



west virginia

EXPRESSION OF INTEREST
ENGINEERING SERVICES REQUIRED
FOR THE VICKERS (BUTCHER) DRAINAGE DESIGN PROJECT
RFQ NUMBER DEP16085

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
CHARLESTON, WEST VIRGINIA

TRIAD ENGINEERING, INC.
ST. ALBANS & MORGANTOWN
WEST VIRGINIA



TRIAD
Triad Engineering, Inc.

March 14, 2013

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

Subject: WVDEP Expression of Interest – DEP16085
Vickers (Butcher) Drainage Design Project
Professional Engineering Design Services
Logan County, West Virginia
Triad Proposal No. 04-13-0122

Dear Evaluation Committee:

Triad Engineering, Inc., (TRIAD) is pleased to submit the attached "Consultant Qualification Questionnaire (CQQ)" and "Related Project Experience Matrix (RPEM)" in response to the Office of Abandoned Lands & Reclamation's Expression of Interest for professional engineering design services for the referenced project located in Logan County. We understand "full-service" design services are to be performed and will include civil, structural, geological and hydrological services. The services required will result in the development of engineering drawings, contract specifications and other contract documents required for the letting of construction.

TRIAD has provided engineering and related services required for the successful completion of AML projects since the WVDEP gained primacy of the Program from the Office of Surface Mining. As of this date, TRIAD has completed over 400 AML projects. These projects have involved all problem types encountered on abandoned mine lands projects.

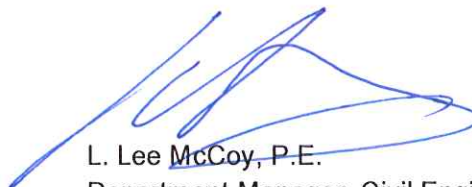
As always, TRIAD will commit the necessary resources to meet the needs of the project. TRIAD continues to maintain and invest in staff and equipment necessary to provide comprehensive services for the successful completion of this project. We firmly believe the in-house resources available provide the State with the most favorable terms from a technical and cost standpoint.

We highly value our working relationship with AML personnel, and will continue to strive for excellence in all we do. We look forward to the next phase of the evaluation.

Sincerely,
Triad Engineering, Inc.



Dane H. Ryan
Business Development Leader



L. Lee McCoy, P.E.
Department Manager, Civil Engineering

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RELATED SERVICES

PAST ABANDONED MINE LAND PROJECTS





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

Solicitation

| NUMBER |
|----------|
| DEP16085 |

| PAGE |
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| ADDRESS CORRESPONDENCE TO ATTENTION OF: |
|---|
| FRANK WHITTAKER 304-558-2316 |

RFQ COPY
TYPE NAME/ADDRESS HERE
TRIAD ENGINEERING, INC.
4980 TEDYS VALLEY ROAD
SCOTT DEPOT, WV 25560

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

| DATE PRINTED |
|--------------|
| 02/11/2013 |

BID OPENING DATE: 03/14/2013 BID OPENING TIME 01:30PM

| LINE | QUANTITY | UOP | CAT. NO. | ITEM NUMBER | UNIT PRICE | AMOUNT |
|------|----------|-----|----------|--|------------|--------|
| 0001 | 1 | JB | | 906-29 | | |
| | | | | VICKERS (BUTCHER) DRAINAGE DESIGN | | |
| | | | | EXPRESSION OF INTEREST | | |
| | | | | THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE VICKERS (BUTCHER) DRAINAGE PROJECT IN LOGAN CO, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS. | | |
| | | | | ***** THIS IS THE END OF RFQ DEP16085 ***** TOTAL: | | |

| | | |
|---------------------------------|---------------------------|-----------------------------------|
| SIGNATURE <i>[Signature]</i> | TELEPHONE 304-755-0721 | DATE 3/14/13 |
| TITLE BUSINESS DEVELOPMENT | FEIN SS0592364 | ADDRESS CHANGES TO BE NOTED ABOVE |

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

RFQ No. 16085STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT**

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: TRIAD ENGINEERING, INC.
Authorized Signature: [Signature] Date: 3/14/13

State of West Virginia

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 14th day of March, 2013.

My Commission expires March 24, 2013.

AFFIX SEAL HERE

NOTARY PUBLIC

[Signature: Karen E. Means]

Purchasing Affidavit (Revised 07/01/2012)



ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: DEP16085

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

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

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

TRIAD ENGINEERING, INC.

Company



Authorized Signature

3/14/13

Date

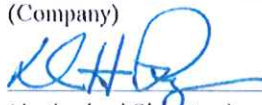
NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

CERTIFICATION AND SIGNATURE PAGE

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

TRIAD ENGINEERING, INC.

(Company)



(Authorized Signature)

DANE H. RYAN
BUSINESS DEVELOPMENT LEADER

(Representative Name, Title)

304.755.0721 304.755.1880

(Phone Number)

(Fax Number)

3/14/13

(Date)

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AML CONSULTANT QUALIFICATION QUESTIONNAIRE

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|--|--|---|--|--------------------------|-----------------------|----------------------------------|---------------------------------|-----------------------|-----------------------|---------------------------------|---------------------|----------------------|---------------------------------|-----------------------------|------------------------------|----------------------------|-------------------------------|------------------------------|-------------------------------|--------------------------------|-----------------------|-------------------------------------|------------------------------------|---------------------------|----------------------|--------------------------------|--|-----------------------------------|-----------------------|---------------------------|--|-----------------------|--------------------------|----------------------------------|----------------------------|----------------------|--|--|--|
| PROJECT NAME Broad Run Portals Design - DEP16078 | | DATE (DAY, MONTH, YEAR) January 31, 2013 | | FEIN 550592364 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. FIRM NAME Triad Engineering, Inc. | | 2. HOME OFFICE BUSINESS ADDRESS 4980 Teays Valley Road Scott Depot, WV 25560 | | 3. FORMER FIRM NAME N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. HOME OFFICE TELEPHONE 304.755.0721 | 5. ESTABLISHED (YEAR) 1975 | 6. TYPE OWNERSHIP Individual <u>Corporation</u> Partnership <u>Joint-Venture</u> | | 6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES <u>NO</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 4980 Teays Valley Road, Scott Depot, WV 25560 / (304) 755-0721 / John Meeks, P.G., L.R.S. - Branch Manager / 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Thomas Ali, P.E. - CEO 304.296.2562 John M. Meeks, RPG, LRS - COO 304.755.0721 | | | 8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS Tina McPhail, CPA - CFO 304.755.0721 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. PERSONNEL BY DISCIPLINE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="0"> <tr> <td><u>14</u> ADMINISTRATIVE</td> <td><u> </u> ECOLOGISTS</td> <td><u> 2</u> LANDSCAPE ARCHITECTS</td> <td><u> </u> STRUCTURAL ENGINEERS</td> </tr> <tr> <td><u> </u> ARCHITECTS</td> <td><u> </u> ECONOMISTS</td> <td><u> </u> MECHANICAL ENGINEERS</td> <td><u>13</u> SURVEYORS</td> </tr> <tr> <td><u> </u> BIOLOGIST</td> <td><u> </u> ELECTRICAL ENGINEERS</td> <td><u> </u> MINING ENGINEERS</td> <td><u>12</u> DRILLERS & HELPERS</td> </tr> <tr> <td><u> 8</u> CADD OPERATORS</td> <td><u> 8</u> ENVIRONMENTALISTS</td> <td><u> </u> PHOTOGRAMMETRISTS</td> <td><u> 7</u> LABORATORY TECHS.</td> </tr> <tr> <td><u> 1</u> CHEMICAL ENGINEERS</td> <td><u> </u> ESTIMATORS</td> <td><u> </u> PLANNERS: URBAN/REGIONAL</td> <td><u> 7</u> LIC. REMEDIATION SPECS</td> </tr> <tr> <td><u>18</u> CIVIL ENGINEERS</td> <td><u>11</u> GEOLOGISTS</td> <td><u> 1</u> SANITARY ENGINEERS</td> <td></td> </tr> <tr> <td><u>33</u> CONSTRUCTION INSPECTORS</td> <td><u> </u> HISTORIANS</td> <td><u>15</u> SOILS ENGINEERS</td> <td></td> </tr> <tr> <td><u> 7</u> DESIGNERS</td> <td><u> 2</u> HYDROLOGISTS</td> <td><u> </u> SPECIFICATION WRITERS</td> <td><u>159</u> TOTAL PERSONNEL</td> </tr> <tr> <td><u> </u> DRAFTSMEN</td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | <u>14</u> ADMINISTRATIVE | <u> </u> ECOLOGISTS | <u> 2</u> LANDSCAPE ARCHITECTS | <u> </u> STRUCTURAL ENGINEERS | <u> </u> ARCHITECTS | <u> </u> ECONOMISTS | <u> </u> MECHANICAL ENGINEERS | <u>13</u> SURVEYORS | <u> </u> BIOLOGIST | <u> </u> ELECTRICAL ENGINEERS | <u> </u> MINING ENGINEERS | <u>12</u> DRILLERS & HELPERS | <u> 8</u> CADD OPERATORS | <u> 8</u> ENVIRONMENTALISTS | <u> </u> PHOTOGRAMMETRISTS | <u> 7</u> LABORATORY TECHS. | <u> 1</u> CHEMICAL ENGINEERS | <u> </u> ESTIMATORS | <u> </u> PLANNERS: URBAN/REGIONAL | <u> 7</u> LIC. REMEDIATION SPECS | <u>18</u> CIVIL ENGINEERS | <u>11</u> GEOLOGISTS | <u> 1</u> SANITARY ENGINEERS | | <u>33</u> CONSTRUCTION INSPECTORS | <u> </u> HISTORIANS | <u>15</u> SOILS ENGINEERS | | <u> 7</u> DESIGNERS | <u> 2</u> HYDROLOGISTS | <u> </u> SPECIFICATION WRITERS | <u>159</u> TOTAL PERSONNEL | <u> </u> DRAFTSMEN | | | |
| <u>14</u> ADMINISTRATIVE | <u> </u> ECOLOGISTS | <u> 2</u> LANDSCAPE ARCHITECTS | <u> </u> STRUCTURAL ENGINEERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u> </u> ARCHITECTS | <u> </u> ECONOMISTS | <u> </u> MECHANICAL ENGINEERS | <u>13</u> SURVEYORS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u> </u> BIOLOGIST | <u> </u> ELECTRICAL ENGINEERS | <u> </u> MINING ENGINEERS | <u>12</u> DRILLERS & HELPERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u> 8</u> CADD OPERATORS | <u> 8</u> ENVIRONMENTALISTS | <u> </u> PHOTOGRAMMETRISTS | <u> 7</u> LABORATORY TECHS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u> 1</u> CHEMICAL ENGINEERS | <u> </u> ESTIMATORS | <u> </u> PLANNERS: URBAN/REGIONAL | <u> 7</u> LIC. REMEDIATION SPECS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>18</u> CIVIL ENGINEERS | <u>11</u> GEOLOGISTS | <u> 1</u> SANITARY ENGINEERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>33</u> CONSTRUCTION INSPECTORS | <u> </u> HISTORIANS | <u>15</u> SOILS ENGINEERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u> 7</u> DESIGNERS | <u> 2</u> HYDROLOGISTS | <u> </u> SPECIFICATION WRITERS | <u>159</u> TOTAL PERSONNEL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u> </u> DRAFTSMEN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>7 Scott Depot / 15 Triad</u></p> <p>*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input type="checkbox"/> NO <u>N/A</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

[illegible]

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

YES Description and Number of Projects: Triad has provided engineering and related services required for the successful completion of over 400 AML projects since the WVDEP gained primacy of the Program from the Office of Surface Mining. These projects have involved all problem types encountered on abandoned mine lands projects.

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: Thousands of projects involving soil analysis have been performed since our inception in 1975. Our geotechnical materials testing labs are certified by the WVDOT/ DOH.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: Triad has completed hundreds of projects in the areas of hydrology and hydraulics since our inception. Clients include the U.S. Army Corps of Engineers, WVDEP, and WVDNR.

NO

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

YES Description and Number of Projects: Triad typically subcontracts the aerial photography. However, Triad lays out the targets in the field and conducts the survey for establishment of horizontal and vertical control used to develop the final contour mapping. It is estimated that we have completed several hundred of these types of mapping projects since the inception of the firm in 1975.

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: Our firm has completed a total of 10 waterline design projects including: Norton Harding Jimtown, Alkol Phase 1 and 2, 14 Mile, 10 Mile, 9 Mile, 6 Mile, Gatlin Coal Waterline Extension, Mason Phase 1 and 2, and Moorefield. Numerous Phase I and Phase II water feasibility studies have also been conducted.

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.) McCoy, Larry L., Jr., P.E. Civil Department Manager/ Senior Engineer | YEARS OF EXPERIENCE | | |
| | YEARS OF AML DESIGN EXPERIENCE: 2 | YEARS OF AML RELATED DESIGN EXPERIENCE: 11 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 3 |
| Brief Explanation of Responsibilities Mr. McCoy is the responsible engineer for numerous projects including civil site, utilities, roadways, and AML remediation. Mr. McCoy has performed design tasks related to these projects which have included: stream restoration, portal/shaft closure, hydraulic/hydrologic analysis, grading, project specifications, project plans, and other related tasks. Mr. McCoy also served as project manager on these and several related projects | | | |
| EDUCATION (Degree, Year, Specialization) BS/ 1996/ Civil Engineering | | | |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASCE, SAME | | REGISTRATION (Type, Year, State) Registered Professional Engineer/2001/ 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.) James R. "Bo" Criniti | YEARS OF EXPERIENCE | | |
| | YEARS OF AML DESIGN EXPERIENCE: 3 | YEARS OF AML RELATED DESIGN EXPERIENCE: 3 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 3 |
| Brief Explanation of Responsibilities: Mr. Criniti works under the supervision of a registered professional engineer in performing all facets of civil design and specification preparation including site development design, parking lot layouts, grading and drainage design and drainage studies. Other duties include permit application, retaining wall design. | | | |
| EDUCATION (Degree, Year, Specialization) B.A./ 1995 / Chemistry B.S. / 2008 / Civil Engineering | | | |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASCE | | REGISTRATION (Type, Year, State) E.I.T. / 2009 / 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 AML DESIGN EXPERIENCE: | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Jalali, Parviz J., P.E. Geotechnical Services Manager/ Senior Engineer | 16 | 29 | 0 |

Brief Explanation of Responsibilities

Mr. Jalali is responsible for geotechnical engineering analysis and design, preparation of geotechnical engineering reports, and is responsible for oversight of field geotechnical engineers and geologists. He has been the lead geotechnical engineer on projects involving hundreds of boreholes and thousands of feet of drilling. Mr. Jalali operates our in-house computers for slope stability analysis, quantity determinations, and computer aided design drafting (CADD).

EDUCATION (Degree, Year, Specialization)

BSCE/ 1973/ Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

WVACE
WVSPE
NSPE
ASPE

REGISTRATION (Type, Year, State)

Registered Professional Engineer/ 1987/ 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 AML DESIGN EXPERIENCE: | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Spradling, Steven R., P.E. Senior Engineer | 17 | 29 | 0 |

Brief Explanation of Responsibilities

Mr. Spradling has formulated and implemented subsurface investigations on landfills, roadway/bridges, and structures for coal mining facilities. Mr. Spradling's responsibilities include design and preparation of drawings and specifications. Mr. Spradling's strong background in the construction industry provides Triad with a reliable source in preparing bid documents and evaluating construction bids.

EDUCATION (Degree, Year, Specialization)

BSCE/ 1974/ Civil Engineering
MSCE/ 1992/ Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

WVSPE
ASCE

REGISTRATION (Type, Year, State)

Registered Professional Engineer/ 1993/ 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 AML DESIGN EXPERIENCE: | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Steven A. Clark | 19 | 19 | 19 |

Brief Explanation of Responsibilities

Mr. Clark is currently the Survey Supervisor of the Surveying Department for the St. Albans office of Triad. Having managed and completed a wide variety of projects including cadastral boundary surveys, boundary records research, conventional horizontal and vertical control networks, geodetic control surveys, topographic surveys, hydrographic surveys and photogrammetry control surveys.

EDUCATION (Degree, Year, Specialization)

Survey and Mapping Course / 1972

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

WV Society of Professional Surveyors

REGISTRATION (Type, Year, State)

P.S. / 2003 / WV
 Certified Black Hat Coal Miner / 1985 / WV
 40 hr OSHA Hazwoper / OSHA / 2001

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 EXPERIENCE | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Meeks, John M., P.G., L.R.S. Senior Geologist/Branch Manager Chief Operating Officer | 11 | 11 | 7 |

Brief Explanation of Responsibilities

Mr. Meeks involvement with AML projects primarily has to do with AMD abatement and wetland design. He has provided environmental expertise on all water study feasibility projects. He has supervised field crews and assigned and evaluated analytical analysis. Mr. Meeks served as environmental geologist on the Chief Logan Park AMD project.

EDUCATION (Degree, Year, Specialization)

BS/ 1980/ Geology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

West Virginia Chamber of Commerce Environmental Committee

REGISTRATION (Type, Year, State)

Registered Professional Geologist/ 1992/ KY
 Registered Professional Geologist/ 1999/ 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.) Sutphin, Amanda M., P.E. Project Engineer | YEARS OF EXPERIENCE | | |
|---|---------------------------------|---|--|
| | YEARS OF AML DESIGN EXPERIENCE: | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| | 2 | 4 | 4 |

Brief Explanation of Responsibilities

Ms. Sutphin assists the Project Manager on wastewater and potable water projects, as well as general civil engineering projects. In this capacity, Ms. Sutphin facilitates planning, design and construction of civil and sanitary engineering projects in coordination with the client's expectations. Her duties have included design calculations and infrastructure modeling, estimating, pipeline design and permitting activities.

EDUCATION (Degree, Year, Specialization)

BS / 2004 / Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Registered Professional Engineer/ 2009/ 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 AML DESIGN EXPERIENCE: | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| | | | |

Brief Explanation of Responsibilities

EDUCATION (Degree, Year, Specialization)

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 AML DESIGN SERVICES

Equipment Listing

Drilling Equipment:

| | |
|-----------------------------|---|
| Track Mounted Drill Rigs | 1- Simco 5000 2- Davey DK 90 1- Davey DK 50 1- CME 55 1- CME 45 |
| All Terrain Drill Rigs | 1- CME 55 1- Mobile B53 |
| Truck Mounted Rigs | 3- Mobile B53 1- Mobile B52 1- Mobile B61 HDX |
| Skid Mounted Rigs | 1- Diedrich 25 |
| Transport Vehicles | 4- Peterbilt Tandem Axle Tiltbeds 1- Mack Tandem Axle Tiltbed 2- Tractor Trailers Truck with Lowboy Trailers 4- Flatbed Trucks 1- Box Truck 15- 4WD ¾ Ton Support Trucks |
| Portable Drilling Equipment | 2- Motorized Cathead / Tripod Units 2- Handheld Sampling Equipment 1- Pontoon Boat 1- Portable Barge |

Miscellaneous equipment includes Dutch cone Penetrometer, Mobile Grout Pump (Chem-Grout), Steam Jenny (Whitco), Steam Jenny (Hotsy), 600 CFM Air Compressor (Sullair), various size utility trailers.

Protective Clothing & Equipment-Complying with EPA & OSHA Regulations
Air Purifying Respirators & Supplied Air Respirators

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

Equipment Listing

Continued – page 2

Drilling Tools:

- Hollow Stem Augers (2 ¼" I.D., 3 ¼" I.D., 4 ¼" I.D., 6 ¼" I.D.)
- Continuous Flight Augers
- NQ Core Equipment
- AW Core Equipment
- Pressure Testing Equipment
- Water Pumps, Trucks and Tanks
- Shelby-Tube Samplers (2", 3" and 5" Diameter)
- Split-Spoon Samplers (2" and 3" Diameter)
- CME Continuous 5.0' Length Samplers
- Longyear Casing Advancer (HQ)
- Downhole Hammer

Laboratory Equipment:

- Triaxial Compression Machine
- Manual Proctor Devices (standard and modified)
- Automatic Proctor Hammer
- Turbidimeter
- Hydrometer
- pH Tester (soil & water)
- Electronic Scales
- Unconfined Compression Machine
- Atterberg Limits Devices
- California Bearing Ratio Devices
- Electrical Resistivity Devices
- Specific Gravity Devices (soils & aggregates)
- 2000 Degree Fahrenheit Oven
- Permeability Cells & Panels
- Consolidometers

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

Equipment Listing

Continued – page 3

- Electronic Manometers
- Concrete Compressive Strength Equipment
- Aggregate Shakers
- Sieve Shakers
- Sample Splitters
- Unit Weight Buckets
- Slake Durability Machine
- Gradation Sieves
- L.A. Abrasion Test Equipment
- Soiltest Loading Devices
- Sodium Sulfate Soundness Test Equipment
- Asphalt Test Equipment
- Relative Density Determination Device

Field Testing Equipment:

Soil

- Nuclear Moisture/Density Gauges
- Sand Cone Equipment
- Support Compaction Testing Equipment
- Digitilt Slope Indicator
- Pocket Penetrometers
- Hand Augers
- Static Cone Penetrometers

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

Equipment Listing

Continued – page 4

Concrete

- Air Meters (pressure & volumetric)
- Slump Cones & Accessories
- Windsor Probes
- Rebound Hammers
- Concrete Core Drills & Accessories
- Concrete Slab Profiler

Water

- Pressure Transducer / Data Logger & Associated Software
- pH Meters
- Turbidity Meters
- Iron Test Kits
- Dissolved Oxygen Meter
- Water Test Kits

Structural Steel, Bolt, and Paint

- Torque Wrenches
- Magnetice Gauges
- Tooke Gauges
- Wet File Gauges
- Sling Psychrometers
- Dye Test Kits

Equipment Listing

Continued – page 5

Environmental Testing

- OVA Meters (Trace Gas Analyzer by Flame Ionization)
- HNU Meters (Trace Gas Analyzer by Photoionization)
- Air-Stripping Unit for Water Treatment
- LEL/Oxygen Meter
- Draeger Pump and Assorted Tubes
- pH/ Conductivity/ Temperature Meters
- Hammer Drill and Associated Sampling Equipment

Field Laboratory Trailer

- Equipped as Required for Specific Projects

Surveying and Mapping Equipment

- Total Station Survey Instruments (Topcon, Lietz, Hewlett Packard, various models, 25 total)
- Wild T2 Precise Theodolite
- 2 Trimble 4000ssi Total Station GPS Recievers
L1/ L2 dual frequency capability
OTF (On The Fly) Initialization
1.0MB static memory
- 2 Compact L1/ L2 frequency GPS Antenna w/ detachable geodetic groundplane
- 1 Pacific Crest 35w Data Transmitter
- 1 Pacific Crest 2w Data Reciever
- Trimble GPSurvey Software (v2.30b)
- Trimble TRIMNET Software (v92.11c)
- Dell Dimension XPS-D333 Computer w/ Dell Trinitron Monitor

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

Equipment Listing

Continued – page 6

- CTX – 300 MHz Laptop Computer
- Toshiba – 200 MHz Laptop Computer
- Thodolites (Dietzgen, 2 total)
- Engineer's Transits
- Data Collectors (SMJ – Construction V, HP 48 GX, Topcon, Leitz, various models, 20 total)
- Wild N3 Precise Level
- Automatic Levels (Lietz, Pentax, Wild, various models, 25 total)
- Planimeters (4)
- Various Lengths of Engineer Chains, Precision Leveling Rods
- 12 ft. Boat with Trolling Motor
- Pontoon Boat

Computer Equipment:

Software

- MicroStation J
- MicroStation SE
- MicroStation V8 – (2) Network Administered
- Bentley View (41) Network Administered
- InRoads v8.3 – Network Administered
 - InRoads Bridge
 - InRoads Site
 - InRoads Storm & Sanitary
 - InRoads Survey

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

Equipment Listing

Continued – page 7

-
- AutoCAD 2005 Land Development Desktop – (2) Network Administered
 - AutoCAD Civil Engineering Desktop – Network Administered
 - AutoCAD 2005 – (2) Network Administered
 - Site SelectCAD Package
 - SurvCADD 2000 (2)
 - Corel WordPerfect 2000 (21)
 - Corel WordPerfect 2002 (20)
 - Microsoft Office 97 Professional (21)
 - Microsoft Office 2000 Premium (3)
 - Microsoft Office XP Professional (8)
 - Microsoft Office Professional 2003 (9)
 - Microsoft Windows 98SE (21)
 - Microsoft Windows 2000 Professional (3)
 - Microsoft Windows XP Professional (17)
 - Adobe Photoshop 7 (2)
 - Adobe PageMaker 7 (2)
 - Adobe Acrobat 6 Pro (21)
 - Adobe PageMill (2)
 - Adobe Illustrator 7 (2)
 - Adobe InDesign 2 (2)
 - Adobe GoLive 6 (2)
 - Macromedia Studio MX (2)
 - PCSTABL6/STED – Slope Stability
 - UTEXAS2 – Slope Stability
 - COGOPC+ - Surveying and Mapping

Equipment Listing

Continued – page 8

-
- CONTOUR+ - Surveying and Mapping
 - HEC1 – Flood Hydrograph Package
 - HEC2 – Water Surface Profiles
 - DAMS2 – SCS Structure Site Analysis
 - PONDPACK – Urban Hydrology and Detention Pond Design
 - GEOPRO – Geotechnical Engineering Software
 - LPILE Plus 4.0 for Windows – Pile Design
 - SHAFT 4.0 for Windows – Caisson Design
 - HELPMODEL – Hydrologic Evaluation of Landfill Performance
 - FLOWMASTER 7.0 - Network Administered Pipe and Ditch Sizing
 - WaterCAD for AutoCAD – 6.5 – Network Administered
 - StormCAD for Windows
 - CULVERTMASTER – Culvert Design and Analysis
 - EXXON I – Pavement and Subbase Thickness Design
 - Trimble GPSurvey Software (v2.30b)
 - Trimble TRIMNET Software (v92.11c)
 - Q & A Database
 - Peachtree Accounting (time & billing)
 - Protrax Axium accounting
 - Laboratory Test Data Reduction Programs
 - GeoSystems – Geotech Engineering Materials Testing
 - gINT 6 – (7)
 - Lotus 123 Spreadsheet

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

Equipment Listing

Continued – page 9

- HWY – Asphalt Pavement Thickness for Streets and Overlays
- HWLOAD – Asphalt Pavement Thickness for Heavy Wheel Loads
- Government Forms Software '98 (SF 254/255)
- Deed Plotter for Windows
- HEC-HMS
- HEC-RAS
- HEC-Storm Sewers
- Hydraflow Hydrographs
- Hydraflow Storm Sewers
- CP-4 Asphalt
- Server Software
 - Windows 2000 Professional Server
 - Microsoft Exchange 2000 Server
 - Symantec Anti-virus Server
 - Symantec Mail Security AVF filter for MS Exchange
 - Symantec Web Security
 - Veritas Backup Exec 9.1 for Windows Servers
 - TripLite Power Alert

Equipment Listing

Continued – page 10

Hardware

- PIII (400MHz – 1 GHz), 21 Stations total, up to 40GB Hard Drives
- P4 (1 GHz – 2 GHz) (14)
- P4 (2 GHz – 3.4 GHz) (5)
- Notebook Computers (6)
- Digital Cameras (3)
- Printers
 - HP Color LaserJet 4500
 - HP LaserJet 4100 (2)
 - HP LaserJet 4000
 - HP LaserJet 1300 (3)
 - HP LaserJet v4
- Plotters
 - HP DesignJet 1050C
 - HP DesignJet 750C (2)
- Fax Machines
 - HP 3100
 - Brother MFC4600
- Copiers
 - Xerox 5343C
 - Xerox Document Centre 440 DC
 - K&E CADD Copier
- Firewall
 - Cisco PIX 506E Security Appliance
- Compaq Proliant ML370 G2 Server
- TripLite UPS

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

| PROJECT NAME, TYPE AND LOCATION | NAME AND ADDRESS OF OWNER | NATURE OF YOUR FIRM'S RESPONSIBILITY | ESTIMATED CONSTRUCTION COST | PERCENT COMPLETE |
|---|--|--|-----------------------------|------------------|
| Richardson Branch Complex Raleigh County, WV | WVDEP - AML&R 601 57 th Street Charleston, WV 25304 | Engineering Design | N/A | 90% |
| Coaldale Refuse & Portals McDowell County, WV | WVDEP - AML&R 601 57 th Street Charleston, WV 25304 | Engineering Design | N/A | 100% |
| Mullens Portals Project Wyoming County, WV | WVDEP - AML&R 601 57 th Street Charleston, WV 25304 | Engineering Design | N/A | 100% |
| Elk Creek Portals Mingo County, WV | WVDEP - AML&R 601 57 th Street Charleston, WV 25304 | Engineering Design & Mapping - Deep Mine Reclamation, Portal Closure, Project Specifications, Water Quality/Treatment, Construction Monitoring | N/A | 100% |
| Rumble (Stevens) Refuse & Portals Boone County, WV | WVDEP - AML&R 601 57 th Street Charleston, WV 25304 | Engineering Design - Surface/Deep Mine Reclamation, Portal Closures, Project Specifications, Geotechnical Evaluations, Construction Monitoring | N/A | 100% |
| Belington Portals & Drainage Logan County, WV | WVDEP - AML&R 601 57 th Street Charleston, WV 25304 | Engineering Design - Surface/Deep Mine Reclamation, Portal Closure, Project Specifications, Water Quality/Treatment, Geotechnical Evaluations, Construction Monitoring | N/A | 100% |
| Mine Subsidence Investigations, Engineering Throughout WV | WV Board of Risk & Insurance Management 4501 MacCorkle Avenue South Charleston, WV 25309 | Mine Subsidence Investigations, Engineering Consulting Services | N/A | Ongoing Contract |

| | | | | |
|---|--|---|--------|------------------|
| Asbestos Inspections, Throughout WV | WVDOT / DOH 1900 Kanawha Blvd., East Charleston, WV 25305 | Asbestos Inspections | N/A | Ongoing Contract |
| WVDOT / DOH Testing & Inspection, Throughout WV | WVDOT / DOH 1900 Kanawha Blvd., East Charleston, WV 25305 | Testing and inspection services for WVDOT/DOH projects | N/A | Ongoing Contract |
| WVDOT / DOH Geotechnical & Drilling Services, Throughout WV | WVDOT / DOH 1900 Kanawha Blvd., East Charleston, WV 25305 | Geotechnical engineering and drilling services for WVDOT/DOH projects | N/A | Ongoing Contract |
| WVDOT / DOH Environmental & Drilling Services, Throughout WV | WVDOT / DOH 1900 Kanawha Blvd., East Charleston, WV 25305 | Environmental consulting services and/or related drilling services for WVDOT/DOH projects | N/A | Ongoing Contract |
| Indefinite Delivery / Indefinite Quantity Contract - Surveying & Mapping, Various Locations | US Army Corps of Engineers Huntington District 502 Eighth Street Huntington, WV 25701 | On-call surveying and mapping services for USACE - Huntington District projects | N/A | Ongoing Contract |
| Probable Hydrologic Consequences of Mining, Various Sites in WV and PA. | Various Mining Clients in WV and PA | Determine the potential impacts of mining-related activities on the hydrologic balance. Evaluate hydrologic and geochemical data; determination of potential for adverse hydrologic consequences; and recommendations for avoidance of adverse impacts. | N/A | Ongoing |
| America Church Bridge Replacement, Mingo County, WV | WVDOT / DOH 1900 Kanawha Blvd., East Charleston, WV 25305 | Highway / Bridge Design | N/A | 100% |
| FAA Improvement Projects (Various), Charleston, WV | Central WV Regional Airport Authority 100 Airport Road Charleston, WV 25311 | Civil Engineering / Surveying | \$3-5M | 90% |

| | | | | |
|---|---|---|--------|-----|
| New Haven Water / Sewer Line Extension, New Haven, WV | Town of New Haven PO Box 217 New Haven, WV 25265 | Water / Sewer Line Extension Design | \$1-3M | 90% |
| Roaring River Development, Fayette County, WV | Land Resources Co. 2000 River Edge Pkwy. Atlanta, GA 30328 | Civil Engineering, Site Design, Geotechnical Engineering, Drilling | N/A | 20% |
| Mammoth Coal Handling Facility, Kanawha County, WV | Mammoth Coal Company PO Box 150 Cannelton, WV 25036 | Geotechnical Engineering, Drilling, QA/QC, Laboratory Testing Services | N/A | 70% |
| Justice Mine Exploration, Boone County, WV | Independence Coal HC78, Box 1800 Madison, WV 25130 | Drilling & Geological services | N/A | 90% |
| Marion County Landfill Marion County, WV | WVDEP / DLR / LCAP 601 57 th Street, SE Charleston, WV 25304 | Landfill Closure Design - Site Characterization study, leachate management, closure cap design and QA/QC. Environmental / Geological services, Drilling, Surveying & Mapping, Geotechnical & Civil Engineering & Design, QA/QC, Laboratory Testing | N/A | 30% |
| Morgan County Landfill, Morgan County, WV | WVDEP / DLR / LCAP 601 57 th Street, SE Charleston, WV 25304 | Landfill Closure Design - Site Characterization study, leachate management, closure cap design and QA/QC. Environmental / Geological services, Drilling, Surveying & Mapping, Geotechnical & Civil Engineering & Design, QA/QC, Laboratory Testing | N/A | 30% |
| Heartland Facility Additions Kingwood, Keyser & Rainelle, WV | Healthcare & Retirement Corporation of America, Inc. 7361 Calhoun Place, Suite 300 Rockville, MD 20855 | Civil Engineering Site Design, Geotechnical / Subsurface Drilling & Exploration, Environmental assessment, Surveying & Mapping, QA/QC/Testing for additions to healthcare facilities | N/A | 95% |

TOTAL NUMBER OF PROJECTS:

TOTAL ESTIMATED CONSTRUCTION COSTS: \$

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

| PROJECT NAME, TYPE AND LOCATION | NATURE OF FIRMS RESPONSIBILITY | NAME AND ADDRESS OF OWNER | ESTIMATED COMPLETION DATE | ESTIMATED CONSTRUCTION COST | |
|---|--|---|---------------------------|-----------------------------|---------------------------|
| | | | | ENTIRE PROJECT | YOUR FIRMS RESPONSIBILITY |
| 502 Junction Substation, Mt. Morris, PA & PREXY Substation, Cannonsburg, PA | Preparation of an ALTA/ACSM Land Title Survey for Kenny Construction Co. | Allegheny Energy Service Co. 800 Cabin Hill Dr., Greensburg, PA 15601 | 2011 | N/A | On-going project |
| Longview Power Plant Monongalia County, WV | Geotechnical / Subsurface Investigations, Drilling & Sampling, Surveying & Mapping, QA/QC, Laboratory Testing for Siemens Power Generation and Aker Construction | GenPower Holdings, L.P. 1040 Great Plain Ave., Needham, MA 02492 | 2010 | \$1,820,000,000 | Ongoing; \$750,000+ |
| Raleigh Street Extension Berkeley County, WV | Geotechnical Engineering, Drilling & Sampling, Surveying & Mapping Services for PB Americas, Inc. | WVDOT / DOH 1900 Kanawha Blvd., East Charleston, WV 25305 | 2009 - 2010 | N/A | Ongoing project |
| Nuttallburg Mine Complex, New River Gorge, WV | Geotechnical Engineering, Drilling, Lab Testing, Surveying & Construction Management | National Park Service PO Box 246 Glen Jean, WV 25846 | 2010 | N/A | \$100,000 |
| Sawmill Village Snowshoe, WV | Drilling & Sampling, Geological Services | Snowshoe Mountain Resort 10 Snowshoe Drive Snowshoe, WV 26209 | 2009 | N/A | \$12,000 |

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

| PROJECT NAME, TYPE AND LOCATION | NAME AND ADDRESS OF OWNER | ESTIMATED CONSTRUCTION COST | YEAR | CONSTRUCTED (YES OR NO) |
|---------------------------------|---------------------------|-----------------------------|------|-------------------------|
|---------------------------------|---------------------------|-----------------------------|------|-------------------------|

| | | | | |
|---|---|-----|------|-----|
| Tibbs Run (Perine) Landslide Remediation Project (Drilling, remedial design package, relocation of utilities, erosion control, construction documentation, revegetation) | WVDEP - AML&R 105 South Railroad St. Philippi, WV 26416 | N/A | 2008 | Yes |
| Fairmont (Smith) Subsidence (Mining assessment, site reconnaissance, field & subsurface investigations, drilling, field surveying & mapping, remedial design package, construction documentation, pre/post construction meetings, construction monitoring) | WVDEP - AML&R 105 South Railroad St. Philippi, WV 26416 WV Board of Risk & Insurance Management 4501 MacCorkle Avenue South Charleston, WV 25309 | N/A | 2009 | Yes |
| Jessop Portals Jessop, WV | Friends of the Cheat 109 South Price Street Kingwood, WV 26537 | N/A | 2007 | Yes |
| Federal No. 2 Mine Refuse Area Refuse Sampling & Vegetation Analysis Bula, WV | Peabody Energy Miracle Run Road Bula, WV | N/A | 2008 | Yes |
| Grafton Coal Company Mt. Storm, WV | NedPower II, LLC Chantilly, VA 20151 | N/A | 2008 | Yes |
| HIGHLANDS AT BLACKWATER LAND DEVELOPMENT PROJECT TUCKER COUNTY, WV | BLACKWATER INVESTMENT GROUP 2615 WINDRIDGE DRIVE DOYLESTOWN, PA 18902 | N/A | 2007 | Yes |
| Jimtown Tipple Lumberport, WV Geotechnical Evaluation | WVDEP AML & R 105 S. Railroad St. Suite 201 Philippi, WV | N/A | 2004 | Yes |
| Vens Run Landslide #2 Jane Lew, WV Geotech/Drilling/Surveying | WVDEP AML & R 105 S. Railroad St. Suite 201 Philippi, WV | N/A | 2004 | Yes |

| | | | | |
|---|---|-----|------|----------|
| Mettiki Coal, Test Drilling for Monitoring Well Development over a Proposed Deep Mine, Garrett County, MD | Mettiki Coal Company 293 Table Rock Road Oakland, MD 21550 | N/A | 2004 | Yes |
| Coastal Coal, Environmental Assessment of Brooks Run Mining Properties, Braxton County, WV | Coastal Coal Company 25 Little Birch Road Sutton, WV 26601 | N/A | 2003 | Yes |
| Mettiki Coal, Rock Coring & Piezometer Installation Over Longwall Mine in Grant Co, WV | Mettiki Coal Company 293 Table Rock Road Oakland, MD 21550 | N/A | 2005 | Yes |
| Fairmont General Hospital Wellness Center Marion County, WV Geotech./Mining Assessment | Fairmont General Hospital Locust Avenue Fairmont, WV | N/A | 2006 | Yes |
| WVU Alumni Center Monongalia County, WV Geotechnical Evaluation | West Virginia Alumni Assoc. Erickson Alumni Center Morgantown, WV | N/A | 2004 | Yes |
| Rosemont Highwall & Portals Barbour County, WV Design Regrading & Drainage | WVDEP AML & R 105 S. Railroad Street Suite 201 Philippi, WV | N/A | 2002 | Yes |
| Duffy St./Van Rufus Drive Subsidence Project Shinnston, WV Reclamation Design | WVDEP AML & R 105 S. Railroad Street Suite 201 Philippi, WV | N/A | 2003 | Yes |
| Suncrest Towne Centre Monongalia County, WV Geotechnical Eval./QA/QC | 705 Development Group Suncrest Village Morgantown, WV | N/A | 2004 | On-Going |
| Westwood & Cass Elementary Schools, Morgantown High, Clay Batelle High, Mason-Dixon Elementary Monongalia County, WV Geotechnical/Surveying | Monongalia County Board of Education 13 S. High Street Morgantown, WV | N/A | 2004 | 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 |
| Lincoln Hall Dormitory, WVU Evansdale Campus Civil, ESA, testing | West Virginia University, Planning Design & Construction Morgantown, WV 26506 | Project cost \$14,500,000 | 2006 | yes | American Campus Communities, 805 Las Cimas Parkway Ste 400 Austin TX 78746 |
| West Virginia Univ. Admin Bldg & Parking Bldg, Morgantown WV; geotech/drilling/fou ndation design | West Virginia University, Planning Design & Construction Morgantown, WV 26506 | 100,000 | 2004 | Yes | March Westin Co., 360 Frontier St., Morgantown WV 26505 |
| Waterfront Hotel & Conf Center, Morgantown WV Geotech/drilling/ testing | Platinum Properties, 990 Elmer Prince Dr Morgantown, WV 26505 | Project cost \$32,000,000 | 2004 | Yes | March Westin Co., 360 Frontier St., Morgantown WV 26505 |
| University Towne Centre, Retail Shopping Complex, Granville WV; testing, surveying, geotech, drilling | Ideal Co. (Cracker Bar- rel) 8313 N. Kimmel Rd, Clayton OH 45315; Complete Const.(Olive Garden), 11700 Common- wealth, Louisville KY 40299 | Unknown | 2007 | Various retail stores built; development on-going | CONSOL Energy/CNX Land Resources, 4000 Brownsville Rd., South Park PA 15129 |
| Monongalia General Hospital Addition Surveying Services | Monongalia Health Systems, Inc., 1200 J.D. Anderson Drive, Morgantown, WV 26505 | Project Cost: \$92,000,000 | 2008 | Yes | Turner Construction Co. Two PNC Place 620 Liberty Avenue, 27 th Floor Pittsburgh, PA 15222 |
| Engineering Sciences Building, East Wing Addition Surveying Services | West Virginia University, One Waterfront Place, Morgantown, WV 26506 | N/A | 2008 | Yes | TEDCO Construction Co. TEDCO Place Carnegie, PA 15106 |
| Mon-Fayette Expressway Surveying, QC / Testing Services | WV Dept. of Transportation Building 5, 1900 Kanawha Blvd., East Charleston, WV 25305 | N/A | Ongoing | Yes - ongoing | Mosites Construction Co. 4839 Campbells Run Road Pittsburgh, PA 15205 |

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

Triad Engineering, Incorporated (TRIAD) is a full service engineering firm specializing in the areas of geotechnical, civil and mining engineering and design, environmental assessment, surveying and mapping, construction monitoring, subsurface exploration, and laboratory testing, among other earth science disciplines. Our current work force includes civil, geotechnical and mining engineers, environmental scientists, geologists, hydrologists, chemists, surveyors, trained Computer Added Design Drafting (CADD) draftsmen, field and laboratory technicians, drillers and support personnel.

TRIAD was founded in Morgantown, West Virginia (WV) in 1975 by three principals who molded the firm based on their belief that if the highest standards were maintained throughout all aspects of the company, they would earn their clients' respect, therefore ensuring the firm's continued growth. Today, TRIAD has a staff of over 200 full-time employees and six office locations in WV, Pennsylvania, Maryland and Virginia. By providing an array of competent services, using modern equipment, and maintaining a well-trained professional staff, TRIAD has maintained the founders' philosophies and proven that customer satisfaction results in good relationships and repeat business.

Furthermore, TRIAD is an employee-owned company with an active Board of Directors. Current Officers and Board Members are:

- Chief Operating Officer (COO) – John Meeks, PG, LRS
- Senior Vice President – Randy Moulton, PE
- Chief Financial Officer (CFO) – Tina McPhail
- William Gardner
- Dan Hamric, PE
- Robert Holstead, PE
- Parviz Jalali, PE
- David Moore
- Brad Reynolds, PE

TRIAD has successfully performed thousands of projects utilizing its professional expertise. TRIAD employees pride themselves on their ability to provide the firm's clients with top-quality work that is on schedule and within budget. Our company is small enough to be responsive to the needs of our customers and large enough to remain at the forefront of scientific solutions.

We are extremely proud of our performance under past contracts, including those we have held with the WVDEP. As of this date, more than 400 AML&R projects have been undertaken by TRIAD. The vast majority of these projects have been successfully completed on time and within the proposed cost estimate. As always, TRIAD will commit the necessary resources to meet the needs of this project.

20. The foregoing is a statement of facts.

Signature: 

Title: Marketing Coordinator

Date: 14 March 2013

Printed Name: Dane H. Ryan

| AML and RELATED PROJECT EXPERIENCE MATRIX | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---------------------------------------|------------------------------------|----------------------|-------------------------------------|---------------------|----------------------------|--|--------------------------|------------------------|--|---------------------------------------|-----------------|-----------------------------|--------------------|------------------------|---|-----------------------|----------------|--|--------------------------|--------------------|
| PROJECT | Exp. Basis C=Corp. P=Personal * | Additional Info Provided in Section (s) ** | PROJECT EXPERIENCE REQUIREMENTS | | | | | | | | | | | | | | | PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional | | | | | |
| | | | Abandoned Surface Mine Reclamation | Abandoned Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replace ment | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | Lee McCoy, P.E. | James R. "Bo" Criniti | Amanda Sulph'n | | John Meeks, P.G., L.R.S. | Steven A Clark, PS |
| Morris Creek Drainage | C | | | X | X | X | | | | | X | X | X | X | X | X | X | P/M | | P | | | M |
| WVU Tech Drainage | C | | | X | X | X | | | X | | X | X | X | X | | | X | P/M | | P | | | M |
| Coal Hollow Refuse "A" | C | | | X | X | X | | | | | X | X | X | X | | X | X | | | P | | P/M | P/M |
| Dille-Widen Water Feasibility | C | | | | | | | | | | | X | | | | | | | | | | P/M | |
| Mullens Water Feasibility | C | | | | | | | | | | | X | | | | | | | | | | P/M | |
| Logan AMD | C | | | | X | X | | | | | X | X | | X | X | | X | | | | | P | P/M |
| Elk Creek Portals | C | | | X | X | X | | | | | X | X | X | X | | | | P/M | P | | | | P |
| Rumble (Stevens) Refuse & Portals | C | | X | X | X | X | | | | | X | X | X | | X | | X | P/M | P | | | | P |
| Mullens Portals | C | | X | X | X | X | | | | | X | X | X | X | X | X | X | P/M | P | | | | P |
| Belington Portals & Drainage | C | | X | X | X | X | | | | | X | X | X | X | | X | X | P/M | P | | | | P |
| Coaldale Refuse | C | | X | X | X | X | | | | | X | X | X | | | | | P/M | P | | | P | P |
| Richardson Branch Complex | C | | X | X | X | X | | | | | X | X | X | X | | | | P/M | P | | | P | P |

* List whether project experience is corporate or personnel based or both.

** Use this area to provide specific sections or pages if needed for reference.

*** List Primary Design personnel and their functional capacity for the projects listed.

Attachment "C"

I. INTRODUCTION

TRIAD ENGINEERING, INC., (TRIAD) proposes to perform surveying, geotechnical and other engineering services in order to develop engineering drawings, contract specifications and other contract documents as may be required for the letting of construction for the Vickers (Butcher) Drainage Design Project. Factors that make TRIAD a strong candidate for consideration include:

- Past experience & complete familiarity with AML&R projects
- In-house capabilities
- Experienced professional and support personnel
- Totally employee owned and operated West Virginia firm
- Strong geotechnical background
- Outstanding laboratory facilities
- Expeditious & economical mobilization of drilling rigs, equipment and personnel
- Experience in major design projects

TRIAD has completed over 400 projects for the DEP under various contracts. Each project has involved various areas of expertise and problem types. In addition to DEP related projects, TRIAD has successfully completed major design projects for other government agencies, large coal mining concerns, chemical manufacturers, developers, and various other clients. TRIAD'S direct responsibilities in these projects have included, but were not limited to:

- Permit Applications
- Surveying and Mapping
- Geotechnical Investigations and Analyses
- Hydrology and Hydraulics
- Design Development and Drawings
- Construction Specifications
- Construction Bid Packages
- Construction Observation and Monitoring
- Construction Management

II. GENERAL EXPERIENCE AND CAPABILITIES

General Information

TRIAD is an engineering firm providing professional services in the areas of civil, environmental, mining, geotechnical and chemical engineering; site assessment; planning and landscape architecture; geology and hydrogeology; surveying and mapping; construction inspection, and materials testing; and, related earth-science disciplines. Our firm has provided services on many thousands of projects of varying size and complexity since beginning operations in 1975. Clients include mining and industrial companies, governmental agencies, contractors, architects, engineers, developers, owners and commercial organizations.

TRIAD was founded in 1975 in Morgantown, West Virginia by three civil engineers from West Virginia University. A second office was opened in Charleston, West Virginia in 1979 and later relocated to our present Scott Depot, West Virginia location. TRIAD expanded into the northern Virginia area beginning in 1989 with offices in Winchester and Harrisonburg, Virginia, and began operations in Pennsylvania in 1990 with a full-service office in Greensburg. Most recently, TRIAD has moved its Harrisonburg office to Ashburn, Virginia and opened offices in Hagerstown, Maryland and Athens, Ohio.

Facilities and equipment available to support our staff have grown substantially during the past 35 years. Each of our offices contains computer facilities that are utilized for hydrogeologic evaluations, risk assessment, stability analyses, survey data reduction, mapping and site design. Our computer based drafting and reproduction facilities are used to develop detailed site plans (monochrome or color), construction details, and other graphic documentation as required for our projects. Our fleet of drilling rigs and support vehicles are based at our West Virginia and Virginia offices and are maintained in-house to meet the needs of our engineering and site assessment projects. Well equipped, modern state-of-the-art materials testing laboratories are also maintained at our offices to support our engineering and construction related projects. Our offices also utilize both standard 35-mm photography and digital cameras to photo-document our projects.

TRIAD currently includes a staff of more than 170 personnel located in seven offices. Our personnel include chemical, civil, environmental, geotechnical and mining engineers, as well as geologists and hydrogeologists, biologists, chemists, environmental scientists, planners, landscape architects, natural resource specialists, regulatory compliance specialists, permitting engineers, risk assessors and health and safety specialists. Our technical support and administrative staff includes designers, draftsmen, surveyors, technicians, drillers, construction inspectors and clerical personnel. Most of our professional and technical staff have been with the company for many years. We pride ourselves on a very low turnover rate, which adds to continuity and enhances the level of productivity and experience afforded by TRIAD.

Surveying and Mapping

TRIAD has completed numerous mapping projects since our inception in 1975. These projects have included performing ground control for aerial mapping, field mapping of specific sites and/or obscured areas, and field mapping of in-stream topography. TRIAD has performed topographic surveying and mapping and construction layout for large retail shopping outlets, as well as construction layout for major bridge/roadway projects under construction for the West Virginia Department of Transportation. TRIAD utilizes state of the art tools and equipment including Global Positioning system base station and portable GPS HF radio receivers, as well as total station theodolites with electronic data collectors. Maps and plats are developed in either AutoCADD or Microstation format.

TRIAD maintains quality control by adherence to our standard Operating Procedures Manual for Surveying. This document is continuously updated to stay abreast of new survey innovations and accuracy standards. All topographic map development is completed to the standards set forth by the National Map Accuracy Standards or other appropriate quality standards. MSHA and OSHA Hazwoper trained survey crews are available for hazardous work environments.

TRIAD currently can field up to 15 experienced 2 and 3 man survey parties. Personnel making up these parties consist of licensed land surveyors, experienced instrument persons and rodmen. As can be seen on Block 14 of the WVDEP/AML Consultant

Confidential Qualification Questionnaire (CCQQ), TRIAD possesses the most modern equipment available to perform surveying services to support the engineering design required for this project.

Subsurface Investigation

TRIAD currently maintains fifteen rotary drill rigs outfitted for geotechnical and environmental investigation work. All rigs and support trucks are outfitted for services which may be required on any project. Drilling equipment includes samplers, casing, drill rods, coring bits, piping, pumps and various drilling tools. Most of our rigs are mounted on ATV, tracked and 4WD carriers. Skid mounted rigs are also available to permit gaining access to difficult locations without the need for dozer assistance. Air purifying and supplied air respirators are maintained in-house for drilling programs involving burning refuse where concentrated levels of carbon monoxide may be encountered. Our drill crews, field geologists and support personnel have received OSHA and MSHA safety training for work on hazardous sites, and are certified monitoring well drillers. TRIAD employs a full time corporate safety officer responsible for ensuring the safety of our employees. TRIAD has performed drilling activities on an AML&R project where levels of CO were in excess of 1900 parts per million. Our drilling personnel are experienced in all phases of exploration work which may be required on this project.

Typical types of project for which we have provided drilling services include:

- Highways, bridges and haulroads
- Railways and sidings
- Refuse piles
- Burning refuse investigations
- Dams and impoundments
- Valley fills
- Landslides
- Subsidence investigations
- Mine relatedness investigations
- Coal preparation plants
- Commercial structures
- Residential structures

- Pavement design and evaluations
- Instrumentation installation
- Groundwater monitoring wells & piezometers
- Leaking underground storage tanks
- Landfills
- Hazardous waste investigations
- Special sampling and testing

Laboratory Services

Geotechnical testing and analysis has been a major discipline of TRIAD since our inception. In addition, we have facilities and equipment to perform various chemical and analytical testing. Fully equipped geotechnical testing laboratories are maintained in both our Morgantown and Scott Depot offices. An outline of our in-house laboratory and field testing capabilities is as follows:

Geotechnical and Materials Testing

- Moisture content determinations
- Grain size analysis
- Plastic limit determinations
- Liquid limit determinations
- Shrinkage limit
- Slake durability testing
- Shear strength determinations
- Consolidation characteristics
- Permeability testing
- Compaction testing
- Soundness testing
- Specific gravity determinations
- CBR determinations
- Unit weight determinations

Chemical and Analytical Testing

Soil Analysis

- ph (field)
- ph (lab)

Water Analysis

- Temperature
- ph
- Specific Conductance
- Flow
- Iron Content

Design Engineering and Contract Document Preparation

TRIAD has extensive experience in design engineering and preparation of construction contract drawing on projects for the WVDEP/AML&R, OSMRE as well as similar projects for private concerns.

III. QUALIFICATIONS OF PERSONNEL

TRIAD now maintains a staff of over 170. The professional staff includes over 60 individuals with college degrees in the scientific and technical area of civil/geotechnical engineering, mining engineering, environmental engineering, geology, hydrogeology, and soil science/agronomy. Many of the professional staff have advanced degrees and are registered professional engineers, geologists or surveyors. The technical support and administrative staff includes engineering technicians, draftsman, surveyors, drillers, construction inspectors and clerical personnel. Most of our professional and technical staff have been with the company for many years. We pride ourselves in a very low turnover rate which adds to continuity and enhances the level of productivity and experience afforded by our company.

Since the company was founded in 1975, our personnel have successfully completed increasingly complex and difficult projects. Services include geotechnical engineering and general civil engineering design projects related to abandoned mine lands, mining and environmental engineering.

IV. CORPORATE SPECIALIZED EXPERIENCE

TRIAD has provided a wide range of services on coal related projects since the firm began operations more than thirty years ago. With this extensive experience in geotechnical, design engineering, surveying and mapping, and contract document preparation, we are expertly qualified to provide these services for the abatement of problems arising from abandoned mine lands. We maintain in-house expertise and capabilities for all phases of the abandoned mine lands program which require services in surveying and mapping, subsurface investigation, drilling, testing and geotechnical engineering, design engineering, construction drawings and specifications, contract document preparation and other related technical and administrative duties associated with the successful completion of a design/construction project.

V. MANAGEMENT PLAN, LOCATION OF FACILITIES & WORK APPROACH

MANAGEMENT PLAN

Resource Allocation & Location of Facilities: As indicated in other sections of this response, TRIAD has the staff, equipment and other resources to complete most AML&R projects totally in-house. The location of our offices and laboratories in Scott Depot and Morgantown gives us ready access to both the northern and southern coalfields of West Virginia. TRIAD'S staff of more than 170 individuals, our support equipment and facilities have been assembled to provide geotechnical, design, and other engineering related services to our clients. Our professional staff has extensive experience on AML&R, or similar design projects, and is well qualified to perform the work. If awarded this project, we are committed to allocating the personnel and resources required to complete the work in a timely, competent, and cost effective manner.

Management and Project Team Organization:

TRIAD will assign a project manager who will be responsible for the overall management of the project. The project manager will schedule a site visit with the AML&R Project Manager to familiarize himself with the work requirements and prepare a work plan for review. Our project manager will meet with AML&R personnel, as required, to develop a complete understanding of the work directive and to answer any questions concerning

the proposed work approach. The project manager will review the project requirements and assign team members and allocate resources needed for timely completion of the project.

Upon receipt of authorization to proceed with a project, the project manager will be responsible for daily execution and coordination of all phases of the project. He will supervise other staff members working on a project, and coordinate all field and laboratory activities. The project manager will also be responsible for maintaining liaison with AML&R personnel and, when required, issuing periodic progress reports.

As the project progresses, the project manager will periodically meet with AML&R personnel to review progress, discuss problems, and evaluate various corrective alternatives. Input from AML&R personnel will be actively solicited on each project.

Schedule and Budget Control:

The project manager will be responsible for monitoring and controlling project schedules and budget. As the work progresses, the project manager will evaluate progress on a weekly basis and compare the progress to the established work schedule. If these reviews indicate that a schedule problem is developing, the project manager will meet to discuss the problem and explore options for correcting the situation. If circumstances develop that will make it impossible to maintain the original schedule, AML&R personnel will be immediately informed of the situation and a mutually satisfactory schedule adjustment will be made.

Personnel time and expense charges are maintained and allocated to projects on a weekly basis. Using this data, together with his knowledge of exploration, testing and subcontractor costs, the project manager will review project budget status on a weekly basis. The percent of work completed will be compared to the percent of costs incurred in order to quickly identify any budget problems which may develop. If potential budget problems are identified, they will be evaluated by the project manager. If measures to eliminate potential cost overruns cannot be eliminated, AML&R personnel will be immediately informed of the problems and causes. A mutually agreeable budget will be prepared or the scope of work will be revised to conform to the original budget, based on the nature of the problem.

WORK APPROACH

Work Directive and Initial Planning:

Upon notice to proceed, our project manager will review the work directive, discuss the project with AML&R personnel and visit the site to become familiar with the project and work requirements. Available site information and data, such as results of previous borings, geologic reports, or old mine maps will be reviewed. Based on this information, the project manager will plan the scope of work required including: surveying and mapping, subsurface investigation and laboratory analysis.

Surveying and Mapping:

Prior to undertaking any surveying, our project manager will meet with our surveying staff to determine the extent and required accuracy of the work involved. We will then determine if existing mapping such as U.S.G.S., or Corps of Engineers, Highway Department or other utility mapping is available for the area. Should satisfactory existing mapping be available, we will utilize this (along with such location or "fill-in" surveys as are necessary) in order to minimize the project cost.

Subsurface Investigation:

The project manager will determine the best suited equipment, personnel, and access routes for drilling equipment, such that drilling work can begin as quickly as possible. The results and progress of the drilling work will be monitored on a continuing basis by the project manager to determine that the needed information is being obtained. When necessary, the drilling program will be revised as it progresses to account for unanticipated conditions. The need for special drilling procedures, observation wells, piezometers, slope inclinometers, angle borings, and hand sampling techniques, etc. will be evaluated by the project manager.

Laboratory Testing:

Testing requirements for the project will be developed by our project manager or a designated member of the project team. Since practically all of the testing will be performed in-house, the results can and will be evaluated on an on-going basis. This will permit us to eliminate unneeded tests before they are performed and to revise the

testing program to better provide data which will be useful for project evaluation and design.

Design Development Report:

After the field and laboratory investigations are complete, an engineering report will be prepared and submitted to the DEP for review and comment. The report will contain:

1. Project description
2. Boring location plan and topographic mapping
3. Boring logs
4. Description of subsurface conditions including soil, bedrock and groundwater
5. Laboratory test results
6. Recommended alternative(s)
7. Special recommendations such as potential environmental effects of the design, damage to adjacent property, loss of use, and future effects.

After review and approval, TRIAD will proceed with preparation of construction documents including Drawings, Specifications, and a Detailed Cost Estimate.

Design Drawing and Specifications:

Design drawings and specifications will be prepared to meet the site specific criteria for the project. The drawings will accurately reflect the site conditions and depict the proposed work in a clear and understandable manner. The drawing packages will as a minimum include a site plan, cross sections, and details as necessary to define the scope of work. Detailed technical specifications will be prepared for general working conditions as well as each work item. The specifications will be the contractor's guide to the work and will set the guidelines for quality and materials to be used in the construction. All work will be reviewed and certified by one of our registered professional engineers.

Construction Cost Estimate:

Upon completion of the final plans and specifications, the expected cost of the work will again be evaluated. This cost evaluation will be made using unit cost data from various sources (i.e. previous bids on similar projects, information solicited from contractors,

Departments of Highways, construction cost data, Means unit cost, etc.) The final cost estimate will be discussed with AML&R personnel and, whenever necessary, revisions to the plans and specifications will be made to bring the estimated costs in line with the project budget. We expect to coordinate our efforts with the DEP throughout the project so that the need for final revision will be minimal.

Project Meetings:

Our engineers will meet with AML&R representatives on an as-needed basis during the planning and design phases of the project to assure an understanding of the work scope for that project and to keep the DEP informed of our progress and results. Upon completion of the design phase, our personnel will be available to attend pre-bid and pre-construction meetings to answer questions concerning the design and clarify the intent of the drawings and specifications.

Project team personnel will also be available to make periodic inspections during construction and do make a final inspection upon completion of construction. Summary reports of our inspections will be prepared and submitted to the DEP. These reports will summarize our observations of construction activities and progress and will indicate any problems which are observed. If construction problems or deficiencies are observed, recommended solutions will be presented in the inspection reports.



RELATED SERVICES

QA/QC, CONSTRUCTION MONITORING, HIGHWAY INSPECTION

Construction monitoring services provided by Triad Engineering include soil, concrete, aggregate, asphalt, steel, welding, and paint. Triad maintains a staff of engineering technicians who are certified by state-specific highway and materials departments, ACI, FAA, and others. Triad's engineering technicians work under the close supervision of registered professional engineers.

Senior level technicians are skilled in interpreting design drawings, as well as typical construction inspection and testing. Services provided on these projects have included: testing of compacted fill with a nuclear moisture density gauge, documentation of construction personnel hours and equipment utilized, quantity determinations, submittal of daily and weekly reports, interpretation of technical specifications, inspection of liner installation, and construction recommendations. Triad routinely provides technicians with OSHA and/or MSHA certification.

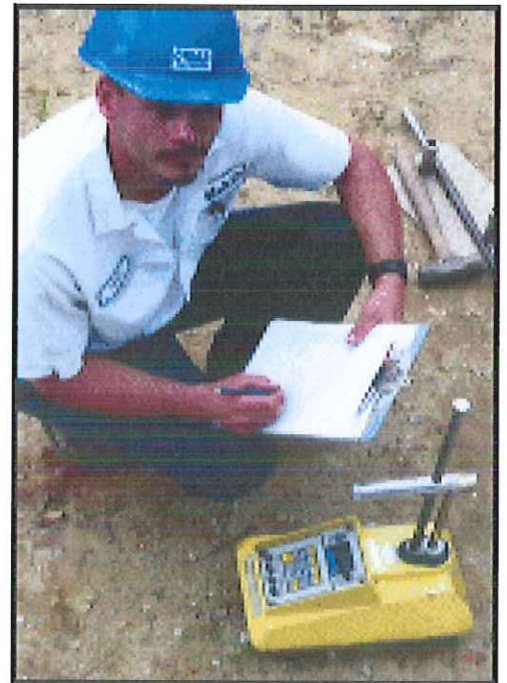
Services Include:

- Field Quantity Estimates and Verification
- Inspection of Deep Foundations, including Driven Piles, Caissons, and Auger Cast Piles
- Footing Inspection and Bearing Capacity Evaluation
- Field Concrete Testing and Sampling, including Coring, Windsor Probe, and Rebound Hammer Testing

QA/QC, CONSTRUCTION MONITORING, HIGHWAY INSPECTION

Services continued:

- Batch Plant Inspection
- Steel Inspection, including Bolt Torque,
- Visual Weld Inspection, and Dye Testing
- Penetrant Testing
- Paint Thickness (Wet and Dry Film)
- Water Testing, including pH, Iron, and Turbidity
- Fireproofing Inspection
- Floor Flatness Testing
- In-place Density Testing
- Grade Checking
- Nuclear Moisture Density Gauge Testing



**Abandoned Mine Lands
Completed Projects – 1992 to Present
Triad Engineering
St. Albans, West Virginia**

| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|---------------------------------------|-----------------|---|
| 1 9 9 2 | Jim's Branch Refuse Piles | Wyoming Co. | Surveying, Mapping, CADD |
| | Newsome Branch Refuse | McDowell Co. | Surveying, Mapping, CADD |
| | Red Hollow Burning Refuse | Mercer Co. | Surveying, Mapping, CADD |
| | Turnhole Branch | McDowell Co. | Surveying, Mapping, CADD |
| | Newett (Crum) Burning Refuse | Logan Co. | Drilling & Sampling, Temperature Probes |
| | Campbell's Creek (Hodge) Landslide | Kanawha Co. | Drilling, Geotechnical Analyses |
| | Decota (Persinger) Landslide | Kanawha Co. | Drilling, Geotechnical Analyses |
| | Beckley (Long) Subsidence | Raleigh Co. | Drilling, Geotechnical Analyses |
| | Tuppers Creek (Turley) Drainage | Kanawha Co. | Drilling, Geotechnical Engineering |
| | Kelly's Creek Portals, Burning Refuse | Kanawha Co. | Surveying, Mapping, CADD |
| | Welch (Moore) Vertical Opening | McDowell Co. | Drilling, Engineering, Temperature Probes |
| | Milburn Burning Refuse | Kanawha Co. | Drilling, Surveying, Engineering |
| | Whitesville (Averson) AML | Boone Co. | Drilling & Sampling |
| | Kelly's Creek Road Burning Refuse | Kanawha Co. | Drilling, Surveying, Engineering |
| | Manila Creek (Bryant) Landslide | Putnam Co. | Drilling, Surveying, Engineering |
| | Hilltop (Logan) Subsidence | Fayette Co. | Drilling, Subsidence Investigation |
| | Taylorville (Garten) Drainage | Mingo Co. | Drilling & Sampling |
| | MacArthur Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Carbon (Williams) Burning Refuse | Kanawha Co. | Drilling & Sampling, Temperature Probes |
| | Davis Creek (Larabee) Subsidence | Kanawha Co. | Drilling, Subsidence Investigation |
| | Chapmanville AML | Logan Co. | Drilling & Sampling |
| | Dry Branch Burning Refuse | Kanawha Co. | Drilling, Geologic Investigation |
| | Henline Subsidence | Harrison Co. | Drilling, Subsidence Investigation |
| | Pauley Burning Coal Seam | Kanawha Co. | Drilling, Subsidence Investigation |

West Virginia Department of Environmental Protection

**Office of Abandoned Mine Lands and Reclamation
Completed Projects – 1992 to Present**

**Triad Engineering
St. Albans, West Virginia**

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|-------------|------------------------------------|-----------------|--|
| 1992 | Stevenski Subsidence | Marion Co. | Subsidence Investigation |
| | Albert Highway | Tucker Co. | Investigation, Design, Re-grade, Drainage, Portals |
| | A.S.&K. Bond Forfeiture | Monongalia Co. | Surface & Deep Mine Drainage Investigation |
| | F & M Coal | Preston Co. | Surveying, Mapping, CADD |
| | Moran Subsidence | Marion Co. | Subsidence Investigation |
| | Monongah (Mayo) subsidence | Marion Co. | Subsidence Investigation |
| | Mount Claire Refuse | Harrison Co. | Investigation and design, Refuse, Drainage, Re-grade |
| | Fairmont (Shipco) Subsidence | Marion Co. | Subsidence Investigation |
| | Farmington (Gum) Subsidence | Marion Co. | Subsidence Investigation |
| | Rivesville (Straight) Subsidence | Marion Co. | Subsidence Investigation |
| 1993 | Morgantown (Fox) Subsidence | Monongalia Co. | Subsidence Investigation |
| | Fairmont (Parks) Subsidence | Marion Co. | Subsidence Investigation |
| | Moundsville (Oliver) Subsidence | Marshall Co. | Subsidence Investigation |
| | Fairmont (Hines) Subsidence | Marion Co. | Subsidence Investigation |
| | Morgantown (McCabe) Subsidence | Monongalia Co. | Subsidence Investigation |
| | Ashland (Poca Land) Complex | McDowell Co. | Surveying, Mapping, CADD |
| | Helen (Lewis) Refuse | Raleigh Co. | Surveying, Mapping, CADD |
| | Minden Mine Dump | Fayette Co. | Surveying, Mapping, CADD |
| | Pageton Refuse Pile | McDowell Co. | Surveying, Mapping, CADD |
| | Eckman Refuse Pile | McDowell Co. | Surveying, Mapping, CADD |
| 3 | Micco (Elledge) Drainage | Mingo Co. | Drilling, Geotechnical Analyses, Surveying |
| | Big Creek "C" | Logan Co. | Drilling, Geotechnical Analyses |
| | MacArthur (Brush) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Davis Creek (Snodgrass) Subsidence | Kanawha Co. | Drilling, Subsidence Investigation |

**West Virginia Department of Environmental Protection
Office of Abandoned Mine Lands and Reclamation
Completed Projects – 1992 to Present**

**Triad Engineering
St. Albans, West Virginia**

Page 3

| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|--------------------------------------|--------------|---|
| 1 9 9 3 | MacArthur (Kinsley) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Taylorville Drainage II | McDowell Co. | Drilling & Sampling, Engineering |
| | Elbert (Lane) | Mingo Co. | Drilling & Sampling |
| | Glen Morgan (Lilly) Subsidence | Boone Co. | Drilling, Subsidence Investigation |
| | Marrowbone Creek (Dingess) Landslide | Mingo Co. | Drilling & Sampling, Engineering |
| | Black Betsy (Adkins) Landslide | Putnam Co. | Drilling, Surveying, Engineering |
| | Chief Logan State Park Dam | Logan Co. | Drilling, Surveying & Mapping, Engineering CADD |
| | Apple Grove (Smith) Subsidence | Mason Co. | Drilling, Subsidence Investigation |
| | Logan Landslide | Logan Co. | Drilling & Sampling |
| | Midway (McVey) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Williamson Branch (Warren) Landslide | Mingo Co. | Drilling & Sampling |
| | Peter Street (McNeely) Drainage | Mingo Co. | Drilling & Sampling |
| | Hanover (Alley) | McDowell Co. | Drilling, Geologic Investigation |
| | Kilsyth (Burdette) Drainage | Raleigh Co. | Drilling & Sampling |
| | Crane Creek Drainage | Logan Co. | Surveying, Mapping, CADD |
| | Logan (Marcum) Drainage | Logan Co. | Drilling & Sampling |
| | Chapmanville Landslide | Logan Co. | Drilling & Sampling |
| | Davis Creek (Oxley) Subsidence II | Kanawha Co. | Drilling & Sampling |
| | Follansbee (Martino) Subsidence | Brooke Co. | Subsidence Investigation |
| | Collier (Valero) Subsidence | Collier | Subsidence Investigation |
| | Philli Lane Subsidence | Harrison Co. | Subsidence Investigation and Stabilization Design |
| | Wheeling (Naegele) Subsidence | Wheeling | Subsidence Investigation |
| | Clarksburg (Siebert) Subsidence | Clarksburg | Subsidence Investigation |
| | Fairmont (Lawson) Subsidence | Fairmont | Subsidence Investigation |
| | Monongah Filtration Plant | Monongah | Emergency Subsidence Investigation |

**West Virginia Department of Environmental Protection
Office of Abandoned Mine Lands and Reclamation
Completed Projects – 1992 to Present**

**Triad Engineering
St. Albans, West Virginia**

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|-------------------------------------|--------------|--|
| 1 9 9 3 | Estes Landslide II | Harrison Co. | Geotechnical Investigation & Design, Slopes, Drainage |
| | Warsewich Subsidence | Morgantown | Subsidence Investigation |
| | Fairmont (Harmon) Subsidence | Fairmont | Subsidence Investigation |
| | Fairview (Toothman) Subsidence | Fairview | Subsidence Investigation |
| | Fairmont (Robinson) Subsidence | Fairmont | Subsidence Investigation |
| | Fairmont (Pizatella) Subsidence | Fairmont | Subsidence Investigation and Emergency Design |
| | Follansbee (Banfi) Subsidence | Follansbee | Subsidence Investigation |
| | Shinnston (Vincent) Subsidence | Shinnston | Subsidence Investigation |
| | Shinnston (Ours) Subsidence | Shinnston | Subsidence Investigation |
| | Brookhaven (Hearn) Subsidence | Brookhaven | Subsidence Investigation |
| | Fairmont (Cannon) Subsidence | Fairmont | Subsidence Investigation |
| | Canyon Road Refuse | Morgantown | Burning Refuse Remediation Design |
| | West Milford (Deverick) Landslide | Clarksburg | Investigation & Design, Geotechnical, Slopes, Drainage |
| | Fairview (Abel) Subsidence | Fairview | Subsidence Investigation |
| | Mannington (Hwakinberry) Subsidence | Fairview | Subsidence Investigation |
| | Shinnston (Vincent) Subsidence | Shinnston | Subsidence Investigation |
| | Fairmont (Knoll) Subsidence | Fairmont | Subsidence Investigation |
| | Clarksburg (Thompson) Subsidence | Clarksburg | Subsidence Investigation |
| | Shinnston (Hall) Subsidence | Shinnston | Subsidence Investigation |
| | Clarksburg (Weekly) Subsidence | Clarksburg | Subsidence Investigation |
| | Colliers (Kiger) Subsidence | Colliers | Subsidence Investigation |
| | Philippi (Hansford) Subsidence | Philippi | Subsidence Investigation |
| | Whitman Flats | Randolph Co. | Investigation, Design, Drainage, Refuse Re-grade, Surface Mine |

**West Virginia Department of Environmental Protection
Office of Abandoned Mine Lands and Reclamation
Completed Projects – 1992 to Present**

**Triad Engineering
St. Albans, West Virginia**

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|---------------------------------|--------------|--|
| 1 9 9 4 | Marmet (Pauley) Landslide | Kanawha Co. | Drilling & Sampling, Engineering |
| | Rawl (Russel) Drainage | Mingo Co. | Surveying, Mapping, CADD |
| | Lefthand Fork (See) | Logan Co. | Surveying, Mapping, CADD |
| | Algoma Refuse Piles | McDowell Co. | Surveying, Mapping, CADD |
| | Lorado (Grimmett) Mine Drainage | Logan Co. | Surveying, Mapping, CADD |
| | Amherstdale (Carter) Landslide | Logan Co. | Surveying, Mapping, CADD |
| | Chauncey (Sammons) Drainage | Logan Co. | Drilling & Sampling |
| | Sophia (McKinney) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Beckley (Johnson) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Beckley (Wood) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Pratt (Crookshank) Landslide | Raleigh Co. | Drilling & Sampling |
| | Kirk (Caperton) Landslide | Mingo Co. | Drilling & Sampling, Engineering |
| | Crooked Creek Refuse | Logan Co. | Surveying & Mapping |
| | Branchland Landslide | Lincoln Co. | Drilling & Sampling |
| | Hanshew Subsidence | Kanawha Co. | Drilling, Subsidence Investigation |
| | Belle (Turner) Landslide | Kanawha Co. | Drilling, Surveying, Engineering, CADD |
| | Hugheston Monitoring Well | Kanawha Co. | Drilling, Well Installation |
| | Delbarton (Spence) Subsidence | Mingo Co. | Drilling, Subsidence Investigation |
| | Haynes Landslide | Kanawha Co. | Drilling & Sampling |
| | Campbell's Creek Landslide | Kanawha Co. | Drilling & Sampling |
| | Shrewsbury Landslide | Kanawha Co. | Drilling & Sampling |
| | Thurmond Landslide | Fayette Co. | Drilling & Sampling |
| | Crab Orchard Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Crooked Creek Coal Refuse | Logan Co. | Drilling, Engineering |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|-----------------------------------|-------------|--|
| 1 9 9 4 | Campbell's Creek Subsidence | Kanawha Co. | Drilling & Sampling |
| | Latrobe (Gibson) Landslide | Logan Co. | Drilling & Sampling |
| | North Charleston (Toon) Landslide | Kanawha Co. | Surveying, Mapping, Drilling, Design |
| | Wilkinson Landslide | Kanawha Co. | Drilling, Surveying, Mapping, Design |
| | Sophia (Lucas) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Sophia (Lawrence) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Zickefoose Subsidence | Raleigh Co. | Drilling Subsidence Investigation |
| | Oak Hill (Huddleston) Subsidence | Oak Hill | Drilling, Subsidence Investigation |
| | Lumberport (Peterson) Subsidence | Lumberport | Subsidence Investigation |
| | Farmington (Hefner) Subsidence | Farmington | Subsidence Investigation |
| | Clarksburg (LeFevre) Subsidence | Clarksburg | Subsidence Investigation |
| | Fairmont (Hanne) Subsidence | Fairmont | Subsidence Investigation |
| | AML Surveying & Mapping | Various | Surveying & Mapping |
| | Moundsville (Frame) Subsidence | Moundsville | Subsidence Investigation |
| | Wheeling (Roshak) Subsidence | Wheeling | Subsidence Investigation |
| | Ida May (Heldreth) Subsidence | Ida May | Subsidence Investigation |
| | Mannington (Brinegar) Subsidence | Mannington | Subsidence Investigation |
| | Moundsville (Wolfe) Subsidence | Moundsville | Subsidence Investigation |
| | Follansbee (Turkaly) Subsidence | Follansbee | Subsidence Investigation and Stabilization Design |
| | Garrett Drainage | Preston Co. | Geotechnical Investigation for In-house Design |
| | Fairmont (Tims) Subsidence | Fairmont | Subsidence Investigation |
| | Clarksburg (Walker) Subsidence | Clarksburg | Subsidence Investigation |
| | Clarksburg (Hall) Subsidence | Clarksburg | Subsidence Investigation |
| | Kanes Creek Refuse Pile | Preston Co. | Investigation & Design, Refuse, Drainage, Re-grade |
| | Windsor (Dawson) Subsidence | Winsdor | Subsidence Investigation |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|-------------------------------------|--------------|---|
| 1 9 9 4 | Wheeling (Scott) Subsidence | Wheeling | Subsidence Investigation |
| | Fairmont (Skaggs) Subsidence | Fairmont | Subsidence Investigation |
| | Harris Drainage | Clarksburg | Subsurface Investigation for In-house Design |
| | Weston Hospital AML | Weston | Deep Mine (Portal) Drainage Design |
| | Fairmont (Twyman) Subsidence | Fairmont | Subsidence Investigation |
| | Wheeling (Innocenti) Subsidence | Wheeling | Subsidence Investigation |
| | Fairmont (Brown) Subsidence | Fairmont | Subsidence Investigation |
| | Fairmont (Vincent) Subsidence | Fairmont | Subsidence Investigation |
| | Moundsville (Parento) Subsidence | Moundsville | Subsidence Investigation |
| | Follansbee (Mossor) Subsidence | Follansbee | Subsidence Investigation |
| | Wheeling (Shultz) Subsidence | Wheeling | Subsidence Investigation |
| | Wellsburg (Hubbard) Subsidence | Wellsburg | Subsidence Investigation |
| | Moundsville (Oelshalger) Subsidence | Moundsville | Subsidence Investigation |
| | Fairmont (Sterratt) Subsidence | Fairmont | Subsidence Investigation |
| | Wheeling (Sprowls) Subsidence | Wheeling | Subsidence Investigation |
| | Morgantown (Fox) Subsidence | Morgantown | Subsidence Investigation |
| | Farmington (Goodnight) Subsidence | Farmington | Subsidence Investigation |
| | Fairmont (Tichenor) Subsidence | Fairmont | Subsidence Investigation |
| | Fairmont (Ferrise) Subsidence | Fairmont | Subsidence Investigation |
| | Barrackville (Garlow) Subsidence | Barrackville | Subsidence Investigation |
| | Kittle Flats | Randolph Co. | Investigation & Design, Re-grade, Surface Mine, Drainage, AMD |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|-----------------------------------|--------------|---|
| 1 9 9 5 | Crab Orchard (Mullins) Subsidence | Raleigh Co. | Subsidence Investigation, Drilling |
| | Welch (Frezier) Subsidence | Welch | Subsidence Investigation, Drilling |
| | Logan (Browning) Landslide | Logan | Drilling, Surveying & Mapping, Engineering |
| | Holly Grove "A" Landslide | Kanawha Co. | Surveying, Mapping, CADD |
| | Big Cub Creek Refuse Pile | Wyoming Co. | Surveying, Mapping, CADD |
| | Blue Pennant Complex | Boone Co. | Surveying, Mapping, CADD |
| | Toler Hollow Portals | Wyoming Co. | Surveying, Mapping, CADD |
| | Rocklick (Beckett) Landslide | Boone Co. | Surveying, Mapping, CADD |
| | Indian Ridge Refuse Pile | Wyoming Co. | Surveying, Mapping, CADD |
| | New Haven (Collier) Subsidence | New Haven | Subsidence Investigation, Drilling |
| | Aracoma (Napier) Drainage | Logan | Drilling & Sampling |
| | Hansford Landslide | Crown Hill | Drilling & Sampling |
| | Padgett Subsidence | Whitman | Subsidence Investigation, Drilling |
| | Dry Branch Drainage | Kanawha Co. | Drilling & Sampling |
| | Lockhart Subsidence | War | Subsidence Investigation, Drilling |
| | Burning Refuse | Williamson | Drilling & Sampling |
| | Cannelton (Miller) Drainage | Fayette Co. | Drilling & Sampling |
| | Logan (Robinson) Drainage | Logan | Drilling, Engineering, Geologic Investigation |
| | Beckley (Colacino) Subsidence | Beckley | Subsidence Investigation, Drilling, Surveying |
| | Holly Grove "A" Landslide | Kanawha Co. | Drilling, Surveying & Mapping, Design |
| | Campbell's Creek (Stone) Drainage | Kanawha Co. | Surveying & Mapping, Drilling |
| | Eccles (McGinnis) Subsidence | Eccles | Subsidence Investigation, Drilling |
| | Whitewater Branch Drainage | Nicholas Co. | Drilling & Sampling, Geologic Investigation |
| | Jim Branch (Tyree) Landslide | Boone Co. | Drilling & Sampling, Geologic Investigation |
| | Upper Decker's Creek | Preston Co. | Subsurface Investigation for In-house Design |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|-----------------------------------|----------------|---|
| 1 9 9 5 | Childs Highwall & Portals | Preston Co. | Investigation & Design, Re-grade, Surface Mine, Drainage, AMD |
| | Martin Creek | Preston Co. | Investigation & Design, Drainage, AMD, Re-grade, Surface & Deep Mine, Hazardous Materials |
| | AML Surveying & Mapping | Various | Surveying & Mapping, CADD |
| | Grant Town (Domico) Subsidence | Grant Town | Subsidence Investigation, Drilling |
| | Fairview (Toothman) Subsidence | Fairview | Subsidence Investigation, Drilling |
| | Wheeling (Stazenski) Subsidence | Wheeling | Subsidence Investigation, Drilling |
| | Moundsville (Feiszh) Subsidence | Moundsville | Subsidence Investigation, Drilling |
| | Weirton (Tingler) Subsidence | Weirton | Subsidence Investigation, Drilling |
| | Monongah (Eller) Subsidence | Monongah | Subsidence Investigation, Drilling |
| | Steadman AMD | Monongalia Co. | Investigation & Design, Deep Mine, Drainage, AMD |
| | Morgantown (Cryster) Subsidence | Morgantown | Subsidence Investigation, Drilling |
| | Fairmont (Long) Subsidence | Fairmont | Subsidence Investigation, Drilling |
| | Kiser Subsidence Design | Marion Co. | Investigation & Design of Deep Mine Stabilization |
| | Fairmont (Kropog) Subsidence | Fairmont | Subsidence Investigation, Drilling |
| | Glen Dale (Goddard) Subsidence | Glen Dale | Subsidence Investigation, Drilling |
| | Buckhannon (Swecke) Subsidence | Buckhannon | Subsidence Investigation, Drilling |
| | Fairmont (King) Subsidence | Fairmont | Subsidence Investigation, Drilling |
| | Bolyard Well Bond Forfeiture Site | Preston Co. | Well Abandonment, Design & Performance |
| | Colliers (Stevens) Subsidence | Colliers | Subsidence Investigation, Drilling |
| | Wheeling (Hanna) Subsidence | Wheeling | Subsidence Investigation, Drilling |
| | Wheeling (Witsberger) Subsidence | Wheeling | Subsidence Investigation, Drilling |
| | Fairmont (JHEK) Subsidence | Fairmont | Subsidence Investigation, Drilling |
| | Fairmont (Greene) Subsidence | Fairmont | Subsidence Investigation, Drilling |
| | Fairmont (Mercer) Subsidence | Fairmont | Subsidence Investigation, Drilling |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|--------------------------------------|----------------|---|
| 1 9 9 6 | Fairmont (Bionti) Subsidence | Fairmont | Subsidence Investigation, Drilling |
| | Thomas (Bible) Subsidence | Thomas | Subsidence Investigation, Drilling |
| | Thomas (Simmons) Subsidence | Thomas | Subsidence Investigation, Drilling |
| | Thomas (Rhodes) Subsidence | Thomas | Subsidence Investigation, Drilling |
| | Fairmont (Crowe) Subsidence | Fairmont | Subsidence Investigation, Drilling |
| | Bland (AML) | Monongalia Co. | Subsurface Investigation, Geotechnical, Drainage, Deep Mine |
| | Commodore (AML) | Monongalia Co. | Subsurface Investigation, Geotechnical, Drainage, Deep Mine |
| | Stephenson (Mills) Subsidence | Wyoming Co. | Subsidence Investigation, Drilling |
| | Cedar Grove (Ramsey) Landslide | Kanawha Co. | Subsurface Investigation, Drilling, Geologic Investigation |
| | Logan (Ross) Landslide | Logan | Engineering, Drilling |
| | Beckley (Davis) Subsidence | Raleigh Co. | Subsidence Investigation, Drilling |
| | Oak Hill (Slates) Subsidence II | Oak Hill | Subsidence Investigation, Drilling |
| | Welch (Coleman) Subsidence | Welch | Subsidence Investigation, Drilling |
| | Black Wolfe Refuse Pile | McDowell Co. | Surveying & Mapping, CADD |
| | Shannon Branch Refuse Pile | McDowell Co. | Surveying & Mapping, CADD |
| | Lower Burning Creek Complex | Mingo Co. | Surveying & Mapping, CADD |
| | Duo Refuse Piles | Greenbrier Co. | Surveying & Mapping, CADD |
| | Mullins Landslide | Wyoming Co. | Drilling, Surveying, Engineering |
| | Crab Orchard (Mullins) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Williamson (Brown) Landslide | Williamson | Drilling & Sampling |
| | Thaxton Landslide II | Kanawha Co. | Drilling, Engineering, Geologic Investigation |
| | Dingess Street (Jemerison) Landslide | Logan | Drilling & Sampling |
| | Cedar Grove (Bass) Landslide | Kanawha Co. | Drilling, Surveying, Engineering |
| | Campbell's Creek (Stone) Drainage | Kanawha Co. | Surveying & Mapping |
| | Crab Orchard (Zickafoose II) | Raleigh Co. | Drilling & Sampling |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|------|--|----------------|---|
| 1996 | Glen Jean Subsidence | Glen Jean | Drilling, Subsidence Investigation |
| | MacArthur (Green) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | East Oak Hill (Tincher) Subsidence | Oak Hill | Drilling, Subsidence Investigation, Engineering |
| | Football Stadium Subsidence | Mt. Hope | Drilling, Surveying, Engineering |
| | Shrewsbury (Burgess) Landslide | Kanawha Co. | Drilling, Surveying, Engineering |
| | Clarksburg (McGinnis) Subsidence | Clarksburg | Drilling, Subsidence Investigation |
| | Fairmont (Retton) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Fairmont (Golden) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Wheeling (Zambito) Subsidence | Wheeling | Drilling, Subsidence Investigation |
| | Wellsburg (Fillinger) Subsidence | Wellsburg | Drilling, Subsidence Investigation |
| | MeMechen (Schmitt) Subsidence | Moundsville | Drilling, Subsidence Investigation |
| | Stillhouse Run Refuse | Galloway | Investigation, Design, Refuse Re-grade, Drainage |
| | Wellsburg (Ohler) Subsidence | Wellsburg | Drilling, Subsidence Investigation |
| | Gypsy (Abruzzino) Drilling | Gypsy | Subsurface Investigation for In-house Design |
| | Fairmont (Levine) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Wayne Shreve Portals | Harrison Co. | Investigation, Design, Drainage, Portals, Deep Mine, AMD |
| | Pumpkintown, Kingsville, & Mabie Waterline Feasibility Study | Randolph Co. | Feasibility Study, Deep Mine, Surface Mines, Water Lines, AMD Contamination |
| | AML Surveying & Mapping | Various | Surveying & Mapping, CADD |
| | Fairmont (Cross) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Fairmont (Delovich) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Fairmont (Orisini) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Morgantown (Amos) Subsidence | Morgantown | Drilling, Subsidence Investigation |
| | Karickhoff Mine Drainage | Monongalia Co. | Subsurface Investigation for In-house Design |
| | Fairmont (Danko) Subsidence | Fairmont | Drilling, Subsidence Investigation |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------|--|--------------|---|
| 1 | Fairmont (Bosley) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Fairmont (Neely) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| 9 | Thomas (Heasley) Subsidence | Thomas | Drilling, Subsidence Investigation |
| | Thomas (Paugh) Subsidence | Thomas | Drilling, Subsidence Investigation |
| 9 | Fairmont (Pitsy) Landslide | Fairmont | Drilling, Subsidence Investigation |
| | Turkey Run Slide & Drainage | Upshur Co. | Subsurface Investigation for In-house Design |
| 6 | Tunnelton (Myers) Subsidence | Tunnelton | Drilling, Subsidence Investigation |
| | Fairview (Weaver) Subsidence | Fairview | Drilling, Subsidence Investigation |
| | Monongah (Longfellow) Subsidence | Monongah | Drilling, Subsidence Investigation |
| | Fairmont (Kiser) Confirmation Drilling | Fairmont | Confirmation of Deep Mine Stabilization |
| 1 | Pine Bluff Tipple and Portal | Harrison Co. | Subsurface Investigation for In-house Design |
| | Thomas (Uchic) Subsidence | Thomas | Drilling, Subsidence Investigation |
| 9 | Rivesville (Miller) Subsidence | Rivesville | Drilling, Subsidence Investigation |
| | Fairmont (Christ Temple) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| 9 | Fairmont (Dukich) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | AML Surveying and Mapping | Various | Surveying & Mapping, CADD |
| 7 | Fairmont (Renner) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Hiawatha Mine Dump | Hiawatha | Surveying & Mapping, CADD |
| | Booths Hollow Highwall | Bramwell | Surveying & Mapping, CADD |
| | Turkey Wallow Refuse Pile | Wolf Pen | Surveying & Mapping, CADD |
| | Sophia (Hayworth) Subsidence | Sophia | Drilling, Subsidence Investigation |
| | Dan's Branch (Cline) Landslide | Williamson | Drilling, Engineering, Geologic Investigation |
| | Spring Branch Burning Refuse | Milburn | Surveying & Mapping, CADD |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|---------------------------------------|--------------|--|
| 1 9 9 7 | Whitby (Lilly) Clogged Stream/Portals | Whitby | Surveying & Mapping, CADD |
| | Ennis Complex | Maybeury | Surveying & Mapping, CADD |
| | Carswell Hollow (Smith) Refuse | Kimball | Surveying & Mapping, CADD |
| | MacArthur (Kinsley) Vertical Opening | MacArthur | Drilling, Subsidence Investigation |
| | Stanaford (Vira) Subsidence | Beckley | Drilling, Subsidence Investigation |
| | Logan AML | Logan | Drilling & Sampling |
| | Norton Waterline | Randolph Co. | Surveying, Mapping, Subsurface Investigation, Design |
| | Kelly's Creek (Jones) Landslide | Kanawha Co. | Drilling, Surveying & Mapping, Engineering |
| | Crab Orchard (Rye) Subsidence | Raleigh Co. | Drilling, Subsidence Investigation |
| | Marmet (Willis Drive) Landslide | Marmet | Drilling & Sampling |
| | Peter Street (Bragg) Landslide | Williamson | Drilling, Engineering, Geologic Investigation |
| | Pinnacle Creek Refuse Pile | Wyoming Co. | Drilling, Surveying, Engineering |
| | Clarksburg (Felts) Subsidence | Clarksburg | Drilling, Subsidence Investigation |
| | Fairmont (Tibbs) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Farmington (Tassone) Subsidence | Farmington | Drilling, Subsidence Investigation |
| | Fairmont (Morgan) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Farmington (Knoble) Subsidence | Farmington | Drilling, Subsidence Investigation |
| | Shinnston (Bell) Subsidence | Shinnston | Drilling, Subsidence Investigation |
| | Zickefoose Burning Refuse | Marion Co. | Subsurface Investigation for In-house Design |
| | Thomas (D. Bacco) Subsidence | Thomas | Drilling, Subsidence Investigation |
| | Thomas (Nelson) Subsidence | Thomas | Drilling, Subsidence Investigation |
| | Thomas (Shoemaker) Subsidence | Thomas | Drilling, Subsidence Investigation |
| | Thomas (Nelson) Subsidence | Thomas | Drilling, Subsidence Investigation |
| | Fairmont (St. Joseph) Subsidence | Fairmont | Emergency, Subsidence Investigation |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|------|---------------------------------------|----------------|---|
| 1997 | Thomas (Lambert) Subsidence | Thomas | Drilling, Subsidence Investigation |
| | Left Fork of Little Sandy Reclamation | Preston Co. | Investigation, Design, Portals, Drainage, AMD, Re-grade |
| | Demarco Mine Drainage | Monongalia Co. | Subsurface Investigation for In-house Design |
| | Summit Park (Seftick) Slide | Clarksburg | Investigation and Design, Slopes, Drainage, Deep Mine |
| | Thomas (Stanley) Subsidence | Thomas | Drilling, Subsidence Investigation |
| | Morgantown (Horrell) Subsidence | Morgantown | Drilling, Subsidence Investigation |
| | Morgantown (Malone) Subsidence | Morgantown | Drilling, Subsidence Investigation |
| | Core (Swiger) Subsidence | Core | Drilling, Subsidence Investigation |
| | Shinnston (Brown) Landslide | Shinnston | Subsurface Investigation for In-house Design |
| | Delmar Complex | Monongalia Co | Subsurface Investigation for In-house Design |
| | Morgantown (McVickers) Subsidence | Morgantown | Drilling, Subsidence Investigation |
| | Moundsville (Marling) Subsidence | Moundsville | Drilling, Subsidence Investigation |
| | Wheeling (Tridigo) Subsidence | Wheeling | Drilling, Subsidence Investigation |
| | Barrickville (Vennis) Subsidence | Barrickville | Drilling, Subsidence Investigation |
| | Clarksburg (Ray) Subsidence | Clarksburg | Drilling, Subsidence Investigation |
| | Fairmont (Toothman) Subsidence | Fairmont | Drilling, Subsidence Investigation |
| | Grant Town (Haller) Subsidence | Grant Town | Drilling, Subsidence Investigation |
| | Monongah (Dumas) Subsidence | Monongah | Drilling, Subsidence Investigation |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|------|------------------------------------|--------------|---|
| 1998 | Chauncey (Vance) Drainage | Logan Co. | Drilling, Surveying, Engineering |
| | Skin Creek Refuse Pile | Wyoming Co. | Surveying & Mapping, CADD |
| | Riffe Branch Impoundment | Raleigh Co. | Surveying & Mapping, CADD |
| | Holden (Paggett) Landslide | Holden | Drilling, Surveying, Engineering |
| | Sycamore Camp Subsidence | Holden | Drilling, Engineering |
| | Gerath Landslide | Weston | Surveying & Mapping, CADD |
| | Carswell Hollow Design | McDowell Co. | Drilling, Engineering, CADD |
| | Spruce Laurel Fork | Clothier | Drilling, Surveying, Engineering |
| | Red Jacket Refuse | Mingo Co. | Subsurface Investigation |
| | Nitro (Taylor) Landslide | Nitro | Drilling, Engineering |
| | Georges Creek (Holmes) Landslide | Rand | Drilling, Engineering |
| | Dog Hollow AML | Boone Co. | Drilling & Sampling |
| | Adkins Drainage | Boone Co. | Drilling & Sampling, Geologic Investigation |
| | Rumble (Smith) Drainage | Rumble | Drilling, Engineering, Geologic Investigation |
| | MacArthur AML | Raleigh Co. | Drilling & Sampling |
| | Chief Logan AMD | Logan Co. | Drilling, Surveying, Design, Engineering |
| | Davis Creek Emergency AML | Kanawha Co. | Drilling, Surveying, Design, Engineering |
| | Holden Drainage | Holden | Drilling, Engineering |
| | Bloomingrose (Milam) Drainage | Bloomingrose | Drilling, Surveying, Engineering |
| | Webster (Jerryville) AML | Webster Co. | Drilling & Sampling |
| | Thompson Gas Complaint | Williamson | Drilling & Sampling |
| | Glasgow Subsidence | Glasgow | Drilling, Subsidence Investigation |
| | AML Surveying & Mapping | Various | Surveying & Mapping, CADD |
| | Wheeling (Upper Stroch) Subsidence | Wheeling | Drilling, Subsidence Investigation |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|----------------------------|-------------------------------------|--------------|--|
| 1 9 9 9 | Clarksburg (Post) Subsidence | Clarksburg | Drilling, Subsidence Investigation |
| | Thomas United Methodist Church | Thomas | Drilling, Subsidence Investigation |
| | Bridge Run Refuse | Upshur Co. | Geotechnical Investigation & Evaluation |
| | Kanes Creek South | Preston Co. | Reclamation Design |
| | Riffe Refuse Pile | Raleigh Co. | Drilling & Sampling, Temperature Probes |
| | Turkey Gap Burning Refuse | Oak Hill | Surveying & Mapping, CADD |
| | Hotcoal Mine Dump | Raleigh Co. | Surveying & Mapping, CADD |
| | Laurel Creek Subdivision Subsidence | Raleigh Co. | Surveying & Mapping, CADD |
| | Kelly's Creek Burning Refuse | Kanawha Co. | Drilling & Sampling |
| | WV Tech Tennis Courts | Montgomery | Drilling, Surveying, Engineering |
| | Holden (Alshire) AML Slide | Holden | Drilling, Surveying, Engineering |
| | Ragland (Kirk) Subsidence | Ragland | Drilling, Subsidence Investigation |
| | Beckley Exhibition Coal Mine | Beckley | Surveying & Mapping, CADD |
| | Kilsyth Drainage | Kilsyth | Drilling, Surveying, Engineering, Design |
| | Borderland Portals | Mingo Co. | Drilling & Sampling, Piezometer Installation |
| | Dille-Widen Feasibility Study | Clay Co. | Engineering, Geology, Hydrology |
| | Mullens Water Feasibility Study | Mullens | Engineering, Geology, Hydrology |
| | Mileground Stabilization | Morgantown | Stabilization Investigation & Design |
| | Tunnelton Mine Drainage | Tunnelton | AMD Drainage Investigation |
| | AML Surveying and Mapping | Various | Surveying & Mapping, CADD |
| | Brown Street Drainage | Marshall Co. | AMD Drainage Design |
| | Davis (Warren) Subsidence | Davis | Drilling, Subsidence Investigation |
| | Turkey Run III | Upshur Co. | Drainage/Landslide Investigation |
| | Benwood Refuse | Marshall Co. | Refuse Investigation |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|-------------|---|-----------------|--|
| 2 | Shinnston (Wentz) Subsidence | Shinnston | Drilling, Subsidence Investigation |
| | Kingwood 52/6 Project | Kingwood | Water Line Feasibility Study |
| 0 | Van Burning Refuse | Van | Drilling & Sampling, Temperature Probes |
| | Witcher Creek (Evans) Portals | Kanawha Co. | Surveying & Mapping, CADD |
| | Newton (Hatfield) Landslide | Mingo Co. | Surveying & Mapping, CADD |
| | Northfork Refuse Pile | McDowell Co. | Surveying & Mapping, CADD |
| | Red Jacket Portal | Mingo Co. | Surveying & Mapping, CADD |
| | Matoka (WV Rt. 10) Subsidence | Matoka | Drilling & Sampling, Geologic Investigation |
| | Montgomery (Grey) Landslide | Montgomery | Drilling & Sampling, Geologic Investigation |
| | Davis Water Tanks | Davis | Subsidence Investigation, Drilling |
| | Kingsville Water Line | Kingsville | Water Line Feasibility Study |
| | AML Surveying & Mapping | Various | Surveying & Mapping, CADD |
| 2 | Horner Run Portal, Highwall & Landslide | Harrison Co. | Portal, Highwall & Landslide Investigation, Remediation Design |
| | Clarksburg Landslide | Clarksburg | Landslide Investigation and Evaluation |
| | North 8 th Street Refuse & Portals | Warwood | Design, Re-grade & Drainage |
| | Livengood Highwall & AMD | Preston Co. | Design, Re-grade & Drainage |
| | Layton Mine Drainage | Harrison Co. | Drainage, Slope Investigation |
| | Rocklick (Blethem) Drainage | Minden | Drilling & Sampling, Geologic Investigation |
| | Leslie (Nelson) Drainage | Greenbrier Co. | Surveying & Mapping, CADD |
| | Mullins Mine Drainage | Mingo Co. | Drilling & Sampling |
| | North Matewan (Gooslin) Landslide | Matewan | Drilling, Surveying, Engineering |
| | Helen Mine Drainage | Raleigh Co. | Drilling, Surveying, Engineering |
| 1 | Newton (Hatfield) Landslide | Mingo Co. | Drilling, Surveying, Engineering |
| | Prong Fork (Hughart) Landslide | Kanawha Co. | Drilling, Surveying, Engineering |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|------|------------------------------------|--------------|---|
| 2001 | Mullens (McNeely) Landslide | Mullens | Drilling, Surveying, Engineering |
| | Mullens (Dixon) Landslide | Mullens | Drilling, Surveying, Engineering |
| | Easy Refuse Pile | Boone Co. | Drilling, Surveying, Engineering |
| | AML Surveying & Mapping | Various | Surveying & Mapping, CADD |
| | Philip Thorn Highwall | Preston Co. | Design, Re-grade, & Drainage |
| | Sandy Creek Waterline | Taylor Co. | Waterline Feasibility Study |
| | Davis Waterline Extension | Davis | Waterline Feasibility Study |
| | Dayton Park AML | Philippi | Drainage/Portal Investigation |
| | Stillhouse Run Refuse | Barbour Co. | Design, Drainage & Refuse Re-grade |
| | Bethlehem (Sinclair) Subsidence | Wheeling | Drilling, Subsidence Investigation |
| | Blaser Highwall | Preston Co. | Design, AMD, Re-grade & Drainage |
| | Cross Street | Warwood | Drainage Investigation |
| | Lundale (Dickerson) Drainage | Logan Co. | Surveying & Mapping, CADD |
| | Ned's Branch Refuse | Mingo Co. | Surveying & Mapping, CADD |
| | Wheatley Branch (Gooden) Landslide | Logan Co. | Drilling & Sampling, Engineering |
| | Squire Landslide | McDowell Co. | Drilling & Sampling, Piezometer Installation, Engineering |
| | County Route 27 Landslide | Mt. Hope | Drilling & Sampling, Engineering |
| | Delbarton (Curry) Landslide | Delbarton | Drilling & Sampling, Engineering |
| | Sugar Branch Burning Refuse | Logan Co. | Drilling & Sampling, Geologic Investigation |
| | Thacker Subsidence | Crab Orchard | Drilling & Sampling, Subsidence Investigation |
| 2002 | AML Surveying & Mapping | Various | Surveying & Mapping, CADD |
| | Rosemont Highwall & Portals 2 | Barbour Co. | Design, Re-grade & Drainage |
| | Clarksburg (Bailey) Mine Drainage | Clarksburg | Drainage Investigation |
| | Morgantown Airport Subsidence II | Morgantown | Drilling & Sampling, Subsidence Investigation |

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| YEAR | PROJECT NAME | LOCATION | SERVICES PROVIDED |
|-------------|-----------------------------------|----------------|--|
| 2003 | Thomas (Wolfe Welding) Subsidence | Tucker Co. | Drilling & Sampling, Subsidence Investigation |
| | Duffy Street/Van Rufus Subsidence | Shinnston | Reclamation Design |
| | Brownston Landslide | Barbour Co. | Reclamation Design |
| | Clarksburg (A. Davis) Subsidence | Clarksburg | Drilling & Sampling, Subsidence Investigation |
| | Mt. Clare (Strader) Landslide | Harrison Co. | Drilling & Sampling, Subsidence Investigation |
| | White Park Bus Garage PCB Site | Monongalia Co. | Environmental Investigation |
| | White Park | Monongalia Co. | Environmental Investigation |
| | Collins Ferry Road B.P. Station | Monongalia Co. | Drilling & Sampling |
| | Bull Run Emergency Drilling | Preston Co. | Drilling & Sampling |
| | Enterprise (Swiger) Subsidence | Harrison Co. | Drilling & Sampling, Subsidence Investigation |
| | Saul's Run Strip and Slide | Lewis Co. | Landslide Investigation, Drilling & Sampling, Engineering |
| | Whitehair Landslide | Monongalia Co. | Landslide Investigation, Drilling & Sampling, Engineering |
| | Ragland (Caudill) Subsidence | Mingo Co. | Drilling & Sampling, Subsidence Investigation |
| | WVU Tech Drainage | Montgomery | Design, Drilling & Sampling, Piezometer Installation, Surveying & Mapping, Portals, Re-grade, Dewatering |
| 2004 | Ring Hollow (Meadows) Portals | Hernshaw | Drilling & Sampling, Piezometer Installation |
| | Coal Hollow Refuse "A" | Putnam Co. | Design, Refuse, Re-grade, Portals |
| | DNR Office Subsidence | Beckley | Drilling & Sampling, Subsidence Investigation |
| | Alsbaugh Landslide | Mount Hope | Drilling & Sampling, Geologic Investigation |
| | Mon County (Rockley Road) | Monongalia Co. | Drilling & Sampling, Geotechnical Investigation |
| | Long Run (Adkins) Landslide | Taylor Co. | Landslide & Subsidence Investigation, Drilling & Sampling |
| | Hawkins AMD | Lambert Run | AMD/Reclamation |
| | Jimtown Tipple | Harrison Co. | Subsurface Investigation, Slide Repair |
| 4 | Ven Runs Landslide Maintenance | Lewis Co. | Subsurface Investigation, Slide Repair |

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|-------------------------------|---|----------------|--|
| 2005 THRU 2009 | Blankenship Subsidence | Beckley | Drilling & Sampling, Subsidence Investigation |
| | Mabscott (Houck) Subsidence | Mabscott | Drilling & Sampling, Subsidence Investigation |
| | Spicer Subsidence | Maidsville | Drilling & Sampling, Subsidence Investigation |
| | Everettsville Burning Refuse | Monongalia Co. | Drilling, Geotechnical Investigation |
| | Union Prong (Carpenter) LS Project | Kanawha Co. | Drilling & Sampling, Piezometer Installation, Well Abandonment |
| | Rawl (Pigman) Portals | Mingo Co. | Drilling & Sampling, Piezometer Installation |
| | Whitman (Williams) Drainage | Logan Co. | Drilling & Sampling, Piezometer Installation |
| | Varney (Justice) Drainage | Mingo Co. | Drilling & Sampling, Piezometer Installation |
| | Brounland (Holstein) Drainage | Kanawha Co. | Drilling & Sampling, Piezometer Installation |
| | Musick (Brewer) Subsidence | Mingo Co. | Drilling & Sampling, Subsidence Investigation |
| | Elk Creek Portals | Mingo Co. | Design, Surveying & Mapping, Portals, Re-grade, Section 404 Permit, Demolition of Structures |
| | Chapmanville (Henry) Portals/Lake (Winkler) LS/Stone Branch (Adkins LS 1/Mud Fork (Baisden) | Logan Co. | Drilling & Sampling, Piezometer Installation |
| | Rumble (Stevens) Refuse & Portals | Boone Co. | Design, Surveying & Mapping, Portals, Re-grade, Section 404 Permit, Demolition of Structures |
| | Campbells Creek (Miller) Drainage | Kanawha Co. | Drilling & Sampling, Piezometer Installation |
| | Rich Fork (Spells) Portals | Kanawha Co. | Drilling & Sampling, Piezometer Installation |
| | Mullens Portals | Wyoming Co. | Design, Drilling & Sampling, Piezometer Installation, Surveying & Mapping, Portals, Re-grade, Dewatering |
| | Belington Portals & Drainage | Barbour Co. | Design, Drilling & Sampling, Piezometer Installation, Surveying & Mapping, Portals, Re-grade, Dewatering |
| | Beckley (St. John's) Subsidence | Raleigh Co. | Drilling & Sampling, Mining Determination |

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