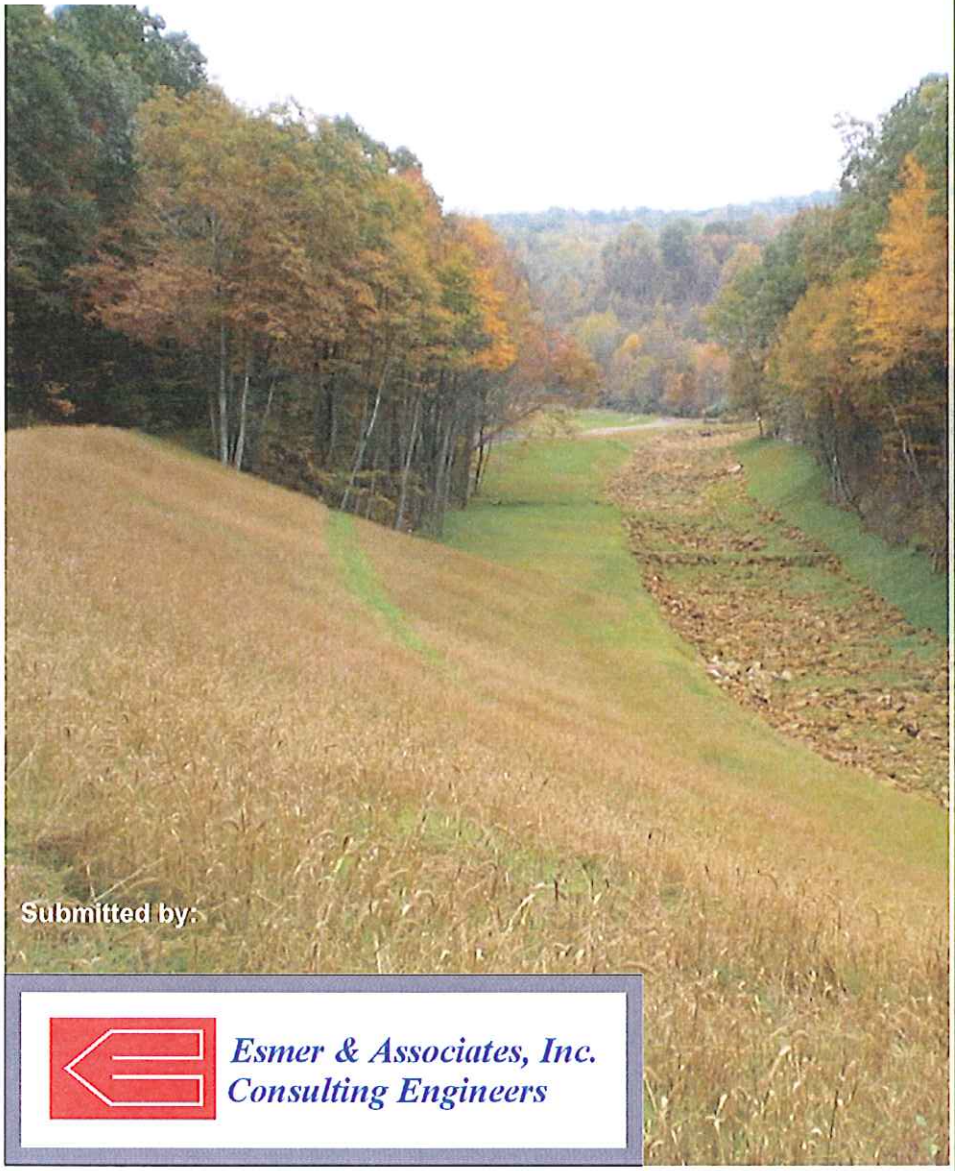
west virginia dep

EXPRESSION OF INTEREST (EOI)

ORGAS KEITH PORTALS
REQUISITION # DEP 15603

PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES



Submitted by:

Esmer & Associates, Inc.
Consulting Engineers

1000 Church Street
P.O. Box 426
Boomer, WV. 25031
Phone: (304) 779-2131
Fax: (304) 779-2859
Email:
engineering@esmerassociates.com

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STATE OF WV

west virginia dep

EXPRESSION OF INTEREST (EOI)

ORGAS KEITH PORTALS
REQUISITION # DEP 15603

PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES

Submitted by:

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Phone: (304) 779-2131
Fax: (304) 779-2859
Email: engineering@esmerassociates.com

CONTACT PERSON: DONALD PHILLIPS, GENERAL MANAGER

SIGNATURE: _____ DATE: NOVEMBER 10, 2011

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	PAGE
DEP15603	1

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

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE
ESMER & ASSOCIATES, INC.
P.O. BOX 426
1000 CHURCH STREET
BOOMER, WV
25031

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
10/11/2011				

BID OPENING DATE: 11/17/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		

ORGAS KEITH 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 ORGAS KEITH PORTALS PROJECT IN BOONE 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'

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ATTACHMENT "B"

AML CONSULTANT QUALIFICATION QUESTIONAIRE (CQQ)

(Esmer & Associates, Inc.)

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

PROJECT NAME: Orgas Keith Portals	DATE (DAY, MONTH, YEAR) 10/11/2011	FEIN 55-0735398
1. FIRM NAME Esmer Acquisition Corporation, Inc. dba Esmer & Associates, Inc.	2. HOME OFFICE BUSINESS ADDRESS P.O. Box 426, 1000 Church St., Boomer, WV 25031	3. FORMER FIRM NAME Esmer & Associates, Inc. (1989-1994) Esmer & Associates, Inc. (1970-1989)

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
(304) 779-2131	1970	Individual Corporation Partnership Joint-Venture	YES NO

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
Esmer & Associates, Inc. (304)779-2131 Erkan Esmer, Ph.D., P.E. 8
1000 Church St., Boomer, WV 25031

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Erkan Esmer, Ph.D., P.E., President	

9. PERSONNEL BY DISCIPLINE **(Bold Lettering Indicates Minimum Design Team Members) Including Sub-Consultants**

24 ADMINISTRATIVE	1 ECOLOGISTS	___ LANDSCAPE ARCHITECTS	___ STRUCTURAL ENGINEERS
___ ARCHITECTS	___ ECONOMISTS	___ MECHANICAL ENGINEERS	___ SURVEYORS
4 BIOLOGIST	___ ELECTRICAL ENGINEERS	1 MINING ENGINEERS	___ TRAFFIC ENGINEERS
2 CADD OPERATORS	___ ENVIRONMENTALISTS	___ PHOTOGRAMMETRISTS	___ DRILLERS & RODMEN
2 CHEMICAL ENGINEERS	___ ESTIMATORS	___ PLANNERS:URBAN/REGIONAL	8 CHEMISTS
4 CIVIL ENGINEERS	2 GEOLOGISTS	___ SANITARY ENGINEERS	30 CHEMICAL TECHNICIANS
5 CONSTRUCTION INSPECTORS	___ HISTORIANS	___ SOILS ENGINEERS	5 SAMPLE CUSTODIANS
1 DESIGNERS	___ HYDROLOGISTS	___ SPECIFICATION WRITERS	
2 DRAFTSMEN			

91 TOTAL PERSONNELL

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 **N/A**

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Qualification Questionnaire" for each if copy is not on file with AML.		
NAME AND ADDRESS: **Research, Environmental & Industrial Consultants (REIC)** **P.O. Box 286** **Beaver, WV 25813**	SPECIALTY: Soil and Water Chemistry, Hazardous Waste Analysis, and Biological Assessments	WORKED WITH BEFORE __X__ Yes _____ No
NAME AND ADDRESS: **New River Engineering** **2971C, East Dupont Ave.** **Shrewsbury, WV 25015**	SPECIALTY: Surveying and Mapping	WORKED WITH BEFORE __X__ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No

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

YES Description and Number of Projects: WV Office AML&R projects - 45 Completed: AML&R related projects in West Virginia - 516 Completed; See attached **"Corporate History and Experience of Firm with Abandoned Mine Lands and Related Work"** and attached list **"Reclamation Engineering Design"** for description of services and project names.

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: We have completed geotechnical soils investigations and soils analysis on several hundred AML&R and related projects. See attached **"Corporate History and Experience of Firm with Abandoned Mine Lands and Related Work"** and attached list **"Reclamation Engineering Design"** for description of services and project names.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: We have completed hydrological & hydraulic analysis and design on several hundred AML&R and related projects. See attached **"Corporate History and Experience of Firm with Abandoned Mine Lands and Related Work"** and attached list **"Reclamation Engineering Design"** for description of services and project names.

NO

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

YES Description and Number of Projects: We have developed contour mapping from aerial photography in West Virginia and neighboring states on more than 37 projects. See attached **"Corporate History and Experience of Firm with Abandoned Mine Lands and Related Work"** and attached list **"Development of Contour Mapping from Aerial Photography"** for description of services and project names.

NO

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

YES Description and Number of Projects: We have completed domestic waterline designs on more than 8 projects and evaluated aquifer degradation on more than 7 projects. See attached **"Corporate History and Experience of Firm with Abandoned Mine Lands and Related Work"** and attached list **"Domestic Waterline Design"**.

NO

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

YES Description and Number of Projects: We have completed the evaluation and abatement designs for problems due to acid mine drainage on more than 55 projects. See attached **"Corporate History and Experience of Firm with Abandoned Mine Lands and Related Work"** and attached list **"Acid Mine Discharge Abatement Design"**.

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:
Esmer Erkan, Ph.D., P.E., President	39	46	19

Brief Explanation of Responsibilities

As Principal Engineer Dr. Esmer will supervise all AML&R projects. Dr. Esmer has forty years of diverse experience and expertise in civil, geotechnical, mining and environmental engineering. He has been principal engineer on over three thousand projects for the coal industry and governmental agencies involving site design, dam design, refuse facility design, reclamation design, waterline design, geotechnical engineering, hydrology, hydraulics, subsidence abatement, acid mine drainage abatement, and environmental engineering.

EDUCATION (Degree, Year, Specialization)
BS, 1963, Civil Engineering
MS, 1965, Civil Engineering
Ph.D., 1969, Geotechnical Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
NSPE WVCA ARTBA ASFE ASCE KVMI	Civil Engineer, 1971, WV Civil Engineer, 1982, KY Civil Engineer, 1985, NC Civil Engineer, 1987, VA

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:
Murray, Paul E. Senior Project Manager/Engineer	18	39	11

Brief Explanation of Responsibilities

Senior Project Manager/Engineer Mr. Murray will coordinate and complete engineering design activities for AML projects including aerial mapping and surveying, geotechnical investigation and testing, reclamation design, hydrology, acid mine drainage abatement, water distribution and hydraulic engineering, preparation of engineering cost estimates, contract documents and specifications.

EDUCATION (Degree, Year, Specialization)
BS, 1966 Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
NSPE KVMI ASCE	Civil Engineer, 1971, WV Licensed Land Surveyor ,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		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Phillips, Donald E. Senior Project Manager/Engineer	22	33	11

Brief Explanation of Responsibilities

As Senior Project Manager/Engineer Mr. Phillips will coordinate and complete engineering design activities for AML projects including aerial mapping and surveying, geotechnical investigation and testing, reclamation design, hydrology, acid mine drainage abatement, water distribution and hydraulic engineering, preparation of engineering cost estimates, contract documents and specifications.

EDUCATION (Degree, Year, Specialization)
BS, 1977, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
ASCE WVCA KVMI	

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:
Kudlawiec, Robert P., P.E. Senior Project Manager/Engineer	12	23	12

Brief Explanation of Responsibilities

As Senior Project Manager/Engineer Mr. Kudlawiec will coordinate and complete engineering design activities for AML projects including aerial mapping and surveying, geotechnical investigation and testing, reclamation design, hydrology, acid mine drainage abatement, water distribution and hydraulic engineering, preparation of engineering cost estimates, contract documents and specifications.

EDUCATION (Degree, Year, Specialization)
BS, 1979, Mining Engineering
MBA, 1988, Business Administration

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
NSPE NSME KVMI	Mining Engineer, 1984, PA Mining Engineer, 1993, IL Mining Engineer, 1993, IN Mining Engineer, 1997, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Gliniak, Andrew Project Engineer	2	3	2

Brief Explanation of Responsibilities

As Project Engineer Mr. Gliniak will complete engineering design activities for AML projects including reclamation design, hydrology, acid mine drainage abatement, water distribution and hydraulic engineering, preparation of engineering cost estimates, contract documents and specifications.

EDUCATION (Degree, Year, Specialization)
BS, 2009, Civil-Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
ASCE AASHTO	EIT 2009 WV

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

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

Brief Explanation of Responsibilities

EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

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

See attached list **"Equipment and Software"** in Attachment I(b)

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
Stephens Fork Refuse Facility Wayne County, WV	Rockspring Development P.O. Box 390 East Lynn, WV 25512	Geotechnical Exploration, Geotechnical, Testing & Analysis, Stability Analysis, Hydrology, Embankment Design, Hydraulic Design, Permitting, and Construction Observation and Testing	75,000,000.00	0
Perkins Run Coal Refuse Facility Alledonia, OH	The Ohio Valley Coal Co. 56854 Pleasant Ridge Road Alledonia, OH 43902	Surveying, Geotechnical Exploration, Geotechnical Testing & Analysis, Reclamation Design, Hydrology, Hydraulic Design, Construction Specifications, and Construction Cost Estimating	80,000,000.00	60
Aldrich Branch Impoundment Mingo County, WV	Consol Energy P.O. Box 119 Naugatuck, WV 25685	Geotechnical Exploration, Geotechnical, Testing & Analysis, Stability Analysis, Hydrology, Embankment Design, Hydraulic Design, Permitting, and Construction Observation and Testing	62,650,000.00	90
Preparation Plant Utility Area Boone County, WV	Coal River Mining 700 Va. St. East Suite 240 Charleston, WV 25301	Geotechnical Exploration, Geotechnical, Testing & Analysis, Stability Analysis, Hydrology, Embankment Design, Hydraulic Design, Permitting, and Construction Observation and Testing	150,000,000.00	0
Riddles Run Refuse Facility Jefferson County, OH	Ohio American Energy Corp. 34 Kellie Way Brilliant, Oh 43913	Geotechnical Exploration, Geotechnical, Testing & Analysis, Stability Analysis, Hydrology, Embankment Design, Hydraulic Design, Permitting, and Construction Observation and Testing	10,000,000.00	80
Cherry Tree Hollow Refuse Facility Boone County, WV	Coal River Mining 700 Va. St. East Suite 240 Charleston, WV 25301	Geotechnical Exploration, Geotechnical, Testing & Analysis, Stability Analysis, Hydrology, Embankment Design, Hydraulic Design, Permitting, and Construction Observation and Testing	20,000,000.00	80

TOTAL NUMBER OF PROJECTS: 6

TOTAL ESTIMATED CONSTRUCTION COSTS: $397,650,000.00

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

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF CONSULTANT	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
N/A					

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)
Helen (Summe) Drainage Raleigh County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	50,385.00	2009	YES
Northfork (Suiter) Drainage McDowell County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	231,395.00	2010	NO
Sugarcamp Run Burning Refuse Nicholas County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	385,028.75	2010	NO
Windmill Gap, Waterline Feasibility Study Mercer County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	319,500.00	2006	N/A
Lake Winkler LS Logan County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	44,100.00	2009	YES
Stone Branch LS Logan County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	119,745.00	2009	YES
Mud Fork (Baisden) Drainage Logan County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	70,940.00	2009	YES
Riffe Branch Burning Refuse Raleigh County, WV	WVDEP Office of AML&R 116 Industrial Dr. Oak Hill, WV 25901	201,236.00	2010	YES

NOTE:
The Projects listed in this section are direct WVDEP, Office of AML&R Projects
Additional projects will be provided if requested.

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.

20. The foregoing is a statement of facts.

Signature: Donald Phillips Title: General Manager Date: 10/11/2011

Printed Name: Donald Phillips

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

AML CONSULTANT QUALIFICATION QUESTIONAIRE (CQQ)

(REI Consultants, Inc.)

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME: Orgas Keith Portals	DATE (DAY, MONTH, YEAR) 10/11/2011	FEIN 55-0668654
1. FIRM NAME REI Consultants, Inc.	2. HOME OFFICE BUSINESS ADDRESS P.O. Box 286 Beaver, WV 25813	3. FORMER FIRM NAME N/A

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
(304) 255-2500	1987	Individual **Corporation** Partnership Joint-Venture	YES **NO**

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
P O Box 789, Cool Ridge, WV / (304) 787-3700 / Ed J. Kirk /

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
James L. Hern, Ph.D., President Claude Scott, Laboratory Director	

9. PERSONNEL BY DISCIPLINE **(Bold Lettering Indicates Minimum Design Team Members) Including Sub-Consultants**

15 ADMINISTRATIVE	1 ECOLOGISTS	___ LANDSCAPE ARCHITECTS	___ STRUCTURAL ENGINEERS
___ ARCHITECTS	___ ECONOMISTS	___ MECHANICAL ENGINEERS	___ SURVEYORS
4 BIOLOGIST	___ ELECTRICAL ENGINEERS	1 MINING ENGINEERS	___ TRAFFIC ENGINEERS
1 CADD OPERATORS	___ ENVIRONMENTALISTS	___ PHOTOGRAMMETRISTS	___ DRILLERS & RODMEN
2 CHEMICAL ENGINEERS	___ ESTIMATORS	___ PLANNERS:URBAN/REGIONAL	8 CHEMISTS
___ CIVIL ENGINEERS	2 GEOLOGISTS	___ SANITARY ENGINEERS	30 CHEMICAL TECHNICIANS
___ CONSTRUCTION INSPECTORS	___ HISTORIANS	___ SOILS ENGINEERS	5 SAMPLE CUSTODIANS
___ DESIGNERS	___ HYDROLOGISTS	___ SPECIFICATION WRITERS	
___ DRAFTSMEN			

69 TOTAL PERSONNELL

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 **N/A**

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

PROJECT NAME: Wheatley Branch (Luthy) Portals	DATE (DAY, MONTH, YEAR) 10/11/2011	FEIN 55-0668654
1. FIRM NAME REI Consultants, Inc.	2. HOME OFFICE BUSINESS ADDRESS P.O. Box 286 Beaver, WV 25813	3. FORMER FIRM NAME N/A

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
(304) 255-2500	1987	Individual Corporation Partnership Joint-Venture	YES NO

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
P O Box 789, Cool Ridge, WV / (304) 787-3700 / Ed J. Kirk /

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
James L. Hern, Ph.D., President Claude Scott, Laboratory Director	

9. PERSONNEL BY DISCIPLINE (Bold Lettering Indicates Minimum Design Team Members) Including Sub-Consultants

15 ADMINISTRATIVE	1 ECOLOGISTS	___ LANDSCAPE ARCHITECTS	___ STRUCTURAL ENGINEERS
___ ARCHITECTS	___ ECONOMISTS	___ MECHANICAL ENGINEERS	___ SURVEYORS
4 BIOLOGIST	___ ELECTRICAL ENGINEERS	1 MINING ENGINEERS	___ TRAFFIC ENGINEERS
1 CADD OPERATORS	___ ENVIRONMENTALISTS	___ PHOTOGRAMMETRISTS	___ DRILLERS & RODMEN
2 CHEMICAL ENGINEERS	___ ESTIMATORS	___ PLANNERS:URBAN/REGIONAL	8 CHEMISTS
___ CIVIL ENGINEERS	2 GEOLOGISTS	___ SANITARY ENGINEERS	30 CHEMICAL TECHNICIANS
___ CONSTRUCTION INSPECTORS	___ HISTORIANS	___ SOILS ENGINEERS	5 SAMPLE CUSTODIANS
___ DESIGNERS	___ HYDROLOGISTS	___ SPECIFICATION WRITERS	
___ DRAFTSMEN			

69 TOTAL PERSONNELL

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 N/A

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Qualification Questionnaire" for each if copy is not on file with AML.		
NAME AND ADDRESS: N/A	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE ___ Yes ___ No

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

YES Description and Number of Projects:

(NO)

B. Is your firm experienced in Soil Analysis?

(YES) Description and Number of Projects: Soil descriptions and characterizations for wetland determinations/delineations. Overburden analysis for the coal industry. > 20 per year.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects:

(NO)

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

YES Description and Number of Projects:

(NO)

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

YES Description and Number of Projects:

(NO)

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

(YES) Description and Number of Projects: Chemical water quality analysis and assistance with remediation. Number of projects varies.

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:
Hern, James L.	N/A	N/A	N/A

Brief Explanation of Responsibilities

Over thirty years of experience in the areas of Petrochemical and Environmental research and program development. Founder and President of REI Consultants, Inc. (1987), Quality Environmental Containers, Inc. (1991) and Allegheny Products, Inc. (1998). Fifteen years experience as President and Laboratory Director for REI Consultants, Inc. Over eight years experience as a Research Scientist and Lab Director for the USDA. Four years experience working as a Research Scientist for Union Carbide Corporation in South Charleston WV.

EDUCATION (Degree, Year, Specialization)
B.S., 1970, Chemistry and Mathematics/ M.S., 1973, Analytical Chemistry/ Ph. D., 1976, Analytical Chemistry

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:
Scott, Claude L.	N/A	N/A	N/A

Brief Explanation of Responsibilities
Over twenty-eight years experience in the Environmental field. Fifteen years experience as Vice-President and the Assistant Laboratory Director in charge of the Inorganic Department. Five years experience working for the WV State Health Department inspection and enforcement division. Three years experience conducting research for the USDA. Four years experience working for the US Air Force Weapons Laboratory conducting Environmental Impact Statements.

EDUCATION (Degree, Year, Specialization)
B.S., 1973, Biology

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		
Erickson, Raymond J.	YEARS OF AML DESIGN EXPERIENCE: N/A	YEARS OF AML RELATED DESIGN EXPERIENCE: N/A	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: N/A

Brief Explanation of Responsibilities
Over nineteen years experience in the Environmental field. Fifteen years as Vice-President and the Assistant Laboratory Director in charge of the Organic Department. Four years experience as a Research Scientist with the USDA. Two years experience as a Research Scientist for West Virginia University.

EDUCATION (Degree, Year, Specialization)
B.S., 1982, Biochemistry

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		
Kirk, Ed J.	YEARS OF AML DESIGN EXPERIENCE: N/A	YEARS OF AML RELATED DESIGN EXPERIENCE: N/A	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: N/A

Brief Explanation of Responsibilities
Provides project quotes, and oversees all aspects of managing Biological Division, Benthic macroinvertebrate sampling in streams, lakes and rivers, Benthic macroinvertebrate identification, Fish sampling for streams, lakes and rivers, Bioassay testing including acute and chronic toxicity tests, Toxicity Identification Evaluations (TIE's) and Toxicity Reduction Evaluations (TRE's), In-house culturing of water fleas Ceriodaphnia dubia, Daphnia pulex, Daphnia magna, and fathead minnow and Pimephales promelas, Statistical analysis of toxicity test results and benthic macroinvertebrate surveys, Wetlands determinations and delineations, Report write-up procedures and final editing and coordinates projects between client and regulatory agencies.

EDUCATION (Degree, Year, Specialization)
B.A. in Biology-1988/M.S. in Fisheries Management-1992

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
NABS, AFS	

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

The in-house instrumentation includes GC-Mass Spectrometers, Liquid Chromatographs, ICP and AA Spectrophotometers, Various Gas Chromatographic systems, Combustion Analyzers for carbon and halogen determinations, TCLP extraction systems, Infrared and UV-VIS Spectrophotometers, Ion Chromatographs and other support equipment.

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
N/A				

TOTAL NUMBER OF PROJECTS:	TOTAL ESTIMATED CONSTRUCTION COSTS: $

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

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
N/A					

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)
Environmental assessment for proposed airport hangers at the Raleigh County Memorial Airport. (All environmental including wetlands delineation).	Tom Cochran Raleigh Co. Memorial Airport 176 Airport Circle Beaver WV 25813	3,000	2000	N/A
Evaluations of aquatic resources of Lake Lynn and the Cheat River below the Lake Lynn Hydro Station. (Fisheries resources, benthic macroinvertebrate, wetlands evaluations).	Chuck Simons Allegheny Energy Supply Co. 4350 Northern Pike Monroeville PA 15146	100,000	2001	N/A
Impact determination and wildlife enhancement plan for the Phoenix 3 Surface Mine. (Aquatic impacts and wildlife enhancement).	Terry Potter Coal-Mac 1628 West Third Street Williamson WV 25661	10,000	2002	N/A
Evaluation of the fisheries resource of Poplar Creek. (Fisheries resources).	Chuck Dunbar Coastal Coal WV, LLC 61 Missouri Run Road Cowen WV 26206	3,600	2002	N/A
Ephemeral to intermittent stream delineation for proposed fills on Baughman, Cobb, Otter Hole, etc. (Stream morphology and measurements).	Keith O'Dell Evergreen Mining Company Rt 82 West Cowen WV 26206	7,000	2002	N/A
Long term mining related impacts to aquatic resources on Trough Fork. (Fisheries resources and benthic macroinvertebrate).	Randy Maggard Pen Coal Corporation P O Box 191 Dunlow WV 25511	10,000	2001	N/A
Wetland determination and delineation for the proposed Edray Business Park. (Wetland determination and delineation).	Bob Hazelwood Pentree, Inc. 1428 Main Street Princeton WV 24740	4,000	2002	N/A
Stream restoration plans for the Lexerd Surface Mine. (Stream morphology and restoration plans).	Kermit Fincham Independence Coal HC 78 Box 1800 Madison WV 25130	11,000	2002	N/A

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
Environmental assessment for the proposed Rt 50 Highway. (Miscellaneous environmental).	Leslie Gates L. A. Gates Company P O Box 2480 Beckley WV 25802	3,000	2000	N/A	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.

20. The foregoing is a statement of facts.

Signature: Ed J. Kirk

Title: Director – Biological Division

Printed Name: Ed J. Kirk

Date: October 21, 2002

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

RESUME

CORPORATE HISTORY AND EXPERIENCE OF FIRM WITH ABANDONED MINE LANDS AND RELATED PROJECTS

CORPORATE HISTORY AND EXPERIENCE OF FIRM WITH ABANDONED MINE LANDS AND RELATED WORK

Esmer & Associates, Inc. is a West Virginia Corporation founded in 1970. Dr. Esmer founded the firm based on years of experience in the practice and teaching of geotechnical, civil, environmental and mining engineering.

Our firm is a multi-disciplined engineering firm that provides geotechnical, environmental, civil and mining engineering, hydrological and geological services, subsurface exploration, laboratory and field testing services, and construction inspection and monitoring services, land use and natural resources planning to the coal industry and governmental agencies in West Virginia, Kentucky, Ohio, Pennsylvania, Maryland and Virginia. We are one of the largest engineering firms in the country in our field of specialty and expertise. We have been consultants on several thousand projects whose construction costs exceed twenty billion dollars ($20,000,000,000). We probably have completed more work than any other engineering company in the world regarding extinguishing refuse fires, stabilizing unstable refuse banks, and stabilizing land and rock slides at mine sites, land use and natural resources planning, land reclamation, stream and water resources planning, stream and water restoration, post reclamation land uses, and design of new mine and preparation complexes and refuse facilities. We have in-house expertise, experienced and professional personnel and equipment to provide all of the services.

We have efficient, competent and experienced professional and technical personnel, extensive computer systems and drafting equipment in-house to do the required reclamation design drawings and construction specifications as well as pre-, during and post project studies. Our fees for design engineering during the last five years were in excess of five million dollars ($5,000,000).

We have four (4) drilling rigs that are totally equipped to do the drilling work in any kind or terrain that prevails. We have efficient, experienced and competent crews that operate these rigs. We have performed approximately three million dollars ($3,000,000) worth of drilling services for our clients during the last five (5) years.

We have soils and concrete labs that are equipped with state-of-the-art equipment and run by competent engineers and technicians. We have performed over six (6) hundred thousand dollars ($600,000) worth of soils and concrete testing for our clients during the last five (5) years.

If construction inspection and monitoring services are required, we have a staff of efficient, competent and experienced field engineers and technicians that are equipped with state-of-the-art testing equipment. Our field-engineering department has

performed over two million dollars ($2,000,000) worth of construction inspection and monitoring for our clients during the last five (5) years.

We have developed and successfully used innovative reclamation techniques on various abandoned mine land projects. In particular at the Low Gap Branch No. 2 Project in Wyoming County and the East Gulf Refuse Piles Project in Raleigh County, we were able to use a "cost-saving state-of-the-art technique" of in-situ extinguishment of the deep burning coal refuse pile fires. This operation involved the injection of a fly-ash-grout mixture into boreholes in a strictly controlled and efficient manner to extinguish the burning coal refuse. This technique provided for an approximate saving of $6,000,000.00 to the state of West Virginia over the alternative of conventional removal and extinguishment. Due to our firm's success in this operation the state of West Virginia has gained more confidence in using this technique on other projects. The success of this type of innovative work at Low Gap Branch No. 2 Project and the East Gulf Refuse Piles project demonstrates our extensive and confident experience in determining the geotechnical properties and evaluation of abandoned mine lands projects.

Having been AML & R consultants to WVDEP for more than two decades, we are thoroughly familiar with your needs and understand your desires for quality and economical construction projects with excellent, efficient and timely engineering design, drilling, testing and construction inspection and monitoring services. Conversely, the West Virginia Department of Environmental Protection is also very familiar with the extent of our expertise and the quality of services we have provided. We have the in-house professional expertise and the equipment to meet these goals economically and quickly.

Our sub consultant shall be Research, Environmental & Industrial Consultants (REIC) of Beaver, WV. **Their geographical locations with respect to West Virginia's AML projects complements ours such that we shall always be much less than 150 air miles of any AML project**. We have worked with this company in the past and have a good working relationship with them.

We shall provide the WVDEP, Office of AML & R with more than one (1) AML design team and shall have them at your disposal. Thus, we can tackle a multitude of projects at the same time as your needs dictate. Esmer & Associates, Inc. has successfully completed fifty-five (55) direct AML projects in West Virginia along with five hundred sixteen (516) AML related projects in West Virginia and neighboring states.

We have developed contour mapping from aerial photography on more than thirty-seven (37) projects that encompass several hundred thousand acres in West Virginia and neighboring states.

We have successfully completed more than eight (8) domestic water line design projects. We have evaluated more than seven (7) aquifers for degradation in West Virginia.

We have successfully completed the design of more than fifty-five (55) major acid mine discharge abatement projects. Besides these we have successfully completed several hundred other acid mine discharge abatement projects. Some of these projects were the toughest ever attempted by anyone.

RECLAMATION ENGINEERING DESIGN

RECLAMATION ENGINEERING DESIGN

Due to the fact that we have done thousands of reclamation engineering design, AML and related projects, only the major ones will be briefly discussed under the ensuing seven (7) categories:

I. ABANDONED MINE LANDS PROJECTS FOR GOVERNMENTAL AGENCIES OR OTHER ENGINEERING FIRMS

The problems abated under this category include but are not necessarily limited to abatement of unstable refuse banks/landslides and other soil and rock stability problems, refuse fires; elimination of hydraulic and hydrologic problems; sealing of abandoned mine adits, shafts and slopes; abatement of pollution at these sites; and revegetation of the sites.

Our services included surveying and/or mapping; economic analysis, cost estimating and feasibility studies; development of design specifications and drawings; subsurface exploration (drilling and sampling); testing and chemical analysis and construction inspection/monitoring.

These projects are:

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

1) Eunice Complex AML Project
Raleigh County, WV

2) Ashland "Poca Land" Complex AML Project
McDowell County, WV

3) Crane Creek Drainage AML Project
Mercer County, WV

4) Thaxton Landslide AML Project
Kanawha County, WV

5) Lumberport Water Supply AML Project
Harrison County, WV

6) Pell School Strip #2 & Portals AML Project
Preston County, WV

7) Sugar Valley Portals AML Project
Preston County, WV

8) Rosebud Refuse Pile & Portals AML Project
Harrison County, WV

9) Laura Lee Mine Complex AML Project
Harrison County, WV

10) Cranberry Refuse Pile AML Project
Raleigh County, WV

11) Shannon Branch Refuse Pile AML Project
McDowell County, WV

12) Lick Run Impoundment Special Reclamation Project
Raleigh County, WV

13) Lick Run #2, AML Project
Preston County, WV

14) Stalnaker Road Highwall & Portal AML Project
Barbour County, WV

15) Curtin Structures AML Project
Nicholas County, WV

16) Ennis Complex, AML Project
McDowell County, WV

17) Red Jacket (Parker) Drainage AML Project
Mingo County, WV

18) Shegon Refuse Pile & Highwall AML Project
Logan County, WV

19) Crown (Conley) Mine Drainage AML Project
Logan County, WV

20) Belva to Greendale Waterline Extension Feasibility Study
Nicholas County, WV

21) Drews Creek / Peachtree Creek Waterline Extension Feasibility Study
Raleigh County, WV

22) Bell Creek Waterline Extension Feasibility Study
Fayette County, WV

23) Bridge Fork Waterline Extension Feasibility Study
Clay, Nicholas, Kanawha & Fayette Counties, WV

24) Skin Poplar Refuse Pile AML Project
Boone County, WV

25) Springton Refuse Pile AML Project
Mercer County, WV

26) Roach Branch Refuse Pile AML Project
Boone County, WV

27) Bartley Mine Dump AML & Special Reclamation Project
McDowell County, WV

28) Hurricane Fork Refuse Pile AML Project
Kanawha County, WV

29) Harrah Mine Blowout AML Project
Kanawha County, WV

30) Gordon Refuse Pile AML Project
Boone County, WV

31) Frozen Branch Refuse Pile AML Project
Kanawha County, WV

32) Dawmont Refuse Pile and Mine Complex AML Project
Harrison County, WV

33) Bearwallow Refuse Pile AML Project
Logan County, WV

34) MacIntire Mine Drainage Abatement AML Project
Harrison County, WV

35) East Gulf Refuse Piles AML Project
Raleigh County, WV

36) Low Gap Refuse Impoundment AML Project
Wyoming County, WV

37) Amherstdale Refuse Piles and Mine Complex AML Project
Logan County, WV

38) Troy Town Refuse Pile
Logan County, WV

39) Big Stick Mine Dumps
Raleigh County, WV

40) Doug Gray and John Iaqunita Subsidence Complaint
Marion County, WV

41) Longacre Refuse Pile
Fayette County, WV

42) Covel Refuse Pile
Wyoming County, WV

43) Rita Structures
Logan County, WV

44) William Browskey Highwall
Raleigh County, WV

45) Lobar Tipple Project
Barbour County, WV

46) Lundale (Dickerson) Drainage AML Project
Logan County, WV

47) Carlisle Refuse Piles Reclamation Design
Fayette County, WV

48) McDunn (Hughes) Refuse Piles Reclamation Design
Fayette County, WV

49) Mud Fork (Baisden) Drainage
Logan County, WV

50) Stone Branch (Adkins) Landslide
Logan County, WV

51) Riffe Branch Burning Refuse
Raleigh County, WV

52) Northfork (Suiter) Drainage
McDowell County, WV

53) Maben Prep Plant & Refuse Pile
Wyoming County, WV

54) Helen (Summe) Drainage
Raleigh County, WV

55) Sugarcamp Run Burning Refuse
Nicholas County, WV

B) Soil Conservation Service
75 High Street
Morgantown, WV 26505

Drilling & Testing Services:

56) SCS Carswell RAMP Project
McDowell County, WV
Drilling & Testing and Total Engineering Design:

57) SCS Columbia RAMP Project
Fayette County, WV

58-63) SCS Bloomsburg, PA Area RAMP Projects
Five (5) RAMP Projects

64-70) SCS Clarion, PA Area RAMP Projects
Six (6) RAMP Projects

71-78) SCS Somerset County, PA Area RAMP Projects
Eight (8) RAMP Projects

79-86) Northern PA Area RAMP Projects
Seven (7) RAMP Projects

C) SME/Martin
P.O. Box 190
King of Prussia, PA 19406

87) Subsurface Exploration and Testing
Abandoned Mine Drainage Abatement Project
Sarah Ann, Logan County, WV

D) Office of Surface Mining, Reclamation & Enforcement
Knoxville, TN 37902

88) Mason Street Subsidence Project
Rehabilitation Design and Drilling and Grouting Services
Ashland, Boyd County, KY

E) Office of Surface Mining, Reclamation & Enforcement
Charleston, WV 25031

89) Subsurface Investigation for Refuse Pile Fire
Minden, Fayette County, WV

II. SERVICES TO THE COAL INDUSTRY TO ABANDON COAL PREPARATION FACILITIES THAT THEY ARE NO LONGER NEEDED AND WHICH COULD NOT BE INCLUDED IN OSM'S AML PROJECTS DUE TO VARIOUS TECHNICALITIES. THESE WERE PROJECTS THAT REGULATORY AGENCIES HAD DECLARED AS PUBLIC HAZARDS, WHICH HAD TO BE ABATED BY THE RESPECTIVE COAL COMPANIES, IMMEDIATELY.

The problems abated under this category include but are not necessarily limited to abatement of unstable refuse banks, landslides, and other soil and rock stability problems, refuse fires, hydraulic and hydrologic problems. Basically, these sites were brought into compliance with state and federal regulations arising from 1969 Coal Mine Health and Safety Act and 1977 Surface Mining and Reclamation Act, so that the coal companies could abandon these facilities in an economical manner without long-term liability in compliance with these acts. Besides rehabilitation of unstable refuse banks and burning refuse piles and elimination of highwalls due to abandoned surface and deep mines, coal preparation plants were dismantled, existing deep mine adits, slopes and shafts were sealed. Pollution problems were abated and the sites were revegetated.

Our services include surveying and/or mapping; economic analysis, cost estimates and feasibility studies; development of design specifications and drawings (drilling and sampling); testing and chemical analysis and construction inspection/monitoring.

These projects are:

A) The Beckley Lick Run Company (No longer in business, Acquired by Others)
(Formerly The New River Company)
Route 1, Bonny Lane
Beckley, WV 25801

90) Stanaford Prep Plant, Mine Complex & Refuse Facility
Rehabilitation Design for Abandonment
Raleigh County, WV

91) Cranberry Prep Plant & Refuse Facility
Rehabilitation Design for Abandonment

92) Oswald Mine Complex, Prep Plant & Refuse Facility
Rehabilitation Design for Abandonment
Fayette County, WV

93) Whipple Prep Plant & Refuse Facility
Rehabilitation Design for Abandonment
Fayette County, WV

94) Tamroy Prep Plant, Mine Complex & Refuse Facility
Rehabilitation Design for Abandonment
Fayette County, WV

95) Lochgelly Prep Plant, Mine Complex & Refuse Facility
Rehabilitation Design for Abandonment
Fayette County, WV

96) Oakwood Prep Plant, Mine Complex & Refuse Facility
Rehabilitation Design for Abandonment
Fayette County, WV

97) Harvey Prep Plant, Mine Complex & Refuse Facility
Rehabilitation Design for Abandonment
Fayette County, WV

98) Price Hill Shaft Pollution Abandonment Design
Rehabilitation Design for Abandonment
Fayette County, WV

99) Demsey Pump Pollution Abatement Design
Fayette County, WV

100) Mill Branch Dam Breach Design
Rehabilitation Design for Abandonment
Fayette County, WV

B) Westmoreland Coal Company
Tams, WV

101) McAlpine Prep Plant & Refuse Facility
Winding Gulf No.4 Mine Complex
Rehabilitation Design for Abandonment
Raleigh County, WV

102) Otsego Refuse Facility
Rehabilitation Design for Abandonment
Raleigh County, WV

103-109) Several Abandoned Refuse Facilities
Winding Gulf No.4 Mine Complex
Rehabilitation Design for Abandonment
Raleigh County, WV

110) Aerial Tram Dump
Hampton No.4 Preparation Complex
Rehabilitation Design for Abandonment
Boone County, WV

111) Berry Branch Impoundment
Rehabilitation Design for Abandonment
Raleigh County, WV

112) East Gulf Refuse Facility
Rehabilitation Design for Abandonment
Raleigh County, WV

113) Clifftop Refuse Facility
Rehabilitation Design for Abandonment
Raleigh County, WV

114) Surface Mine
Rehabilitation Design for Highwall Elimination
Nicholas County, WV

115) Barrier Strength Analysis to Prevent Inundation of Hampton No.4 Mine From Adjacent Abandoned Mines
Boone County, WV

C) Contractors Service, Inc.
P.O. Box 182
Parkersburg, WV 25101

116) Windsor Power House Coal Company
Rehabilitation Design for Abandonment of Refuse Facility
Ohio County. WV

117-131) There are approximately fourteen (14) other sites for various coal companies that were not listed to save reviewer's time. A list will be made available if requested by WVDEP/AML.

III. SERVICES TO THE COAL INDUSTRY TO REHABILITATE THEIR EXISTING REFUSE PILES AND REFUSE IMPOUNDMENT FOR THEIR CONTINUED USAGE.

The problems abated under this category include but are not necessarily limited to abatement of unstable refuse banks, landslides and other soil and rock problems, refuse fires, hydraulic and hydrologic problems. Basically, these sites were brought into compliance with state and federal regulations arising from 1969 Coal Mine Health and Safety Act and 1977 Surface Mining and Reclamation Act, so that the coal companies could use these facilities, if it was economically feasible to do so.

Our services included, but not necessarily were limited to surveying and/or mapping; economic analysis, cost estimates and feasibility studies; development of design specifications and drawings; subsurface exploration (drilling and sampling); testing and chemical analysis and construction inspection/monitoring.

These projects are:

A) Cannelton Industries, Inc.
P.O. Box 150
Cannelton, WV 25036

132) Lady Dunn Combined Refuse Facilities
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Fayette/Kanawha County, WV

133) Lady Dunn Impoundment No.1
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Fayette/Kanawha County, WV

134) Lady Dunn Impoundment No.2
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Fayette/Kanawha County, WV

135) Indian Creek Combined Refuse Facilities
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

136) Indian Creek Slurry Impoundment No.1
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

137) Maple Meadow Combined Refuse Facilities
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Raleigh County, WV

138) Superior Refuse Impoundment No.1
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Extinguishing of Refuse Pile Fires
McDowell County, WV

B) Beckley Lick Run Company (No longer in business, Acquired by Others)
(Formerly The New River Company)
Route 1, Bonny Lane
Beckley, WV 25801

139) Summerlee Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Extinguishing of Refuse Pile Fires
Fayette County, WV

140) Skelton Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Extinguishing Refuse Pile Fires
Fayette County, WV

141) Garden Ground Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Extinguishing Refuse Pile Fires
Fayette County, WV

C) Westmoreland Coal Company
Tams, WV 25933

142) Eccles Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
Extinguishing of Refuse Pile Fires and Other Compliance Problems
Raleigh County, WV

143) Ferrell Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes

And Other Compliance Problems
Boone County, WV

144) Clifftop Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Fayette County, WV

145) Quinwood No.1 Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Extinguishing of Refuse Pile Fires
Nicholas County, WV

146) Wyco Dam
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems and Design of Emergency Spillway
Wyoming County, WV

147) East Gulf Refuse Area
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Extinguishing Refuse Pile Fires
Raleigh County, WV

148) East Gulf Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Extinguishing Refuse Pile Fires
Raleigh County, WV

149) Hickory Branch Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
Extinguishing Refuse Pile Fires and Other Compliance Problems
Wyoming County, WV

D) A. T. Massey Coal Company
One Pavillion Road
Glade Springs
Daniels, WV 25832-9799

150) Royalty Smokeless Coal Company
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
McDowell County, WV

151) Shannon Branch Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
McDowell County, WV

152) Peerless Eagle Coal Company
Combined Refuse Area No.1
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Nicholas County, WV

153) Kermit Coal Company Refuse Facility
Rehabilitation Design of Abatement of Unstable Slopes
Extinguishing of Refuse Pile Fires and Other Compliance Problems
Mingo County, WV

154) Wolf Creek Collieries Company
Refuse Area No.2
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Lovely, KY

155) Wolf Creek Collieries Company No.5A Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Lovely, KY

156) Wolf Creek Collieries Company No.9 Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Lovely, KY

157) Big Bear Mining Company Refuse Facility No.1
Rehabilitation Design for Abatement of Unstable Slopes
Extinguishing of Refuse Fires and Other Compliance Problems
McDowell County, WV

158) Big Bear Mining Company Refuse Facility No.2
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
McDowell County, WV

159) Big Bear Mining Company Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
McDowell County, WV

160) Omar Mining Company Combined Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

161) Omar Mining Company Road Fork No.1 Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

162) Omar Mining Company Road Fork No. 2 Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
Extinguishing Refuse Pile Fires and Other Compliance Problems
Boone County, WV

163) LaBelle Processing Company No.3 Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
Extinguishing Refuse Pile Fires and Other Compliance Problems
Fayette County, PA

164) Sprouse Creek Processing Company Refuse Area No.1
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Mingo County, WV

165) Sprouse Creek Processing Company Refuse Area No.2
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Mingo County, WV

166) T.C.H. Coal Company Combined Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Pike County, KY

E) Allied Chemical Company (Acquired by Peabody Coal Company) (Acquired by Others)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

167) Abandoned Simms Branch Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
Extinguishing of Refuse Pile Fires and Other Compliance Problems
Fayette County, WV

168) Fishhook Combined Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Fayette County, WV

169) Fishhook Slurry Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Fayette County, WV

170) Fishhook Slurry Ponds
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Fayette County, WV

F) Armco, Inc. (Now Peabody Coal Company)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

171) Big Mountain Coal Company Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

172) Steve Hollow Combined Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
Boone County, WV

G) Eastern Associated Coal Corporation (Now Peabody Coal)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

173) Clark Branch Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
McDowell County, WV

174) Wharton No.2 Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

175) Keystone No.2 Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Wyoming County, WV

176) Keystone No.5 Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Raleigh County, WV

177) Mill Branch Refuse Impoundment
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Wyoming County, WV

178) Wells Complex Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

179) Harris Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

180) Federal No.2 Combined Refuse Facility
Rehabilitation Design for Abatement of Unstable Slopes
And Other Compliance Problems
Boone County, WV

H) Sunny Ridge Mining Company
P.O. Box 2805
Pikeville, KY 41502

181) Bear Branch Slurry Impoundment
Stage 3, 4 and 5 Dried Slurry Recovery Plan Breakthrough Potential Investigation and Abandonment Design
Pike County, KY

182) 17 West Mining Company
P.O. Box 2805
Pikeville, KY 41502

183) Carcoss Branch Slurry Impoundment
Breakthrough Potential Investigation and Abandonment Design

Pike County, KY

184) Killam Associates, Inc.
Gateway View Plaza
1600 West Carson Street
Pittsburgh, PA 15219

185) Cumberland No. 2 Refuse Facility/RAG
Greene County, PA

I) Marrietta Coal Company
6775 Friends Church Road
St. Clairsville, OH 43950-9720

186) Johnson Mine and St. Joe Mine
Landslide and Subsidence Investigation
Belmont County, OH

J) Maple Creek Mining, Inc.
1 Industrial Park Drive
Wheeling, WV 26003

187) Slurry Pond No. 3, Dam No. 1
Rehabilitation Design for Abatement of Unstable Slopes and other compliance problems.
Washington County, PA

K) The Ohio Valley Coal Company
56854 Pleasant Ridge Road
Alledonia, OH 43902

188) Perkins Run Refuse Facility, Slurry Dam No. 2
Rehabilitation Design for Abatement of Unstable Slopes and other compliance problems.
Belmont County, OH

L) The American Coal Company
9085 Highway 34 North
Galatia, IL 62935
189) Galatia Refuse Facility

Rehabilitation Design for Abatement of Unstable Slopes and other compliance problems.
Saline County, IL

M) Fola Coal Company
P.O. Box 180
Bickmore, WV 25019

190) Refuse Fills No. 1, No. 2, and No. 3
Rehabilitation Design for Abatement of Unstable Slopes and other compliance problems.
Nicholas County, WV

191-208) There are approximately seventeen (17) other facilities not specifically mentioned here to save the reviewers time. A list will be made available if requested by WVDEP/AML.

IV. DESIGN OF NEW COMBINED REFUSE FACILITIES AND IMPOUNDMENTS

Our services for these projects include but were not limited to surveying and mapping; subsurface exploration (drilling and sampling); testing and chemical analysis; development of design and acquisition of required permits.

These projects are:

A) A. T. Massey Coal Company
One Pavillion Drive
Glade Springs
Daniels, WV 25832-9799

209) Aldrich Branch Combined Refuse Facility
Marrowbone Development Company
Mingo County, WV

210) Spruce Branch Refuse Impoundment
Marrowbone Development Company
Mingo County, WV

211) Aldrich Branch Refuse Impoundment
Marrowbone Development Company
Mingo County, WV

212) Dixie Fork Refuse Impoundment
Marrowbone Development Company
Mingo County, WV

213) Elk Run Refuse Impoundment
Elk Run Coal Company
Boone County, WV

214) Left Fork of Holty Refuse Impoundment
Wolf Creek Collieries Company
Lovely, KY

215) Omar Mining Company
Refuse Impoundment
Boone County, WV

216) LaBelle Processing Company
Refuse Impoundment
Fayette County, PA

217) Sprouse Creek Processing Company
Refuse Impoundment
Mingo County, WV

218) T.C.H. Coal Company
Refuse Impoundment
Pike County, KY

219) Peerless Eagle Coal Company
Rock Camp Branch No.1 Refuse Impoundment
Nicholas County, WV

220) Peerless Eagle Coal Company
Peerless Eagle No.2 Refuse Impoundment
Nicholas County, WV

221) Kermit Coal Company
Refuse Impoundment
Mingo County, WV

B) Virginia Crews Coal Company
P.O. Box 1216
Welch, WV 24801

222) Lick Branch Refuse Impoundment
McDowell County, WV

C) Beckley Lick Run Company (Acquired by others)
Route 1, Bonny Lane
Beckley, WV 25801

223) Meadow Creek Combined Refuse Facility
Summers County, WV

224) Meadow Creek Refuse Impoundment
Summers County, WV

225) Lick Run Combined Refuse Facility
Raleigh County, WV

226) Bonny Mine Refuse Impoundment
Raleigh County, WV

D) Masteller Coal Company
R. F. D.
Keyser, WV

227) Masteller Coal Company
Combined Refuse Facility
Mineral County, WV

E) New Era Resources (No longer in business)
P.O. Box 8166
Lexington, KY 40503

228) Cheat Bridge Combined Refuse Facility
Randolph County, WV

F) Spring Ridge Coal Company
P.O. Box 1877
Baltimore, MD 21203

229) Spring Ridge Coal Company
Combined Refuse Area No.1
Webster County, WV

230) Spring Ridge Coal Company
Combined Refuse Area No.2
Webster County, WV

G) Red Ash Coal Company
Iaeger, WV 24844

231) Combined Refuse Facility
McDowell County, WV

H) Cannelton Industries, Inc.
P.O. Box 150
Cannelton, WV 25036

232) Lynn Coal Company
Coarse Refuse Facility
Boone County, WV

233) Indian Creek No.2 Refuse Impoundment
Boone County, WV

234) New Lady Dunn Refuse Impoundment
Fayette/Kanawha County, WV

235) New Superior Refuse Impoundment
McDowell County, WV

I) Westmoreland Coal Company
Tams, WV 25933

236) East Golf No.2
Combined Refuse Facility
Raleigh County, WV

237) Triangle Mine Complex
Combined Refuse Facility
Raleigh County, WV

J) Riverton Coal Company (No longer in business)
1219 Virginia Street, East
Charleston, WV 25301

238) Refuse Area No.1
Fayette County, WV

239) Refuse Area No.2
Fayette County, WV

K) Enoxy Coal, Inc.
P.O. Box 565
Huntington, WV 25710

240) Acid Mine Abatement Impoundment Design
Upshur Mine
Upshur County, WV

241) Holden No.22 Refuse Impoundment
Logan County, WV

242) Holden No.25 Refuse Impoundment
Mingo County, WV

243) Pevler Mine Complex
Big Branch Refuse Impoundment
Martin County, KY

L) Pickands Mather & Company (Acquired by others)
Scotts Branch Mine
Route 1, Box 819
Pikeville, KY 41501

244) Scotts Branch Mine Refuse Impoundment
Pike County, KY

245) Chisolm Mine Refuse Impoundment
Pike County, KY

M) Pen Coal Corporation
P.O. Box 193
Dunlow, WV 25511

246) Maynard Branch Refuse Impoundment
Wayne County, WV

N) Coal River Mining
P.O. Box 58370
Charleston, WV 25358

247) River Fork Refuse Impoundment
Boone County, WV

248) First Right Fork, Refuse Area #2
Boone County, WV

249) Cherry Tree Hollow Refuse Impoundment
Boone County, WV

O) Evergreen Mining Company
P.O. Box 972
Cowen, WV 26206

250) Oldhe Fork Refuse Impoundment
Webster County, WV

P) Fola Coal Company
Bickmore, WV

251) Peach Orchard Branch Refuse Impoundment
Clay/Nicholas County, WV

Q) Knott County Mining Company
P.O. Box 2805
Pikeville, KY 41502

252) King Branch Refuse Impoundment
Knott County, KY

R) Levisa Fork Mining Company
General Delivery
Ulysses, KY 41264

253) Bear Branch Refuse Impoundment
Lawrence County, KY

S) Ohio American Energy, Inc.
4 Industrial Park Drive
Wheeling, WV 26003

254) Star Ridge West Nova (Riddles Run)
Jefferson County, OH

255) Mingo Run Refuse Facility
Brooke County, WV

T) The American Coal Company
9085 Highway 34 North
Galatia, IL 62935

256) Bunkhouse Impoundment
Saline County, IL

U) Foundation Coal Company
400 Patterson Lane
Charleston, WV 25311

257) Stephens Fork Refuse Facility
Wayne County, WV

V. ADDITIONS TO EXISTING COAL PREPARATION COMPLEXES

This category of projects consists of bringing the surface facilities into compliance with new regulations, elimination of unstable rock cuts, hydrology and hydraulic problems, elimination of pollution at the sites, and permit acquisition.

Our services include surveying and/or mapping; economic analysis, cost estimates and feasibility studies; development of design specifications and drawings; subsurface exploration (drilling and sampling); testing and chemical analysis and construction inspection/monitoring.

These projects are:

A) Cannelton Industries, Inc.
P.O. Box 150
Cannelton, WV 25036

258) Fine Coal Plant Addition
Superior Preparation Plant
Geotechnical Engineering & Drilling & Testing Services
McDowell County, WV

259) Superior Preparation Plant
Compliance Remedial Design and Permit Acquisition
McDowell County, WV

260) Indian Creek No.1 Prep Plant
Compliance Remedial Design
Boone County, WV

261) Lady Dunn Prep Plant
Geotechnical Engineering & Drilling & Testing Services
Compliance Remedial Design and Permit Acquisition
Fayette/Kanawha County, WV

262) Maple Meadow Prep Plant
Compliance Remedial Design and Permit Acquisition
Raleigh County, WV

B) Beckley Lick Run Company (Formerly The New River Company) (Acquired by others)
Route 1, Bonny Lane
Beckley, WV 25801

263) Skelton Prep Plant
Compliance Remedial Design and Permit Acquisition
Raleigh County, WV

264) Summerlee Prep Plant
Compliance Remedial Design and Permit Acquisition
Fayette County, WV

C) Westmoreland Coal Company
Tams, WV

265) East Gulf Prep Plant
Compliance Remedial Design and Permit Acquisition
Raleigh County, WV

266) Eccles Prep Plant
Compliance Remedial Design and Permit Acquisition
Raleigh County, WV

267) Clifftop Prep Plant
Compliance Remedial Design and Permit Acquisition
Fayette County, WV

268) Imperial No.1 Prep Plant
Compliance Remedial Design and Permit Acquisition
Nicholas County, WV

269) Hampton No.3 Prep Plant
Compliance Remedial Design and Permit Acquisition
Boone County, WV

270) Hampton No.4 Prep Plant
Compliance Remedial Design and Permit Acquisition
Boone County, WV

D) Eastern Associated Coal Corporation
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25304-0004

271) Keystone No.1 Prep Plant
Remedial Design and Permit Acquisition
McDowell County, WV

272) Keystone No.2 Prep Plant
Remedial Design and Permit Acquisition
Wyoming County, WV

E) Coal River Energy, Inc.
700 Virginia Street East, Suite 240
Charleston, WV 25301

273) Cherry Tree Hollow Refuse Facility
Remedial Design and Permit Acquisition
Boone County, WV

274-289) There are fifteen (15) more plants on which we have done remedial design work, but were not enumerated here, to save the reviewer's time. A list of these will be supplied if requested by WVDEP/AML.

VI. SITE DESIGN & PERMIT ACQUISITION FOR NEW PREPARATION PLANTS

Our services in this category of projects involved geotechnical engineer, drilling and testing, design of foundation, design of pollution abatement structures, design of dams, railroad sidings, bridges, roads, culverts, diversion ditches, site layout, water testing, construction specification writing, construction inspection and monitoring and permit acquisition.

These projects are:

A) A. T. Massey Coal Company
One Pavillion Drive
Glade Springs
Daniels, WV 25832-9799

290) Marrowbone Development Company
Coal Preparation Complex
Mingo County, WV

291) Elk Run Coal Company
Coal Preparation Complex
Boone County, WV

B) Gates Engineering Company (Acquired by others)
P.O. Box 5849
Princeton, WV 24740

292) Southern Mississippi Electric Power Cooperative
Coal Preparation Complex
Grover, KY

C) New Era Coal Resources, Inc. (No longer in business)
P.O. Box 8166
Lexington, KY 40503

293) New Era Coal Preparation Complex
Randolph County, WV

D) The Beckley Lick Run Company (Acquired by others)
Route 1, Bonny Lane
Beckley, WV 25801

294) Meadow Creek Coal Preparation Complex
Summers County, WV

295) Bonny Mine Complex
Raleigh County, WV

E) Cannelton Industries, Inc.
P.O. Box 150
Cannelton, WV 25036

296) Indian Creek No.2
Coal Preparation Complex
Boone County, WV

F) Race Fork Coal Company (Acquired by others)
P.O. Box 1614
Bluefield, WV 24701

297) Race Fork Coal Preparation Complex
Hurley, VA

G) Red Ash Coal Company (Acquired by others)
Iaeger, WV 24844

298) Red Ash Coal Preparation Complex
McDowell County, WV

H) Clinchfield Coal Company (Acquired by others)
Norton, VA 24273

299) McClure No.1 Coal Preparation Complex
McClure, VA

I) Envrio Energy (Acquired by Others)
c/o Mower Lumber Company
Box 252
Elkins, WV 20241

300) Coal Preparation Complex #1
Randolph County, WV

301) Coal Preparation Complex #2
Randolph County, WV

J) The Laurel Creek Company, Inc. (Acquired by Others)
Drawer 569

Luisa, KY 41230

302) Laurel Creek Preparation Complex
Mingo County, WV

K) Cumberland River Coal Company
HC 64, Box 840
Deboard, KY 41214

303) Pardee Preparation Complex
Wise County, VA

L) Elgin Industries (Acquired by others)
P.O. Box 1186
Beckley, WV 25802

304) Paramount Coal Company Prep Plant
Wise, VA

305) Donaldson Mine Complex
Kanawha County, WV

306) Black Hawk Coal Preparation Complex
Grayville, IL

307) Per-Mac Coal Company Prep Plant
Oakwood, VA

M) Exploration & Bergbau, GMBH (No longer in business) (Acquired by others)
928 Washington Trust Building
Washington, PA 15301

308) Potomac Basin Mine & Coal Preparation Complex
Garrett County, MD

N) Eastern Associated Coal Corporation
800 Laidley Towers
P.O. Box 69004
Charleston, WV

309) Rocklick Coal Preparation Complex
Boone County, WV

VII. DEEP AND SURFACE MINE

This category of projects consists of elimination of unstable rock and soil cuts and highwalls, general geotechnical engineering services, remedial design of mine roads, design of new mine roads, drilling and testing, design of hydraulic and pollution abatement structures, environmental baseline studies and permit acquisition for several dozen coal companies.

310-582) We have worked on remedial design for compliance or designed two hundred seventy two (272) deep and surface mines. These have not been enumerated to save the reviewer's time. Therefore, a list of these projects has not been included, but will be provided if requested by WVDEP/AML.

DEVELOPMENT OF CONTOUR MAPPING FROM AERIAL PHOTOGRAPHY

DEVELOPMENT OF CONTOUR MAPPING FROM AERIAL PHOTOGRAPHY

We have been consultants for development of contour mapping from aerial photography that encompass several hundred thousand acres in West Virginia, Virginia, Kentucky, and Pennsylvania. A partial list of these projects is submitted below.

A) Cannelton Industries, Inc.
P.O. Box 150
Cannelton, WV 25036

1) Aerial Photography
Lady Dunn Mine Complex
Fayette/Kanawha County, WV

2) Aerial Photography
Indian Creek Mine Complex
Boone County, WV

B) Beckley Lick Run Company (No longer in Business) (Acquired by others) (Formerly The New River Company)
Route 1, Bonny Lane
Beckley, WV 25801

3) Aerial Photography
Bonny Mine Complex
Raleigh County, WV

4) Aerial Photography
Meadow Creek Mine Complex
Summers County, WV

C) Westmoreland Coal Company
Tams, WV 25933

5) Aerial Photography
East Gulf Mine Complex
Raleigh County, WV

6) Aerial Photography
Triangle Mine Complex

Raleigh County, WV

D) A.T. Massey Coal Company
One Pavilion Road
Glade Springs
Daniels, WV 25832-9799

7) Aerial Photography
Peerless Eagle Coal Company Mine Complex
Nicholas County, WV

8) Aerial Photography
Kermit Coal Company Mine Complex
Mingo County, WV

9) Aerial Photography
Wolf Creek Collieries Company Mine Complex
Lovely, WV

10) Aerial Photography
Big Bear Mining Company Mine Complex
McDowell County, WV

11) Aerial Photography
Omar Mining Company Mine Complex
Boone County, WV

12) Aerial Photography
LaBelle Processing Company Preparation Complex
Fayette County, PA

13) Aerial Photography
Sprouse Creek Processing Company Preparation Complex
Mingo County, WV

14) Aerial Photography
T.C.H. Coal Company Preparation Complex
Pike County, KY

E) Allied Chemical Co. (Acquired by Peabody Coal) (Acquired by others)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

15) Aerial Photography
Harewood Mine Complex
Fayette County, WV

16) Aerial Photography
Shannon Branch Preparation Complex
McDowell County, WV

F) Armco, Inc. (Acquired by Peabody Coal)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

17) Aerial Photography
Big Mountain Coal Company Mine Complex
Boone County, WV

18) Aerial Photography
Steve Hollow Refuse Facility
Boone County, WV

G) Eastern Associated Coal Company (Acquired by Peabody Coal)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

19) Aerial Photography
Clark Branch Refuse Impoundment
McDowell County, WV

20) Aerial Photography
Mill Branch Refuse Impoundment
Wyoming County, WV

21) Aerial Photography
Wells Mine Complex
Boone County, WV

22) Aerial Photography
Harris Refuse Facility
Boone County, WV

23) Aerial Photography
Federal No. 2 Mine Complex

Monongalia County, WV

H) Masteller Coal Company (Acquired by others)
R.F.D
Keyser, WV

24) Aerial Photography
Masteller Coal Company Mine Complex
Mineral County, WV

I) New Era Resources (No longer in business) (Acquired by others)
P.O. Box 8166
Lexington, Ky 40503

25) Aerial Photography
Cheat Bridge Mine Complex
Randolph County, WV

J) Spring Ridge Coal Company
P.O. Box 1877
Baltimore, MD 21203

26) Aerial Photography
Spring Ridge Coal Company Preparation Complex
Webster County, WV

K) Red Ash Coal Company (Acquired by others)
laeger, WV 24844

27) Aerial Photography
Red Ash Mine Complex
McDowell County, WV

L) Riverton Coal Company (No longer in business) (Acquired by others)
1219 Virginia Street, East
Charleston, WV 25301

28) Aerial Photography
Riverton Coal Preparation Complex
Fayette County, WV

M) Enoxy Coal, Inc. (Acquired by others)
P.O. Box 565
Huntington, WV 25710

29) Aerial Photography
Upshur Mine Complex
Upshur County, WV

N) Pickands Mather & Company (Acquired by others)
Scotts Branch Mine
Route 1, Box 819
Pikeville, KY 41501

30) Aerial Photography
Scotts Branch Preparation Complex
Pike County, KY

O) Race Fork Coal Company (Acquired by others)
P.O. Box 1349
Bluefield, VA 24605

31) Aerial Photography
Prep Plant Complex
Buchanan County, VA

32) Aerial Photography
Bee Branch Refuse Impoundment
Buchanan County, VA

33) Aerial Photography
Cedar Branch Refuse Impoundment
Buchanan County, VA

P) Laurel Creek Company, Inc. (Acquired by others)
Drawer 569
Luisa, KY 41230

34) Aerial Photography
Laurel Creek Mine & Preparation Complex
Mingo County, WV

Q) Rocksprings Development Company (Acquired by others)
P.O. Box 390
East Lynn, WV 25512

35) Aerial Photography
Trace Branch Refuse Impoundment
Wayne County, WV

R) Pike County Coal Corporation (Acquired by others)
P.O. Box 2805
Pikeville, KY

36) Aerial Photography
TCH Coal Preparation Complex
Pike County, KY

S) Envrio Energy (Acquired by Others)
c/o Mower Lumber Company
Box 252
Elkins, WV 20241

37) Aerial Photography
6 Coal Preparation Complexes
14 Mine Complexes
Randolph County, WV

DOMESTIC WATERLINE DESIGN

DOMESTIC WATERLINE DESIGN

A partial list of waterline design projects included here include projects we have designed as prime consultants and sub consultants to other engineering companies. Our services included waterline design, surveying and/or mapping; economic analysis, cost estimating and feasibility studies.

These projects are:

1) Town of Bramwell Water System
(Subconsultants to J.H. Milam, Inc.)
Bramwell, WV

2) Bluewell Water System
(Subconsultants to J.H. Milam, Inc.)
Bluewell, WV

3) Winfield Water System
(Subconsultants to J.H. Milam, Inc.)
Winfield, WV

4) Roach Water System
(Subconsultants to J.H. Milam, Inc.)
Roach, WV

5) Town of East Bank Waterline Extension
East Bank, WV

6) Harewood Mine Complex Water System
(Included pump system design, waterline design, water tank design, fire hydrants, and outlets for watering roads)
Harewood, WV

7) Marrowbone Mine Complex Water System
(Included fresh water impoundment design, pumping system design, waterline design, water tank design, potable water system design, water treatment facility design, and outlets for watering roads)
Naugatuck, WV

8) Bonny Mine Complex Water System
(Included freshwater impoundment design, pumping system design, waterline design, water tank design, potable water system design, water treatment facility design, five hydrants, outlets for watering roads)
Raleigh County, WV

EVALUATION OF ACQUIFER DEGRADATION

1) Belva to Greendale Waterline Extension Feasibility Study **(WVDEP-AML)**
Nicholas County, WV

2) Drews Creek/ Peachtree Creek Waterline Extension Feasibility Study **(WVDEP-AML)**
Raleigh County, WV

3) Bell Creek Waterline Extension Feasibility Study **(WVDEP-AML)**
Fayette County, WV

4) Bridge Fork Waterline Extension Feasibility Study **(WVDEP-AML)**
Clay, Nicholas, Kanawha & Fayette Counties, WV

5) Skaggs vs. Cannelton Industries, Inc.
Acquifer degradation studies (consultants and expert witness)
Fayette County, WV

6) WVDNR vs. The New River Company
Acquifer degradation studies (consultants and expert witness)
Price Hill, Fayette County, WV

7) WVDNR vs. The New River Company
Acquifer degradation studies (consultants and expert witness)
Dempsey, Fayette County, WV

ACID MINE DISCHARGE ABATEMENT DESIGN

ACID MINE DISCHARGE ABATEMENT DESIGN

I. ACID MINE DISCHARGE ABATEMENT PROJECTS FOR WVDEP/AML

The problems abated under this category include but are not necessarily limited to abatement of acid mine drainage; elimination of hydraulic and hydrologic problems; sealing of abandoned mine adits, shafts and slopes; abatement of pollution at these sites by passive or active methods; and revegetation of the sites.

Our services included surveying and/or mapping; economic analysis, cost estimating and feasibility studies; development of design specifications and drawings; subsurface exploration (drilling and sampling); testing and chemical analysis and construction inspection/monitoring when applicable.

These projects are:

A) **West Virginia Department of Environmental Protection**
Office of Abandoned Mine Lands and Reclamation
10 McJunkin Road
Nitro, WV 25143-2506

1) Acid Mine Discharge Abatement Design
Sugar Valley Portals AML Project
Preston County, WV

2) Acid Mine Discharge Abatement Design
Crown (Conley) Mine Drainage AML Project
Logan County, WV

3) **MacIntire Mine Drainage Abatement AML Project**
Harrison County, WV

II. ACID MINE DRAINAGE ABATEMENT PROJECTS FOR COAL INDUSTRY

These projects are:

A) The Beckley Lick Run Company (No longer in business, Acquired by others)
(Formerly the New River Company)
Route 1, Bonny Lane
Beckley, WV 25801

4) Acid Mine Discharge Abatement Design
Stanaford Prep Plant, Mine Complex & Refuse Facility
Raleigh County, WV

5) Acid Mine Discharge Abatement Design
Cranberry Prep Plant & Refuse Facility
Rehabilitation Design for Abandonment of Refuse Facility

6) Acid Mine Discharge Abatement Design
Oswald Mine Complex, Prep Plant & Refuse Facility
Fayette County, WV

7) Acid Mine Discharge Abatement Design
Whipple Prep Plant & Refuse Facility
Fayette County, WV

8) Acid Mine Discharge Abatement Design
Tamroy Prep Plant, Mine Complex & Refuse Facility
Fayette County, WV

9) Acid Mine Discharge Abatement Design
Lochgelly Prep Plant, Mine Complex & Refuse Facility
Fayette County, WV

10) Acid Mine Discharge Abatement Design
Oakwood Prep Plant, Mine Complex & Refuse Facility
Fayette County, WV

11) Acid Mine Discharge Abatement Design
Harvey Prep Plant, Mine Complex & Refuse Facility
Fayette County, WV

12) Acid Mine Discharge Abatement Design
Price Hill Shaft
Fayette County, WV

13) Acid Mine Discharge Abatement Design
Demsey Pump
Fayette County, WV

14) Acid Mine Discharge Abatement Design
Summerlee Coal Preparation Complex
Fayette County, WV

15) Acid Mine Discharge Abatement Design
Skelton Coal Preparation Complex
Fayette County, WV

16) Acid Mine Discharge Abatement Design
Garden Ground Coal Preparation Complex
Fayette County, WV

B) Westmoreland Coal Company
Tams, WV

17) Acid Mine Discharge Abatement Design
Winding Gulf No.4 Mine Complex
Raleigh County, WV

18) Acid Mine Discharge Abatement Design
Otsego Refuse Facility
Raleigh County, WV

19) Acid Mine Discharge Abatement Design
East Gulf Refuse Facility
Raleigh County, WV

20) Acid Mine Discharge Abatement Design
Clifftop Coal Preparation Complex
Raleigh County, WV

21) Acid Mine Discharge Abatement Design
Maben Mine Complex
Wyoming/Raleigh County, WV

22) Acid Mine Discharge Abatement Design
Quinwood No. 1 Mine Complex
Nicholas County, WV

23) Acid Mine Discharge Abatement Design
Hampton No. 3 Mine Complex
Boone County, WV

24) Acid Mine Discharge Abatement Design
Hampton No. 4 Mine Complex
Boone County, WV

C) Cannelton Industries, Inc.
P.O. Box 150
Cannelton, WV 25036

25) Acid Mine Discharge Abatement Design
Lady Dunn Coal Preparation Complex
Fayette/Kanawha County, WV

26) Acid Mine Discharge Abatement Design
Indian Creek Coal Preparation Complex
Boone County, WV

27) Acid Mine Discharge Abatement Design
Superior Coal Preparation Complex
McDowell County, WV

28) Acid Mine Discharge Abatement Design
Eccles Mine Complex
Raleigh County, WV

29) Acid Mine Discharge Abatement Design
Ferrell Preparation Complex
Boone County, WV

30) Acid Mine Discharge Abatement Design
Quinwood No.1 Preparation Complex
Nicholas County, WV

D) A. T. Massey Coal Company
One Pavillion Road
Glade Springs
Daniels, WV 25832-9799

31) Acid Mine Discharge Abatement Design
Royalty Smokeless Mine Complex
McDowell County, WV

32) Acid Mine Discharge Abatement Design
Shannon Branch Coal Preparation Complex
McDowell County, WV

33) Acid Mine Discharge Abatement Design
Peerless Eagle Preparation Complex
Nicholas County, WV

34) Acid Mine Discharge Abatement Design
Kermit Coal Company Coal Preparation Complex
Mingo County, WV

35) Acid Mine Discharge Abatement Design
Wolf Creek Collieries Company Coal Preparation Complex
Lovely, KY

36) Acid Mine Discharge Abatement Design
Big Bear Mining Company Coal Preparation Complex
McDowell County, WV

37) Acid Mine Discharge Abatement Design
Big Bear Mining Company Refuse Impoundment
McDowell County, WV

38) Acid Mine Discharge Abatement Design
Omar Mining Company Mine Complex
Boone County, WV

39) Acid Mine Discharge Abatement Design
LaBelle Processing Company Preparation Complex
Fayette County, PA

40) Acid Mine Discharge Abatement Design
T.C.H. Coal Company Coal Preparation Complex
Pike County, KY

E) Allied Chemical Company (Acquired by Peabody Coal Company) (Acquired by others)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

41) Acid Mine Discharge Abatement Design
Abandoned Simms Branch Refuse Facility
Fayette County, WV

42) Acid Mine Discharge Abatement Design
Fishhook Combined Refuse Facility
Fayette County, WV

43) Acid Mine Discharge Abatement Design
Harewood Coal Preparation Complex
Fayette County, WV

44) Acid Mine Discharge Abatement Design
Harewood Coal Preparation Complex
Fishhook Slurry Ponds
Fayette County, WV

F) Eastern Associated Coal Corporation (Now Peabody Coal)
800 Laidley Towers
P.O. Box 69004
Charleston, WV 25334-0004

45) Acid Mine Discharge Abatement Design
Wharton No.2 Refuse Impoundment
Boone County, WV

46) Acid Mine Discharge Abatement Design
Keystone No.2 Refuse Facility
Wyoming County, WV

47) Acid Mine Discharge Abatement Design
Keystone No.5 Refuse Facility
Raleigh County, WV

48) Acid Mine Discharge Abatement Design
Mill Branch Refuse Impoundment
Wyoming County, WV

49) Acid Mine Discharge Abatement Design
Federal No.2 Mine Complex
Monongalia County, WV

G) Enoxy Coal, Inc. (Acquired by others)
P.O. Box 565
Huntington, WV 25710

50) Acid Mine Discharge Abatement, Impoundment and Related Treatment Facilities
Upshur Mine Complex

Upshur County, WV

51) Acid Mine Discharge Abatement Design
Holden No. 22 Mine Complex
Logan County, WV

52) Acid Mine Discharge Abatement Design
Holden No. 25 Mine Complex
Logan County, WV

53) Acid Mine Discharge Abatement Design
Wayne Mine Complex
Wayne County, WV

54) Acid Mine Discharge Abatement Design
Laurel Creek Mine Complex
Mingo County, WV

55) Acid Mine Discharge Abatement Design
Pevler Mine Complex
Martin County, WV

Besides these fifty-five (55) major acid mine discharge abatement design projects we have successfully abated several hundred other acid mine discharge problems.

ESMER & ASSOCIATES, INC.
EQUIPMENT AND SOFTWARE AVAILABLE

ESMER & ASSOCIATES, INC.
SUBSURFACE EXPLORATION EQUIPMENT

2 - CME 55's Truck Mounted Auger-Core-Rotary Drills
These drilling rigs are designed for conventional and hollow stem auger drilling to depths of 125 to 250 feet, sampling with split spoons and thin-walled tubes. Maximum hole diameter is 14 inches. Core and rotary drilling with NW tools can be to a depth of 1,000 feet.

1 - CME 45 Skid/Trailer Mounted Auger-Core-Rotary Drill
This drilling rig is designed for conventional and hollow stem auger drilling to depths of 100 to 150 feet, sampling with split spoons and thin-walled tubes. Core and rotary drilling with NW tools can be to a depth of 500 feet.

1 - Boyles BBS-35A Truck Mounted Core-Rotary Drill
This drilling rig is designed for core and rotary drilling with NW and NQWL tools to a depth of 5,600 feet.

1 - Acker Mark II Trailer Mounted Core-Rotary Drill
This drilling rig is designed for core and rotary drilling with NW and NQWL tools to a depth of 2,000 feet.

1 - GW-15 Winkie Portable Core-Rotary Drill
This drill is lightweight and compact. It is designed for use in mountainous terrain. Core and rotary drilling with EK tools can be to a depth of 200 feet.

1 - Power Hand Auger (Soiltest)
This drill is useful in difficult access areas. It can drill to depth of 30 feet.

2 - John Bean Pressure Pumps, Skid Mounted

2 - Piston Pumps, Skid Mounted

2 - Centrifugal Pumps, Portable

2 - Grouting Plants for grout injection

In addition to this equipment, all augers, split tube samplers, core barrels, coring bits and rotary drilling bits necessary to carry out an efficient subsurface exploration and ground water monitoring program are available.

ESMER & ASSOCIATES, INC.
SOIL & CONCRETE LABORATORY EQUIPMENT

2	-	Triaxial Panels Brainard-Kilman Model 4420
4	-	Triaxial Cells Brainard-Kilman Model 4430
1	-	Digital Pressure Gauge and 4-way Switching Unit Brainard-Kilman Model 4440-2
1	-	Tritest 50-KN Load Frame with Steplessly Variable Drive ELE EL25-284
1	-	Triaxial Test Set Soiltest Model T-1500-2
1	-	Consolidation Permeability Attachment Soiltest Model K-665
3	-	Triaxial Compaction Molds Soiltest Models P-48 and P-51
1	-	Platform Scale Consolidation Appartus Soiltest Model U-120
1	-	Consolidation Specimen Trimmer Soiltest Model C-200
1	-	CBR Cylinder Soiltest Model CN-450
5	-	Liquid Limit Devices with Removable Pin Cup Assembly Soiltest Model CL-206
4	-	Four Inch & Six Inch Compaction Molds Forney Model LA-3000 and LA-3035
4	-	Modified and Standard Compaction Hammers Forney Model LA-3105 and LA-3100
1	-	Harvard Miniature Compaction Appartus Soiltest Model CN-435
2	-	Sample Ejectors Soiltest Model P-103 and P-510
1	-	Mettler Electronic Balance Delta Range Model PE-3600
1	-	Ohaus Electronic Balance Precision Plus Model TP4KD
2	-	Heavy Duty Solution Balances 20 KG OHAUS
1	-	Motor Driven Sieve Shaker Soiltest Model 018484
20	-	Sieves Openings 3 inch to No. 200 U.S. Standard
1	-	Hydrometer Soiltest ASTM152H

ESMER & ASSOCIATES, INC.
SOIL & CONCRETE LABORATORY EQUIPMENT
(Continued)

1	-	Gilson Testing Screen Shaker Soiltest Model TS-1
2	-	Pulvering Mills Cole-Palmer
1	-	Screen Mill Raymond No.28
1	-	Forced Draft Laboratory Oven Soiltest Model L-24B
1	-	Stirring Appararus Hamilton Beach Model 936
1	-	4 ½ Inch Metal Cutting Band Saw Sears Model 113.229650
3	-	Adjustable Sample Splitter Forney Model LA-0460 and LA-0451-04
1	-	Density Basket Forney Model LA-0520-10
1	-	Conical Mold and Tamper Forney Model LA-0524
1	-	Compression Test Machine 400 K lbs. Capacity Forney Model QC-400-C2
1	-	Compression Test Machine 250 K lbs. Capacity Forney Model CT-755
2	-	Six Inch & Four Inch Vertical Capping Fixtures Forney Model LA-0110 and LA-0100
1	-	Block capping Fixture Forney Model LA-0112
1	-	Four Quart Capping Compound Melting Chamber Forney Model LA-0130
1	-	Concrete Curing Room
1	-	Concrete Curing Temperature Recorder Soiltest Model CT-550

ESMER & ASSOCIATES, INC.
FIELD TESTING EQUIPMENT

6	-	Nuclear Moisture-Density Gauges Troxler Model 3411-B
3	-	Volumesure Density Set Soiltest Model CW-666
1	-	In-Place Concrete Windsor Probe System Soiltest Model CT-460
2	-	Concrete Test Hammer Soiltest Model CT-320
2	-	Pachometer Concrete Testing Instruments James Instrumental Model C-4956
2	-	Pressure Air Meter Soiltest Model C-320
1	-	Volumetric Air Meter Soiltest Model C-130
2	-	Two Inch Cement cube Mold Forney Model LA-0215
2	-	Concrete Slump cones w/Tamping Rods Forney Model LA-0275-10
1	-	Penetrometer Soiltest Model CW-419
3	-	Water Level Indicators (300 feet) Soiltest Model DR-760A

FIELD SURVEYING EQUIPMENT

1	-	Wild T1000 Total Station w/ Accessories
1	-	Topcon GTS-302DPG Total Station w/ Accessories
1	-	Topcon 2B Total Station w/ Accessories
1	-	Wild T-16 Theodolite w/ Accessories
1	-	Topcon AT/F2 High Production 3-Screw Automatic Level
3	-	HP 48GX Calculator w/SMI Data Collector Cards
6	-	Motorola Radius P50 5-Watt Radios
1	-	Stihl Chain Saw
1	-	300' Steel Chain
1	-	200' Fiberglass Chain
2	-	100' Fiberglass Chain
2	-	15' Philadelphia Level Rod
1	-	25' Fiberglass Level Rod
1	-	16' Flat Bottom Jon Boat – 3 Man Capacity, Powered By 17-LB Thurst Minnkota Electric Fishing Motor With 4' Plastic Oars For Motor Failure Emergency.

Plus all miscellaneous equipment such as, but not limited to, prisms, prism poles, tribrachs, adapters, tripods, plumb bobs, tension handles, lock levels, long and short handle mauls, machetes, brush hooks, axes, hammers and cloth tapes.

ESMER & ASSOCIATES, INC.
COMPUTER SYSTEMS

1. (2) Dell Dimension 4600 Series Desktops

- Intel Pentium 4 Processor @ 3.2GHz
- 1 GB DDR SDRAM @ 400MHz
- 128MB DDR NVidia GeForce FX-5200 Graphics Card
- 80GB 7200 RPM Ultra ATA Hard Drive
- Microsoft Windows XP Professional
- 16X DVD-Rom Drive
- 48X Max CD-RW Drive
- 10/100 Network Card
- 19 in. Dell 1901FP Digital Flat Panel
- 1.44 MB (3.5") Disk Drive
- Autocad 2007
- Survcadd 2011
- Microsoft Office 2007
- Word Perfect
- Hewlett-Packard Designjet T1120 Plotter
- OCE TDS 300 Large Format Printer
  Network Ricoh Aficio MP C6000

2. (2) Gateway GP7-500 Desktops

- Intel Pentium III 500MHz Processor w/512K Cache
- 256MB 100Mhz SDRAM
- 16MB nVidia RIVA TNT AGP Graphics Accelerator
- 18GB 7200RPM Ultra ATA Hard Drive
- 13X min./32X max. CD_ROM
- 1.44 MB (3.5") Disk Drive
- IOMEGA Internal ZIP Drive
- Integrated Sound Blaster Audio PCI 64D
- 56K bps Fax Modem
- PCI 10/100 Ethernet Adapter
- Gateway VX900 19" STB Velocity 4400 Color Monitor, .25mm Dot Pitch
- Microsoft Windows 98
- Microsoft Office 2000
- AutoCAD 2000
- SurvCADD XML

- Hewlett-Packard DeskJet 932C Color Inkjet Printer
  Network Ricoh Aficio MP C6000

3. Dell 4700 Series Desktop

- Intel Pentium 4 3.4 GHZ Processor
- 504 MB 133 MHz SDRAM
- Integrated Video Card
- 80GB 7200 RPM Hard Drive
- Recordable Rewritable CD-RW Drive
- 1.44 MB (3.5") Disk Drive
- SoundMax Sound Card
- V.905/56k PCI Data Fax Modem
- Intel Pro 100 PCI Ethernet Network Card
- Dell 19" Color Flat Panel Monitor
- Microsoft Windows XP Professional
- Microsoft Works Office 2007
  Network Ricoh Aficio MP C6000

Analysis & Design Software

Hydrology & Hydraulic Package

- Flood routing; breach analysis
  - HEC-IE Heastad Methods
  - DAMS-2 Heasted Methods
  - HMR52 Heasted Methods

- Hydrograph Development
  - HYDRDATA
  - 6HRHYDRO

- Open Channel: (Diversion, emergency spillway exit, etc.)
  - Flowmaster Heasted Methods
  - Ditch.EX

- Pipe Design: Culvert, Analysis, Design

  - Cande-89

- Slope Stability Analysis
  - REAME - Rotating equilibrium analysis of multilayered embankments - determines the factor of safety based on cylindrical failure surface and the simplified Bishop method.

- STABL For Windows
  - V 2.2 by Geotechnical Software Solutions

4. Gateway 500 SE Desktop

- Intel Pentium IV 1.6 GHZ Processor
- 128 MB 133 DDR SDRAM
- 40GB UATA100 7200 RPM Ultra Hard Drive
- 1.44 MB (3.5") Disk Drive
- 24x10x40x Recordable Rewritable CD-RW Drive
- 56k PCI Voice Modem
- Integrated 10/100 Ethernet Network Card
- Integrated Stereo Audio
- Gateway EV700 17" Color Monitor, .26mm Dot Pitch
- Microsoft Windows XP Professional
- QuickBook Pro 2005 Financial Accounting Software
- Microsoft Office 2007
- EPSON Stylus Pro Deskjet Printer
- Network Ricoh Aficio MP C6000

5. Dell Vostro 430 Desktop

Intel Core I3 Processor w/VT
3GB DDR3 SDRAM 1333 MHz
250 GB Serial ATA Hard Drive
Integrated PCIE 10/100/1000 Ethernet Network Card
Samsung 24" LCD Monitor
16X DVD+RW Burner Drive
Windows 7 Professional
Intuit Quickbooks Pro 2010
HP 6500 Deskjet All in One

ESMER & ASSOCIATES, INC.
COMPUTER SYSTEMS
(Continued)

6. (2) Dell Precision T3400 Series Desktop

- Intel Core 2 Quad @ 2.66 GHZ Processor
- 4GB 133 MHz SDRAM
- Nvidia Quadro FX Video Card
- 80GB 7200 RPM Ultra ATA Hard Drive
- Recordable Rewritable CD-RW Drive
- SoundMax PCI Sound Card
- Intel Pro 100 PCI Ethernet Network Card
- Dell 19" Wide Flat Panel Monitor
- Microsoft Windows Vista
- Microsoft Office 2007
- Geosystem Software – Laboratory Test Software
- Archon Software – Retaining Wall
  Network Ricoh Aficio MP C6000

Analysis & Design Software

Hydrology & Hydraulic Package

- Flood routing; breach analysis
  - HEC-IE Heastad Methods
  - DAMS-2 Heasted Methods
  - HMR52 Heasted Methods

- Hydrograph Development
  - HYDRDATA
  - 6HRHYDRO

- Open Channel: (Diversion, emergency spillway exit, etc.)
  - Flowmaster Heasted Methods
  - Ditch.EX

- Pipe Design: Culvert, Analysis, Design

  - Cande-89

- Slope Stability Analysis
  - REAME - Rotating equilibrium analysis of multilayered embankments - determines the factor of safety based on cylindrical failure surface and the simplified Bishop method.

- STABL For Windows
  - V 2.2 by Geotechnical Software Solutions

7. Dell 9300 Inspiron Laptop

- Pentium M
- 17" UXGA Wide Screen
- 1GB, DDR2, 533 MHz
- 64MB ATI Mobility Radeon X300
- 80GB Ultra ATA Hard Drive
- Microsoft Windows XP
- 24X CD-RW/DVD
- 10/100 Network Card
- Word Perfect Productivity Pack
- 80 WHr 9-Cell Lithium Ion Battery
- Quickbooks 2005

8. Gateway Profile 4X Desktop

- Intel Pentium 4 Processor 2.4GHz
- 512MB DDR SDRAM
- 40GB UATA100 7200 RPM Ultra Hard Drive
- 1.44 MB (3.5") Disk Drive
- 16x10x24x Recordable Rewritable CD-RW Drive
- 32MB NVIDIA GeForce MX400 Graphics Card
- 56k PCI Voice Modem
- Integrated 10/100 Ethernet Network Card
- Gateway EV700 17" Color Monitor, .26mm Dot Pitch
- Microsoft Windows XP
- Microsoft Office 2007
- Network Ricoh Aficio MP C6000
-

9. Dell 2400 Series Desktop

- Intel Pentium 4 2.8GHz Processor
- 256MB DDR SDRAM @ 333MHz
- 40GB 7200 RPM Hard Drive
- 48X CD-RW Drive

ESMER & ASSOCIATES, INC.
COMPUTER SYSTEMS
(Continued)

- 1.44 MB (3.5") Disk Drive
- Integrated Intel 3D AGP Graphics
- V.905/56k PCI Data Fax Modem
- Integrated 10/100 Network Card
- Dell 17" Color Monitor
- Microsoft Windows XP
- Microsoft Office 2007
- Durham Geo Slope Indicator Serial Acquisition System for Windows
- Geosystem Software – Laboratory Test Software
- HP PSC 1350
- Network Ricoh Aficio MP C6000

ATTACHMENT "C"

AML AND RELATED PROJECT EXPERIENCE MATRIX