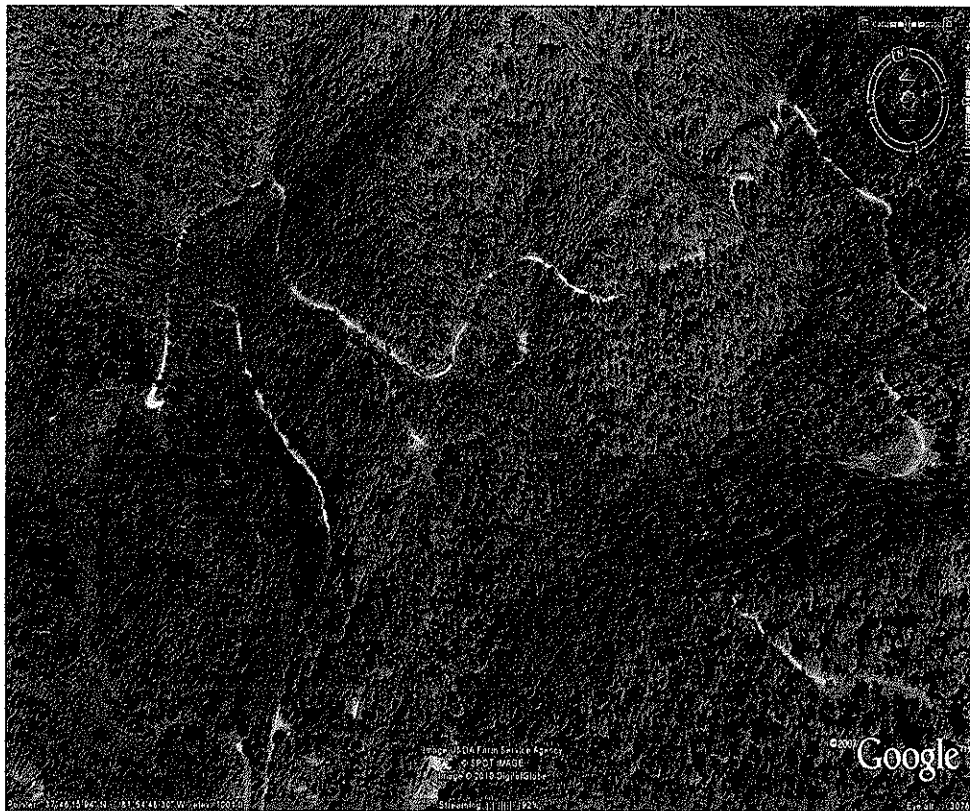


L.A. GATES COMPANY

**Consulting Engineers
Beckley, West Virginia**

**EXPRESSION OF INTEREST
TO PROVIDE A/E SERVICES FOR THE
WVDEP, AML&R**

Earling Refuse Pile Design – WVDEP 14950



Issuing Office:
West Virginia Department of
Environmental Protection
601 57th Street, S.E.
Charleston, WV 25304
Office of Abandoned Mine Lands and
Reclamation

Submitted By:
L.A. Gates Company
2302 South Fayette Street
Beckley, WV 25801
304-256-1640
www.lagates.com

RECEIVED

March 25, 2010
Original

2010 MAR 25 AM 9:27

WV PURCHASING
DIVISION

L.A. GATES COMPANY

ENGINEERS AND CONSULTANTS

L.A. GATES, P.E.
PRESIDENT

J.W. CANTLEY, JR., P.E., P.S.
EXECUTIVE VICE PRESIDENT

March 23, 2010

State of West Virginia
Department of Administration
Purchasing Division
Attn: Mr. Nick Estes
2019 Washington Street, East
Charleston, WV 25305-0103

Re: Expression of Interest to Provide Professional A/E Services for the WVDEP, Office of Abandoned Mine Lands and Reclamation - RFQ Number DEP-14950, Earling Refuse Pile Design

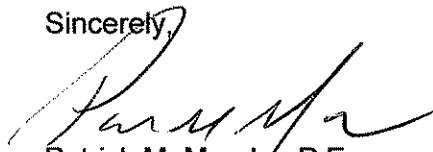
Dear Mr. Estes:

L.A. Gates Company (Gates) is pleased to submit this Expression of Interest to provide professional architectural and engineering services for the *Earling Refuse Pile Design* project located in, Logan County, West Virginia. This project's scope of work is a principal area of expertise for Gates' and our staff is uniquely qualified to complete the project.

The project specifically relates to mining reclamation and hydrologic engineering, both strengths of our company. Our management and technical staff have completed over 50 such projects for surface mines, deep mines and coarse refuse facilities throughout the state. We have toured the site and are comfortable that we have the staff and technical expertise to take on this project

Gates looks forward to establishing a long-lasting, professional relationship with the West Virginia Department of Environmental Protection Agency Abandoned Mine Lands Office.

Sincerely,



Patrick M. Murphy, P.E.
Vice President of Environmental Engineering

encls

L.A. GATES COMPANY

***Consulting Engineers
Beckley, West Virginia***

**EXPRESSION OF INTEREST
TO PROVIDE A/E SERVICES FOR THE
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March 25, 2010





L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

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L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

L.A. Gates Corporate History

About L.A. Gates

L.A. Gates Company (Gates) is a third generation consulting engineering firm whose origin dates back to 1905. Our roots stem from Gates Engineering Company which had direct lineage to the E.M. Merrill Engineering Company organized in 1905 in Beckley, West Virginia. Gates Engineering Company closed its doors in 1985, at which time L.A. Gates created L.A. Gates Company. Today, Gates is a full-service consulting engineering firm offering a complete range of engineering services to both private and public clients. We are capable of providing services in civil, environmental and mining engineering; gas/oil; geology; feasibility studies; idle property management; construction management and inspections; due diligence; surveying and permitting. Our staff is capable of taking a project from the planning stage, through engineering and into construction, where resident engineering and inspection services are available. For special needs we can call on specialists such as soil scientists, archeologists, foresters, etc.

In an effort to more fully service our clients, Gates recently formed Gates Consultants, a subsidiary of L.A. Gates Company, with the specific goal to align associates from different facets of mining, a wide geographic range, and diverse background for the specific purpose of performing specialized services such as due diligence, financial analysis, mineral appraisals, operational management and process analysis. Gates Consultants is versatile in the fact that it has the flexibility to mix and match its various Associates in order to best meet the client's needs for almost any particular project. Gates Consultants have extensive experience in soft and hard rock mining both domestic and international.

Services Offered

Mining Engineering

Civil Engineering

Environmental Engineering

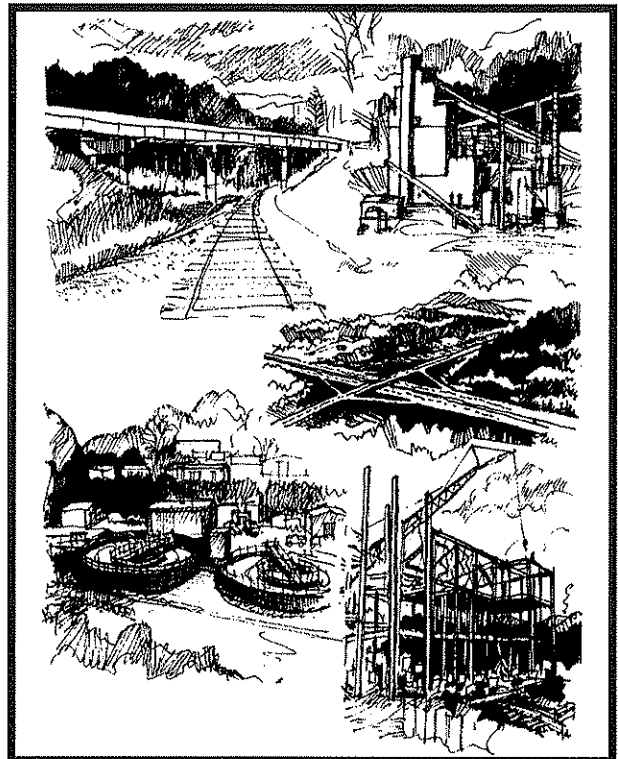
Natural Gas Engineering

Environmental Audits

Idle Property Management

Permitting

Surveying





L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Available WV AML Design Team

L.A. Gates Company proposes to assign the following personnel to the design project. The team possesses the design experience required to perform the tasks outlined in the project scope.

Project Engineer/Manager

Patrick M. Murphy, P.E.

CAD Designers

Rick McClung

Rob Rector

Engineer Techs

Patty McCormick

Ashley Murphy

Surveyors

Estil Brooks

Lawrence Brooks

The project manager will serve as the single point of contact between Gates and the WVDEP AML (AML) personnel. The project manager will be responsible for ensuring the scope of work is received and understood and the appropriate tasks assigned to the team members. The project manager will provide scheduled updates to AML detailing the project status. Gates is confident that these procedures and principles will ensure that the project is completed accurately and within budget.



L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

WV Registered Professional Engineers (Civil or Mining) in the Primary Office

L.A. Gates Company employs five (5) WV Registered Professional Engineers in its Beckley, WV office. Patrick Murphy will serve as project manager/engineer on the project. Patrick has extensive experience in performing the reclamation engineering associated with this project.

L.A. Gates, P.E.
Principal Engineer/Owner

L.A. has over 30 years experience in managing civil and mining projects. As Principal Engineer, L.A. provides engineering oversight to all civil and mining projects that are performed within the L.A. Gates Company.

Jerry (Jay) W. Cantley, P.E.
Executive Vice President

Jay has over 20 years experience in civil engineering, primarily in water, wastewater and highway design. Jay has extensive experience in roadway design, surveying, site work, utilities, erosion and sediment control, construction coordination and management.

Patrick M. Murphy, P.E.
Vice President of Environmental Engineering

Patrick has over 12 years experience in mining and environmental engineering. He has extensive experience in performing AML engineering functions as they would relate to this project to include: stormwater and sediment control structure design, surface water hydrology, geotechnical design and stability analysis. Patrick also has extensive experience in managing mining and environmental projects.

Brian Bair, P.E.
Project Engineer

Brian has over 10 years experience in civil engineering. He serves as Gates' structural and bridge engineer.

Gary Keaton, P.E.
Project Engineer

Gary has over 15 years experience in civil engineering. He serves as Gates' oil and gas engineer.



L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Project Approach

L.A. Gates Company is familiar with the proposed project area and is experienced in the type of project for which your office is soliciting engineering services. Gates has a thorough understanding and comprehension of the engineering required of this project and is prepared to immediately tackle these tasks and provide AML with a first-rate product.

Gates will work closely and diligently with AML personnel and all associated regulatory agencies required to ensure this project is completed as efficiently and as cost-effectively as possible. Our permitting and mining staff work with various regulatory agencies on a daily basis and are well respected and trusted within the industry.

The scope of services that will be provided by Gates' include, but are not limited to:

- site visit to become more intimately knowledgeable of the site;
- surveying and contour mapping of the project area;
- coordination with all regulatory agencies;
- preparation of plans and specifications;
- participation in site visits and meetings;
- preparation of required permit applications;
- perform geotechnical designs and analysis;
- perform hydrologic/hydraulic designs and analysis; and

- any other services as directed by the WVDEP/AML office.

Our mission for this project is to:

- provide deliverables in a timely and efficient manner;
- keep our client informed during all facets of the project;
- integrate new technology into our designs while continuing to provide economical, practical solutions to our clients needs;
- ensure the project meets the performance standards set forth by the client and governing agencies;
- encourage professional integrity and quality service; and
- maintain a high level of professional excellence.



L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Attachment B

West Virginia Department of Environmental Protection
AML Consultant Confidential Qualification Questionnaire

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME - Earling Refuse Pile Design Requisition # DEP 14950		DATE (DAY, MONTH, YEAR) March 25, 2010		FEIN - #55-0649591	
1. FIRM NAME - L. A. Gates Company		2. HOME OFFICE BUSINESS ADDRESS 2302 South Fayette Street, Beckley, WV 25801		3. FORMER FIRM NAME - Gates Engineering	
4. HOME OFFICE TELEPHONE 304-256-1640		5. ESTABLISHED (YEAR) 1985	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 2302 South Fayette Street, Beckley, WV 25801/304-256-1640/ L. A. Gates / 12					
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM L. A. Gates P.E., President, 304-256-1640 ext.101			8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS Jay Cantley, P.E., Executive Vice President, 304-256-1640 ext.107		
9. PERSONNEL BY DISCIPLINE					
2 ADMINISTRATIVE ARCHITECTS BIOLOGIST 2 CADD OPERATORS CHEMICAL ENGINEERS 3 CIVIL ENGINEERS CONSTRUCTION INSPECTORS 2 CADD DESIGNERS		ECOLOGISTS ECONOMISTS ELECTRICAL ENGINEERS ENVIRONMENTALISTS ESTIMATORS 1 GEOLOGIST HISTORIANS HYDROLOGISTS		3 LANDSCAPE ARCHITECTS 3 MECHANICAL ENGINEERS 2 MINING ENGINEERS 3 PHOTOGRAMMETRISTS PLANNERS: URBAN/REGIONAL SANITARY ENGINEERS SOILS ENGINEERS 1 SPECIFICATION WRITERS * Employees also perform these services. 19 TOTAL PERSONNEL	
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 7 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? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A					

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

YES Description and Number of Projects: **Gates has performed mine reclamation engineering for 20 WVDEP OM&R projects.**
NO

B. Is your firm experienced in Soil Analysis?

Yes Description and Number of Projects:
NO **Soils analysis is typically subcontracted.**

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: **Gates has performed hydrology/hydraulics design and analysis for 20 WVDEP OM&R projects.**
NO

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

YES Description and Number of Projects:
NO **Gates does not perform its own aerial photography.**

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

YES Description and Number of Projects: **Gates has extensive experience in domestic waterline design.**
NO

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

YES **Gates is currently providing AMD evaluation and abatement design for the Tacoma Surface Mine located in Boone County, WV. Patrick Murphy has AMD evaluation and abatement design experience with the Buck Lilly Surface Mine in Greenbrier County, WV.**
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.) Gates, Leslie A., P. E., President		YEARS OF EXPERIENCE YEARS OF AML DESIGN EXPERIENCE: 2 YEARS OF AML RELATED DESIGN EXPERIENCE: 20 YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5	
Brief Explanation of Responsibilities As president, L.A. Gates is responsible for overseeing all activities related to the company.			
EDUCATION (Degree, Year, Specialization) B. S., 1978, Mining Engineering B. S., 1972, Business Administration			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS National Society of Professional Engineers (NSPE) American Inst. of Mining, Metallurgical, Petroleum Engineers (AIME)		REGISTRATION (Type, Year, State) P.E., 1983, CO. P.E., 1983, WV.	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.) Cantley, Jerry W. P. E., P. S. Executive Vice President		YEARS OF EXPERIENCE YEARS OF AML DESIGN EXPERIENCE: 0 YEARS OF AML RELATED DESIGN EXPERIENCE: 10 YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10	
Brief Explanation of Responsibilities Mr. Cantley will serve as project contract administrator. He will be responsible for overall management and performance of the project. He will review work, visit site with Mr. Murphy and guide the preparation of the Scope of Work.			
EDUCATION (Degree, Year, Specialization) B.S., 1987, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Society of Civil Engineers		REGISTRATION (Type, Year, State) P.E., 1994, WV P.E., 2003, VA P.S., 1995, WV	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
Murphy, Patrick M., P.E. Vice President – Environmental Engineering	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	1	12	0
Brief Explanation of Responsibilities			
Mr. Murphy will be responsible for managing day-to-day project activities and management of the Gates' staff. Specific duties will include ensuring project activities are completed on-time, with-in budget and within specification, provide engineering oversight, providing signature and certification of project documents. He will serve as liaison between L.A. Gates and the WVAML personnel.			
EDUCATION (Degree, Year, Specialization)			
B.S., 1997, Civil Engineering Technology M.S., 2003, Environmental Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
		P.E., 2004, WV P.E., 2009, PA	
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. PROJECT A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN ' PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE A DESIGN SERVICES

Carlson 2007 and 2008 (All Modules)
Autodesk – AutoCAD 2007, 2008, 2009, 2010
SEDCAD 4: Hydrology Software
REAME: Slope Stability
Eagle Point 2007 Civil Design Software
HEC-RAS: Open Channel Flow Software by the USCOE
HY-22: Highway and Urban Drainage Design Software
SurvCADD
Microsoft Office: Word, Power Point, and Excel
TOPCON Total Station Transit with TDS Husky FS/2 Data Collector
LEICA GPS System 200
TOPCON AT-G2A Auto Level
HP DESKJET 3100, 1050C plotters, 5550n, 9050n printers
MR SID (911 Aerial Imaging/Mapping Software)
DAMBRK: Flood Routing and Dam Safety Analysis Software
Maptech Terrain Navigator
Various Dell Laptop and Stationary Computers and Servers

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Sewell No. 1 Mine Deep Mine Facility Curtin, WV	Spring Creek Energy 806 Main Street Summersville, WV	Engineering and Permitting services for deep mine facility, NPDES & 401 permits	\$103,000 (FEE)	80
Tioga Refuse Facility Remining Permit Tioga, WV	WVCR, LLC 920 South Eisenhower Drive Beckley, WV	Engineering and Permitting services for remining of coarse refuse facility, NPDES and 401 permits	\$55,000 (FEE)	50
Dingess No. 2 Gas Deep Mine Deep Mine Facility Buffalo Creek, WV	INR, WV Main Street Man, WV	Engineering and Permitting services for deep mine facility, NPDES & 401 permits	\$120,000 (FEE)	30
Bradshaw Bridge Replacement Bradshaw, WV	WVDOT-DOH 1900 Kanawha Boulevard Charleston, WV 25305	Engineering design of a 90' bridge replacement over Bradshaw Creek	\$1,500,000	95
Bramwell Bridge	WVDOT-DOH 1900 Kanawha Boulevard Charleston, WV 25305	Engineering design of a 440' bridge over Bluestone River.	\$2,000,000	0
TOTAL NUMBER OF PROJECTS: 5		TOTAL ESTIMATED CONSTRUCTION COSTS: \$3,500,000		

17. C	COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM		IS THE DESIGNATED ENGINEER OF RECORD		
	PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
	Longbottom Contour Mine Contour/Highwall Mine Sharon, WV	Magnum Coal Company Charleston, WV	\$97,000 (Permitting Fee)	2007	NA
	Midland Trail Surface Mine Surface Mine Anjean, WV	Midland Trail Resources P.O. Box 0 Rupert, WV	\$ 95,000 (Permitting Fee)	2007	NA
	Spring Creek Haulroad Engineering Design Curtin, WV	Spring Creek Energy Summersville, WV	\$7,892 (Permitting Fee)	2007	NA
	Winifrede X-1 Deep Mine Regrade/Drainage Revision Drennen, WV	Alex Energy, Inc. Summersville, WV	\$10,000 (Permitting Fee)	2007	NA
	Midland Mine No. 2 Subsidence Control/Drainage Drennen, WV	Midland Trail Resources Rupert, WV	\$10,000 (Permitting Fee)	2007	NA
	Dents Run Impoundment Impoundment Abandonment Mannington, WV	Consol Monongah, WV	\$40,000 (Permitting Fee)	2007	NA
	Cowen Loadout Facility Coal Loadout Cowen, WV	Atlantic Leaseco Summersville, WV	\$20,000 (Permitting Fee)	2007	NA
	Jones Branch Loadout Regrade/Drainage Revision Drennen, WV	Power Mountain Coal Summersville, WV	\$8,000 (Permitting Fee)	2008	NA

17. CC ETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM S THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Hardway Branch Surface Mine Regrade/Drainage Revision Drennen, WV	Alex Energy, Inc Summersville, WV	\$20,000 (Permitting Fee)	2009	NA
Right Fork Surface Mine Regrade/Drainage Revision Drennen, WV	Alex Energy, Inc Summersville, WV	\$25,000 (Permitting Fee)	2009	NA
Peerless No. 1 Mine Subsidence Revision Dixie, WV	Alex Energy, Inc Summersville, WV	\$20,000 (Permitting Fee)	2009	NA
Peachorchard Surface Mine Contour/Highwall Mine Drennen, WV	Nicholas Energy, Inc Summersville, WV	\$50,000 (Permitting Fee)	2009	NA

N/A

[illegible]

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. LA Gates Company staff has a wide variety of professional experience from both engineering and from an operations perspective. Projects completed include mine designs, road designs, drainage and sediment control structure designs, reclamation design, bridge design, and highway design. Gates is capable of performing any assignment associated with mining and reclamation.

20. The foregoing is a statement of facts.

Signature:

Printed Name: Patrick M. Murphy, P.E.

Title: VP - Environmental Engineering

Date: 3/23/2010



L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Attachment C

West Virginia Department of Environmental Protection

AML Related Project Experience Matrix

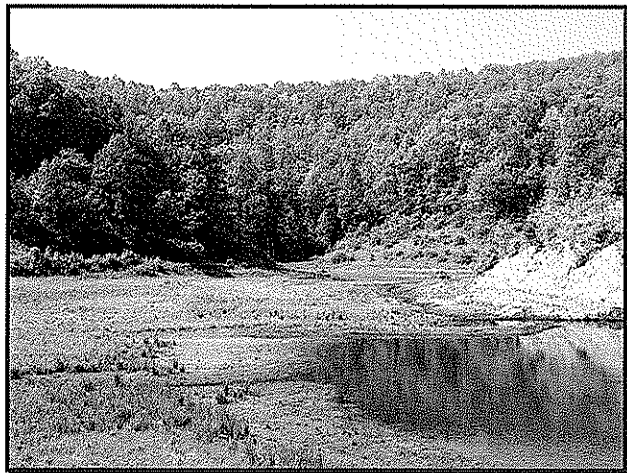
with Additional Project Information on Selected Projects



L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Attachment C – AML and Related Project Experience Additional Information

Nailer #79 Mine Slurry Impoundment Abandonment



Before Reclamation

The Nailer #79 ***Mine Slurry Impoundment*** project is located in Woodtick Hollow of Dents Run, Marion County, West Virginia. The impoundment was originally designed by Bowser-Morner Testing Laboratories, Inc. in 1979 and was initially recognized as the Dents Run Coal Refuse Slurry Impoundment. Over the years the official designation became known as the Nailer #79 Mine Slurry Impoundment.

The purpose of this ***abandonment design*** project was to provide the ***engineering design*** required for ***regrading the impoundment*** to a final configuration, ***provide stable slopes***, provide vegetative cover and to ***provide permanent drainage channels***.

Regrade (reclamation) design was performed utilizing Carlson Civil Software package SurvCAD. Utilizing aerial topo, ***3D grid models*** were developed to depict the existing and original configurations of the area. Utilizing the 3D models, cut/fill areas were

identified in order to create a final configuration utilizing existing refuse materials. ***3D mapping*** was then generated to demonstrate the final configuration for construction.

Stability analysis of the final regraded facility was performed utilizing the REAME 2004 stability analysis software package. Original soil and refuse engineering properties used for the stability analysis were obtained from published engineering reports and previous testing of the materials.

Hydrologic and hydraulic analysis and design was performed utilizing SEDCAD 4 TM developed by Dr. Richard C. Warner, University of Kentucky and Ms. Pamela J. Schwab, Civil Software Design. An analysis of the watershed was performed to determine peak flow discharges for the facility. Utilizing these peak flows ***diversion channels*** were designed to convey the peak discharge with appropriate freeboard and erosion protection.



After Reclamation



L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

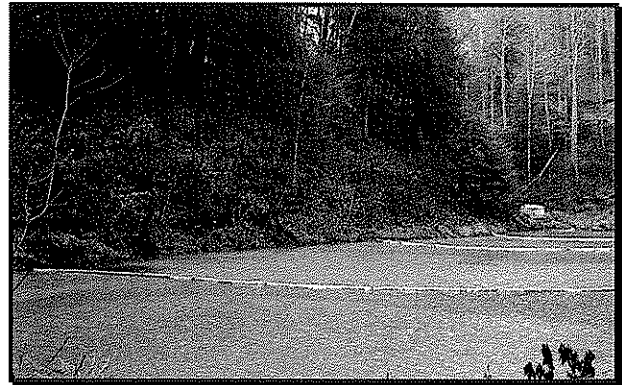
Attachment C – AML and Related Project Experience Additional Information

Tacoma Surface Mine –Water Treatment Evaluation/Abatement

The Tacoma Surface Mine project is located near Prenter in Boone County, West Virginia. The site consists of reclaimed surface mine with two valley fills and three sediment control and water treatment ponds. **Acid Mine Drainage** is currently being discharged from the toe of the fills. The AMD is likely be produced by the underdrain material and/or abandoned deep mines with seeps into the fill. The ponds are currently being treated for the removal of **manganese, iron, aluminum and suspended solids**.

Gates' responsibility with this project is to **evaluate the current treatment procedures** to include: physical treatment, chemical treatment, maintenance procedures and any extenuating environmental concerns associated with the discharge from this permit; **identify any deficiencies** and **development remediate/abatement procedures** to correct the deficiencies.

To date, Gates has already identified a change is chemical usage that will relate to an **80% reduction in annual chemical costs**.





L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Attachment C – AML and Related Project Experience Additional Information

Buck Lilly Surface Mine Mining and Special Reclamation Designs

(Personal Experience Related to the Project Engineer, Patrick Murphy)



The Buck Lilly Surface Mine project is located near Anjean in Greenbrier County, West Virginia. The **site consists of abandoned surface mine activity with existing exposed refuse piles, buildings, ponds and roads.** The site is currently an environmental hazard in that it is producing acid mine drainage from all of the exposed refuse.

The purpose of this project was to **develop designs for removing all of the usable refuse, ponds and buildings; to surface mine and auger any remaining reserves; regrade to extent possible with available spoil and to design conveyance systems that would keep current AMD water and fresh water separated throughout the mining and during post-mining.** The designs had to be a joint effort to satisfy both the Office of Mining and Reclamation Regulations for mining and the Office of Special Reclamation to address AMD issues.

Regrade design was performed utilizing Carlson Civil Software package SurvCAD. Utilizing 3D grid modeling the final reclaimed

configuration was developed to conform as close to the original contours as possible and to emulate the premining drainage patterns as close as possible.

Stability analysis of the final regraded facility was performed utilizing the REAME 2004 stability analysis software package. Regrade stabilities were performed for during mining and final regrade scenarios.

Hydrologic and hydraulic analysis and design was performed utilizing SEDCAD 4 TM developed by Dr. Richard C. Warner, University of Kentucky and Ms. Pamela J. Schwab, Civil Software Design. Utilizing the SEDCAD software, peak discharges were determined for all surface water runoff scenarios. Anticipated discharges from the auger/highwall mining entries were calculated based on industry standard practices for the area being mined and depth of cover. The following were designed for this project: **wet seals** for the auger/hwm entries; **regrade underdrains** to **segregate AMD and fresh water drainage**; **dual diversions** to **separate AMD and fresh water** drainage, **culverts** and ponds.





L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Attachment C – AML and Related Project Experience Additional Information

Tate Run Surface Mine – Regrade and Drainage Designs



The Tate Run Surface Mine project is located near Drennen in Nicholas County, West Virginia. The site consists surface mining activities with valley fills, roads, ponds and other drainage control structures..

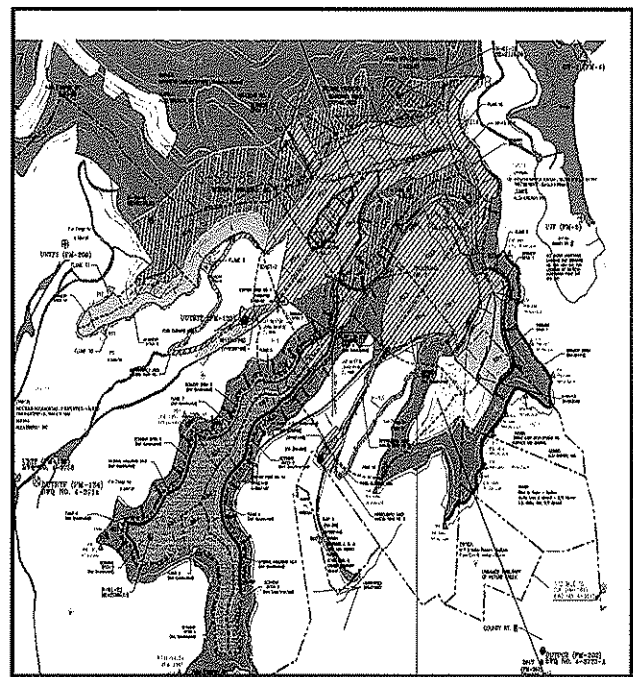
The purpose of the project was to **analyze the current drainage control structures** (except the pond) and **existing regrade** to determine if they met the current mining and reclamation design standards and to **redesign the structures** as necessary. All structures analyze for this project required redesign. Field surveying of the current regrade and drainage structures was performed and 3D models of the site created utilizing the Carlson Civil Software package SurvCAD.

Hydrologic and hydraulic analysis and design was performed utilizing SEDCAD 4 TM developed by Dr. Richard C. Warner, University of Kentucky and Ms. Pamela J. Schwab, Civil Software Design. An analysis of

the watershed was performed to determine peak flow discharges for the facility.

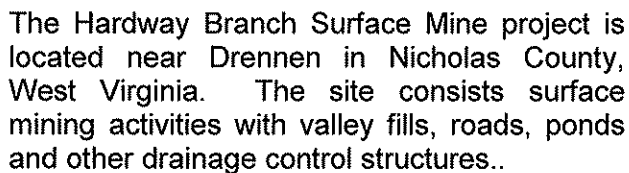
Stability analysis of the final regraded facility was performed utilizing the REAME 2004 stability analysis software package. REAME 2004 is a 2D and 3D analysis program which can use multiple methods of analysis to include: Normal, Simplified Bishop, Spencer, Modified Spencer and Janbu.

Utilizing the survey data and 3D grid models the existing diversion and sediment control structures and the existing regrade were re-designed in order to meet current design standards. Final design documents provided included all plan views, sections, profiles, stability analysis and hydrologic design sheets for all structures.





Hardway Branch Surface Mine – Regrade and Drainage Designs

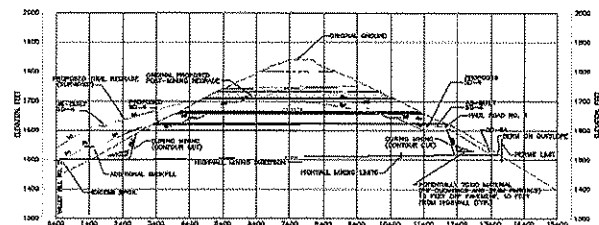
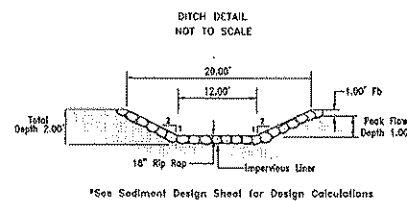


The purpose of the project was to ***analyze the current drainage control structures*** (except the pond) and ***existing regrade*** to determine if they met the current mining and reclamation design standards and to ***redesign the structures*** as necessary. All structures analyzed for this project required redesign. Field surveying of the current regrade and drainage structures was performed and 3D models of the site created utilizing the Carlson Civil Software package SurvCAD.

Hydrologic and hydraulic analysis and design was performed utilizing SEDCAD 4 TM developed by Dr. Richard C. Warner, University of Kentucky and Ms. Pamela J. Schwab, Civil Software Design. An analysis of

Stability analysis of the final regraded facility was performed utilizing the REAME 2004 stability analysis software package. REAME 2004 is a 2D and 3D analysis program which can use multiple methods of analysis to include: Normal, Simplified Bishop, Spencer, Modified Spencer and Janbu.

Utilizing the survey data and 3D grid models the existing diversion and sediment control structures and the existing regrade were re-designed in order to meet current design standards. Final design documents provided included all plan views, sections, profiles, stability analysis and hydrologic design sheets for all structures.





L.A. Gates Company
Consulting Engineers
Beckley, West Virginia

Attachment D

Signed Expression of Interest



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

DEP14950

PAGE

1

ADDRESS CORRESPONDENCE TO ATTENTION OF

CHUCK BOWMAN
304-558-2157

RFQ COPY

TYPE NAME/ADDRESS HERE

VENDOR
LA GATES COMPANY
2302 SOUTH FAYETTE ST.
BECKLEY WV 25801

SHIP TO
ENVIRONMENTAL PROTECTION

DEPARTMENT OF

OFFICE OF AML&R

601 57TH STREET SE

CHARLESTON, WV

25304

304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/10/2010				

BID OPENING DATE:

03/25/2010

BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
EARLING REFUSE PILE 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 EARLING REFUSE PILE PROJECT IN LOGAN 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 THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.						
***** THIS IS THE END OF RFQ DEP14950 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE

TELEPHONE

304-256-1640 X113

DATE

TITLE

VP-ENVIRONMENTAL

FEIN

55-0649591

ADDRESS CHANGES TO BE NOTED ABOVE

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

RFQ No. DEP14950STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT**

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

DEFINITIONS:

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

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

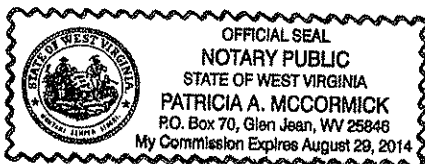
EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a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

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

WITNESS THE FOLLOWING SIGNATUREVendor's Name: L.A. GATES COMPANYAuthorized Signature: *Par M M* Date: 3/23/2010State of West VirginiaCounty of Raleigh, to-wit:Taken, subscribed, and sworn to before me this 23rd day of MARCH, 2010.My Commission expires August 29, 2014.

AFFIX SEAL HERE

NOTARY PUBLIC



Patricia A. McCormick