bridge
WV 4 Over Elk River

Year: 1999

Client: West Virginia Department of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd. East
Charleston, WV 25305

Contact: James Sothen, P.E., Director, Engineering Division
304-558-0501

Description: Prepared an analysis of the hydraulic impact of the Lower Gassaway Replacement Bridge over the Elk River and prepared the appropriate hydraulic and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-2 program and the FHWA WSPRO program.



12C Hydrology and Hydraulics

Project: Bridge No. 4574 – Camp Creek Bridge
WV 52 Over Camp Creek

Year: 1998

Client: West Virginia Department of Transportation
Division of Highways
Office of the District Engineer, District 2
P.O. Box 880
Huntington, WV 25712

Contact: J. Wilson Braley, P.E., District Engineer
304-528-5625

Description: Prepared analyses of the hydraulic impact of the Camp Creek Bridge over Camp Creek and prepared the appropriate hydraulic and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-2 program and the FHWA WSPRO program.



12D Aerial Photography and Contour Mapping Experience

E.L. Robinson Engineering Co. has worked with various clients to develop contour mapping of sites and areas that otherwise could not be determined. With the use of aerial photography and state of the art technology, E.L. Robinson Engineering Co. has developed maps from photographs for numerous projects including but not limited to:

- City of Beckley
- City of Charleston
- Corridor D
- Corridor H
- Cross Lanes Connector
- Eldora
- Frazier's Bottom
- Glenwood
- Hatfield Cemetery
- I-70 Washington Avenue (Wheeling, WV)
- I-64 Glade Creek
- Jackson Mill
- King Coal
- KY 40 Connector
- Logan Run
- New River Parkway
- Ohio River Crossing
- Pinegrove
- Parkersburg
- Powell Creek
- Prince
- PSI-Baker/Ft. Henry Bridges
- Racetrack
- White Sulphur Springs
- Veterans Park



12D Aerial Photography and Contour Mapping Experience

E.L. Robinson Engineering Co. has completed the preliminary mapping, within the past five years, for West Virginia Department of Environmental Protection for the projects listed below:

2003-Present

All ELR AML Projects
WV and OH

2002

Community of Preston
Rhodell Refuse Portals
Vivian Refuse Maintenance
Glen Rogers Waterline
Sundial (Hatfield) Refuse Pile
Jacob Fork Complex
Thomas (NE) Subsidence

2001

Bartley Mine Dump
Beckley Soccer Complex
Holden Portals/Structures
Jeffrey Complex
Minden Refuse Drainage
Roach Branch Refuse
Sauls Run Strip
Stonecoal Creek Complex
Waterline Photography
Weaver Portals/Mine Drain

2000

Micajah Refuse Pile
McAlphin Eroding Dump
Flemington Portals/Drainage
Minden "C" Refuse Pile
National Mine Complex
Linger Clogged Stream
Hotcoal Mine Dump
Layton Mine Drainage
Quintain Development

1999

Bull Run #27
8th Street-Warwood Avenue
Mabie Highwall
Coal Branch
Matoaka Subsidence
Elkins Coal
Springton Refuse
Veins Run

1998

Bull Run #35
Fickey Run

1997

Browns Creek
Marrowbone
Matewan
Pigeon Creek

Edward L. Robinson, P.E., P.S.
President

Education

M.S. Civil Engineering
University of West Virginia, (COGS),
1981

B.S. Civil Engineering
West Virginia Institute of
Technology, 1969

Registrations

Registered Professional Engineer in West
Virginia, Kentucky, Ohio, Pennsylvania,
North Carolina, South Carolina, Virginia,
Georgia, Maryland and Colorado.

Registered Professional Surveyor in West
Virginia.

Professional Memberships

- American Society of Civil Engineers
- National Society of Professional
Engineers

Professional Experience

Mr. Robinson founded E. L. Robinson
Engineering Co. in 1978 with four
employees. Initially the firm provided land
surveying and land development services.

Under his leadership, E. L. Robinson has
entered the new millennium as a multi-
disciplined professional services firm that



utilizes the latest technology in the design of
highways, bridges, structures, environmental,
civil, and geotechnical projects as well as
global position satellite surveying, right-of-
way, construction inspection and architectural
services.

The firm now employs more than 90 engineers,
architects, surveyors and support personnel
and has been converted to an employee owned
company through an Employee Stock
Ownership Plan (ESOP).

Representative Projects

Engineering Review of the following projects:

- **US Route 52 - Kermit Bypass:** This
project consisted of 2.5 miles of four-lane
divided highway, 3,000 LF of four-lane
access road design, two 4-ramp
intersections, one set of twin structures,
one single bridge, and 2,900 LF of stream
relocation, all of which resulted in 10
million cubic yards of excavation and an
estimated total construction cost of \$88
million.
- **Corridor H - Davis to Bismark:** This
project consisted of 1.75 miles of four-lane
divided highway, one bridge, two at-

13 - KEY PERSONNEL

grade intersections, and a 6' x 6' concrete box culvert. This project has an estimated total construction cost of \$9 million.

- **Corridor H - Foreman to Moorefield:** This project consisted of 5 miles of four-lane divided highway, almost 3 miles of access road design, a truck escape ramp, one set of twin structures, one single bridge, a box culvert, and naturalized stream design. This project resulted in 10 million cubic yards of excavation and an estimated construction cost of \$75 million.
- **CAMC 33rd Street Relocation:** Engineering design and construction management for the relocation of 33rd street and site development for a five story clinical teaching facility in Charleston, WV.

Offices Held

- Current Member of West Virginia University Board of Governors
- Current Chairman of WVUIT Advisory Board
- President of West Virginia Council of Engineering Companies
- Chairman Transportation Committee - WV Association of Consulting Engineers
- State Director of West Virginia Society of Professional Engineers
- President of West Virginia Society of Professional Engineers

- Assistant Treasurer of the American Society of Civil Engineers
- National Director of the ASCE representing WV, NC, SC and VA
- President of West Virginia Section of ASCE

Honors Awarded

- Honorary PhD, *Doctor of Science* - West Virginia Institute of Technology 2002
- Engineering Entrepreneur of the Year - Ernst & Young, 2001
- National Entrepreneur of the Year Finalist - Ernst & Young, 2001
- Engineer of the Year - American Society of Civil Engineers, 1998
- Engineer of the Year - West Virginia Society of Professional Engineers, 1997
- Alumnus of the Year - West Virginia University Institute of Technology, 1992

Timothy B. Cart, P.E., P.S.
Project Engineer

Education

B.S. Civil Engineering
West Virginia University, 1981

Registrations

Registered Professional Engineer in West Virginia and Ohio

Registered Professional Surveyor in West Virginia

Professional Memberships

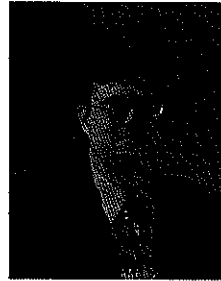
- American Society of Civil Engineers

Professional Experience

Mr. Cart has over 25 years of experience in providing consulting engineering services. Clients served have included Industrial, Public and Private Institutions and State and Federal Agencies.

Mr. Cart has served as Project Engineer on numerous geotechnical investigations over the years. These projects have included highways, bridges, industrial sites and private development.

He has designed numerous waterline extensions and sewer collection systems. These extensions have included providing service to many residential as well as industrial customers. The sewer collection systems have included design of systems to collect sewage from residential and industrial sites. Mr. Cart served as a project



engineer on several major waste water treatment plant upgrades for industrial clients in the Kanawha Valley. He has designed several plants to serve industrial as well.

Mr. Cart has performed over 100 Abandoned Mine Land Reclamations projects throughout Appalachia. These projects have been mainly in Ohio, West Virginia and Eastern Kentucky. These projects have involved draining flooded mine workings, support of ground experiencing or subject to Mine subsidence and the stabilization of landslides.

Mr. Cart has designed numerous retention and retaining ponds for sites. These designs have involved the determination of storm runoff and design of structures to safely retain and pass the required storm peak flows.

His experience includes permitting activities for projects which have included:

- Railroad Occupancy Permits for Utilities
- NPDES Permits for Industrial and Public Wastewater Facilities
- Highway Permits for Utility Occupancy and Access Road Tie Ins
- Health Department Permits for Water and Sewer Projects

- US Corps of Engineers Permits - Nationwide and Individual
- West Virginia Public Lands Permits

Mr. Cart has recently been involved in the design of a 100 acre Industrial Site and 8 acre Industrial/Commercial Site in Mingo County. These projects are currently under construction and are located near Appalachian US 119 Corridor G.

Richard W. Watts

Project Manager/Geologist

Education

B.S.in Geology, Marshall University,
1977 M.S.in Geography, Marshall University,
1994

Professional Registrations

Registered Professional Geologist, Kentucky,
1993, No.159 Certified Professional
Geologist, Virginia, 1992, No.856

Professional Memberships

Geological Society of America Association of
Engineering Geologists

Teaching Experience

Instructor, 1998 - Marshall University
Engineering Geology Program - Soil and
Rock Mechanics

Professional Experience

Mr. Watts has more than 31 years of
experience in providing consulting services
as a senior geologist. He has also served as
project manager on numerous projects.

Mr. Watts is primarily an engineering
geologist whose range of project experience
has encompassed numerous projects
concerning geologic investigation, rock and
soils engineering, landslides, land
reclamation, forensic damage investigations,
hydrogeology and the coal industry.

He has performed hundreds of slope stability
analyses for landslides and other projects
involving the design of stable slopes. In
addition, he has performed several studies
involving landslide prediction to aid clients in
land use and safety planning. Projects
involving rock slope stability have included
the analysis of the stability of high rock cuts for
surface mining operations and highways.

Geotechnical experience has included
numerous projects involving soils,
foundations, landfills and damage studies.
These projects have encompassed such areas as
pile driving, caisson installation, earth fill
placement, subsurface exploration, site
reconnaissance, grout and concrete placement
and quality control.

AML and Coal Industry Projects:

Work on more than 50 Abandoned Mine Land
Reclamation projects, including:

- Mine subsidence, refuse piles and
draining mine portals.
- Coal seam mineability studies.
- Coal refuse embankment and slurry
pond design.
- Coal permitting, exploration and drill
log correlations.
- Roof and floor studies and pillar
strength evaluations.

John R. Kelly, III
Engineer Intern

Education

B.S. Civil Engineering
West Virginia University, 1998

Computer Skills

AutoCAD, Microstation, COM624-P,
Inroads, Hec-Ras, and ELRSoil

Professional Memberships

- American Society of Civil Engineers

Professional Experience

Mr. Kelly has performed layout and inspection of core drilling operations for bridges and roadway projects. He has also designed numerous mine reclamation projects as well as assisted in completion of water feasibility studies.

Mr. Kelly has performed construction inspections of waste water treatment facilities and has experience with roadway design, design of foundations, and retaining walls.



Representative Projects

Mr. Kelly has designed cut slopes for large scale roadway projects such as:

- Kermit Bypass, Mingo County, WV
- Meadowbrook Road, Harrison County, WV
- US-35, Mason County, WV
- Corridor H, Section 7, Hardy County, WV

James T. Rayburn, P.S.
Chief Surveyor

Education

A.S. Mechanical Engineering,
West Virginia Institute of Technology,
1970

Registrations

Registered Professional Surveyor in West
Virginia

Professional Memberships

American Congress on Surveying and
Mapping

The American Association for Geodetic
Surveying (AAGS)

Member Organization of ACSM.

Cartography and Geographic Information
Society (CaGIS)

Geographic and Land Information Society
(GLIS)

National Society of Professional Surveyors
(NSPS)

West Virginia Association of Land
Surveyors, Inc.



Professional Experience

Mr. Rayburn currently serves as Manager of Surveying for E.L. Robinson Engineering (ELR) and has more than 30 years of Design Surveying and Construction Surveying experience. The responsibilities include management of surveying and control for various design projects, including highways, buildings, and bridges. In addition, Mr. Rayburn manages and performs work consisting of courthouse research for property ownership resolution for the above mentioned project types. This includes preparation of property resolution maps, deed descriptions for property acquisitions required for project plan preparation. Mr. Rayburn has experience in Geodetic Control Surveys, 3D Laser Scanning, Photogrammetric Control, Topographic Surveys, Cemetery Surveys, Boundary Surveys, Construction Stakeout, Subdivision Surveys, along with Hydrographic surveys of river and lake bottoms. A few of the more notable surveying projects performed by ELR under the supervision of Mr. Rayburn, has been the Blennerhassett Bridge Project, 11 continuous miles of Corridor H design surveys, GPS Control for the West Virginia Statewide Mapping and Addressing Board Project, 3D Laser Scan and mapping of the

CAMC Parking Garage partial collapse, and 3D Laser Scanning of I64/I77 Retaining Wall for Monitoring.

Representative Projects

Design Surveys

- **Corridor H (WVDOT) Hardy County, WV:** Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately 11 miles of Corridor H in Hardy County, WV. This was for Sections 6 & 7 of Corridor H, both Sections of which are now under construction. Estimated construction cost of \$150 million dollars.
- **WV Route 10 (WVDOT) Logan to Man WV, Logan County, WV:** Lead Surveyor for Design Surveys for a section approximately five miles in length from Man, WV, to Rita, WV, including the Man Bridge. Also provided control surveying for the entire project length of approximately 12 miles. The approximate five miles section of roadway is now under construction at an estimated cost of \$51 million dollars.
- **Blennerhassett Bridge, Corridor D (WVDOT), Wood County, WV :** Lead Surveyor for Design Surveys for this landmark Bridge Project which is now under construction at an estimated cost of \$120 million dollars.
- **James Ramsey Bridge (WVDOT) Potomac River, Shepardstown, WV:** Lead Surveyor for Design Surveys for this Bridge Project which is now completed at an estimated cost \$15.5 million dollars. This project involved working in an environmentally historic area, which adjoined a National Park.
- **US Route 35 (WVDOT) Mason County, WV:** Lead Surveyor for Design Surveys for two Design Sections each approximately 2.5 miles in length from Lower Five Mile Road to Upper Nine Mile Road. Also provided control surveying for the entire US 35 design project length of approximately 22 miles.
- **I64/US 35 (WVDOT) I64 to US 34 Crooked Creek, Putnam County, WV:** Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately four miles of US 35 including Interstate 64 Ramps and Flyovers in Putnam County, WV. This included the I64 Bridges and Flyovers, which is now under construction.
- **ATB-Parrish Road (ODOT) Ashtabula County, Ohio:** Project Design Surveyor for rail grade separation project. Project involved roadway realignment, 900' new bridge, new waterline, storm and sanitary sewers. Project is currently under construction. Estimated construction cost: \$8.6 million.
- **PIC-23-3.21 and Various (ODOT) Pickaway County, Ohio:** Project Design Surveyor for ODOT Project PIC-23-3.21 and Various. Project involves deck replacements along 11 miles of US 23 in Pickaway County. Project includes large diameter culvert liner, interchange upgrade that includes mainline profile correction, ramp reconstruction, and addition of barrier wall and storm drainage. Project is currently under design (90%). Project scheduled for construction in 2007. Estimated construction cost: \$12 million.
- **ATB-90-22.06 (ODOT) Ashtabula County, Ohio:** Project Design Surveyor for Interstate Reconstruction Project. Project includes total pavement replacement, bridge widening, and contra - crossover maintenance of traffic, culvert replacements and storm sewer rehabilitation and sign replacements. Project is currently under design (50%) and scheduled for construction in 2011. Estimated construction cost: \$36 million.

Construction Surveys

- **Corridor D (WVDOT) Wood County, WV:** Lead Surveyor for Highway/Bridge Construction Monitoring surveys for the following segments of Corridor D and related relocation projects:
 - Godbey Athletic Field Relocation Construction
 - Godbey Colt Field and Soccer Field Construction
 - West WV 47-East WV 47 Highway/Bridge Construction
 - East Buckeye-West Little Kanawha River Highway/Bridge Construction
- **Interstate I-79 Widening and Median Barrier (WVDOT) Harrison County, WV:** Lead Surveyor for construction layout surveys for the widening of I-79 from the Meadowbrook Exit, north to the Jerry Dove Exit approximately three miles in length, as a subcontractor to the prime contractor.
- **CAMC 33rd Street Relocation and Building Expansion, Charleston, WV:** Lead Surveyor for construction layout surveys for 33rd Street relocation along with ancillary items including sidewalks, drainage and utilities. Also layout surveys for building expansion project.
- **Saturn Dealership, Hurricane, WV:** Lead Surveyor for Saturn Dealership site development and access roads at Hurricane Interchange of Interstate 64.
- **Arch Coal WV Mining Operations:** Lead Surveyor as a subcontractor to Arch Coal operations for Valley Fill Construction (Up to 27 million cubic yard fills), mine haul road layout, drill line staking, and dragline pit layout.

Randall L. Lackey, P.E.

Project Engineer

Education

B.S. Civil Engineering
West Virginia University Institute of
Technology, 1999

Registrations

Registered Professional Engineer in West
Virginia, Ohio and Kentucky

Professional Memberships

- American Society of Civil Engineers
- Society of American Military Engineers

Computer Skills

C++, AutoCAD, MathCAD, Microstation,
MS Excel, MS Word, MS Project,
MS PowerPoint, Windows, MDX, MERLIN,
BRASS Systems, SIMON, HEC-RAS, RC
Pier, and HY8

Professional Experience

Prior to joining E.L. Robinson Engineering Co., Mr. Lackey worked with the WV Division of Highways as an Engineering Co-op Technician. As part of his co-op experiences, he performed calculations for steel, flowrate and roadway. He performed roadway and guardrail design and construction inspection for bridge and roadway projects.



Representative Projects

Mr. Lackey has been intricately involved in the hydraulic design process of the Blennerhassett Island Bridge Project, which will connect West Virginia to Ohio as well as span the Ohio River and Blennerhassett Island. Included in this project are the following: Preparation of flood plain analysis for existing, temporary, and various post construction conditions, scour analysis using FHWA approved publications, analyzing the affects that debris flow will have on the bridge as well as Blennerhassett Island, and studying the potential for lateral channel migration and understanding the affects the migration would have on the design on the bridge substructure.

Mr. Lackey has also been involved with the hydraulic design process of the Corridor H South Branch of the Potomac River Bridge. Included in this project are the following: Preparation of flood plain analysis for existing, temporary, and various post construction conditions, scour analysis using FHWA approved publications, analyzing the affects that debris flow will have on the bridge, studying the affects the proposed conditions

will have on the Town of Moorefield, WV flood level, and studying the potential for lateral channel migration and understanding the affects the migration would have on the design on the bridge substructure.

Mr. Lackey has also performed hydraulics and scour computations for Ripley Town Bridge, Jackson Bridge, Beaver Creek Bridge, Walnut Bottom Bridge, Tallman Bridge, Meadowbrook Road Bridge, Simpson Creek Bridge, Kermit Bypass Bridges and culverts, Left Hand Fork Bridge, and Corridor H Bridges over Walnut Bottom Run and an unnamed tributary.

Mr. Lackey has prepared Section 404 permitting analysis and paperwork for Ripley Town Bridge, Simpson Creek Bridge, Meadowbrook Road Bridge, and the Left Hand Fork Bridge. Along with this work, Mr. Lackey has prepared CLOMR analysis and documentation for Horseshoe Village Subdivision and for The Ohio State University Medical Center's two proposed bridges that connect the University with OH SR 314 over the Olentangy River.

Mr. Lackey has performed calculations for deck drainage, performed girder design and analysis, pier design and analysis, prepared design study reports, type, size and location reports and final plans on many of E.L. Robinson's Division of Highways projects.

Mark Allen McGettigan, PE,
Project Engineer

Education

M.S.E. Engineering Management/Environmental
Engineering.
Marshall University December 2007

B.S. Civil Engineering Technology,
Fairmont State College, 1999

Registrations

Registered Professional Engineer in West
Virginia

Professional Memberships

- American Society of Civil Engineers

Professional Experience

Successfully worked on and managed numerous Phase I and II ground water quality investigations and feasibility studies for the West Virginia Department of Environmental Protection.

Mr. McGettigan has taken several large water and wastewater projects from the initial development phase through the construction phase. This includes writing the preliminary engineering report, developing funding scenarios, designing the system, developing the plans and specifications, developing the bid documents/overseeing the bid process and managing the construction inspection.



Developed specifications and managed construction inspection for land development and utility construction projects.

Representative Projects

Mr. McGettigan has been the design engineer on the following projects:

- Lavalette Public Service District's U.S. Route 52 Waterline Extension Project.
- Lavalette Public Service District's Crockett and Millers Fork Waterline Extension Project.
- Lavalette Public Service District's State Route 37 Waterline Extension Project.
- Crum Public Service District's Mill Creek Waterline Extension Project.

ALL OTHER RELATED PROJECT EXPERIENCE MATRIX												Attachment C												Primary Staff Participation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
PROJECT												PROJECT EXPERIENCE												M Mgmt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Experience Basis Corporate-C Personal-P												Additional Information in Section												Abandoned Surface Mine Reclamation					Abandoned Deep Mine Reclamation					Portal/Shaft Closure					Hydrological/Hydraulic Design/Eval.					Remining Evaluation					Mine/Refuse Fire Abatement					Subsidence Investigation Mitigation					Hazardous Waste Disposal					Project Specifications					Water Quality Evaluation/Mitigation/Replacement					Construction Inspection/Management					Water Treatment					Equipment/Structure Removal					Stream Restoration					Geotechnical/Stability					Ed Robinson, P.E.					Tim Carr, P.E.					Richard W. Watts, P.G.					Mark McGottigan, P.E.					John Kelly, E.I.					Scott A. Pratt, Geologist					Gary A. Workman, CADD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

Attachment C AVALANCHE RELATED PROJECT EXPERIENCE MATRIX										PROJECT EXPERIENCE										Primary Staff Participation MAY 2007				
PROJECT	Experience Basis Corporate-C Personal-P	Additional Information in Section	PROJECT EXPERIENCE												Primary Staff Participation MAY 2007									
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrological/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Ed Robinson, P.E.	Tim Carr, P.E.	Richard W. Watts, P.G.	Mark McGettigan, P.E.	John Kelly, E.I.	Scott A. Pratt, Geologist	Gary A. Workman, CADD
Big Sandy Refuse	P		X	X	X	X					X	X				X								
Leslie (Nelson)	P	2002	X	X	X	X																		
Swiss Drennan	P	2002	X	X	X	X																		
Minden C	P	2002	X	X	X	X																		
Weston	P	2002	X	X	X	X																		
Parkette	P	2002	X	X	X	X																		
East Dupont Avenue Landslide	P	2003	X	X	X	X																		
Skin Creek Phase II	P	2003	X	X	X	X																		
Witcher Creek	P	2001	X	X	X	X																		
Crane Creek	P	2004	X	X	X	X																		
Yoursco	P	2004	X	X	X	X																		
Carwell	P	2004	X	X	X	X																		
Craigmoor	P	2004	X	X	X	X																		
Downey Piermont	P	2006																						
Ames (Clare) Landslide	P	2007	X	X	X	X																		
Lorado	P	1995	X	X	X	X																		
Madeline Refuse	P	1995	X	X	X	X																		
Rocklick	P	1995	X	X	X	X																		
Wahoo	P	1996	X	X	X	X																		
Meadowbrook	P	1996	X	X	X	X																		
Jumping Branch	P	1996	X	X	X	X																		
Beard's Fork	P	1997	X	X	X	X																		
Turkey Willow	P	1997	X	X	X	X																		
Osageo	P	1997	X	X	X	X																		
Miller	P	1997	X	X	X	X																		
Whitby	P	1998	X	X	X	X																		
Barker	P	1998	X	X	X	X																		
Gauley River Road	P	1999	X	X	X	X																		
Skin Creek	P	2000	X	X	X	X																		
Jolo	P	2001																						
Tioga	P	2001																						
Turkey Gap	P	2001	X	X	X	X																		
Big Sandy	P	1987	X	X	X	X																		
Marlance	P	1988	X	X	X	X																		
New Hill Ballpark	P	1988	X	X	X	X																		
Jones Run	P	1988	X	X	X	X																		
Chapmanville Landslide	P	1889	X	X	X	X																		
Whamcliff Landslide	P	1989	X	X	X	X																		
Joyce Slum	P	1990	X	X	X	X																		
Marianna Refuse	P	1991	X	X	X	X																		
Cedar Grove	P	1991	X	X	X	X																		
Eskdale	P	1991	X	X	X	X																		
Hodgesville	P	1991	X	X	X	X																		
Newsome Branch	P	1992	X	X	X	X																		
Monson	P	1992	X	X	X	X																		
Snake Island	P	1993	X	X	X	X																		
Orchard Branch	P	1994	X	X	X	X																		
Beckley Layne	P	1994	X	X	X	X																		
Quinwood Booth	P	1994	X	X	X	X																		
Little Fork	P	1993	X	X	X	X																		

Attachment C AVM RELATED PROJECT EXPERIENCE MATRIX												Participation												
PROJECT	Experience Basis Corporate-C Personal-P	Additional Information in Section	PROJECT EXPERIENCE										Primary Staff/Participation											
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrological/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Ed Robinson, P.E.	Tim Carr, P.E.	Richard W. Watts, P.G.	Mark McGelligan, P.E.	John Kelly, E.I.	Scott A. Pratt, Geologist	Gary A. Workman, CADD
Elkridge Refuse	P		X	X	X	X	X										X							
Lando Mines	P	1984	X	X	X	X											X							
West Varney	P	1984	X	X	X	X											X							
Bethel Portals	P	1985	X	X	X	X											X							
Mammoth Landslide	P	1985			X	X											X							
Cheyenne	P	1985	X			X											X							
Mudlick A Landslide	P	1985	X		X	X											X							
Nelson Landslide	P	1985	X		X	X											X							
Mudlick B Refuse	P	1985	X	X	X	X											X							
Bluff Mountain	P	1985	X	X	X	X											X							
Montgomery Drainage	P	1986	X	X	X	X											X							
Mayores Drainage	P	1986	X	X	X	X											X							
Ridgeview A & B	P	1987	X	X	X	X		X									X							
Tupper Valley	P	1987	X	X	X	X											X							
Airport Bottom	P	1987	X	X	X	X											X							
Manilla Creek	P	1987	X	X	X	X		X									X							
McAlpin	P	2009	X	X	X	X											X							
Robey	P	2009	X	X	X	X											X							
Katy Lick	P	2009	X																					
Clear Fork	C	2009																						
Coal Mountain	C	2009															X							
Naugauck/East Kemrit	C	2009															X							
Pranter	P	2008															X							
Hanover	P	2008															X							
Lower Damsesey	P	2009															X							
Island Creek #18	C			X	X	X											X							
Brownlon Landslide	C			X	X	X											X							
East Bank Emergency	C			X	X	X											X							
Duntoup Creek	C		X	X	X	X											X							
Oleagor/Pierpoint/Waben	C																X							
Barkers Ridge/Basin	C																X							
Hemdon/Coveil/Garwood	C																X							
Budi/Alpoca/Mill Branch	C																X							
Keystone (Avery)	C																X							
Keystone (Emergency)	C																X							
Cane Branch	C																X							
Spy Rock/Edmond/ Flanagan Mountain	C																X							

RFQ No. DEP15235

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owned is an amount greater than one thousand dollars in the aggregate

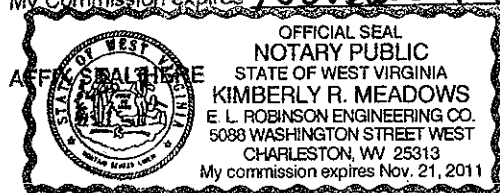
DEFINITIONS:

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

"Debtor" means any individual, corporation, partnership, association, Limited Liability Company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

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

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

WITNESS THE FOLLOWING SIGNATUREVendor's Name: E.L. Robinson Engineering Co.Authorized Signature: *[Signature]* Date: 12-6-16State of West VirginiaCounty of Kanawha, to-wit:Taken, subscribed, and sworn to before me this 6 day of December, 2016.My Commission expires November 21, 2011.NOTARY PUBLIC *[Signature]*