

West Virginia Department of Environmental Protection

EXPRESSION OF INTEREST

SIMPSON CREEK HW, TIPPLE & PORTALS DESIGN PROJECT
(DEP15221)

SUBMITTED TO:



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

SUBMITTED BY:



Gannett Fleming, Inc.
34 Commerce Drive, Suite 203
Morgantown, WV 26501

IN ASSOCIATION WITH
FREELANCE TECHNICAL ASSOCIATES, INC.

207 Fairmont Avenue
Fairmont, WV 26554

RECEIVED

2010 DEC -7 AM 10: 28

WV PURCHASING
DIVISION

December 7, 2010

ISO 9001:2008
CERTIFIED



GANNETT FLEMING, INC.
Suite 203
34 Commerce Drive
Morgantown, WV 26501
Office: (304) 296-6492
Fax: (304) 296-6495
www.gannettfleming.com

December 6, 2010

Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130
Attn: Chuck Bowman

RE: Expression of Interest
West Virginia Department of Environmental Protection
DEP 15221 – Simpson Ck. HW, Tipple & Portals Design

Dear Mr. Bowman:

Gannett Fleming, Inc. is pleased to submit for your consideration this proposal and "Expression of Interest" for the West Virginia Department of Environmental Protection (WVDEP), Office of Abandoned Mine Lands and Reclamation (AML) to provide engineering services for the Simpson Ck. HW, Tipple & Portals Project.

We have teamed with Freelance Technical Associates, Inc. who will provide all the required surveying for the project. We welcome the opportunity to present our credentials to you and look forward to the chance to discuss our approach and our capabilities with the selection committee.

Please contact me at 304-296-6492 if you have any questions or if I can provide any clarifications regarding our proposal.

Sincerely,
GANNETT FLEMING, INC.

Samer H. Petro, P.E.
Manager – WV Operations

Enclosures

A Tradition of Excellence



West Virginia Department of Environmental Protection

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West Virginia Department of Environmental Protection

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Gannett Fleming



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

Request for Quotation

RFQ NUMBER
DEP15221

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1

ADDRESS CORRESPONDENCE TO ATTENTION OF
CHUCK BOWMAN 304-558-2157

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

STATE OF WEST VIRGINIA

ENVIRONMENTAL PROTECTION
 DEPARTMENT OF
 OFFICE OF AML&R
 501 57TH STREET SE
 CHARLESTON, WV
 25304 304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
11/03/2010				

BID OPENING DATE: 12/07/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	QAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
SIMPSON CK. HW, TIPPLE & PORTALS 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 SIMPSON CREEK HIGHWALL, TIPPLE & PORTALS PROJECT IN BARBOUR COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS. BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THIS CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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



West Virginia Department of Environmental Protection

Section 1 - Corporate History, AML Experience and Project Team

Corporate History - The history of the Gannett Fleming organization parallels the history of consulting engineering in the United States during the twentieth century. The firm was founded on August 1, 1915 as "Farley Gannett, Consulting Engineer," at a time when sweeping changes were taking place in the country's industrial development and economic patterns. Widespread and rapid urban growth, the need for mass transportation, and the evolution of the automobile were a few of the factors that created new demands and opportunities for engineering services. Gannett Fleming has been a major contributor to an outstanding and productive era in American engineering history.

The Gannett Fleming organization has evolved over the years from a three-man office at its inception to its current structure, a multi-disciplined group of companies having more than 1,900 employees with offices in principal cities in the United States. We have performed engineering services on thousands of diverse assignments in all 50 states, the District of Columbia, the U.S. Virgin Islands, Puerto Rico, and 51 other countries.

While the Gannett Fleming organization grew, the nation's highway system developed from a few miles of narrow twisting roads to a vast network of expressways, turnpikes, and primary highways. Gannett Fleming was among those chosen to design major portions of the Pennsylvania Turnpike, a highway that became the model for many toll roads that followed.

Methods of sewage disposal slowly progressed from drainage canals and polluted streams to highly efficient sewerage systems and sewage treatment plants. Gannett Fleming has become extensively involved in pollution abatement through the design of wastewater treatment, solid waste disposal, and air pollution control facilities.

Our firm has contributed to the development of the collection, treatment, and distribution of potable water from early concepts to today's state-of-the-art methods. One of the firm's early assignments was the design of a 60-foot-high earthen dam for the Blue Mountain Water Company in Lehigh County, PA. Since then, we have completed more than 1,000 water



Gannett Fleming



West Virginia Department of Environmental Protection

supply projects, and thereby assisted communities in finding new sources of water, maintaining the quality of present sources, treating water for safe human consumption, and providing the means to transmit water from sources to consumers. Our state-of-the-art capability in water treatment and computer modeling of water distribution systems has provided clients with very efficient and economical facilities.

Flood control is another area in which Gannett Fleming is prominent. We have been involved in the design of flood control works such as local protection projects and flood control dams and reservoirs since our founding. We have contributed to the concept of multi-purpose reservoirs, which combine flood control, recreation, and water supply in single projects. Beginning with the design of local flood control works on Mill Creek to protect Erie, PA, our firm designed such diverse projects as a pumped storage dam for the P.H. Glatfelter Paper Company Reservoir Project in York County, PA, which created the 1,260-acre recreational Lake Marburg; the Tioga-Hammond Lakes Project for the U.S. Army Corps of Engineers that consists of a 140-foot-high rolled earth and rockfill dam on the Tioga River; a 122-foot-high rolled earth and rockfill dam with a 240-foot-deep connecting channel between the reservoirs on Crooked Creek; and a 135-foot high roller compacted concrete water supply dam for the City of Lebanon Authority.

In the 1960s, when mass transportation was feeling the impact of the private automobile, Gannett Fleming designed the Lindenwold Line in New Jersey, a high-speed mass transit facility that transports thousands of people daily between Philadelphia and residential communities in New Jersey. In more recent years, Gannett Fleming has participated in the design of most of the new transit systems that have been constructed in the United States. We have become a leader in the design of transit maintenance facilities and automated guide way transit.

To address environmental concerns, governmental regulation, and increasingly complex projects, Gannett Fleming has evolved into a true multi-disciplined organization. We have increased our capabilities in planning, hazardous waste management, architectural, geotechnical, mechanical/ electrical, information technology services, financial, project management, quality control areas, and public relations. Affiliated Gannett Fleming companies provide geotechnical investigation, acoustical analysis design and system installation, Design/Build services, and design and manufacturing of equipment for the heavy construction industry.



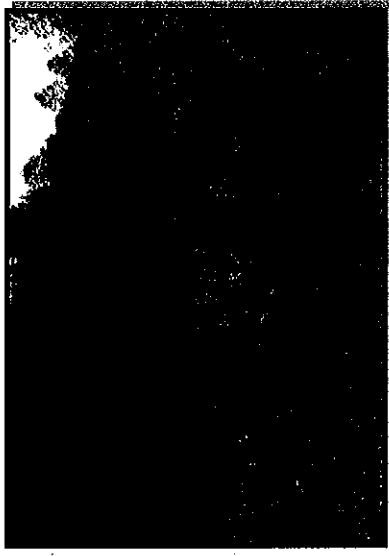


West Virginia Department of Environmental Protection

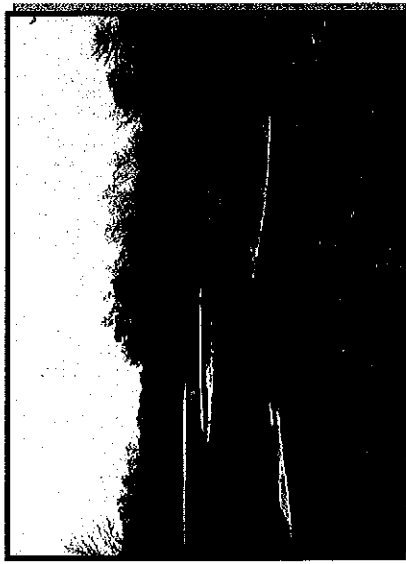
Conditioned by many years of experience and with capabilities in most state-of-the-art engineering activities, the Gannett Fleming organization is in a position to successfully meet present-day challenges and make constructive contributions to our society in the future.

AML Experience - Gannett Fleming knows the mining and reclamation industry and works with clients to rapidly identify the unique aspects of each project early in the planning process. Our firm's reputation and excellent working relationship with both federal and state regulatory and reclamation agencies has enabled us to develop environmentally sensitive, cost effective AML reclamation and AMD abatement and treatment strategies for our reclamation clients. We also work with various private individuals/organizations and government agencies to investigate abandoned mine sites relative to watershed assessments, reclamation of abandoned mine lands (AML), the abatement of acid mine drainage (AMD) by passive or active treatment technologies, and the assessment and rehabilitation of existing treatment systems.

Our firm's abandoned mine land reclamation and acid mine drainage abatement services are supported by L.G. Hetsager Drilling, Inc. (a wholly owned subsidiary of Gannett Fleming); associations with other drilling companies, surface geophysical equipment, a modern geotechnical laboratory and GeoDecisions, Inc. (a division of Gannett Fleming specializing in GIS and remote sensing technology for natural resources, environmental and engineering applications). Our Mining and Reclamation Group coupled with a nationwide network of offices provides the skills and resources necessary to supply professional planning, design and engineering services to a variety of private and public clients.



AML Reclamation Site, Dents Run, PA



AMD Passive Treatment System, Babb Creek



Gannett Fleming



West Virginia Department of Environmental Protection

Project Team - Gannett Fleming is pleased to be teamed up with Freelance Technical Associates, Inc. (FTA). FTA will provide all surveying services for the project. They have previously completed AML construction site surveys and bring many years of surveying experience to the project. Danny Banbridge, President of FTA also has many years of AML related experience and will provide QA/QC support to the team.



Gannett Fleming



West Virginia Department of Environmental Protection

*Section 2 - WVDEP - AML Consultant Confidential Qualification Questionnaire
(Attachment "B")*

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

PROJECT NAME Simpson Ck, Tipple & Portals Design	DATE (DAY, MONTH, YEAR) 12/06/2010	FEIN 25-1613591
1. FIRM NAME Gannett Fleming, Inc.	2. HOME OFFICE BUSINESS ADDRESS PO Box 67100 Harrisburg, PA 17106-7100	3. FORMER FIRM NAME N/A
4. HOME OFFICE TELEPHONE (717) 763-7212	5. ESTABLISHED (YEAR) 1915	6. TYPE OWNERSHIP Corporation
6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO X		
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE Gannett Fleming, Inc., Suite 203 34 Commerce Drive, Morgantown, WV 26501 (304) 296-6492, Samer H. Petro, PE, Reg. Office Mgr.		

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM
8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Please see attached sheets for response.

9. PERSONNEL BY DISCIPLINE (Morgantown Office in Parenthesis)

346 ADMINISTRATIVE	6 ECOLOGISTS	5 LANDSCAPE ARCHITECTS	135 STRUCTURAL ENGINEERS (1)
32 ARCHITECTS	15 ECONOMISTS	24 MECHANICAL ENGINEERS	11 SURVEYORS (1)
7 BIOLOGIST	76 ELECTRICAL ENGINEERS	1 MINING ENGINEERS	196 TRAFFIC ENGINEERS
112 CADD OPERATORS (1)	118 ENVIRONMENTALISTS	0 PHOTOGRAMMETRISTS	590 OTHER
4 CHEMICAL ENGINEERS	4 ESTIMATORS	71 PLANNERS: URBAN/REGIONAL	
60 CIVIL ENGINEERS (2)	50 GEOLOGISTS	40 SANITARY ENGINEERS	
108 CONSTRUCTION INSPECTORS	0 HISTORIANS	70 SOILS ENGINEERS	
128 DESIGNERS (1)	3 HYDROLOGISTS	3 SPECIFICATION WRITERS	2087 TOTAL PERSONNEL
0 DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 3
 *RPES other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES NO

8. Names of Principal Officers or Members of Firm

* William M. Stout, Chairman of the Board and Chief Executive Officer
* Robert M. Scaer, Vice Chairman, President and Chief Operating Officer
* Chester L. Allen, Senior Vice President and Secretary
* John G. Diviney, Senior Vice President
* John R. Kenny, Senior Vice President
Lynn E. Knepp Senior Vice President and Treasurer

8a. Name, Title, & Telephone Number - Other Principals

William W. Allis, Jr., Vice President, 717-763-7211
Martha J. Averso, Vice President, 717-763-7211
Charles H. Beauudy, Vice President, 717-763-7211
Keith D. Bennett, Vice President, 727-541-3444
William B. Bingham, Vice President, 717-763-7211
R. Edwin Blair, Jr., Vice President, 757-873-0768
Joseph G. Botchie, Vice President, 717-763-7211
John A. Buchheit, Vice President, 407-514-2691
Jay H. Calhoun, Vice President, 813-831-8870
George R. Campanella, Vice President, 856-802-9930
Carlos M. Cejas, Vice President, 786-845-9540
Keith M. Chase, Vice President, 717-763-7211
Walter Cherwonj, Vice President, 215-557-0106
John W. Cook, Jr., Vice President, 717-763-7211
Rodney J. Dawson, Vice President, 213-624-0347
John A. Derr, Vice President, 602-553-8817
Trent L. Dreese, Vice President, 717-763-7211
Dean B. Durkee, Vice President, 602-553-8817
James M. Dziedzick, Vice President, 908-755-0040
James C. Elliott, Vice President, 717-763-7211
Stephen B. Gerlach, Vice President, 410-585-1460
Susan F. Gibbons, Vice President, 215-557-0106
Peter A. Golonka, Vice President, 617-527-7822
Naldo Gonzalez, Vice President, 786-845-9540
William T. Guy, Vice President, 717-763-7211
Stephen Hadjiyane, Vice President, 516-671-8066
Thomas C. Hawk, Vice President, 904-998-9809
Steven I. Hawtof, Vice President, 410-585-1460
Jesse G. Hite, Jr., Vice President, 704-375-2438
Arthur G. Hoffmann, Jr., Vice President, 412-922-5575
Raymond L. Hofsass, Vice President, 610-650-8101
Rodney E. Holderbaum, Vice President and Assistant Secretary, 717-763-7211
Judy L. Hricak, Vice President, 717-763-7211
Frederick H. Inyard, Vice President, 516-671-8066
Ronald, A. Jager, Vice President, 814-234-8625
Mark D. Johnson, Vice President, 978-687-7292
Aaron D. Kenon, Vice President, 703-222-3704
John W. Kovacs, Vice President, 412-922-5575
Dennis F. Kugle, Vice President, 608-836-1500
James A. Langer, Vice President, 904-998-9809
James R. Laurita, Vice President, 212-967-9833
Michael T. Lee, Vice President and Assistant Secretary, 717-763-7211
Richard K. Lee, Vice President, 610-917-9100
Thomas G. Leech, Vice President, 412-922-5575
Ronald N. Leins, Vice President, 813-882-4366
Paul J. Lewis, Vice President, 717-763-7211

* Gene C. Koontz, Senior Vice President
* Paul D. Nowicki, Senior Vice President
Warren A. Barrett II, Vice President, 410-585-1460
John V. Dougherty, Vice President, 904-998-9809
Glen L. Hair, Vice President, 717-763-7211
Robert E. Ragan, Senior Vice President
David B. Thomas, Senior Vice President, 954-916-2672
* Director

George S. Link, Vice President, 856-802-9930
Michael Wm. Malloy, Vice President, 505-265-8468
Samuel Mayman, Vice President, 213-624-0347
Esther M. McGinnis, Vice President, 610-650-8101
Barbara R. McLenore, Vice President, Security Officer and Corporate Ethics Officer, 717-763-7211
Gregory Milakovic, Vice President, 856-802-9930
Lawrence E. Miller, Vice President, 602-553-8817
Michael T. Moore, Vice President, 561-655-8232
Michael A. Morgan, Vice President, 908-755-9849
Donald G. Morosky, Vice President, 717-763-7211
Bryan P. Mulqueen, Vice President, 919-859-4880
Paul L. O'Neal, Vice President, 717-763-7211
Fotios Papamichael, Vice President, 516-671-8066
Anthony J. Pietropola, Vice President, 717-763-7211
Marlay B. Price, Vice President, 614-794-9424
Richard A. Pugh, Vice President and Assistant Secretary, 717-763-7211
John D. Purdy, Vice President, 212-967-9833
Jeffrey L. Raffensperger, Vice President, 717-763-7211
Jeffrey J. Ream, Vice President, 814-765-4320
Russell L. Ricker, III Vice President, 717-763-7211
Joseph Rikk, Jr., Vice President, 614-794-9424
Steven G. Rowley, Vice President, 717-537-4115
Gary A. Rozmus, Vice President, 516-671-8066
Atul M. Salhotra, Vice President, 713-784-5151
James M. Savidge, Vice President, 727-541-3444
Roderick A. Savidge, Vice President, 717-763-7211
Matthew J. Schiemer, Vice President, 215-756-1155
Ronald D. Schreier, Vice President, 602-553-8817
Ralph H. Schwartz, Vice President, 717-763-7211
Kambiz F. Shadan, Vice President, 415-384-0822
Scott W. Sibley, Vice President, 610-650-8101
Dennis W. Silbaugh, Vice President, 717-763-7211
John R. Snodgrass, Vice President, 602-553-8817
Myung-Hak Sung, Vice President, 813-882-4366
Karl F. Updegraff, Vice President, 717-756-2158
D. Eric Veydt, Vice President, 412-922-5575
Patrick J. Welch, Vice President, 717-763-7211
Ronald C. Williams, Vice President, 727-541-3444
David B. Wilson, Vice President, 717-763-7211
Terry L. Winebrenner, Vice President, 614-794-9424
Edward L. Woyden, Vice President, 610-650-8101
Chen-yu Yen, Vice President, 410-585-1460
Laurence S. Zimmermann, Vice President, 717-763-7211
Robert K. Rumbaugh, Jr., Assistant Controller, 717-763-7211
Ruby L. Ile, Assistant Secretary, 717-763-7211

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

<p>NAME AND ADDRESS: Freelance Technical Associates, Inc.</p>	<p>SPECIALTY: Survey</p>	<p>WORKED WITH BEFORE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

12. A. Are your firm's personnel experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES Description and Number of Projects: _____

Yes. Gannett Fleming has performed Abandoned Mine Land Reclamation on over 10 abandoned mine sites over the past several years. These design projects included preparation of overburden analyses, alkaline addition plans, project plans and specifications, hydrologic & hydraulic analyses, and environmental permits, such as E&S, NPDES, and wetland permitting/mitigation.

NO

B. Are your firm's personnel experienced in Soil Analysis?

YES Description and Number of Projects: _____

Yes. Gannett Fleming personnel have performed numerous soil analyses in support of civil works and environmental projects. Our geotechnical environmental engineers work closely with our drillers and soils lab to direct sampling and testing. These projects involved test pits, topographic methods, and active and passive methods for leachate and gas control. We have also performed engineering soil analyses for use in geotechnical engineering calculations, and we have a full service soils laboratory in our Camp Hill office that serves both geotechnical and environmental markets.

NO

C. Are your firm's personnel experienced in hydrology and hydraulics?

YES Description and Number of Projects: _____

Yes. Gannett Fleming has performed hydrologic and hydraulic analyses on a multitude of projects including land development, surface mine permits, surface mine reclamation projects, transportation. Gannett Fleming has also completed the required NPDES permitting associated with the above mentioned projects.

NO

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

YES Description and Number of Projects: _____

NO

No. These services are routinely provided by Gannett Fleming through subconsultants.

E. Are your firm's personnel 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: _____

Yes. Gannett Fleming has designed over 100 domestic water lines, as well as water treatment plants and pumping/storage facilities throughout the United States for nearly 100 years. We have performed groundwater studies to determine if there was connections

NO

F. Are your firm's personnel experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: _____

Yes. Gannett Fleming has prepared watershed studies to determine the extent and location of acid mine drainage sources followed by recommendations and cost estimates for abatement. We have designed both active and passive treatment systems for acid mine drainage and acid rain abatement in Pennsylvania, Ohio, and West Virginia.

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.) Jeffrey J. Ream, PE	YEARS OF AML DESIGN EXPERIENCE: 8	YEARS OF AML RELATED DESIGN EXPERIENCE: 15	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8
---	--------------------------------------	---	---

Brief Explanation of Responsibilities:

Serves as senior civil engineer for land development and environmental projects involving: hydraulic/hydrologic analysis and design of stormwater management systems; preparation of erosion and sedimentation control plans; design of sanitary sewer and potable water systems and other infrastructure features; geotechnical design of foundations, retaining structures, earth embankments and impoundments; surface water monitoring; wetland mitigation planning and design; stream and riparian ecosystem restoration; application of active and passive wetland water treatment systems; water quality investigations and related remedial investigations, plans and designs.

EDUCATION (Degree, Year, Specialization)

B.S., Civil Engineering, 1993

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineer

REGISTRATION (Type, Year, State)

Registered Professional Engineer (Pennsylvania 1999)
#053753-E

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.) F. Roy Zug, III, PE	YEARS OF AML DESIGN EXPERIENCE: 35	YEARS OF AML RELATED DESIGN EXPERIENCE: 35	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 20
---	---------------------------------------	---	--

Brief Explanation of Responsibilities:

Responsible for and directly involved in the coordination and preparation of state and federal permit applications for surface and underground coal mining, non-coal mining, mine reclamation, industrial facility siting, land development and subdivision plans, water resource development projects, and waste disposal plans. Also responsible for and directly involved in the coordination and preparation of private and government-related civil engineering projects, including municipal services plans and specifications, industrial facility siting, land development and subdivision plans, water resource development projects, and waste disposal plans. Project responsibilities will include the design and review of waste water collection lines and pumping facilities associated with development plans and treatment system expansion and upgrades.

EDUCATION (Degree, Year, Specialization)

B.S., Civil Engineering, 1971

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

N/A

REGISTRATION (Type, Year, State)

Registered Professional Engineer (Pennsylvania 1971)
#017274-E
State of Ohio Professional Engineer #65834

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Kevin W. Bloom, PE	28	28	20

Brief Explanation of Responsibilities

Responsible for coordination and preparation of state and federal permits for surface and underground coal mining, non-coal mining, mine reclamation, coal preparation facilities, and industrial facility siting. Mr. Bloom is also directly involved with the preparation and coordination of land development plans, valuation studies, wetland evaluations, highway occupancy permits, air quality permits and earth disturbance permits. Project responsibilities have also included conducting hydrologic assessments relative to erosion and sediment (E&S) pollution control design, mining operation plans, soils evaluations, and reclamation and revegetation plans. Mr. Bloom is skilled in conducting and supervision of drilling programs, construction of monitoring wells, surface and groundwater monitoring, and installation of flow-monitoring devices, pumping tests, and groundwater modeling.

EDUCATION (Degree, Year, Specialization)

B.S., Mining Engineering, 1981

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Society for Mining, Metallurgy and Exploration

REGISTRATION (Type, Year, State)

Registered Professional Engineer (Pennsylvania 1986)
#035160-E

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Samer H. Petro, PE	1	1	1

Brief Explanation of Responsibilities

Senior Structural Engineer responsible for designing and analyzing highway bridges and other transportation-related structures.

EDUCATION (Degree, Year, Specialization)

B.S.C.E., Structural Engineering, 1987
M.S.C.E., Structural Engineering, 1993

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers
Association for Bridge Construction and Design
Steering Committee Member, National Conference on Integral Abutment and Jointless Bridges, 2005. Conference sponsored by FHWA and WVDOT.

REGISTRATION (Type, Year, State)

P.E.: Ohio - No. 66132 (2001)
West Virginia - No. 15710 (2003)

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Michael A. Neely, PE	YEARS OF AML DESIGN EXPERIENCE: 2	YEARS OF AML RELATED DESIGN EXPERIENCE: 2	3
Brief Explanation of Responsibilities			
Project Manager for the West Virginia Regional Office responsible for the design of highway and airport projects, including right-of-way, site development, stormwater, utilities, signing and pavement marking, erosion and sediment pollution control, final cross sections, quantities, and report preparation. Also assists in client consultation, budget preparation, and project scheduling.			
EDUCATION (Degree, Year, Specialization)			
B.S., Civil Engineering, 1996			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
National Society of Professional Engineers			
REGISTRATION (Type, Year, State)			
West Virginia - No. 015304 (2002) Florida - No. 61143 (2004)			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Gene A. Janero, PE	YEARS OF AML DESIGN EXPERIENCE: 13	YEARS OF AML RELATED DESIGN EXPERIENCE: 13	N/A
Brief Explanation of Responsibilities			
Geotechnical Project Engineer responsible for design on various geotechnical and environmental projects, including layout and implementation of field exploration programs, site reconnaissance, drilling inspection, soil and water sampling, and design activities. Also develops and prepares geotechnical reports, technical specifications, and cost estimates.			
EDUCATION (Degree, Year, Specialization)			
B.S., Civil Engineering, 1995			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
Society of American Military Engineers Secretary, Pittsburgh Post American Society of Civil Engineers Deep Foundations Institute			
REGISTRATION (Type, Year, State)			
P.E.: Pennsylvania - No. PE060736 (2004)			

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Michael A. Knight, PG	20	20	N/A

Brief Explanation of Responsibilities

Senior Project Manager and Geologist responsible for directing geologic and hydrogeologic projects involving the study, evaluation, and assessment of earth materials. Areas of responsible charge include geologic interpretation; geologic structures evaluation, groundwater and soils contamination problems; solid waste disposal; public water supply development; abandoned mine land reclamation; aquifer testing; remedial design; wellhead protection; and earth resources development.

EDUCATION (Degree, Year, Specialization)

B.S., Geology, 1983

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

N/A

REGISTRATION (Type, Year, State)

P.G.: Wyoming - No. PG-893 (1992)
 Kentucky - No. 1594 (1994)
 Pennsylvania - No. 001237-G (1995)
 MSHA Mine Safety Certified Surface, Coal, Metal, and Nonmetal (2005)

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Michael D. Antonetti, PG, LRS	5	5	N/A

Brief Explanation of Responsibilities

Environmental Project Manager responsible for supporting and developing environmental site remediation services for a wide variety of projects, including energy production, collection, storage, and transmission facilities and Brownfield sites.

EDUCATION (Degree, Year, Specialization)

B.S., Environmental Geology, Juniata College, 1980
 M.S., Geology, Syracuse University, 1982

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Pennsylvania Council of Professional Geologists

REGISTRATION (Type, Year, State)

P.G.: Pennsylvania - No. PG002575G (1995)
 L.R.S.: West Virginia - No. 218 (2003)

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

Please see attached response(s).

EQUIPMENT

Gannett Fleming, Inc. (Gannett Fleming), maintains state-of-the-art computer equipment to support many specific disciplines including: CADD; GIS; Global Positioning System (GPS) and Precision Surveying; Engineering Design and Numerical Analyses; Desktop Publishing; and Multimedia and Graphic Services. Computer resources within each office are linked together with a Windows Local Area Network and corporate wide by a Wide Area Network. Our network of computer resources consists of more than 1,200 desktop PCs and 100 notebooks, Internet e-mail, direct PC Faxing, a full T-3 line that can transmit data at a speed of 44.7 MB per second, World Wide Web (WWW) Internet access, and our own FTP site.

COMPUTER SERVICES

Much of the equipment we maintain is devoted toward providing computer services of all kinds. Central to this system is our IBM ES/9000 System featuring 64 megabytes of internal memory, which operates the VM/ESA and VSE/ESA Operating Systems and supports remote communications from microcomputers and terminals across the continental U.S. This equipment is complemented by auxiliary equipment and software for other specific tasks. In addition to these, we currently maintain and use PCs and 66 laser printers companywide.

Detailed Listing of Computer Hardware

	Quantity
IBM ES/9000 model 9221-170 with 64 MB of real storage	1
IBM 3390 22.7 GB disk drives for a total of 68.1 GB of online storage	1
STK 4480 cartridge tape drives	2
STK 4600 9-track tape drives	6
XEROX 4090 92 PPM laser printer	1
Oce 2140 136 PPM laser printer	5
STK 5000 impact printers	2

Sharing and Delivering Digital Files - Gannett Fleming shares and delivers digital files with other users and clients using a variety of methods. We have our own FTP site, Internet e-mail, a network database server, and standard and specialized hardware for writing digital data to disks, CD-ROMs, Zip Drives, and a variety of tape formats. Brief descriptions of each method follow:

- **FTP:** Gannett Fleming has its own FTP site on the WWW at ftp.gfnet.com. Using the FTP utility, a user can post files directly to our public FTP site. This facilitates downloading large digital files for our clients and between our offices.
- **Internet e-mail:** Gannett Fleming engineers and other employees who regularly work with computers are provided with their own Internet e-mail address. Our e-mail software enables users to send and receive text messages and attached files.
- **Writing Data to Disks, CDs, Zip Drives, and Various Tape Formats:** Gannett Fleming can read, store, and archive digital data in almost any format and medium available. Besides standard floppy disks and high-density diskettes, we have a good mix of WORM and Rewritable Drives for permanently writing large data files to writeable CDs. We also provide and support a wide range of tape storage formats ranging from small 4-mm and 8-mm tape cartridges to large 9-track tape drives for substantial mainframe databases.

CADD SYSTEM

Gannett Fleming uses the latest technologies in CADD systems to increase the efficiency of our designers and engineers. We have more than 23 years of direct CADD experience using purchased design software, as well as design software developed in house. Our CADD system provides our engineers with the ability to design directly within the CADD environment. Currently, Gannett Fleming has 264 Bentley MicroStation stations and approximately 217 AutoCAD stations company-wide. Versions of CADD software that Gannett Fleming supports include MicroStation Version 8 and AutoCAD 2005. CADD workstations and engineering PCs are attached to a Windows network to provide a "state-of-the-art" distributed processing environment.

Experience

Gannett Fleming has significant CADD experience in the design of bridges, tunnels, heavy rail subway systems, highways, buildings, water treatment plants, bus facilities, mapping, and site development. With more than 23 years of experience, Gannett Fleming has learned to effectively manage and control a CADD-oriented design approach on our projects.

Gannett Fleming has emerged as a leader of GIS as well as CADD. Our firm has significant experience integrating CADD and GIS capabilities on our engineering projects. Our GIS services include siting, mapping, information management, and facilities management. Our GIS software includes ArcCAD, ArcInfo, Intergraph MGE, and Atlas; as well as many others.

CADD Proficiency and Training

Gannett Fleming's "CADD Central" group is responsible for ensuring that our CADD and computer operations are being effectively used and coordinated for projects throughout the company. CADD Central is composed of professional engineers, programmers, graphic specialists, and experienced technicians. Their function is to make certain that Gannett Fleming's CADD, engineering, and graphic applications remain on the leading edge of technology. Our own in-house training programs instruct operators to effectively implement our CADD/GIS systems in an engineering environment. The training incorporates the latest procedures, software, and programming necessary for maximizing the productivity of our operations. More than 23 years of CADD experience provides us with the knowledge necessary to develop sound, functional training programs. Our training programs cover MicroStation, AutoCAD, and various design software, including InRoads and GEOPAK.

In addition to experience using purchased software, our programming staff has developed in-house CADD software. Programs have been written to link engineering design software with the generation of design drawings, streamline MicroStation user commands, and create AutoCAD LISP routines and MDL applications.

Final CADD output can be plotted on a wide selection of plotters and laser printers. Our plotting capabilities include Oce electrostatic color plotters, large-format Hewlett-Packard InkJet plotters, and a high-end Atlas color plotter. High-speed laser printers available for printing CADD output include various black-and-white, and color laserjet printers. All of our plotters and printers, regardless of their location, are accessible to all Gannett Fleming CADD operators.

The CADD Central group also provides a supplemental training program to keep our more than 300 trained operators current on the latest software and procedures. This additional training ensures that our CADD operators are using the CADD system to its maximum potential.

INFORMATION TECHNOLOGY/WEB SERVICES

Gannett Fleming's Information Technology division is comprised of GeoDecisions®, Information Technology (IT) Services, and GANCOM®. Our staff of more than 250 dedicated IT professionals leverage state-of-the-art technology to support our internal operations as well to provide award-winning solutions to our federal, state, local government, and private-sector clients. Gannett Fleming's IT group is ISO 9001:2000 certified.

GeoDecisions, a national leader in geospatial IT, and the IT Services group combine to provide a one-stop-shop for any client's IT needs. GANCOM is one of the few businesses to offer true "concept to completion" design, production, and fulfillment of copy, print, and direct mail products and services. The combination of human talent, advanced technology, and our state-of-the-art facilities gives us the unique ability to handle entire projects at a single location.

Gannett Fleming has completed numerous award-winning, Internet-based solutions for public and private clients across the country, including more than 400 IT and GIS-related projects, and more than 50 GIS systems installed nationwide. The main Web services that Gannett Fleming provides for its clients include: GIS-driven data or mapping Web sites; Web-based applications; public relations/project Web sites; secure project collaboration Web sites (i.e., extranets); Web site enhancement services; Web site maintenance; and Web site hosting. We are experienced in developing and hosting any type of Web system that our clients require.

All types of Web sites can be hosted on one of Gannett Fleming's in-house Web servers. We are currently hosting 25 different Web sites that we have completed and/or maintain for our clients. Recent high-end information management projects include enterprise-wide infrastructure management and system integration projects, Web portals, and Internet and intranet Web server solutions. Our commitment to research and development makes certain that we provide cutting-edge solutions that are tailored to our clients' needs.

Our general approach is to develop Web sites that are easy to use, as well as easy to upgrade and maintain. Gannett Fleming's database and programming staff are extremely proficient in Oracle, Microsoft SQL, Microsoft Access, ASP, ASP.NET, JAVA, JavaScript, XML, and VBScript programming, to name just a few. We have the knowledge and experience to provide any type of database Internet solution that is required to complete an assignment. Gannett Fleming's extensive staff of Web developers, designers, multimedia specialists, programmers, and database developers is at our clients' disposal.

PROJECT WEB SITES

Because many of our clients are publicly-funded entities, the Internet provides a fast and easy way to keep the public updated and involved throughout the life of a project. Project Web Sites can provide project updates, schedule information, team information, site photos, and even live construction feeds and video. This is also a valuable way to gather feedback from the public in the form of online surveys, message boards, and other interactive methods of communication. We utilize our designers and programming knowledge to provide sites that are informative, interesting, and interactive. Project Web sites can be broken into two different categories, public information and project collaboration sites. Gannett Fleming has extensive experience in developing and hosting both types of project Web sites.

The first category, public information transfer sites, are Web sites available to the general public that contain information about a particular project that would be of interest to those who are affected by the project in some way. An example of this type of Web site would be a bridge construction project. The Web site would contain general information such as the extent of the project, project schedule, photos at different stages of construction, detours and associated alternate routes, as well as links to other related Web sites that may be of interest to the public.

The second category is a project collaboration site. This type of site is not available to the general public. Access is restricted to those individuals who are working on the project. These Web sites provide features such as task assignment, archiving and exchange of CADD or document files, tracked requests for information, message boards, e-mail notification for updates, and custom applications as needed. Collaborative sites can also be used very effectively in conjunction with public or GIS Web sites to provide a secure area for team and agency communications. Collaborative sites can provide different levels of security for different users or team members. On large projects with multiple contractors, access to documents and areas of the Web site can be restricted to only those areas that the contractor has a need to see. The Project Collaboration system is available 24 hours a day, 365 days a year, anywhere that you can access the Internet.

GPS AND PRECISION SURVEYING

Gannett Fleming currently owns Leica System 500 RIK GPS Surveying System. This equipment is capable of performing sub-centimeter precision positioning surveys. We use our Trimble GPS (Pathfinder Professional) equipment as a survey tool to navigate, determine base points, x-y locations, and log feature attribute information with submeter accuracy. This system is used to map natural and man-made features; establish the initial traverse for corridor planning activities; and for locating feature points (manholes), monitoring points (air samples), and pollutant sources. We can plot GPS data on maps using AutoCAD, MicroStation, or GIS ArcInfo. Feature attribute data such as wetland data can be logged in the field and printed on a customized data form. Digital data from an external source such as a noise meter can be imported into GPS and presented on a map or form in conjunction with a feature. To complement GPS, Gannett Fleming also has surveying crews with total station capabilities with first order accuracy. A list of key GPS and conventional survey equipment follows:

	Quantity
Trimble Pathfinder ProXL units (with submeter accuracy)	2
Theodolites and Total Stations	28
Transits	1
Electronic Distance Measuring (EDM)	25
Levels	4
Automatic Levels	27
Boats with Motors	2
Bucket Truck	1
Fathometer	2
Trimble GeoXI	1

DATA CONVERSION

Gannett Fleming has extensive experience in data conversion and output. We have developed efficient procedures for converting hardcopy pre-existing maps and drawings to digital format. Through the use of several large-format 800-dpi scanners, raster editing software, and interactive vectorization software products, we are capable of providing a total package of services.

The hardware that we are currently using for our scanning operations consists of a Vidar truScan 800, and an Ideal FSS8300; both are state-of-the-art 800-dpi E-size scanners. The scanners convert line and text features from the original hardcopy into a raster image, the resolution of which is determined by the quality of the hardcopy and scanner settings.

Once the raster image is created in one of many acceptable formats, (Intergraph .CIT, AutoCAD .RLE, .TIF, .BMP, etc.) we process the raster image with one of our raster editing tools. We use I/RAS C and I/RAS B software products to process either black-and-white or greyscale scanned raster images. Both products have the capability for an affine transformation so that raster images can be georeferenced to any desired datum and projection.

For vectorization purposes, our primary tool is I/GEOVEC software by Intergraph. I/GEOVEC is an interactive vectorization software product that generates vector graphics for CADD or GIS. User-identified parameters define the line work to be vectorized. While the operator must still provide direction cues, this procedure has proven cost-effective over hand-digitizing or current automatic vectorization solutions. Feature fields can also be linked with attributes so that data input can be layered and linked with databases later in the mapping procedure.

PLOTTING

Gannett Fleming has a significant selection of plotters from which to choose. Our plotting capabilities consist of a Versatec 8636 electrostatic plotter, a Versatec 8944 color electrostatic plotter, and several large-format Hewlett-Packard InkJet plotters. All of our plotters, regardless of their location, are accessible to any Gannett Fleming operator through the network. This capability provides our regional offices with high-volume plotting capabilities.

Detailed Description of CADD, GIS, and Programming Systems Hardware Quantity

Pentium-based CADD Workstations	293
Sun Sparc 20 Workstations	1
Versatec 8944 Color Electrostatic Plotter	1
Versatec 8636 HRE Electrostatic 400 DPI	1
Hewlett-Packard 1055 CM DesignJet Color Plotters	2
Hewlett-Packard 755 CM DesignJet Color Plotters	5
Hewlett-Packard 650C DesignJet Color Plotters	5
Hewlett-Packard InkJet Plotters	10
Hewlett-Packard 4M+ PCL/PostScript LaserJet	1
QMS 860 Laser Plotters, 11x17 Size	8
Hewlett-Packard 4MV Laser Plotters, 11x17 Size	4
Hewlett-Packard LaserJet III and LaserJet 4 Printers	40
CD Writers	5
Vidar truScan Large-Format (E size) Scanner	1
Ideal Large-Format (E size) Scanner	1
Data Digitizers	5

(current specifications include 700MHz Pentium III, 256 MB RAM, 18 GB hard drive, and dual monitors; one 19 inch and one 17 inch)

Novell LAN

Main Network server Dual 300MHz Pentium II with 250 GB on line Hard Drive Space and 1 GB RAM
 23 Additional Application servers including 6 Internet servers.

Software

Bentley MicroStation V8	Bentley MicroStation/J
Auto CAD 2005 I	Autodesk 3D Studio
Bentley InRoads	Bentley FieldWorks
GEOPAK	Intergraph InFlow
Intergraph Project Architect	Terra Model
GWN DTM	GWN COGO
Descartes	I/GEOVEC
Intergraph MGE	Crystal Reports
Microsoft Visual Basic	Microsoft Visual FoxPro
Microsoft Access	Protogent Client Server
Development Suite	Borland C/C++
Informix-SQL	Intergraph Interplot
MicroSIF SIF Translator	AXIOM Filefixer
AXIOM Spellchecker	I/RAS/C
I/RAS/B	PCIPLOT

MicroStation Masterpiece
 Arc/Info
 Atlas GIS
 DM/DBA ADM Toolkit
 ARCCAD
 ARC NETWORK
 GeoMedia
 MGE Grid Analyst
 MGE Network
 MGE Section Manager
 ARC/INFO Grid
 ArcView 3.0a
 ArcView Spatial Analyst
 MrSID
 Oracle
 Oracle Spatial DBASE
 Oracle Spatial Paradox
 GeoMedia Web MapObjects
 ArcIMS

QuickView PRO
 Intergraph MGE
 Byers Plot Station
 Exceed
 ARC TIN
 ARC COGO
 MapInfo
 MGE Grid Generation
 MGE Projection Manager
 MGE Terrain Analyst
 ERDAS
 ArcView Network Analyst
 Vista Map
 MapObjects
 Oracle Spatial Sybase
 Oracle Spatial Access
 GeoMedia
 ArcSDE
 Maptitude.

IN-HOUSE PROGRAMS AND SOFTWARE DEVELOPMENT

Gannett Fleming is committed to continuously increasing the efficiency with which our CADD drawings are generated. Our programming staff has extensive experience developing programs and procedures for our CADD/GIS system. These programs make possible the automated generation of design drawings from our engineering applications. Gannett Fleming developed programs include MDL applications, MicroStation User Commands, AutoCAD LISP routines, Fortran, and C programs. These programs supplement the various proprietary engineering design software that we have purchased.

Our in-house-developed programs reduce the possibility of error and the labor required to complete design drawings. An added benefit is that our engineers can immediately evaluate their designs and quickly implement changes. Our staff has recently completed the following programs:

- A computer application to automate the process of generating PENNDOT required Item Tabulation Sheets. The application was developed using Microsoft's Visual FoxPro. The program allows users to input standard and non-standard tab items into a database, which in turn creates required cost reports and items as ASCII files. The ASCII output files are then imported into MicroStation using TABz MDL program.
- A highway sign computer program developed for the Arizona Department of Transportation. This traffic engineering MDL program adds highway sign character, sign panels, and arrows, all with proper spacing and witness line dimension labels. The user needs only to provide the character string to be placed into the sign panel, and select any number of predefined character heights.
- A Bridge Analysis computer program developed for MicroStation CADD for Gannett Fleming's Transportation Division. The program analyzes PENNDOT design criteria for multi-span steel girder and multi-span prestressed girder highway bridges and calculates values of shear and moment at each tenth point. The program uses the results of calculations generated from the application and graphs the shear and moment at the tenth points, at user-definable scale, and generates and fills in a PENNDOT-required table suitable for submission with project drawings.

- A relational database with a text-based Graphical Users Interface that assists dam operators and engineers in estimating the cost of upgrading nonfederal earth embankment dams. The program features an input template for data entry, interactive filter-building dialogue boxes, database record display either editing capabilities, and printing utilities.
- A program that generates sewer profiles along roadway alignments from engineering design data files.
- A user-friendly relational database for estimating costs associated with dam rehabilitation.
- A "C" program that can reduce cross section data from electronic survey or engineering design software and create finished, formatted drawings, complete with existing ground links and associated text in a CADD design file.
- An interactive CADD program that calculates and labels the stations and offsets of any point with reference to an identified baseline. The text is oriented to the final drawing and is in the required format. This is ideal for right-of-way work and property plats.
- A program that reduces survey data produced from a total station. This data is then processed with InRoads software to produce finished graphics for contract drawings.
- Two in-house programs that can be applied to produce soil profile drawings. The first of these interactive programs generates a boring log complete with title, layer depths, blow counts, and graphics using very simplified operator input for maximum speed and efficiency. The second program transfers the soil descriptions into the design file from another word processing device. The boring data can be loaded into a three-dimensional or two-dimensional design file. In three-dimensional design files, cross sections that contain complete boring log information can be taken anywhere on the project.
- Graphical database for recording structural inspection findings. This software is used in the field by the inspector to graphically record the defects of structural components on a drawing while physically looking at the same component. The same graphical interface is then used in the office to review and analyze findings. This software has been applied to both buildings and bridges.

MANAGEMENT COMPUTER PROGRAMS

- Primavera SureTrak - Project management software for complex design/production projects with integration/construction management. Compatible to Primavera Project Planner.
- Primavera Project Planner - Project management software to schedule either I-J or precedence-type networks. Provides control of costs and resources.
- Welcom OpenPlan - Desktop and professional versions with full integration of PENNDOT Template.
- Microsoft Project - Microsoft's version of project management software.

GEOTECHNICAL LABORATORY

Gannett Fleming operates a fully equipped 2,000-square-foot soils laboratory. Its facilities and personnel are capable of performing a full range of soil tests as required to analyze and design cut slopes, embankments, landfills, earth barriers, impervious linings, earth covers, and structural foundations.

Equipment is available to perform soil classification, Atterberg limits, unconfined compression, direct shear, triaxial shear, compactions, California Bearing Ratio, permeability, pH, ion exchange capacity, conductivity, and other soil tests. Engineers and geotechnicians experienced in soil engineering and soil testing staff the facility. Tests are performed under the direction of senior professionals who specialize in geotechnical engineering.

The company also has the capacity and equipment to perform field tests of soil density, compaction, permeability, percolation, settlement, slope movement, groundwater elevation, pore pressures, groundwater quality, and other quantitative and qualitative factors. Through the use of our own in house drilling crews or in association with drilling companies, complete subsurface exploration projects can be performed under the firm's professional direction.

The soils testing laboratory is accredited by the AASHTO. The AASHTO Accreditation Program, established in June 1988, is the only program that certifies laboratories for the full complement of basic soil tests.

Personnel have completed 40-hour health and safety training in accordance with OSHA Regulation 29 CFR 1910.120 and are enrolled in a medical monitoring program allowing the laboratory to handle and test potentially contaminated materials.

Tests Performed

Permeability	Unconfined compression
Direct shear	Triaxial shear
Residual shear	Compaction
California bearing ratio	Consolidation
Soil classifications	Sieve analysis
Hydrometer	Atterberg limits
Specific gravity	Organic content
Resistivity of soils	Slake durability
Point load testing of rock	pH, ion exchange capacity

Equipment

	Quantity
Flexible wall permeability cells.....	3
Constant head perm cells.....	1
Triaxial cells.....	2
Consolidometers.....	3
Direct shear machine.....	1
Sieve shakers.....	2
Electronic balances.....	5
Ovens.....	6
Slake durability apparatus.....	1
Muffle furnace.....	1
Point load apparatus.....	1

Geotechnical Field Equipment

Vertical and horizontal inclinometers	Digital data loggers
Nuclear density gauges	Piezometers
Sand cones	Pocket penetrometers
Resistivity meters	Double ring infiltrometers
Settlement plates	Turbidimeters
Water level indicators	Soil gas probes
Seismograph	

GEOTECHNICAL SOFTWARE

Our library of geotechnical software includes programs for pile driving, analyzing inclinometer data, performing finite element analyses of embankment construction, seepage analysis, slope stability, aquifer analysis, sheet pile wall design, foundation analysis, earthquake analysis, settlement, retaining structures, and evaluating sliding stability of concrete structures. The following programs are used regularly by our geotechnical engineers:

CANDE89	CRSP	3DSAD	CSLIDE
MIRASLOPE	PCSTABL6	PASTABLE	PASTABLM
ROCKPACKIII	REAME3D	SLOPE/W	SNAIL
WESHAK	SHAKE	COM624G	GRLWEAP
PILEDG	LPILE	CBEAR	FEECON
SIGMA	ABUT4	CCELL	CTWALL
CTSHORING	CWALSHT	SPW911	SEEP
ROCKGROUT	LOGDRAFTIII	STEREO	DIGIPRO
GEOSYSTEM	DARWIN	LPILE	PLAXIS

DRILLING EQUIPMENT

Gannett Fleming, through its affiliate L.G. Hetager Drilling, Inc., offers complete drilling capabilities. Hetager Drilling has been providing drilling services since 1952 in support of engineering design and construction projects. Our capabilities include diamond core, air rotary, hammer, reverse air circulation, and auger drilling. We perform pressure testing and pressure grouting; instrumentation; monitoring well installation; land and water drilling; and split spoon, undisturbed and rock core sampling.

Our drilling operations are based in Punksutawney, Pennsylvania with a regional office in Columbus, Ohio. We employ an experienced staff of nearly 40 drilling personnel and machinists. We operate 19 rigs with a wide range of capabilities and a fully staffed machine shop. By manufacturing our own equipment, parts, and supplies, we are able to adapt standard equipment for special applications.

Equipment	Quantity
Track mount drill rigs	7
Truck mount drill rigs	6
Skid mount drill rigs	3
ATV drill rigs	3
Dozers	1
Lowboys	2
Steam jennys	6
ATV waterbuggies	2
4WD water tracks	6
150 to 750 CFM air compressors	2
Generators	2
Welders	5
Supply pumps	9
Trash pumps	16

Grout plants.....	3
Barge.....	1
Geo probe.....	1

ENVIRONMENTAL LABORATORY

Gannett Fleming is associated with an environmental laboratory that is located in our facility and is capable of performing a vast range of water quality, solid waste and environmental testing. The laboratory is nationally accredited under the guidelines of the NELAP program. Analytical equipment includes an autoanalyzer, flame and flameless atomic absorption spectrophotometers, an X-ray diffraction spectrophotometer, a mass spectrograph, gas chromatographs, an infrared analyzer, and the normal array of laboratory facilities. A comprehensive list of our environmental equipment is listed below.

The Environmental Laboratory contains sophisticated, state of the art instrumentation and data processing equipment capable of performing most organic and inorganic analyses.

Organics Equipment

	Quantity
INCO's 50 mass spectrograph with auto sampler#1, ID# MLCH-1	1
LCS 2000 tekmar	1
ALS 2016 tekmar	1
Varian 3400 gas chromatograph	1
Tracor gas chromatograph with dual ECD detectors	1
Tracor gas chromatograph with FID/ECD detectors	1
INCO's 50 mass spectrograph with auto sampler#1, ID# MLCH-4	1
LCS 2000 tekmar	1
ALS 2016 tekmar	1
Varian 3400 gas chromatograph	1
Dynatech auto-injectors for gas chromatographs	1
Tekmar sonic disruptor probe	1
Internal floor centrifuge	1
International bench top centrifuge	1
Labline multi-temp block digester	1
Baker 6 place disc extraction manifold	1
VWR vortex genie	1
Varian CP - 3800 GC (in-service 9/04)	1
Varian 3300 - GC (in-service 9/04)	1
Varian archon purge and trap auto sampler (in-service 9/04)	1
Varian saturn 3 GC/MS (in-service 9/04)	1
Varian star 3400CX (in-service 9/04)	1
Tekmar 3000 model 14-30V0-000 (in-service 9/04)	1
Varian star 3400CX GC (in-service 9/04)	1
Varian saturn 2000 GC/MS (in-service 9/04)	1

Metals and Wet Chemistry Equipment

	Quantity
Spectro flame modula ICP	1
Perkin elmer mercury analysis with PE 2380	1
Pump for mercury analyzer	1
Spectrophysics strip recorder	1
Varian 8000 zeeman graphite furnace AA	1
Blue M magniwhirl water bath	1
Dionex SX 500 ion chromatograph	1
Dionex IC, ID# MLCH-18A	1
Dionex IC, ID# MLCH-18B	1

Dionex auto sampler	1
Dohrman total organic carbon analyzer with auto sampler	1
Beckman DU-64 UV-VIS spectrophotometer	1
Labconco kjeldahl rapid still	1
Labconco kjeldahl digester	1
2 place zero-headspace extractor	1
6 place TCLP extractor	1
TCLP filtration unit	1
HACH 2100A turbidity meter	1
YSI model 58 oxygen analyzer	1
Orion EA940 pH/specific ion meter	1
Constant temperature oven 104°C	1
Constant temperature oven 180°C	1
Dubuque muffle furnace	1
American scientific products 2 decimal place balance	1
American scientific products 4 decimal place balance	1
Mettler analytical balance	1
Ohaus analytical balance	1
Class "S" calibration weights	1
HACH DR/4000U	1
HACH COD digester	1
SCP science hot block	1
Accuement AR25 pH/ion meter	1

Microbiology Equipment

	Quantity
IDEXX collilert system	1
Millipore MF-incubator#2	1
Market forge stericomatic model STM-E autoclave	1
Millipore 3 place filtration manifold	1
Millipore MF incubator #1	1
SteroMasterII fisher model SPT-ITH	1
UV lamp model UVGL-25	1
Millipore UV sterilizer	1
Precision incubator #2 model 805	1
Precision incubator #1 model 805	1
10mL fixed volume micropipettor	1
Millipore 6 place filtration manifold	1
Steward stomacher 400	1
Precision incubator	1
Drummond pipet aid	1
3M 1.0mL pipettor	1
3M 5.0 mL pipettor, ID# MLCH-72	1
3M 5.0 mL pipettor, ID# MLCH-73	1
VWR dual stir/hotplate	1
Colony counter	1
Micromaster microscope	1
Ewave refrigerator/freezer #1	1
Whirlpool refrigerator/freezer #2	1
Whirlpool refrigerator/freezer #3	1
Precision science model 4 incubator	1
Precision science thelco model 6	1

Miscellaneous Equipment

Kenmore refrigerator/freezer	1
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Jewitt double-door refrigerator	1
Jordon double-door refrigerator	1
Precision water bath	1
Bockel steam bath	1
Class A pipets and graduated cylinders	40
Assorted pyrex beakers and flasks	65
Automated pipettors	1
NIST reference thermometer	1
Miscellaneous thermometers	4
Personal computer work stations	11
Software to support GC/MS, GC, IC, ICP, and GFAA	1

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)	
Fall Brook - active AMD treatment system Tioga County, PA	Tioga County Concerned Citizens Committee	\$1,000,000	2007	No	
Dents Run - Site 3893 AMD Passive Treatment System Elk County, PA.	U.S. Army Corps of Engineers	\$600,000	2006	Yes	
Osage Mine Complex	West Virginia Department of Environmental Protection 105 South Railroad Street Phillippi, WV 26416	\$206,000	2005	Yes	
Marjol Battery Site AML/Subsidence Investigation	Borough of Throop, Sanderson Street, Throop, PA.	\$250,000 Study and Litigation	2006	No	
S.R. 3028 Presto-Sygan Road Landslide Remediation & Deep Mine Grouting	PennDOT District 11-0 45 Thoms Run Road Bridgeville, PA 15017	\$750,000	2008	No	
S.R. 837 Landslide Stabilization & AMD Remediation	PennDOT District 12-0 825 North Gallatin Ave Ext. Uniontown, PA 15401	\$2,000,000	2006	Yes	
May Hollow 49 passive Treatment System	Cameron County Conservation District	\$250,000 Plans and Specs	2008	NO	
Ryerson Station State Park Dam, Greene County, PA	Commonwealth of Pennsylvania, Dept of Conservation and Natural Resources	2,000,000 Study Cost		No	

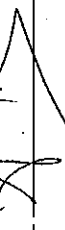
18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

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
N/A					

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.

Please see Section 1 - attached response.

20. The foregoing is a statement of facts.

Signature:  Title: Regional Office Date: 12/6/10

Printed Name: Samer H. Petjo, PE

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

Attachment "B"

PROJECT NAME Simpson Ck, Tipple & Portals Design
 DATE (DAY, MONTH, YEAR) 12-07-10
 FEIN 55-0746-095

1. FIRM NAME Freelance Technical Associates, Inc.
 2. HOME OFFICE BUSINESS ADDRESS 207 Fairmont Ave., Fairmont, WV 26554
 3. FORMER FIRM NAME

4. HOME OFFICE TELEPHONE 1-304-366-6288
 5. ESTABLISHED (YEAR) 1997
 6. TYPE OWNERSHIP Individual X Corporation Partnership Joint-Venture
 6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES X NO

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 207 Fairmont Ave., Fairmont, WV 26554/1-304-366-6288/Danny L. Bainbridge, President/8

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM
 Danny L. Bainbridge, Pres., Gary K. Clayton, PE, V. Pres., Carolyn M. Bainbridge, Sec./Treas.
 8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS

9. PERSONNEL BY DISCIPLINE

ADMINISTRATIVE	—	ECOLOGISTS	—	LANDSCAPE ARCHITECTS	—	STRUCTURAL ENGINEERS
ARCHITECTS	—	ECONOMISTS	—	MECHANICAL ENGINEERS	—	3 SURVEYORS
BIOLOGIST	—	ELECTRICAL ENGINEERS	—	MINING ENGINEERS	—	TRAFFIC ENGINEERS
2 CAD OPERATORS	—	ENVIRONMENTALISTS	—	PHOTOGRAMMETRISTS	—	OTHER
CHEMICAL ENGINEERS	—	ESTIMATORS	—	PLANNERS: URBAN/REGIONAL	—	
1 CIVIL ENGINEERS	—	GEOLOGISTS	—	SANITARY ENGINEERS	—	
CONSTRUCTION INSPECTORS	—	HISTORIANS	—	SOILS ENGINEERS	—	TOTAL PERSONNEL
DESIGNERS	—	HYDROLOGISTS	—	SPECIFICATION WRITERS	—	
DRAFTSMEN	—					

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 1
 *RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES NO

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

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No

12. Are your firm's personnel experienced in Abandon Mine Lands Remediation/Mine Reclamation Engineering

X YES Description and Number of Projects: CheatNeck Project and Haywood Project

NO

B. Are your firm's personnel experienced in Soil Analysis?

YES Description and Number of Projects:

X NO

C. Are your firm's personnel experienced in hydrology and hydraulics?

YES Description and Number of Projects:

X NO

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

YES Description and Number of Projects:

X NO

E. Are your firm's personnel experienced in domestic waterline design? (Include any experience in evaluation of aquifer degradation as a result of mining.)

X YES Description and Number of Projects: Sunsee Estates waterline extension, ThistleDown Subdivision Waterline Extension for Little Creek PSD

NO

F. Are your firm's personnel experienced in Acid Mine Drainage Evaluation and Abatement Design?

X YES Description and Number of Projects: Multiple projects for Eastern Associated Coal Corporation during Presidents tenure as Northern Division Environmental Engineer for the Corporation

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	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)

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)

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
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Brief Explanation of Responsibilities

EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
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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

Four (4) fully equipped Civil 3-D AutoCAD workstations

Seven (9) fully equipped computer workstations

Two (2) fully equipped mobile Civil 3-D AutoCAD workstations

Topcon GPS System (RTK) with survey-grade accuracy

EPOCH GPS Survey system

Three (3) total stations

Three (4) GPS-enabled, TDS Nomad data collectors with Bluetooth and Wi-Fi

Photo-quality large format plotter up to 42" width

Complete fax, lamination and Xerox facilities and supplies including large format

Field surveying equipment

Two (2) Survey Crew ATV's

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

TOTAL NUMBER OF PROJECTS:

TOTAL ESTIMATED CONSTRUCTION COSTS: \$

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

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.

20. The foregoing is a statement of facts.

Signature: Danny L. Bainbridge Title: President
 Printed Name: Danny L. Bainbridge Date: 12-6-10



West Virginia Department of Environmental Protection

*Section 3 – AML and Related Project Experience Matrix
(Attachment “C”)*



West Virginia Department of Environmental Protection

Section 4 – Key Personnel Resumes

YEARS EXPERIENCE WITH FIRM: 10

YEARS EXPERIENCE WITH OTHER FIRMS: 7

EDUCATION:

B.S., Civil Engineering, University of Pittsburgh, 1993

REGISTRATIONS/CERTIFICATIONS:

Registered Professional Engineer (Pennsylvania, 1999)

PROFESSIONAL AFFILIATIONS AND PUBLICATIONS:

American Society of Civil Engineers

CURRENT RESPONSIBILITIES:

Senior Civil Engineer Clearfield Gannett Fleming Office responsible for completion of engineering, and construction management services to private industry and federal and state agencies. Serves as senior civil engineer for land development and environmental projects involving: hydraulic/hydrologic analysis and design of stormwater management systems; preparation of erosion and sedimentation control plans; design of sanitary sewer and potable water systems and other infrastructure features; geotechnical design of foundations, retaining structures, earth embankments and impoundments; surface water monitoring; wetland mitigation planning and design; stream and riparian ecosystem restoration; application of passive wetland water treatment systems; environmental and ecological impact assessments; water quality investigations; environmental liability and risk analyses; and related remedial investigations, plans and designs.

SUMMARY OF EXPERIENCE:

Harrison Hydrologic Study and Treatment Alternatives Analysis, Haywood, WV, Allegheny Energy. Senior Civil Engineer assisting in the development of passive treatment alternatives for metals-contaminated coal combustion byproduct leachate, acid mine drainage, and sediment-contaminated road runoff at a large power generating facility. Performed a detailed economic and technical feasibility study for five potential sites and systems for treatment. Modeled existing and future surface runoff conditions over a complex area of disposal sites, power plant facilities, and piping networks. The final design of the treatment facilities will consist of a combination pumped and gravity drain influent collection system and a passive wetland treatment system consisting of aerobic wetlands, anaerobic wetlands, a vertical flow reactor, and an equalization basin for the removal of hexavalent chromium, selenium, iron, and aluminum from disposal area leachate. **Schatz Stream Restoration, Emporium, PA, Cameron County Conservation District.** Senior Civil Engineer responsible for design of a stream relocation/stabilization project. Tasks included the H&H analysis and design of a stable stream channel for a 700-foot-long reach of river exhibiting severe bank instability. The project included special adjustments to tie into the wingwalls of an existing bridge. Performed floodplain and stormwater management analyses and natural channel design for the proposed channel, developed plans and specifications, facilitated bidding, performed contract negotiations and construction monitoring, and completed necessary permitting as required by the Pennsylvania Department of Environmental Protection.

Mosquito Creek Acid Abatement Project, PA, Mosquito Creek Sportsman Association Senior Civil Engineer responsible for hydrologic and hydraulic design and quality assurance/control

of plans and specifications for the design of passive acid abatement systems to remediate acid rain impacts to Mosquito Creek and associated trout fisheries. Project used vertical flow reactors (anaerobic compost/limestone cells) to generate alkalinity and neutralize acidity in several headwaters streams in the watershed. Results are being used to obtain funding for additional systems to remediate the entire watershed. Responsibilities included hydrologic/hydraulic analyses, design of collection channels, preparation of E&S and NPDES permits, preparation of engineering cost estimates, plans, specifications, and bid documents.

Dents Run Site 3888 Passive Treatment, PA, US Department of the Army. Senior Civil Engineer responsible for hydrologic and hydraulic design and quality assurance/control of plans and specifications for the for design of two passive treatment systems to remediate three abandoned deep mine discharges impacting Dents Run. Treatment was phased to collect data for future system component design on the steep, constrained construction sites. Initial treatment included installation of two open limestone channels for acidity removal, with results from post-construction monitoring to determine what additional acidity reduction components were necessary. Project involved development of the first performance prediction model for open limestone channels based on channel velocity. Responsibilities included hydrologic/hydraulic analyses, design of collection channels, preparation of E&S and NPDES permits, preparation of engineering cost estimates, plans, specifications, and bid documents.

Dents Run Site 3893 Passive Treatment, PA, US Department of the Army. Senior Civil Engineer responsible for hydrologic and hydraulic design and quality assurance/control of plans and specifications for the for design of two passive treatment systems and remediation plan for an abandoned surface mine to remediate acid mine discharges impacting Porcupine Hollow, which is a tributary of Dents Run. Treatment consisted of two separate systems with three vertical flow wetlands (VFW's) and oxidation/precipitation basins before and after the VFW's. Responsibilities included hydrologic/hydraulic analyses, design of diversion channels/stream relocations, preparation of E&S and NPDES permits, preparation of engineering cost estimates, plans, specifications, and bid documents.

Dents Run Site 1934 Passive Treatment Concept Plan, PA, US Department of the Army. Senior Civil Engineer responsible for hydrologic and hydraulic design and quality assurance/control of plans and specifications for the conceptual design of two passive treatment systems to remediate two acid mine drainage sources in a heavily impacted watershed. One abandoned deep mine discharge shows extremely high iron and aluminum loadings, and conceptual design required large scale sludge removal and storage planning, and development of predictive methods for estimating the life expectancy of vertical flow wetlands for acidity removal under these conditions. The second project site involves multiple contaminated seeps, some of which cannot be collected for a conventional gravity-flow passive system. On this site, the uphill seeps will be collected and treated to generate a highly alkaline discharge, which will then be combined with the acidic discharges downhill in an existing wetland area to generate a net alkaline total flow. Passive treatment planning is concurrent with re-mining efforts on the site, and it is expected that reclamation activities will improve water quality, allowing the treatment systems to be downsized before final design and construction.

Kettle Creek Bio-Capping project, Westport, PA. *Trout Unlimited.* Senior Civil Engineer responsible for grading plans and conveyance channel designs for a 58-acre abandoned surface coal mine reclamation project. The project also incorporated an engineered soil using a by-product of the vegetable leather tanning process to develop a composted soil amendment product. Food plots and vegetative habitat designs were incorporated into the project to provide food and cover for the growing Eastern Elk population, which inhabit the area. Completed project plans, technical specifications, NPDES permitting, E&S plans, bid documents, engineer's cost estimate, and provided construction administration and oversight.

Farr Tipple AMD Treatment System, Ohio Department of Natural Resources, Division of Mineral Resources Management. Responsible for the preparation of the grading plan, erosion/sedimentation control plan, specifications, bid package and construction cost estimate for the treatment of a deep mine related acid mine discharge within the Huff Run Watershed.

Simmons Run AMD Treatment System, Ohio Department of Natural Resources, Division of Mineral Resources Management. Responsible for the preparation of the grading plan, erosion/sedimentation control plan, specifications, bid package and construction cost estimate for the treatment of a deep mine related acid mine discharge within the Simmons Run Watershed.

Mine Waste Impoundments. Principal Plan Reviewer on more than 20 high-hazard mine tailings dams. Responsible for the review of hydrologic, hydraulic, geotechnical, and geologic portions of the design of large mine tailings dams throughout the United States. Provided technical assistance to field inspection personnel during mitigation of hazards identified at large coal and metal/non metal tailings dams. Specific tasks include:

- Hydrologic analysis of watershed above tailings impoundment in order to determine the peak rainfall intensity and corresponding runoff to the impoundment.
- Hydraulic analysis of outlet works and appurtenances in order to determine outlet rating curves and flood routing analyses to ensure the appropriate sizing of the impoundment with respect to overtopping and freeboard requirements.
- Geologic analysis of project area in order to determine the extent and characteristics of subsurface soils and rock for consideration in embankment dam design.
- Geotechnical design of embankment dams, including slope stability, foundation engineering of appurtenances and thrust blocks, dynamic slope stability and liquefaction analysis (earthquake engineering)
- Structural analysis of reinforced concrete structures such as spillways and retaining walls.

YEARS EXPERIENCE WITH FIRM: 13

YEARS EXPERIENCE WITH OTHER FIRMS: 34

EDUCATION:

B.S. 1963 - Civil Engineering

REGISTRATIONS/CERTIFICATIONS:

1971 - Civil Engineering

State of Ohio - No. 65834

Commonwealth of Pennsylvania - No. 017274-E

MSHA Mine Safety Certified, Surface & Coal

CURRENT RESPONSIBILITIES:

Vice President of the Clearfield Office of Gannett Fleming and Senior Engineer - responsible for and directly involved in the coordination and preparation of state and federal permit applications for surface and underground coal mining, non-coal mining, mine reclamation, industrial facility siting, land development and subdivision plans, water resource development projects, and waste disposal plans. Also responsible for and directly involved in the coordination and preparation of private and government-related civil engineering projects, including municipal services plans and specifications, industrial facility siting, land development and subdivision plans, water resource development projects, and waste disposal plans. Project responsibilities will include the design and review of waste water collection lines and pumping facilities associated with development plans and treatment system expansion and upgrades.

SUMMARY OF EXPERIENCE:

Over 35 years experience as a project manager/engineer on major civil engineering projects for water resources, transportation, environmental compliance, land development and mining, with extensive experience in the preparation and review of engineering plans and specifications relating to the various project disciplines. Experience also includes project presentations to the general public and negotiations with regard to regulatory issues. Projects have included an on-going working relationship with regulatory agencies, including ODNR, PADEP, PADOT, and local municipalities.

Farr Tipple AMD Treatment System, Ohio Department of Natural Resources, Division of Mineral Resources Management. Project Manager for the preparation of the design of Passive Treatment System, including an Anoxic Limestone Drain, and aerobic wetland cells, preparation of grading plan, erosion/sedimentation control plan, specifications, bid package and construction cost estimate for the treatment of a deep mine related acid mine discharge within the Huff Run Watershed.

Simmons Run AMD Treatment System, Ohio Department of Natural Resources, Division of Mineral Resources Management. Project Manager for the preparation of the design of the Passive Treatment System, including vertical flow reactors and aerobic wetland cells, preparation of grading plan, erosion/sedimentation control plan, specifications, design of a beaver dam

leveler, wetland enhancement, emergency spillway design, bid package and construction cost estimate for the treatment of a deep mine related acid mine discharge within the Simmons Run Watershed.

Mosquito Creek Phase 1 Acid Abatement Project, Clearfield County, PA, *Mosquito Creek Sportsman Association.* Project engineer responsible for project oversight and system design of a passive acid abatement system to remediate acid rain impacts to Mosquito Creek. System components include a vertical flow wetland cell and a self-regulating inlet structure to attenuate storm surges into the wetland cell while still capturing a portion of the stream baseflow.

Clearfield County Technology Park, Clearfield, PA, *Clearfield County Industrial Development Authority.* Project Manager for the preparation of land development and subdivision plans to convert a Brownfield site into a technology park for the Clearfield area. The project involved preparation of a demolition plan, site layout, grading plan, stormwater management plan, erosion and sediment pollution control plan, infrastructure design (water, sewer, telecommunications, parking, streets), signage, Highway Occupancy Permit, construction plans and specifications, and bid documents. Obtaining the necessary approvals required coordinating activities with local municipal agencies, the Pennsylvania Department of Environmental Protection, Clearfield Borough, and the Clearfield County Conservation District.

North Spring Branch Passive Wetland System, Hanover, Wyoming County, WV, *Georgia-Pacific Corporation.* Principal Engineer responsible for design and construction supervision of a stream relocation/leachate collection system consisting of wetland delineation, stream relocation design using gabion baskets required by elevated water velocities, erosion and sediment pollution control plan, design of a multi-celled wetland treatment system, construction plans and specifications, and coordination of project work with state agencies and the Norfolk Southern Railroad.

Dents Run Site 3888 Passive Treatment, PA, *US Department of the Army.* Project engineer responsible for coordinating design and permitting activities of two passive treatment systems to remediate three abandoned deep mine discharges impacting Dents Run. The system consists of discharge collection devices designed to capture non-channelized seeps, two open limestone channels for acidity removal and a settling pond to remove precipitates prior to discharging the treated water to the adjacent stream. Project involved development of the first performance prediction model for open limestone channels based on channel velocity. Initial construction will be completed in 2003.

Arnot No. 2 Mine Drainage Treatment System, Arnot, PA, *Babb Creek Watershed Association.* Project engineer in charge of project oversight and coordination for the design of a passive treatment system for an acidic deep mine discharge impacting a headwaters cranberry bog containing threatened plant species. The system consists of a device to capture the mine discharge, two vertical flow wetland cells, an oxidation/precipitation cell, and a manganese-oxidizing bacteria cell. The system includes an innovative method of flow splitting to two

vertical flow wetland cells, allowing treatment of the discharge without passing the entire flow volume through the cells.

Antrim Mine Drainage Treatment Facility, Antrim, PA, Antrim Mining Company, Inc. Project Engineer responsible for design and project oversight of a 1 mgd collection and treatment facility for an acid mine drainage discharge from an abandoned underground coal mine. The project included evaluation of alternative treatment designs utilizing a variety of chemical agents, prediction of precipitate accumulation and clean-out schedules, design of precipitate drying beds, design of a pumping and conveyance system to transport the mine water to the treatment facility, and permitting required to obtain approval of the treatment concept and system design.

YEARS EXPERIENCE WITH FIRM: 3

YEARS EXPERIENCE WITH OTHER FIRMS: 27

EDUCATION:

BS/1981/Mining Engineering

PROFESSIONAL REGISTRATION(S):

P.E.: Pennsylvania - No. 35160-E (1986)

PROFESSIONAL AFFILIATIONS:

SME - Society for Mining, Metallurgy and Exploration

CURRENT RESPONSIBILITIES:

Project Engineer responsible for coordination and preparation of state and federal permits for surface and underground coal mining, non-coal mining, mine reclamation, coal preparation facilities, and industrial facility siting. Mr. Bloom is also directly involved with the preparation and coordination of land development plans, valuation studies, wetland evaluations, highway occupancy permits, air quality permits and earth disturbance permits. Project responsibilities have also included conducting hydrologic assessments relative to erosion and sediment (E&S) pollution control design, mining operation plans, soils evaluations, and reclamation and revegetation plans. Mr. Bloom is skilled in conducting and supervision of drilling programs, construction of monitoring wells, surface and groundwater monitoring, and installation of flow-monitoring devices, pumping tests, and groundwater modeling.

SUMMARY OF EXPERIENCE:

Over 27 years experience as a project engineer on civil and mining engineering projects, environmental compliance, land development with extensive experience in the preparation of cost estimates, bid documents and specifications, and construction supervision. Projects have included on-going working relationship with regulatory agencies, including PADEP, PADOT, BAMR, local municipalities, and County Soil Conservation Services. Specific Design Engineer experience includes the design of passive treatment systems including metered flow collection boxes with bypass structures for flows beyond peak design, flow conveyance and flow equalization structures, vertical flow ponds, wetland cells, and polishing ponds. In addition, evaluations of site construction suitability and recommendations to facilitate construction have been prepared. Material specifications and contractor guidelines were provided as well. Permit approval for construction NPDES and Stream Encroachments were completed.

Design engineering for treatment systems to address mine drainage from an underground mines including assessment of projected flow quantity and quality, design of treatment plants, detention ponds, and preparation of permit approval materials have been prepared.

YEARS EXPERIENCE WITH FIRM: 6

YEARS EXPERIENCE WITH OTHER FIRMS: 10

EDUCATION:

B.S.C.E., Structural Engineering, West Virginia University, 1987

M.S.C.E., Structural Engineering, West Virginia University, 1993

PROFESSIONAL REGISTRATION(S):

P.E.: Ohio - No. 66132 (2001)

West Virginia - No. 15710 (2003)

PROFESSIONAL AFFILIATIONS AND PUBLICATIONS:

American Society of Civil Engineers

Association for Bridge Construction and Design

Steering Committee Member, National Conference on Integral Abutment and Jointless Bridges, 2005. Conference sponsored by FHWA and WVDOT.

CURRENT RESPONSIBILITIES:

Senior Structural Engineer responsible for designing and analyzing highway bridges and other transportation-related structures.

SUMMARY OF EXPERIENCE:

S.R. 28 over Yutes Run Road Bridge, Allegheny County, PA, Pennsylvania Department of Transportation, District 11-0. Project Bridge Engineer for the widening of a three-span continuous reinforced concrete slab bridge supported on an integral stub abutment. The structure is on a curved alignment.

Headsville Bridge Replacement, Mineral County, WV, West Virginia Department of Transportation, Division of Highways. Project Engineer responsible for designing a bridge replacement. Work includes development of structure geometry; type, size, and location studies; foundation submissions; final design submission; and construction cost estimates.

King's Covered Bridge, Somerset County, PA, Pennsylvania Department of Transportation, District 9-0. Structural Engineer assisting in the rehabilitation design of a covered bridge.

YEARS EXPERIENCE WITH FIRM: 4

YEARS EXPERIENCE WITH OTHER FIRMS: 10

EDUCATION:

B.S., Civil Engineering, West Virginia University, 1996

PROFESSIONAL REGISTRATION(S):

West Virginia - No. 015304 (2002) Florida - No. 61143 (2004)

PROFESSIONAL AFFILIATIONS:

National Society of Professional Engineers

CURRENT RESPONSIBILITIES:

Project Manager for the West Virginia Regional Office responsible for the design of highway airport and site development projects, including right-of-way, stormwater, utilities, signing and pavement marking, erosion and sediment pollution control, final cross sections, quantities, and report preparation. Also assists in client consultation, budget preparation, and project scheduling.

SUMMARY OF EXPERIENCE:

Laurel Run Sites 1 and 2, USDA, WV NRCS, Project Engineer responsible for overseeing construction inspectors for an acid mine drainage remediation project near Reedsville, WV. The project consists of constructing 3 rock sediment dams and open limestone channels.

Goat Site 1, USDA, WV NRCS, Project Engineer responsible for overseeing construction inspectors for an acid mine drainage remediation project near Masontown, WV. The project consists of constructing 5 rock sediment dams and open limestone channels.

Sunnyside Up - TIF Phase 1, Morgantown, WV, Sunnyside Up, Project Manager responsible for coordination of sub-consultants, landscape architects and geotechnical engineers; client consultation; utility coordination; coordination with various Boards and Committees within the City of Morgantown; construction plan preparation; specification preparation; bid support; and construction observation. The project is generally a "streetscape" type project consisting of new sidewalks along both sides of approximately 1,500 feet of Grant Avenue, installation of LED street lights, construction of 2 new bus stops, 4 new retaining walls and landscaping additions. The project is currently under construction.

PRT Facilities Master Plan, Morgantown, WV, West Virginia University, Project Manager responsible for coordination of sub-consultants, transit planners, facilities assessments, preliminary engineering analysis, report preparation and client consultations. The project involved creating a facilities master plan for an automated people mover known as the Morgantown Personal Rapid Transit System (PRT) which operates between the various campuses of West Virginia University. The master plan addressed the impacts to the local community that would occur in the event the PRT were to shut down. It assesses the existing subsystems, provides recommendations for improvements to increase the reliability, accessibility and aesthetics of the PRT. It also provides options for extensions of the system with projected ridership demands.

Preston County 911 Center, Kingwood, WV, Preston County Commission, Project Manager responsible for final site design, utility coordination, construction plan preparation, permitting and construction observation of a new 911 center located on +/- 5 acres located just outside the City of Kingwood. This project is currently under construction.

Sunnyside Up, Morgantown, WV, RBA Group, Inc., Project Manager responsible for utility coordination and preliminary engineering design and cost estimation for inclusion in an application to create a TIF (Tax Increment Financing) District for the Sunnyside area of the City of Morgantown.

Jerome Park Subdivision, Morgantown, WV, Habitat for Humanity of Monongalia County, Project Manager/Project Engineer responsible for final site design, utility coordination, construction plan preparation, permitting and construction observation of a +/- 13 unit single family subdivision located within the City of Morgantown. This project is currently in the design phase.

Headsville Bridge Replacement, Mineral County, WV, West Virginia Department of Transportation, Division of Highways, Project Manager responsible for highway design including quantity calculations, construction cost estimate, construction working-day estimate, final roadway construction plan preparation, right of way plan preparation and quality control.

Mingo County Airport Access Road, Mingo County, WV, Chapman Technical Group, Project Manager responsible for the design and preparation construction plans for a +/- 2 mile access road for a new airport in Mingo County. The design includes horizontal and vertical geometry, erosion and sedimentation control, stormwater management, NPDES permitting, quantity calculation and cost estimation.

North Shore Connector, Pittsburgh, PA, Port Authority of Allegheny County/DMJM+Harris, Project Engineer responsible for the final design of a 12-inch waterline relocation, including quantity calculations, specification review, and plan preparation. Performed final design of erosion and sedimentation control facilities including quantity calculations, specification review, and plan preparation.

WV 705 Connector Design Study Report, Monongalia County, WV, West Virginia Department of Transportation, Division of Highways (WVDOH), Project Manager responsible for preliminary roadway design of an approximately three-mile section of roadway to connect the WV 705 Connector to Beechhurst Avenue in downtown Morgantown, including an interchange at the intersection with the WV 705 Connector. The main alignment follows the Falling Run Valley with multiple alignments between University Avenue and Beechhurst Avenue. This portion of the project required significant coordination between WVDOH, the City of Morgantown, West Virginia University, and developers along the corridor.

YEARS EXPERIENCE WITH FIRM: 15

YEARS EXPERIENCE WITH OTHER FIRMS: 0

EDUCATION:

B.S., Civil Engineering, University of Pittsburgh, 1995

PROFESSIONAL REGISTRATION(S):

P.E.: Pennsylvania - No. PE060736 (2004)

PROFESSIONAL AFFILIATIONS:

Society of American Military Engineers
Secretary, Pittsburgh Post
American Society of Civil Engineers
Deep Foundations Institute

CURRENT RESPONSIBILITIES:

Geotechnical Project Engineer responsible for design on various geotechnical and environmental projects, including layout and implementation of field exploration programs, site reconnaissance, drilling inspection, soil and water sampling, and design activities. Also develops and prepares geotechnical reports, technical specifications, and cost estimates.

SUMMARY OF EXPERIENCE:

S.R. 0268, Section 250, Petrolia Bridge Replacement over South Branch of Bear Creek, Petrolia, PA, Pennsylvania Department of Transportation (PennDOT), District 10-0. Geotechnical Engineer responsible for performing a hydrologic and hydraulic study to evaluate the hydraulic impacts of a proposed single-span bridge replacement. The hydraulic study included the review and incorporation of an existing Federal Emergency Management Agency (FEMA) study of the project area, review of potential impacts from three Pennsylvania Department of Environmental Protection (PADEP)-regulated dams within the project drainage area, and the development of peak runoff rates using PennDOT-accepted methodology. Hydraulic analyses were performed using the HEC-RAS software with the complex model for the well-developed project site, including numerous structures, retaining walls, and an additional bridge within the limits of study. The model was developed using the MicroStation CADD software by incorporating site-specific survey data. A hydrologic and hydraulic report was ultimately prepared in accordance with PennDOT and PADEP requirements, providing a summary of the evaluations performed and a flood-potential risk assessment based upon the results of the analyses.

S.R. 0279, Section A64, I-279 Connector, Allegheny County, PA, Pennsylvania Department of Transportation, District 11-0. Geotechnical Project Engineer responsible for final geotechnical design of bridge foundations and roadway approach embankments for a highway improvement project on Pittsburgh's North Shore. Foundation alternatives considered included H-piles and caissons to support the bridge structure to be constructed on the Allegheny River floodplain deposits. Performed extensive coordination and analyses at a pier location, which is to be constructed within 4 feet of a 11-foot-diameter brick sewer. Performed

geophysical studies and manhole camera efforts to evaluate the condition and exact location of the sewer. The investigations were also used in developing a vibration-monitoring program for use during construction of the pier. Recommended caisson-supported substructures in a structure foundation report based on cost and constructability at the sewer location.

Washington School Dam Inspection and Modification, Washington County, PA, *Washington County School District.* Project Engineer responsible for the annual inspection of a high-hazard dam that serves as a scenic area and stormwater management facility. Performed the inspections in accordance with Pennsylvania Department of Environmental Protection standards, completed the standard inspection checklist form, collected relevant photographs, and developed a site sketch indicating areas of concern. Ongoing work includes the planned modification of the dam to function solely as a stormwater management facility.

Redbank Valley Dam Rehabilitation, Clarion and Armstrong Counties, PA, *Redbank Valley Municipal Authority.* Project Engineer responsible for developing and implementing a geotechnical investigation report to support the rehabilitation of a concrete dam on Redbank Creek. The investigation included background research into soils, geologic, and hydrologic data for the site. Designed and implemented a geotechnical subsurface investigation to evaluate potential foundation conditions for proposed concrete structural work. Permeability testing of bedrock was performed to evaluate seepage potential beneath the dam. Prepared a geotechnical investigation report to support the final structural design.

S.R. 0028, Section A14, Sarah Heinz Retaining Wall, Allegheny County, PA, *Pennsylvania Department of Transportation (PennDOT), District 11-0.* Geotechnical Project Engineer responsible for the preliminary design of replacement alternatives for a failing mechanically stabilized earth (MSE) wall located in a heavily urban area. Provided coordination with the adjacent land development owner and contractor to determine projected land use and available right of way. A detailed review of historic roadway and environmental record information was also performed. Analyses included the development of feasible alternatives that could be constructed within limited right of way, cost comparisons, preliminary geotechnical evaluations of existing subsurface information, and preliminary geotechnical parameters to support type, size, and location (TS&L) design and development. A Reconnaissance Soils and Geological Engineering Report was provided to support the preliminary TS&L submission for the ultimate alternative selection by PennDOT.

S.R. 0058, Section 150, Foxburg Bridge Replacement, Clarion and Armstrong Counties, PA, *Pennsylvania Department of Transportation (PennDOT), District 10-0.* Geotechnical Project Engineer responsible for final geotechnical design of a four-span bridge over the Allegheny River. Project constraints included limited right-of-way, maintenance of traffic during construction, and environmentally sensitive river life. The structure included large-diameter (102-inch) caissons at pier locations. Developed special provisions to provide quality control during the construction of the large caissons in the form of Crosshole Sonic Logging, void repair methods, and downhole camera inspection, in conjunction with PennDOT and its Bridge Quality Assurance Division. Analyses for the caissons included both group and single-caisson

evaluations of lateral loading cases and axial capacity. Pile-supported abutments included vertical piles to support lateral loads, due to limited space for the installation of battered piles at two wingwalls that would interfere with the existing structure. Piles were evaluated for axial capacity and lateral capacities. Corrosion effects were considered for both piles and caissons. A Structure Foundation Report was prepared to support the final design of the structure.

Annual Dam Inspections, Washington County, PA, *Washington County Commissioners.* Professional Engineer responsible for annual inspections of 10 high-hazard flood-control dams that are owned and operated by Washington County. Performed the inspections in accordance with Pennsylvania Department of Environmental Protection (DEP) standards, completed the standard inspection checklist form, collected relevant photographs, and developed a site sketch indicating areas of concern.

Waterford Energy Facility, Retaining Wall Mitigation, Waterford, OH, *Bowen Engineering Corporation.* Geotechnical Engineer responsible for field investigation, evaluation of mitigation alternatives, ultimate design, and report preparation for a grout bag retaining system to shore an existing distressed gabion wall. The complex project requires construction techniques that can be performed by hand laborers, due to limited access to the existing wall on a steep slope.

S.R. 885, Section A03, Boulevard of the Allies Bridge Replacement over Forbes Avenue, Pittsburgh, PA, *Pennsylvania Department of Transportation, District 11-0.* Assistant Project Manager responsible for overseeing and implementing geotechnical investigations for the replacement of two bridge structures and the design of new roadways and six retaining walls. Also assisted with client and subconsultant coordination, which are a critical part of the project due to ongoing revisions to the project design requirements necessary to satisfy state, federal, and local interests. Design tasks include subsurface investigations, laboratory testing, geotechnical instrumentation monitoring, geophysical investigations, foundation designs, retaining wall designs, and geotechnical reports.

Southern Beltway Transportation Project, PA Route 60 to U.S. Route 22, Allegheny and Washington Counties, PA, *Pennsylvania Turnpike Commission.* Geotechnical Project Engineer responsible for an initial site assessment (ISA) of the proposed Tan alignment and the preliminary site investigation of the Industrial Waste Site M of the Southern Beltway Transportation Project. Evaluated potentially contaminated sites for the ISA of the Tan alignment, which included reviewing aerial photographs; interviewing property owners, local officials, and other knowledgeable persons; reviewing site-related documents available through agencies and other parties; conducting visual site inspections; and preparing the ISA report. For the preliminary site assessment (PSA) of the Industrial Waste Site M, developed and implemented a test boring program that included field reconnaissance, boring location selection, developing a drilling contract and field operations plan, evaluating environmental laboratory data, and preparing a PSA report.

YEARS EXPERIENCE WITH FIRM: 24

YEARS EXPERIENCE WITH OTHER FIRMS: 0

EDUCATION:

B.S., Geology, Lake Superior State College, 1983

PROFESSIONAL REGISTRATION(S):

P.G.: Wyoming - No. PG-893 (1992)

Kentucky - No. 1594 (1994)

Pennsylvania - No. 001237-G (1995)

MSHA Mine Safety Certified Surface, Coal, Metal, and Nonmetal (2005)

CURRENT RESPONSIBILITIES:

Senior Project Manager and Geologist responsible for directing geologic and hydrogeologic projects involving the study, evaluation, and assessment of earth materials. Areas of responsible charge include geologic interpretation; geologic structures evaluation, groundwater and soils contamination problems; solid waste disposal; public water supply development; abandoned mine land reclamation; aquifer testing; remedial design; wellhead protection; and earth resources development.

SUMMARY OF EXPERIENCE:

Mine Subsidence Investigation, Taylor, PA, Environmental and Recycling Services, Inc. Senior Geologist responsible for the development of a Mine Subsidence Report submitted and reviewed by the Pennsylvania Department of Environmental Protection. The mine subsidence investigation was required to address concerns relating to a construction/demolition permit for an expanding landfill. The site is underlain by five coal seams mined as recently as the 1930s. Deep-mined coal measures at the site included the Rock, Big, New County, Clark, and three Dunmore seams. Surface mining had also been conducted on the Rock and Big Coal Seams. Tasks included research and evaluation of existing site and periphery subsurface investigation, review of historic mine maps, development of subsidence calculation spreadsheets, performance of calculations, summary generation, and report preparation. Deposited for litigation; provided discovery and deposition support and litigation support.

Toland Quarry, Mount Holly Springs, PA, Hempt Brothers, Inc. Project Manager responsible for completing geologic and hydrogeologic investigations in support of quarry expansion permitting. The proposed quarry expansion will increase the quarry to approximately 860 acres. Permitting issues included upgrading the existing groundwater monitoring system and improving sedimentation controls.

Locust Point Quarry, Mechanicsburg, PA, Hempt Bros., Inc. Project Hydrogeologist responsible for evaluating the impact of quarry dewatering on nearby domestic wells. Determined drawdown anisotropy related to local geologic structures, predicted drawdowns associated with proposed quarry floor deepening, and supervised a domestic well monitoring program. This project also included an extensive VLF (WADI) electromagnetic geophysical survey of local geologic structures surrounding the quarry site. Interfaced with the Bureau of Mining and Reclamation for permitting purposes.

Ryerson Station State Park Dam, Greene County, PA, Pennsylvania Department of Conservation and Natural Resources. Senior Geologist responsible for design and implementation of subsurface and surface geologic investigations conducted to evaluate potential causes of structural failure of the 515-foot-long high-hazard concrete gravity dam. The investigation included the split barrel NX wireline core drilling, injection packer testing, and installation of shallow inclinometers through the dam and deep inclinometer/extensometers to bedrock underlying the Pittsburgh coal seam. Work also involved geologic mapping of bedrock exposures, slope failures, and evaluation of bedrock discontinuities. The investigation and subsequent analyses included examination of structural failure due to unusual dam loading conditions, slope stability considerations, and impacts related to longwall coal mining. Work was conducted under an expedited schedule following breaching of the dam.

Marjol Battery Site, Lackawanna County, PA, Throop Borough Council. Senior Geologist responsible for evaluation of a mine subsidence investigation report prepared as part of a Resource Conservation and Recovery Act corrective action at a former battery recycling facility in the Northern Anthracite Field. Reviewed previous studies, mine maps, test boring data, and borehole videotapes to interpret subsurface conditions for Borough Council concerned by the proximity of several hundred thousand cubic yards of contaminated soils and lead-contaminated battery casing material to coal seams having a potential for future mine subsidence and mine fires. Prepared structure contour maps of rock surface and coal seams to identify coal crop lines. Prepared isopach maps of rock strata above coal seams to identify areas of potential pothole subsidence concern. Prepared and delivered testimony at public hearings. Deposed for litigation; provided discovery and deposition support and litigation support.

Abandoned Mine Land Reclamation, Illinois Department of Natural Resources, Office of Mines and Minerals. Project Manager responsible for investigative services in support of abandoned mine land reclamation projects in the northern and central Illinois coal fields. Designed and implemented investigations into geologic, geotechnical, and agronomic conditions at numerous former mine sites. Work activities include topographic mapping, soil sampling, slope stability and embankment analyses, and evaluation of mining structures and shafts.

Quarry Expansion Permitting, Cumberland County, PA, Hempt Bros., Inc. Project Manager responsible for surface and subsurface investigations and permit application preparation for a proposed quarry expansion encompassing 270 acres. The expansion area is situated adjacent to existing quarry pits in an area with complex carbonate geology. Site investigations have included evaluation of geologic structural features including several prominent faults which have been evaluated to assess their individual and collective influence on site hydrology.

Mine Fire Investigation, Throop, PA, Borough of Throop. Project Geologist responsible for evaluation of conditions in the vicinity of an illicit dump fire situated within coal mine waste piles near the cropline of the No. 1 and No. 2 seams of the Eddy Creek shaft section of the former Olyphant Colliery. Investigation included coordination of site monitoring with personnel from the Office of Surface Mining Reclamation and Enforcement (OSMRE), site reconnaissance, collection of subsurface gas samples, and thermal measurements. Gas samples were collected using summa canisters and were analyzed for hydrogen, nitrogen, oxygen, carbon monoxide, carbon dioxide, and methane using ASTM Method 1945.

Eastern Industries Kutztown Quarry, Berks County, PA, Eastern Industries, Inc. Senior Hydrogeologist responsible for conducting permitting activities for the quarry which produces lime and aggregate products from the Muhlenberg Member of the Allentown Formation. Facilitated increased quarry size by developing dewatering programs which included a pipeline and an Underground Injection Control Permit. The injection system consists of five wells constructed to reinfect water generated by quarry dewatering into the subsurface beneath the current quarry floor. The wells were deeply cased and accepted a high percentage of the quarry discharge. Assessed proposed quarry discharges into Sacony Creek as part of the permitting effort. The creek passes through an exceptional value wetland and near a community water supply well field. Conducted hydrologic modeling of various discharge scenarios to evaluate stream stage and channel characteristics.

Eastern Industries Martin's Creek Quarry, Northampton County, PA, Eastern Industrial, Inc. Senior Hydrogeologist responsible for predictive evaluation of groundwater table modifications in the vicinity of a proposed sand and gravel quarry. The proposed quarry will extract Quaternary sand and gravel deposits from a surface mine located at the confluence of Martin's Creek and the Delaware River. Presented assessment of minimal probable hydrologic impact to local government officials.

Temple Quarry, Berks County, PA, Muhlenberg Water Authority. Project Hydrogeologist responsible for examining the feasibility of developing the flooded quarry for water supply purposes. Conducted site reconnaissance and environmental assessment investigations to determine the feasibility of utilizing the abandoned quarry site to build a water treatment plant. Quarrying at the 38-acre site ceased in approximately 1990 and the pit is filled with approximately 200 feet of water.

YEARS EXPERIENCE WITH FIRM: 2

YEARS EXPERIENCE WITH OTHER FIRMS: 24

EDUCATION:

B.S., Environmental Geology, Juniata College, 1980

M.S., Geology, Syracuse University, 1982

PROFESSIONAL REGISTRATION(S):

P.G.: Pennsylvania - No. PG002575G (1995)

L.R.S.: West Virginia - No. 218 (2003)

PROFESSIONAL AFFILIATIONS:

Pennsylvania Council of Professional Geologists

CURRENT RESPONSIBILITIES:

Environmental Project Manager responsible for supporting and developing environmental site remediation services for a wide variety of projects, including energy production, collection, storage, and transmission facilities and Brownfield sites.

YEARS EXPERIENCE WITH FIRM: 16

YEARS EXPERIENCE WITH OTHER FIRMS: 8

EDUCATION:

B.S., Geology, University of Pittsburgh, 1983

M.S., Civil Engineering, University of Maryland, 1994

PROFESSIONAL REGISTRATION(S):

P.G.: Pennsylvania - No. PG003199G (1996)

CURRENT RESPONSIBILITIES:

Geotechnical Project Manager involved in highway, water supply, and building projects. Responsibilities include supervising staff engineers and geologists; writing proposals; communicating with clients; preparing contract documents; developing, coordinating, and supervising subsurface investigations for highways, buildings, and slope stability evaluations; determining test-boring locations and depths; monitoring standard penetration test (SPT) and diamond core-drilling operations; and determining laboratory testing requirements and interpreting results. Also responsible for preparing geological, foundation engineering, and environmental-assessment reports. Duties include conducting geologic literature reviews, evaluating the published geologic information with respect to the project requirements, conducting geologic field views to study geologic landforms pertinent to the projects, and studying topographic maps and aerial photographs to identify any geologic features. In addition, conducts geologic mapping for proposed highway cuts, evaluates subsurface conditions, performs engineering evaluations, determines mine subsidence, and prepares geological, geotechnical, and environmental reports.

SUMMARY OF EXPERIENCE:

Mine Subsidence Evaluation, Wanzco Residence, Allegheny County, PA, U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement. Geotechnical Engineer responsible for investigating the extent of damage incurred to a residential structure caused by mine subsidence. Responsibilities included on-site subsurface investigation, evaluation of the subsurface conditions, review of aerial photographs, geologic literature review, evaluation of the available mine maps, preparation of boring logs, laboratory test data interpretation, and preparation of the geologic and geotechnical aspects of the report. Also conducted geotechnical analyses including bearing capacity and settlement computations.

Mine Subsidence Evaluation, Salvitti Residence, Kennedy Township, Allegheny County, PA, U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement. Geotechnical Engineer responsible for investigating whether the structural distress of a residential structure was related to mine subsidence. The project involved structural and geotechnical analyses. Responsibilities included planning and implementing the subsurface investigation, evaluating the subsurface conditions, inspecting the drilling operations, conducting a geologic literature review, assigning laboratory tests, and reviewing aerial photographs. Also evaluated the available mine maps, prepared boring logs, interpreted laboratory test data, determined the cause of distress, and developed a final written report with conclusions and recommendations for mine void remediation.

Mae West Bend, S.R. 0008, Section A05, Construction Consultation, Allegheny County, PA, Pennsylvania Department of Transportation, District 11-0. Geotechnical Project Manager responsible for the oversight of construction consultation for the geotechnical aspects of a highway improvement project. The project included an 80-foot-high, 500-foot-long rock cut slope and rockfall-protection system, soil-nail slope-stabilization system, two arch-culvert extensions, a single-span structure, and a 400-foot-long retaining wall.

Township, Beaver County, PA, Pennsylvania Department of Transportation, District 11-0. Geotechnical Project Manager responsible for final geotechnical design activities for the relocation of a single-span bridge and its roadway approaches. The project included evaluating foundation alternatives to avoid bearing on a local coal seam, and comparing foundations and spread footings on Class C concrete. Also involved were subsurface investigations, laboratory testing, bearing-capacity analysis, deep foundation and settlement evaluations, and geotechnical special provisions and details.

Mae West Bend, S.R. 0008, Section A05, Final Design, Allegheny County, PA, Pennsylvania Department of Transportation, District 11-0. Geotechnical Project Manager responsible for providing technical guidance for the design of approximately 4,000 feet of roadway relocation and improvement. Performed field reconnaissance of the project site and identified geologic features affecting the current and proposed rights-of-way. Implemented subsurface exploration and laboratory testing programs to determine the subsurface conditions for two arch-culvert extensions, a single-span bridge, a 400-foot-long retaining wall, and a soil-nail slope-stabilization system. Also evaluated cut-face slope configurations with respect to stability and rockfall potential for an 80-foot-high, 500-foot-long rock-cut slope. A rockfall-catchment zone for the site configuration in conjunction with national standards and the Colorado Rockfall Simulation Program was developed.

Mon/Fayette Expressway, Uniontown to Brownsville, Design Management, Uniontown, PA, Pennsylvania Turnpike Commission (PTC). Geotechnical Project Manager responsible for quality assurance of the geotechnical aspects of a design provided by ten design section consultants for the final design of a \$350 million section of proposed expressway. Responsibilities include managing, directing, and coordinating the geotechnical design work of the design section consultants, coordinating with PennDOT and PADEP; and acting as an extension of PTC's staff. Also responsible for developing and implementing streamlined management design processes necessary to provide the geotechnical design support.

Woodmont Pump Station Subsurface Investigation, Martins Ferry, Belmont County, OH, City of Martins Ferry. Geotechnical Project Manager responsible for investigating and analyzing the subsurface conditions for a water pump station experiencing foundation instability. Duties involved field investigation, including inspection of the drilling of all borings; development of a subsurface exploration program; subsurface analyses; slope stability analyses; evaluations and recommended improvements; and report preparation.

FREELANCE TECHNICAL ASSOCIATES, INC.

RESUMES

Danny L. Bainbridge, President of Freelance Technical Associates, Inc.

➤ **Experience:**

❖ Thirty-seven years experience, including:

- Supervisory experience: Commercial constructions projects, AML projects, utility projects, site preparation and permit preparation for commercial and coal mining activities.
- Civil, mechanical, mining and environmental engineering and project management.
- Design experience: includes structures, earthwork, utilities, steel, concrete, HVAC, electronic monitoring devices and mechanical.
- Forensic investigation and consulting for National Forensic Consulting and United Technical Consultants, LLC.
- Property and construction surveying.
- Oil and gas well location, plugging, and mine through activities.

Terry Carpenter, P.E., West Virginia #12024, Electrical Engineer

➤ **Experience:**

❖ Thirty yearts engineering experience, including:

- Design of high voltage systems for major industries.
- Design of high voltage and low voltage transmission lines, transformers, and systems.
- Design of commercial building electrical systems.
- Design of standard and specialized lighting systems of both interior and exterior.
- Analysis of major electrical systems to determine needs, problems, and solutions.

Gary K. Clayton, P.E. West Virginia #7188, Ohio #E58761, Maryland #19758, PLLS-West Virginia #1072, Civil Engineer, Vice President of Freelance Technical Associates, Inc.

➤ **Experience:**

❖ Thirty-nine years engineering experience, including:

- Supervisory experience: includes interstate highway construction and regional maintenance projects; site preparation for coal mining activities.
- Design experience: includes site preparation for coal mining activities, ponds and water storage impoundments, access roads and major bridges, retaining walls, steel and concrete structures and foundations, utility systems, and subdivisions.
- Construction experience: includes access roads and major bridges, mine ventilation shafts, concrete lined conventional shafts and large bored (raised and blind) shafts.
- Property and construction surveying.

Matthew K. Bainbridge, CAD manager, Draftsman, Civil Engineering Tech, Head of IT Department

➤ Experience:

❖ Ten years combined experience, including:

- Drafting Technician: CAD draftsman as well as CAD manager, Civil Engineering project design drafting, survey plats, boundary inspection drawings, utility systems, structural drawings, complete as-built drawings, sets of construction drawings, plan-profile road and utility construction drawings, topographic information acquisition
- Civil Engineering Design: Site plans, utility designs, road designs, culvert sizing, erosion and sediment control drawings and permit applications, hydrology calculations for watersheds and rainfall frequency, large subdivisions (some 2000+ acres), site grading and design, road design, and Phase 1 environmental DEP application, structural design, electrical, plumbing, HVAC, and floor plan designs
- Field Work: Use of handheld GPS equipment for general field location, worked on survey crew for a combined 3 years or more as rod-man and also survey party chief on various jobs running Topcon total station, and inspection work including picture and written documentation.
- Head of IT Department: Responsible for software and hardware issues, general in-office tech support, networking of computers and printers, handheld data collectors and Pocket PC GPS program and data management, keep technology up-to-date such that Freelance Technical Associates stays on the cutting edge of technology and the ability to fully utilize those tools.

AARON AITES, Architectural Design Technician, CAD Draftsman,

➤ Experience:

❖ Five years experience, including:

- Architectural design, CAD drafting.
- Permit Application Development for oil and gas well plugging and/or drilling, DEP erosion and sediment control, and State, City and County Code Compliance.
- Experience as a survey crew member, construction stake-out, utility systems stakeout, as built surveys, and subdivision surveys. Computer input of data and related calculations.

SCOTT ROSENBERGER, engineer in training

Experience:

• Five years' experience, including:

- Land Development, erosion and sediment control design, storm water management design, utility design and layout, grading plans and development of construction drawings utilizing Auto CAD Civil 3-D and Terramodel.
- Project management of major construction projects
- Experience in performing, researching and completing all types of land surveys.

DONALD J. HORTON, survey crew manager

Experience:

- Thirty years' experience, including:
 - Party Chief Land Surveyor, site manager.
 - Boundary surveys, AML site surveys, construction stake out, pipeline construction surveying, highway construction surveying, as-built and ALTA survey.

Chris Heater, survey crew party chief

➤ Experience:

- ❖ Ten years experience, including:
 - Surveying Technician/Instrument Man: includes extensive experience in construction stake-out surveying, lot surveys, major subdivision surveys and major mountainous woodland property surveys. Five years experience as crew leader. Experience in use of total station, automatic levels, GPS systems and all related equipment. Knowledgeable in field calculations, note reductions and computer utilization.
 - Resident Professional Representative. Experienced in field measurements, as-built drawings, and quantity calculations and tabulations.

Ron Brown, Survey Team and Audio-Video Cameraman

➤ Experience:

- ❖ Fifteen years experience, including:
 - Resident Professional Representative on multi-million dollar utility project. Experienced in field measurements, as-built drawings, and quantity calculations and tabulations.
 - Survey Team: includes extensive experience in construction and utility stake-out surveying, large subdivision surveys and major mountainous woodland property surveys. Knowledgeable in the use of total stations and automatic levels.
 - Audio-Video Cameraman: includes extensive experience in filming pre-construction conditions of proposed utility construction areas.



West Virginia Department of Environmental Protection

Section 5 – Representative Project Profiles

OSAGE MINE COMPLEX

Client: WVDEP

Location: Monongalia County, WV

Design Fee: \$38,000

Gannett Fleming provided engineering design and construction documents for the restoration of 5 sites at the Osage Mine Complex. The work included development of construction plans, specifications and cost estimates. The project consisted of the installation of eight bat gates and six wet mine seals.

Other significant design features include:

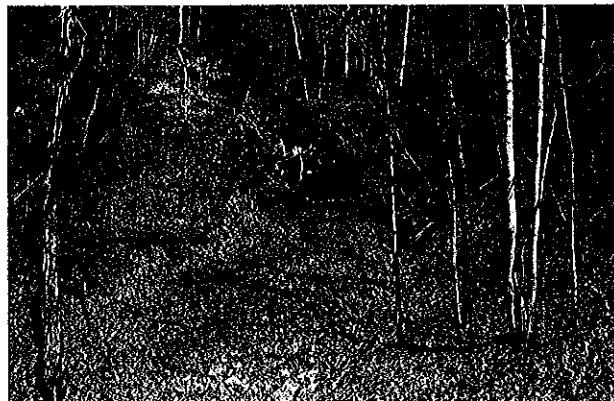
- A temporary stream crossing
- Stream bank protection
- Access road restoration
- Removal of existing buildings and foundations
- Slope remediation
- Rip Rap lined ditches
- Grading
- Erosion and Sediment Controls



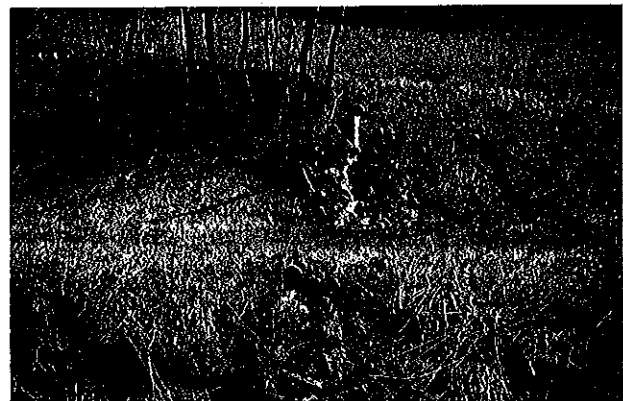
Wet mine seal with rip rap channel



Bat Gate with rip rap channel



Bat Gate with rip rap channel



Culverts with rip rap channels



ALBRIGHT PASSIVE TREATMENT SYSTEM

Client: Allegheny Power Service Corporation
Location: Preston County, West Virginia
Cost: \$350,000

The Albright system is an early application of wetlands to treat leachate from an inactive disposal facility. The project was initiated as a research and development project to evaluate the application of passive technologies to these wastewaters. Gannett Fleming has been responsible for the development, design, installation, maintenance, and annual evaluation of the project since its inception in 1988. The facility receives water of a highly variable nature, with iron of 12 to 70 mg/l, manganese of 11 to 14 mg/l, and flows of 8 to 140 gpm. The original system consisted of four vegetated aerobic basins, and favorable results led to the addition of two lateral flow organic basins in 1992. The system has been remarkably reliable in meeting iron compliance, achieving concentration reductions of over 98%. Manganese reductions were brought into compliance (<1.0 mg/l) with the addition of manganese oxidizing beds in 1996.

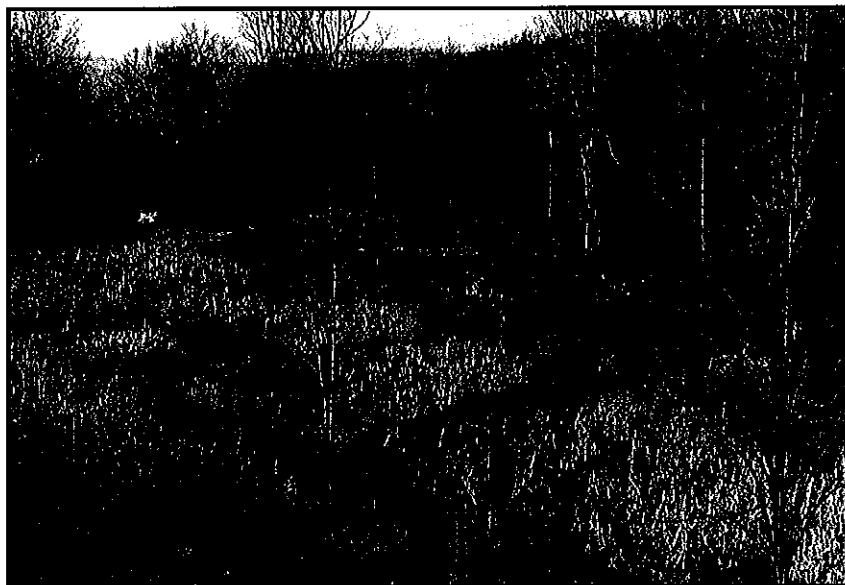
- Developed passive wetland treatment system
- Prepared annual reports
- Evaluated metals removal rates within the system
- Identified long-term trends in treatment performance
- Predicted future maintenance requirements
- Supplied detailed analysis of construction and future operation costs in comparison to conceptual chemical treatment alternatives

Special Features

- Totally passive gravity system
- 10-year comprehensive performance monitoring program
- Continual compliance with Fe and Mn effluent criteria
- \$1.26 Million in 10 year savings over chemical alternative

Services Provided

- Design, construction, and construction supervision
- Interpreted long-term monitoring data

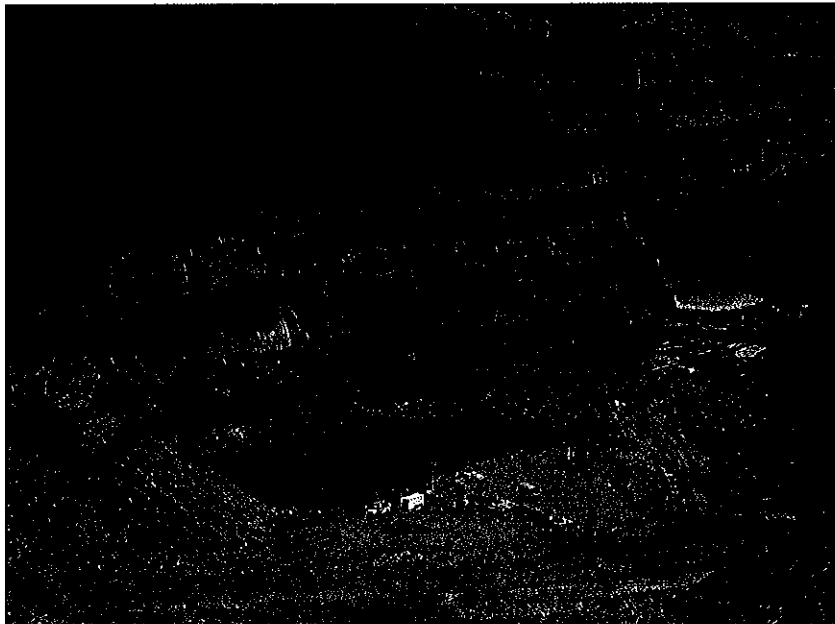




King Coal Highway

Client: Alpha Natural Resources
Location: Mingo County, West Virginia
Design Fee: \$17,300

Gannett Fleming was responsible for geologic reconnaissance, geotechnical site investigation program, site mining issues, cut slope analysis and design, very large embankment fills analysis and design, and other geotechnical design and analysis for the King Coal Highway Project. The proposed highway is a 96-mile, four-lane divided highway running from Williamson to Bluefield. This section of the highway is 9.0 miles in length and is located between Red Jacket and Hampden. The project also consists of the proposed relocation of the existing two-lane roadway of WV Route 65 that runs between Taylorville and Red Jacket accommodating an at grade intersection with the proposed King Coal Highway. These sections of roadway will be developed over an area of rugged topography with an extensive history of surface and deep mining activities. The King Coal Highway alignment encounters large areas with mine overburden mountaintop back stacks, mine valley fills, mine spoil fires, and extensive highwalls. An additional aspect of the project is the partnering relationship between Alpha Natural Resources Inc. (formerly Nicewonder Contracting Inc.), WVDOH, and Mingo County, so that the road can be constructed concurrent with mining activities.





NORTH SPRING BRANCH BASEFLOW ISOLATION AND PASSIVE TREATMENT SYSTEM

Client: Georgia-Pacific Corporation
Location: Wyoming County, West Virginia
Construction Cost: \$97,000

Gannett Fleming prepared the design, plans, specifications, and bid package materials and provided construction supervision for this project. Under National Pollutant Discharge Elimination System (NPDES) permit conditions, treatment was required for metals-contaminated baseflow emanating from the toe of a wood-waste landfill and entering a mountain stream channel at multiple, diffuse points.

Our firm used a baseflow isolation approach and designed a system to separate the contaminated groundwater from clean surface water runoff in the channel. The design involved filling the existing channel with coarse aggregate and a collection pipe, and a new, lined-stream channel was reconstructed on top of the collection zone using gabion baskets. Discharge from the collection zone was monitored for wetland treatment system design data under an extension of the NPDES compliance time frame negotiated by our firm.

The final design consisted of three vegetated wetland cells focused on iron removal and a unique high-angle bacteria bed targeted at manganese removal with minimal construction space.

The system has shown excellent performance and has met compliance targets since its construction.

Services Provided

- Water quality sampling and field investigations
- Permitting and regulatory negotiations
- Surface and groundwater hydrologic modeling
- Engineering design plans and specifications
- Bid package preparation
- Detailed cost analysis

Special Features

- Stream baseflow isolation to minimize water treatment volumes
- Stream channel reconstruction
- Constrained-space construction approaches
- Sloped bacteria bed system



**FARR TIPPLE ACID MINE DRAINAGE
TREATMENT SYSTEM**

Client: Ohio Department of Natural Resources, Division of Mineral Resources Management

Location: Tuscarawas County, Ohio

Construction Cost: \$128,000

Gannett Fleming designed the Farr Tipple acid mine drainage (AMD) treatment system to provide passive treatment to an underground mine discharge. Influent waters were characterized by elevated levels of metals and acidity.

Our firm's design proposed a mine seal to collect and direct the mine water to enter the treatment system. The water passes through an anoxic limestone drain, then flows through a series of three wetland cells—an aerobic pond cell, an aerobic wetland cell, and a rock filter cell.

The anoxic limestone drain increases the alkalinity, promoting iron precipitation in the aerobic pond cell. The remaining two cells continue the iron removal, producing an acceptable effluent quality.

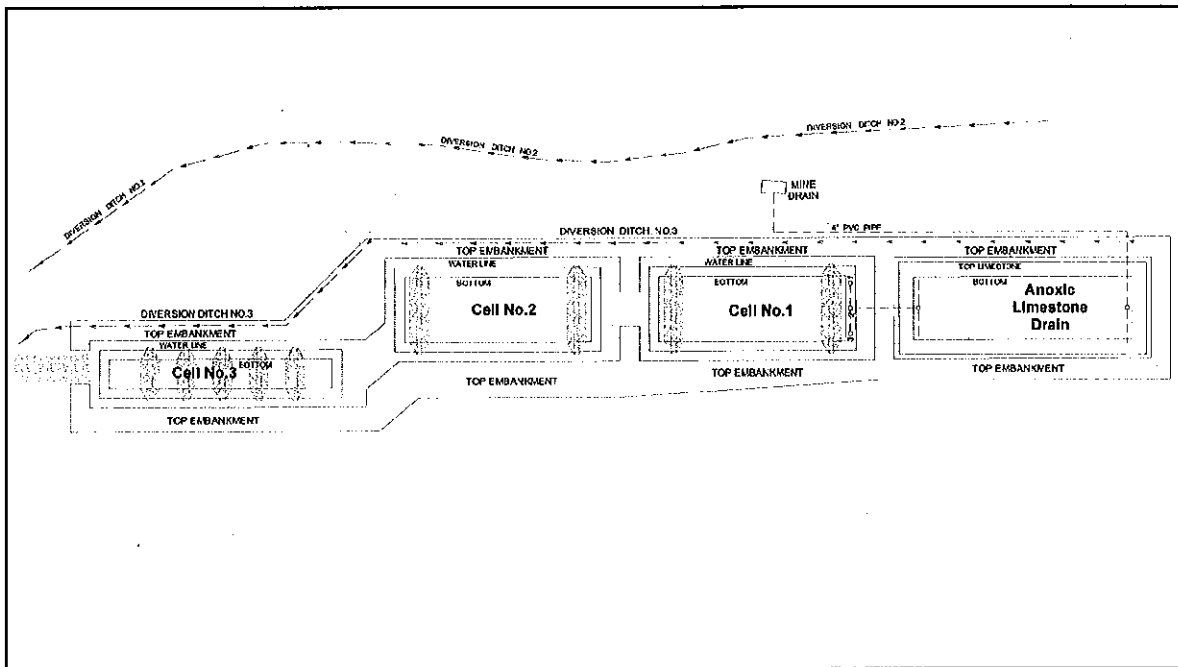
The final effluent from the treatment system was within normal effluent limits. Our firm designed the system with a life expectancy of a minimum of 15 years.

Services Provided

- Design and construction supervision
- Regulatory coordination
- Performance analysis

Special Features

- Gravity flow system
- Passive pre-treatment to reduce chemical usage
- Minimal-maintenance design



SIMMONS RUN ACID MINE DRAINAGE TREATMENT SYSTEM

Client: Ohio Department of Natural Resources

Location: Coshocton County, Ohio

Construction Cost: \$253,000

Gannett Fleming designed the Simmons Run acid mine drainage (AMD) treatment system to collect and passively treat acid mine drainage originating from abandoned underground and surface coal mines. Influent waters are characterized by elevated levels of metals and acidity.

Our firm's design consists of an open water pond and five wetland cells, three anaerobic vertical flow wetland cells, and two aerobic wetland cells. The open water pond will collect surface runoff in addition to mine drainage seepage, and it will function as a flow equalization device. The pond has been designed with an emergency spillway to route high flows around the wetland system to avoid damage to the wetland cells. The underground mine discharge enters the system at

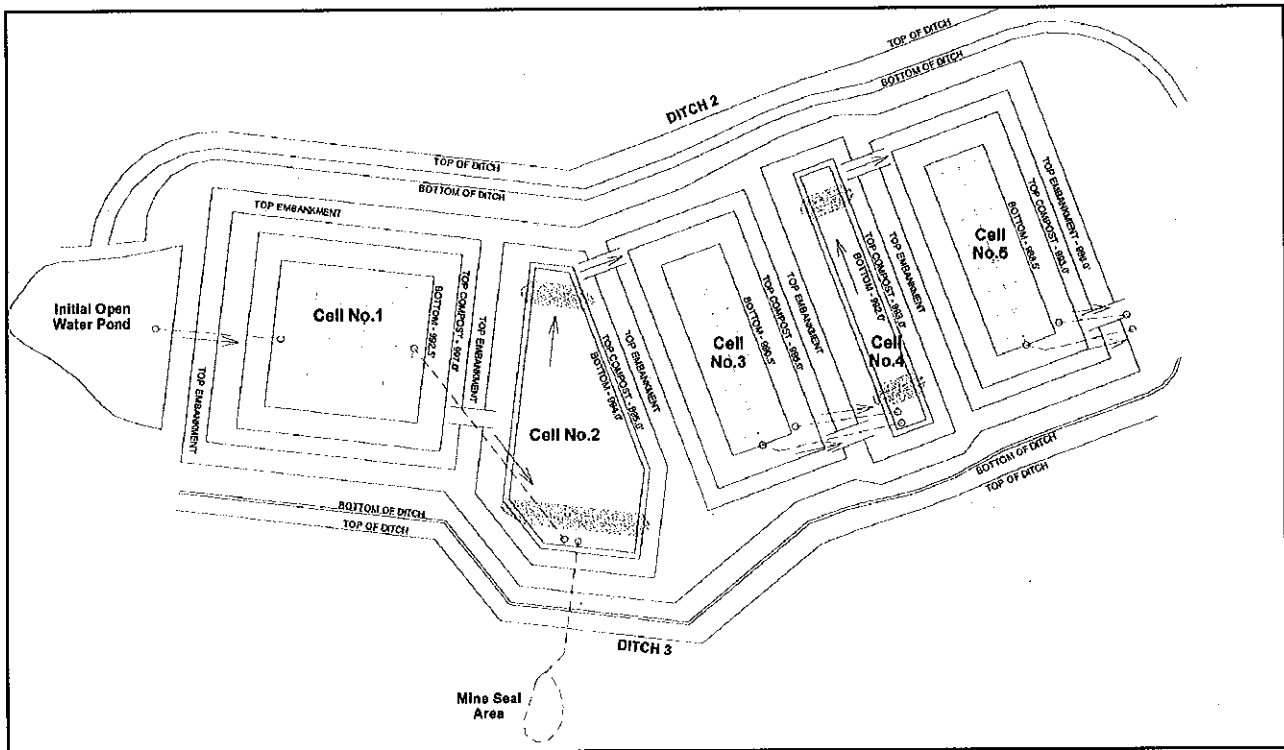
the second wetland cell. Discharge from the system is anticipated to be well within mandated effluent limits. Design of the wetland cells has been based on a minimum life expectancy of 15 years.

Services Provided

- Design and construction supervision
- Regulatory coordination
- Performance analysis

Special Features

- Gravity flow system
- Passive pre-treatment to reduce chemical usage
- Flow bypass for system protection





**KETTLE CREEK WATERSHED – SURFACE
RECLAMATION AND BIOCAPPING**

Client: Trout Unlimited
Location: Leidy and Noyes Townships, Clinton
County, Pennsylvania

Gannett Fleming prepared a reclamation and biocapping plan for an abandoned surface coal mine. The work included preparing an erosion-and-sedimentation plan, a National Pollutant Discharge Elimination System permit, a manufactured-soil material handling and composting plan, a revegetation plan, and a bid package. Our firm also provided construction observation services and developed as-built plans.

A reclamation plan was then developed for the 57-acre site, which included biocapping using WesTan Soil Plus, an organic soil conditioner. Specific goals and objectives for the project included reducing the hydraulic and metal loadings entering Two Mile Run and Kettle Creek and creating a wildlife food plot for Pennsylvania's growing elk herds. The food plot was created by regrading and establishing a permanent vegetative cover on the impacted area. Our firm maintained close coordination with the client during plan preparation in order to best meet the restoration goals.



**DENTS RUN SITE 3893 ACID MINE DRAINAGE
TREATMENT SYSTEM RETROFIT**

Client: U.S. Army Corps of Engineers,
Baltimore District
Location: Benazette Township, Elk County,
Pennsylvania
Construction Cost: \$50,000

Gannett Fleming finalized designs for the reclamation of an abandoned surface coal mine, Dents Run Site 3893, and the passive treatment systems for seeps 8 and 9 acid mine drainage (AMD) discharges. Site 3893 AMD restoration project consists of two unnamed tributaries impacted by AMD baseflow.

The U.S. Army Corps of Engineers' water quality monitoring report in 2006 of the seep 9 hollow found the water quality had worsened since the 1999 feasibility study. These findings resulted in an unacceptably short maintenance interval for the system as designed.

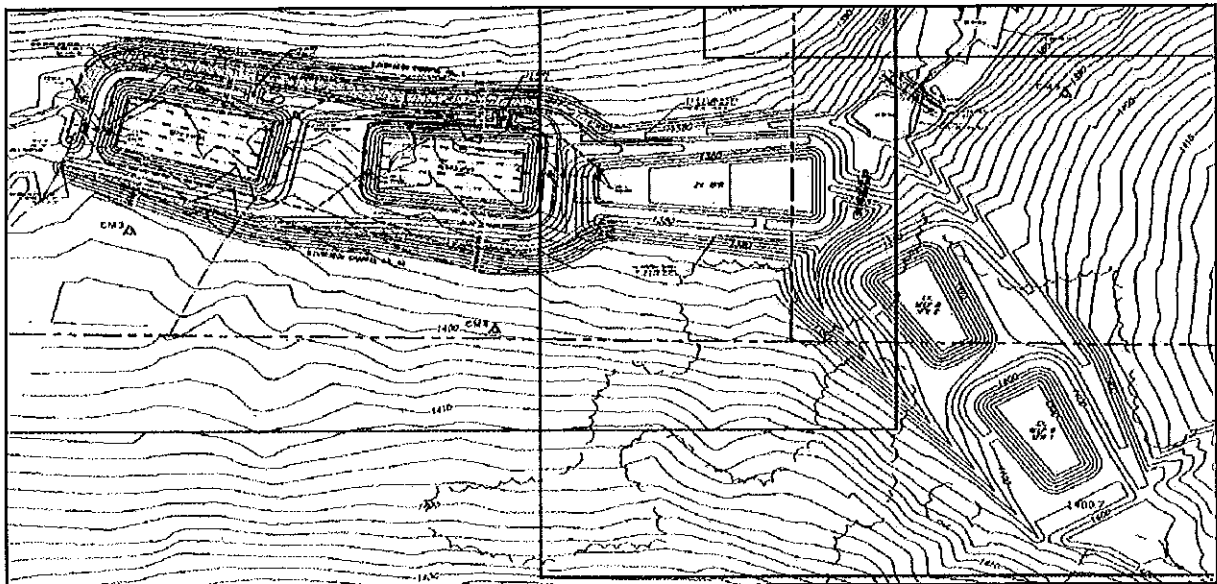
Our firm analyzed possibilities for remediation and retrofit and focused on using as much of the existing design as possible. Our recommended alternative was a recirculating pretreatment for the seep 9 discharge, to lower total influent acidity and dissolved metals concentrations. This significantly extended system life and decreased operations and maintenance costs, with a minimal up-front cost.

Services Provided

- Performed feasibility analysis to identify possible remedial alternatives
- Designed a retrofit pretreatment treatment system to handle increased AMD pollution loading
- Prepared plan drawings and specifications for construction
- Revised National Pollutant Discharge Elimination System permit packages to receive approval from the Pennsylvania Department of Environmental Protection

Special Features

- Innovative use of centuries old hydraulic ram water technology
- Significant cost savings possible over non-recirculating treatment schemes
- New opportunities for AMD discharges previously thought untreatable by passive technologies





DENTS RUN SITE 3888 ACID MINE DRAINAGE MITIGATION DESIGN AND CONSTRUCTION SERVICES

Gannett Fleming prepared the passive treatment plan final design and construction documents for Dents Run Site 3888. Dents Run Site 3888 is an acid mine drainage (AMD) restoration project consisting of three abandoned deep mine discharges draining directly to a high quality cold-water fishery. The U.S. Army Corps of Engineers (USACE), Baltimore District, prepared a conceptual passive treatment plan for these discharges as part of a project report and integrated environmental impact statement (EIS) for the overall Dents Run ecosystem restoration project.

Based upon the EIS concept plan, open limestone channels (OLCs) were used to remove acidity, with an oxidation precipitation basin (OPB) placed below two of the AMD sources to remove metals. One OLC treated the combined discharge from two seeps, and the other OLC collected and treated a third seep.

The need for future modifications to the passive treatment system was analyzed to determine if additional alkalinity was necessary. The OPB was designed to allow conversion to a vertical flow wetland (VFW), if necessary. Subsequent water quality monitoring indicated the conversion was required to neutralize seeps 2A and 2B, and the OPB was retrofitted to a VFW.

Client: U.S. Army Corps of Engineers,
Baltimore District

Location: Benezette Township, Elk County,
Pennsylvania

Construction Cost: \$350,000

Services Provided

- Performed water sampling and a water data analysis on three sampling points
- Predicted chemical loadings and system performance 95th percentile flow
- Summarized treatment methods and effectiveness
- Proposed a retrofit VFW for the OPB
- Developed construction plan drawings and specifications for project design
- Prepared a National Pollutant Discharge Elimination System permit application to receive approval from the Pennsylvania Department of Environmental Protection

Special Features

- Designed an expandable system for easy installation of future components
- Detailed post-construction monitoring program
- Detailed maintenance plan for system
- Developed conceptual future system additions





FAIRMOUNT CITY ABANDONED MINE LAND/ ACID MINE DRAINAGE PROJECT

Gannett Fleming provided a preliminary investigation, preliminary design, final design, and construction oversight for the reclamation of abandoned mine lands and for acid mine drainage (AMD) abatement. The project involved developing conceptual treatment plans for the mitigation of AMD from three abandoned mine seals; designing a conceptual reclamation plan for an abandoned coal-processing facility, including the demolition of existing structures; and relocating a utility line.

Our firm performed field investigations, made assessments of the quality and quantity of AMD discharges at two sites, and made an assessment of an underground mine pool and its impact to Redbank Creek. The assessment included a property ownership evaluation; Pennsylvania Department of Transportation permit requirements; railway easement licensing; utilities mapping; geologic and mining history investigations, including drilling and records searches at the Pennsylvania Department of Environmental Protection district mine offices; geotechnical investigations

Client: Pennsylvania Department of
Environmental Protection, Bureau of
Abandoned Mine Reclamation
Location: Clarion County, Pennsylvania
Firm's Fee: \$139,000

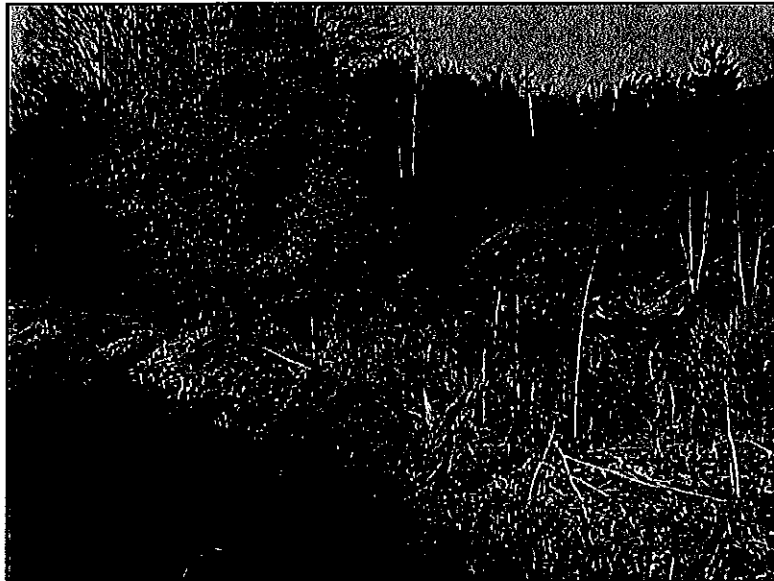
for conceptual AMD treatment mitigation plans; water quality and quantity investigations of the mine discharges, mine pool, and streams; and conceptual reclamation plans and preliminary engineer's cost estimates for the abandoned mine land reclamation and AMD treatment systems.

Special Features

- Mine pool investigations
- Private property and municipal meetings
- AMD assessment and statistical analyses

Services Provided

- Development of mine history
- Geotechnical investigation
- Surface-water and groundwater monitoring
- AMD mitigation plans
- Agency coordination
- New Shawmut Railway easement licensing
- Engineering cost estimates
- Passive AMD treatment system design



FALL BROOK ACTIVE TREATMENT SYSTEM**Client:** Tioga County Concerned Citizens Committee**Location:** Fall Brook, Tioga County, Pennsylvania
Construction Cost: \$1.2 Million

Gannett Fleming designed an active treatment system that would collect, convey, and treat the discharges of four abandoned deep mines; these discharges are impacting Fall Brook, a tributary of the Tioga River. Preliminary designs called for passive treatment of the discharges, but site constraints and the large size and cost of passive treatment made the largest of the discharges untreatable with this technology.

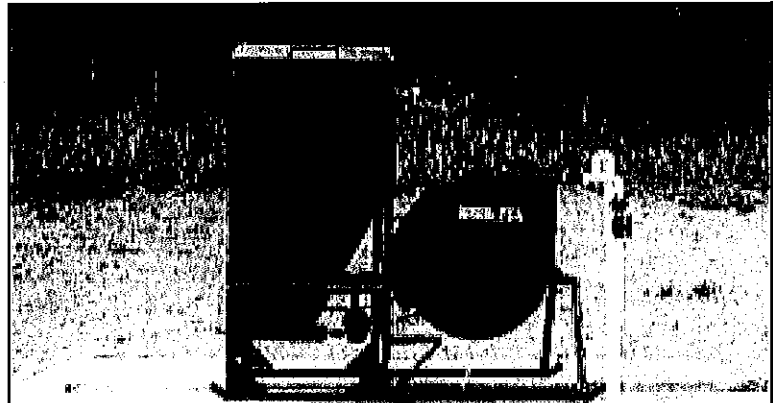
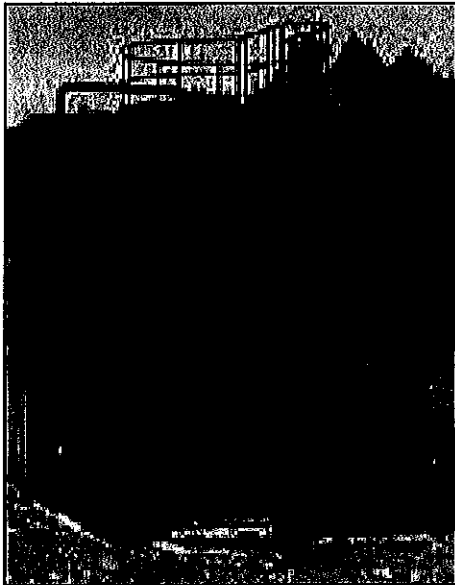
Our firm analyzed the available water quality and flow data at the site. We performed a preliminary feasibility study to determine if it was possible and economically feasible to collect and convey the discharges to a central location without using pump stations to lift the flow of acid mine drainage (AMD). After completing initial surveying, we determined that a non-powered conveyance system could be designed to carry the flow to a location that best suited a treatment plant. The system was designed to treat a 3,000 gallon per minute combined discharge; it consists of approximately 6,000 linear feet of conveyance pipelines, a pebble lime active treatment module with silo, mixing channels, and oxidation and precipitation basins.

Services Provided

- Performed feasibility analysis to determine effectiveness of active treatment over passive
- Performed site survey and topographic mapping
- Designed a collection and conveyance system to gather four separate discharges
- Prepared detailed engineer's cost estimate
- Prepared plan drawings and specifications for construction

Special Features

- Non-powered conveyance system
- Active system provided a lower total cost than passive
- Meets effluent goals
- Provided excess alkalinity to remediate AMD from upstream sources
- Innovative use of existing technology



Images used with permission from Aquafix Systems, Inc.

FREELANCE TECHNICAL ASSOCIATES, INC.

PRIOR EXPERIENCE

Project Management

Client/Projects

- **Shelly and Sands, Inc.**
Zanesville, OH
 - ❖ City of Barrackville, Sanitary Sewer Pumping Stations
 - ❖ Summit Park PSD, Sanitary Sewer Pumping Stations
 - ❖ Jane Lew PSD, Sanitary Sewer Extension Pumping Stations and Water System Extension
 - ❖ Main Mine Pumping Station, Meigs No. 1 Mine, 1800 GPM Mine Water Pumping and Treatment Station
 - ❖ Cheylan PSD, Sanitary Sewer Pumping Station, 450 GPM, 3 pumps, 30 feet deep, 14-foot diameter, pre-cast structure installed below surface level of Kanawha River
 - ❖ Monongalia Sanitary Landfill Leachate Collection Facility for County Landfill
 - ❖ Union PSD, Renovation and Upgrading, Two Complete Sanitary Sewage Treatment Facilities

- **Chief Construction Co.**
Zanesville, OH
 - ❖ Marinka Mine, Southern Ohio Coal Corp., Refuse Disposal Site A Reclamation
 - ❖ Salem Portal Office and Bathhouse, Southern Ohio Coal Corp., Bathhouse and Office Complex

- **City Neon, Inc.**
Morgantown, WV
 - ❖ Benedum Airport, Installation of Airplane Refueling Center

- **The Manchin Clinic**
Farmington, WV
 - ❖ Complete new 4-story Clinic Facility and Adjacent 30-story Miscellaneous service building

- **W & G Electroplating**
Fairmont, WV
 - ❖ W & G Electroplating, Hazardous Waste Site Remediation

- **Monongahela Valley Health Associates, Fairmont, WV**
75 space parking lot, Acute Care exam roof unit, Administration Office unit

Engineering

- **Europtec Group**
Clarksburg, WV
 - ❖ Design and Supervision of Fabrication of Overhead Crane Systems

- **Amtek, Inc.**
Eighty Four, PA
 - ❖ Design and Supervision of Fabrication of Metal Fines Washer – Classifier

- **J.M.C. Corporation**
Morgantown, WV
 - ❖ Design of Double-Deck Coal Screens
- **Various**
 - ❖ Various Patent Application Designs and Drawings
- **Alcan Aluminum Corporation**
Fairmont, WV
 - ❖ Design of Metal Handling Systems and Machines
- **American Fiber Resources**
Fairmont, WV
 - ❖ New Paper Warehouse Project
- **Dollar Store, U. S. Cellular, Sleep Lab**
Fairmont, WV
 - ❖ Commercial Office Complex
- **Monongahela Valley Health Associates, Fairmont, WV**
75 space parking lot, Acute Care exam roof unit, Administration Office unit

Engineering-Civil, Mechanical, Electrical, HVAC, and Environmental

- **Manchin Clinic**
Farmington, WV
 - ❖ Floor plan and facility design of New Medical Clinic and Pharmacy including specialized HVAC systems, X-ray facilities, and specialized gas conveyance system.
- **Southern Ohio Coal Company**
Salem Center, OH
 - ❖ Facility and site design for mine office and bathhouse.
- **G. P. Register, Inc.**
Moorefield, WV
 - ❖ Design of relocation of a large mill operation, complete with site plan, grading plan, all environmental permits, 60 foot bridge design, utilities and structures.
- **South Point Subdivision**
Fairmont, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **Aspen Hills**
Fairmont, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **Woodcrest Acres Subdivision**
Shinnston, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **Thistledown Subdivision**
Morgantown, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.

- **Deer Creek Subdivision**
Shinnston, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **The Summit**
Morgantown, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permit
- **Bear Ridge**
Teter Lake, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **Middle Fork River Estates**
Buckhannon, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **Potomac Valley Overlook**
Milam, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **Hampshire Highlands**
Paw Paw, WV
 - ❖ Complete subdivision design, lot plan, streets, utilities and environmental permits.
- **Dunbar Metal and Supply**
Poca, WV
 - ❖ Industrial site grading, structural layout and development plan.
- **Buck Thompson**
Fairmont, WV
 - ❖ McCarthy Warehouse – Complete rebuild of structure including structural design, electrical design, and material handling
- **West Virginia Christian Youth Camp**
Pennsboro, WV
 - ❖ Design of 160 acre youth camp, complete with roads, utilities, buildings and recreation areas.
- **State Armory Board**
Fairmont, WV
 - ❖ Marion County Armory wall damage repairs, design and inspection.
- **Virginia Christian Endeavors**
Richmond, WV
 - ❖ Design of 80 acre youth camp, complete with road, utilities, buildings and recreation areas.
- Winner's Choice**
Fairmont, WV
 - ❖ Complete building design including foundations, HVAC, electrical design and structural steel.

- **Fairmont Industrial Credit Corporation**
Marion County, WV
 - ❖ Complete industrial park site development with two sites, roads, utilities and grading.
- **Bel-Tech, Inc.**
Fairmont, WV
 - ❖ New AFR industrial access road design and construction management.
- **Robert Martin**
Fairmont, WV
 - ❖ Electrical and lighting design of major recreation center, Valley Worlds of Fun.
- **Marion County 4-H Foundation**
Fairmont, WV
 - ❖ Electrical and lighting design of two story dining hall and recreation center for Marion County 4-H Camp
- **Hubco-Bronze, Inc.**
Wheeling, WV
 - ❖ Electrical, mechanical, and HVAC design of spin casting foundry, high voltage electrical systems for electric furnaces
- **Technology Management of WV**
Pleasant Valley, WV
 - ❖ Valley Industrial Park II
- **Eurotech Group**
Clarksburg, WV
 - ❖ Structural steel design projects
- **Monongahela Health Association**
Fairmont, WV
 - ❖ Building renovation, site expansion, miscellaneous clinic design services, ADA compliance

Civil 3-D/AutoCAD

- **Southern Ohio Coal Co.**
Martinka Mine, Fairmont, WV
 - ❖ Complete steel detailing of coal refuse chute work for preparation plant
- **Consolidated Coal Corporation**
Humphrey Mine, Morgantown, WV
 - ❖ Complete structural steel detailing of floor steel for second floor of preparation plant
- **Vanco Welding & Repair**
Grafton, WV
 - ❖ Detailing of multiple projects for machines and structures
- **Chief Construction Co.**
Zanesville, OH
 - ❖ Detailing and design of various structural steel projects

➤ **American Fiber Resources**

Fairmont, WV

- ❖ Detailing design of building steel

➤ **Site Plans/Land Development**

➤ **The Glimcher Company**

Columbus, OH

- ❖ The Morgantown Mall complete site drawings during construction and as-built of Phase I and Phase II of Entire 120 acre mall site

➤ **Lowe's, Inc.**

Morgantown, WV

- ❖ Site drawings for design of new facilities near the Morgantown Mall

➤ **West Virginia Christian Youth Camp**

Pennsboro, WV

- ❖ Site drawings for new 160 acre youth camp

➤ **G. P. Register, Inc.**

Moorefield, WV

- ❖ Site drawings for existing and proposed lumber mill facilities

➤ **Fairmont Veterinarian Hospital**

Fairmont, WV

- ❖ Site drawings for existing and proposed veterinarian hospital

➤ **South Pointe Subdivision**

Fairmont, WV

- ❖ Site plan, utilities and streets

➤ **Woodcrest Subdivision**

Shinnston, WV

- ❖ Site plan, utilities and streets

➤ **Glen Cove Subdivision**

Shinnston, WV

- ❖ Site plan, utilities and streets

➤ **Thistledown Subdivision**

Morgantown, WV

- ❖ Site plan, utilities and streets

➤ **Deer Creek Subdivision**

Shinnston, WV

- ❖ Site plan, utilities and streets

➤ **Fairmont Industrial Credit Corporation**

Fairmont, WV

- ❖ Marion County Industrial Park site plan, utilities and streets
- ❖ The Valley Industrial Park site plan, utilities and streets

➤ **Dollar Store**

Fairmont, WV

- ❖ Commercial office complex

Surveying

- **John Lynch**
Morgantown, WV
 - ❖ Property survey and monumentation of 180 acre commercial development site
- **The Glimcher Company**
Columbus, OH
 - ❖ The Morgantown Mall site survey, cross-sections, utility layouts, road and parking lot layouts, layout of all buildings and multiple miscellaneous surveys, as well as survey and preparation of plats and maps for every parcel at this new mall site
 - ❖ The Middletown Ohio Mall site survey, cross-sections, utility layouts, road and parking lot layouts, layout of all buildings and multiple miscellaneous surveys, as well as survey and preparation of plats and maps for every parcel at this new mall site
- **Lowes, Inc.**
Warren, OH
 - ❖ Property survey and concrete monument corner setting
- **Shelly and Sands, Inc.**
Zanesville, OH
 - ❖ Construction stake-out surveys of various projects
- **Dosse Contracting**
Beaver, PA
 - ❖ Cut and fill stake-out surveys for air shaft site preparation
- **Mike Heston**
Fairmont, WV
 - ❖ Property survey of 120 acre site complete with corner monumentation
- **South Pointe Subdivision**
Fairmont, WV
 - ❖ Property survey and concrete monument corner setting on 100 acre site
 - ❖ Subdivision design and layout
- **Woodcrest Subdivision**
Shinnston, WV
 - ❖ Property survey and concrete monument corner setting
- **U. S. Steel Corporation**
Waynesburg, PA
 - ❖ Survey of bore hole locations over entire mine site during mine fire
- **Thistledown Subdivision**
Morgantown, WV
 - ❖ Subdivision design and layout
- **Alcan Aluminum Corporation**
Fairmont, WV
 - ❖ Property survey and concrete monument corner setting
- **Baker Excavation**
 - ❖ AML construction project surveys

- **Martin Potts, Inc.**
Ohio
 - ❖ Long property survey and concrete monument corner setting of 100 acre site
- **Allegheny Wood Products, Inc.**
Petersburg, WV
 - ❖ 3000 acre multi-use recreation and woodland site
- **City of Pleasant Valley**
Fairmont, WV
 - ❖ City corporate limit survey monumentation and platting
- **Green Mountain Hunting Club**
Petersburg, WV
 - ❖ 1700 Acre mountain land survey
- **North American Land**
Petersburg, WV
 - ❖ Potomac Valley Overlook Subdivision (2500 acres)
 - ❖ Fox Ridge Subdivision
 - ❖ Hampshire County Subdivision
 - ❖ Teter Creek Subdivision
 - ❖ Bear Ridge Subdivision
 - ❖ Middle Fork Subdivision
- **Ruskin Industries**
Charleston, WV
 - ❖ WV State Agency alta survey
- **Bell Atlantic - WV**
Charleston, WV
 - ❖ Various Projects Statewide
- **Tom Messenger**
Fairmont, WV
 - ❖ Multiple McDonald's Site Work

Cost Estimating

- **Shelly and Sands, Inc.**
Zanesville, Ohio
 - ❖ Cost estimating of large projects throughout three states which involved quantity take-off for earthwork, concrete, masonry, electrical, mechanical, all utilities, roads, pavement and structures of all types, as well as obtaining prices, preparing and submitting bids
- **City Neon, Inc.**
Morgantown, WV
 - ❖ Cost estimating of small projects in the surrounding area, preparation of bids for earthwork, structures concrete work and roads
- **Gene Yost and Sons**
Mt. Morris, PA
 - ❖ Cost estimating of earthwork projects
- **C. W. Stickley, Inc.**
Fairmont, WV
 - ❖ Cost estimating of earthwork projects, site preparation projects, roads and parking lots

- **American Fiber Resources**
Fairmont, WV
 - ❖ Cost estimate for major factory and plant expansion
- **Hubco Bronze**
Wheeling, WV
 - ❖ Cost estimate for major factory and plant expansion

Inspection Services(Resident Profession Representatives, RPR)

- **Mannington Sewage Treatment Plant**
Mannington, WV
 - ❖ Inspection of work being performed by contractor during construction of site earthwork and structures at sewage treatment facility
- **State Armory Board**
Charleston, WV
 - ❖ Inspection of all seating facilities and structures throughout entire armory system (Nine sites completed 1991 and 1994)
- **Woolpert Consultants**
Charleston, WV
 - ❖ Inspection of all construction activities at the Marion County Business and Technology Park including roads and utilities
- **Burgess and Niple, LLC**
Parkersburg, WV
 - ❖ Wood County and Lubeck PSD inspection of sewer line construction 68 mile project
 - ❖ City of Wheeling inspection of waterline construction
 - ❖ Valley Falls PSD inspection of waterline construction
- **City of Newburg**
Newburg, WV
 - ❖ Annual inspection of dam structure
- **Pentree, Inc.**
Princeton, WV
 - ❖ Inspection of sewer line construction of 60 mile project in Inwood, WV
- **Dunn Engineers, Inc.**
Charleston, WV
 - ❖ Inspection of sewer line construction project in Oceana, WV
- **Tri-Star Engineering**
Bedford, IN
 - ❖ Inspection and analysis of electrical, HVAC, and elevator systems at two major buildings at Allegheny Ballistics Laboratory in Rocket Center, WV
- **Department of Transportation**
Division of Public Transit
Charleston, WV
 - ❖ Clarksburg, WV Central Transit Authority inspection of new building construction
 - ❖ Morgantown WV Morgantown Transit Authority inspection of new building construction
 - ❖ Fairmont, WV Fairmont-Marion County Transit Authority inspection of new building construction

Specialized Services

- **Richmond, VA**
 - ❖ Buildings and recreation facilities

- **Mammoth Geo**
Barrackville, WV
 - ❖ Drafting of linears, SAR and NAR drawings used to determine gas well drilling locations throughout the eastern half of the United States

- **RAC-A-BAT**
Fairmont, WV
 - ❖ Design detailing of new batting practice device

- **CNX Gas Operations**
Seven Pines, PA
 - ❖ De-gasification borehole location and development

- **Brad Hibbs**
Fairview, WV
 - ❖ Location and permit preparation for new well drilling

- **CONSOL ENERGY**
Monongah, WV
 - ❖ Well plugging permit preparation

- **Scarsdale Drilling Partners, LLC**
Scarsdale, NY
 - ❖ Well management services



West Virginia Department of Environmental Protection

Section 6 – Purchasing Affidavit

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: _____

Authorized Signature: _____ Date: _____

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ____ day of December, 20__.

My Commission expires _____, 20__.

AFFIX SEAL HERE

NOTARY PUBLIC _____

To Be Completed Prior to Award of Contract