

## Expression of Interest

Professional Mapping and Design Services  
at the Bond Forfeited Permits of  
Summersville Five Block S-3051-88  
And Brady Cline Coal EM-97  
Nicholas County, West Virginia  
DEP16558

CBC Quotation No. 14-013-01WV

June 19, 2014

Issuing Office:

West Virginia Department of Environmental Protection  
Office of Special Reclamation  
601 57<sup>th</sup> Street SE  
Charleston, West Virginia 25304

Submitted By:

Charleston, West Virginia Office  
CBC Engineers & Associates, Ltd.  
3729 Teays Valley Road  
Hurricane, West Virginia 25526  
(304) 760-1009

Primary Office  
125 Westpark Road  
Centerville, Ohio 45459

06/19/14 12:11:33PM  
West Virginia Purchasing Division

June 19, 2014

CBC Quotation No. 14-013-01WV  
West Virginia Department of Environmental Protection  
Office of Special Reclamation  
601 57<sup>th</sup> Street SE  
Charleston, West Virginia 25304

Expression of Interest  
Professional Mapping and Design Services at the  
Bond Forfeited Permits of Summersville Five Block S-3051-88 and Brady Cline Coal EM-97  
Nicholas County, West Virginia  
DEP16558

Gentlemen:

CBC Engineers & Associates, Ltd (CBC) appreciates the opportunity to submit our proposal in response to your Request for Expression of Interest DEP16558 to provide professional mapping and design services. These services will result in the development of mapping, engineering drawings, contract specifications, and other contract documents required for the **Bond Forfeited Permits of Summersville Five Block S-3051-88 and Brady Cline Coal EM-97** project in Nicholas County, West Virginia.

CBC is particularly well qualified to provide the State with the above referenced services offered at the most satisfactory terms, from both a technical and cost standpoint. The work under this contract will be performed both in our Dayton, Ohio and Charleston, West Virginia offices. **CBC has provided the mining industry with quality engineering services since 1995**, and based on CBC's experience and knowledge of the current regulatory laws, regulations, procedures, interpretations and requirements, our firm is well suited to perform all referenced services.

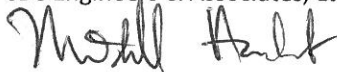
CBC welcomes you to visit our facility located at 3729 Teays Valley Road, Hurricane, WV 25526.

CBC has:

- On staff three (3) West Virginia registered civil and mining engineers who will review, stamp, and sign all work and contract documents.
- Available staff of geotechnical, civil and mining engineers, CADD operators, surveyors, and biologists with extensive expertise in reclamation engineering, hydrology, and geology: and
- Extensive experience in surface and underground coal mining, environmental, ecological principals, stream restoration and mitigation, and contract administration.

We look forward to building a strong relationship with the WVDEP-OSR.

Sincerely,  
CBC Engineers & Associates, Ltd.



Mitchell T. Hardert, PE  
Chief Engineer and Vice President



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

## Solicitation

|          |
|----------|
| NUMBER   |
| DEP16558 |

|      |
|------|
| PAGE |
| 1    |

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

RFQ COPY  
TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

ENVIRONMENTAL PROTECTION  
DEPT. OF  
OFFICE OF SPECIAL RECLAMATION  
601 57TH STREET SE  
CHARLESTON, WV  
25304 304-926-0499

|              |
|--------------|
| DATE PRINTED |
| 05/28/2014   |

BID OPENING DATE: 06/19/2014

BID OPENING TIME 1:30PM

| LINE | QUANTITY | UOP    | CAT NO | ITEM NUMBER   | UNIT PRICE | AMOUNT |
|------|----------|--------|--------|---|------------|--------|
| 0001 | 1        | JB     |        | 906-29  |            |        |
|      | 1        | PERMIT |        | 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 MAPPING AND DESIGN SERVICES AT THE BOND FORFEITED PERMITS OF SUMMERSVILLE FIVE BLOCK(S-3051-88) AND BRADY CLINE COAL(EM-97) IN NICHOLAS COUNTY. |            |        |
|      |          |        |        | PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.   |            |        |
|      |          |        |        | ***** THIS IS THE END OF RFQ DEP16558 ***** TOTAL:  |            |        |

|                        |              |                                   |
|------------------------|--------------|-----------------------------------|
| SIGNATURE              | TELEPHONE    | DATE                              |
| <i>Michael A. Hark</i> | 937-428-6150 | 6-10-2014                         |
| TITLE                  | FEIN         | ADDRESS CHANGES TO BE NOTED ABOVE |
| CHIEF ENG & V.P.       |              |                                   |

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

## Expression of Interest

Professional Mapping and Design Services

at the Bond Forfeited Permits of

Summersville Five Block S-3051-88

And Brady Cline Coal EM-97

Nicholas County, West Virginia

DEP16558

Issuing Office:

West Virginia Department of Environmental Protection

Office of Special Reclamation

601 57<sup>th</sup> Street SE

Charleston, West Virginia 25304

Submitted By:

CBC Engineers & Associates, Ltd.

3729 Teays Valley Road

Hurricane, West Virginia 25526

(304) 760-1009

Primary Office

125 Westpark Road

Centerville, Ohio 45459

CBC Quotation No. 14-013-01WV

June 19, 2014



|     |  |   |
|-----|--|---|
| 1.0 | Introduction .....   | 1 |
| 2.0 | Corporate History and Experience .....                     | 2 |
| 2.1 | Design Engineering and Contract Document Preparation ..... | 3 |
| 2.2 | Surveying and Mapping .....                                | 3 |
| 2.3 | Subsurface Investigation .....                             | 4 |
| 2.4 | Laboratory Services .....                                  | 4 |
| 3.0 | Qualifications of Personnel .....                          | 4 |
| 4.0 | Management Plan .....                                      | 7 |
| 4.1 | Project Budget Control .....                               | 8 |
| 4.2 | Schedule Control .....                                     | 8 |
| 4.3 | Quality Assurance/ Quality Control .....                   | 8 |
| 5.0 | Closing .....  | 8 |

## Appendices

|  |            |
|--|------------|
| Insurance and Workers Compensation Certificates.....     | Appendix A |
| Purchasing Affidavit.....                                | Appendix B |
| Certification and Signature Page.....                    | Appendix C |
| Addendum Acknowledgement Form.....                       | Appendix D |
| Consultant Confidential Qualification Questionnaire..... | Appendix E |
| Related Project Experience Matrix.....                   | Appendix F |
| Project Organization Chart.....                          | Appendix G |
| Project Abstracts.....                                   | Appendix H |

## 1.0 Introduction

---

CBC Engineers & Associates, Ltd. (CBC) proposes to provide professional mapping and design services to the West Virginia Department of Environmental Protection, Office of Special Reclamation (WVDEP-OSR). These services will result in the development of mapping, engineering drawings, contract specifications, and other contract documents as may be required for the Bond Forfeited Permits of Summersville Five Block S-3051-88 and Brady Cline Coal EM-97 project in Nicholas County, West Virginia. Prepared construction documents will consist of:

- Prepare work areas by clearing and grubbing.
- Install new and refurbish existing drainage controls and erosion protection (sediment ponds, sediment ditches, and diversions).
- Locate, protect and/or avoid existing utility lines, poles, gas lines, etc. Also, coordinate with utility companies for locating and relocating existing facilities and/or providing for new utility services.
- Construct new and upgrade existing access roads, and install culverts.
- Install mine seals, and subsurface drains.
- Preform blasting designs and pre-blast surveys, if needed for reclamation of site.
- Eliminate existing highwalls by backfilling and regarding with materials available onsite, or designated borrow area sites nearby.
- Install surface water ditches where appropriate to control runoff.
- Repair or eliminate any slip areas on partially backfilled highwalls.
- Regrade/remove sediment ditches when not needed.
- Reshape, and add lime amendments to any potentially toxic coal refuse piles.
- Condition, stabilize, and revegetate disturbed land by the plan view acre, based on post-mine land use from permit files and landowners.
- If long term water treatment is anticipated on the site, prepare and regrade areas to accommodate space for structures or facilities.
- Design efficient passive and active water treatment and pumping systems which minimize maintenance and meet NPDES water quality standards.
- Design appropriate sludge handling facilities on site.
- Final site cleanup.

CBC is extremely well qualified to provide the State with the above referenced services. CBC has **Three (3)** West Virginia registered Professional Engineers, **Three (3)** professional Surveyors, and a team of geologists, environmental scientists, biologists, technicians, CADD operators, word processor operators, secretaries, and draftspersons. CBC has served the West Virginia Mining Industry for over **19 years**. These projects include:

- Subsidence evaluations, breakthrough analysis and Pillar design & stability,
- Coal refuse pile reclamation and design, including impoundment structures,

- Stream design, restoration, and mitigation,
- Acid mine drainage (AMD) evaluation and treatment,
- Mine portal reclamation,
- Wetlands replacement and development,
- Environmental liability assessments,
- Hydrologic/hydraulic design of erosion and sediment control structures,
- Soil analysis and re-vegetation plans,
- Construction monitoring services, surveying and inspection,
- Design of excess overburden disposal fills,
- Detailed reclamation plans,
- Detailed subsurface/geotechnical investigations for foundation, subsidence, and slope stability,
- Mine closure plans/post-reclamation land use,
- Permitting for deep and surface mine applications (NPDES, Nationwide Permits, U.S Army Corps of Engineers Section 404 permits, etc.),
- Probable hydrologic consequences (PHC) statement preparation,
- Phase I & II Environmental Site Assessments, and
- Assessment of contamination (e.g. PCB's, asbestos, lead)

Any sub-consultants to be utilized on this project are listed in the sub-consultant section of the Consultant Qualification Questionnaire, and are determined by scope of project. CBC will provide the required expertise to complete reclamation projects in a timely, economical, and efficient manner.

## 2.0 Corporate History and Experience

---

CBC Engineers & Associates, Ltd. is a multi-disciplinary geotechnical, civil, environmental, and mining engineering firm headquartered in Dayton, Ohio, with offices in Charleston, West Virginia; Lexington and Hazard, Kentucky; and Harrisburg, Illinois. Established in 1995, CBC employs over 45 engineers, scientists, and support personnel. Our eight (8) registered professional engineers have over 250 years of combined experience, offering a wide range of interdisciplinary skills, and are supported by a large group of experienced engineers, designers, surveyors, and technicians. Our firm has a diversified practice covering engineering (civil, mining, geotechnical, and environmental), permitting, site characterization and remediation, and general environmental consulting.

Our clients include state, local and federal government agencies, mining companies, manufactures, utility companies, commercial, residential, industrial and institutional clients, as well as local and national chain land developers.

CBC maintains company owned drill rigs and laboratory testing facilities in many principle locations that can provide all necessary geotechnical assessments and foundation support, along with in-house surveying and construction management services.

CBC has completed several projects similar to a WVDEP OSR type project. These include construction management and observation, design and permitting of refuse piles and slurry impoundments, evaluating mine drainage, reclamation design and monitoring, landslides, stream monitoring, grading plans, watershed assessments, wetland studies, and detention pond design.

From the analysis stage to project implementation, the professional staff of CBC provides clients with cost-effective engineering and planning solutions for their environmental problems. CBC's outstanding reputation is based upon dedicated service to clients and demonstrated technical abilities.

CBC proposes to utilize primarily our staff in the Charleston, and Dayton offices, with technical support and surveying by our Hazard and Lexington offices as required.

## 2.1 Design Engineering and Contract Document Preparation

---

CBC has extensive experience in design engineering and the preparation of documents for reclamation and related projects. CBC takes pride in staying creative and finding innovative approaches to difficult problems. Our 19 years of experience in the mining and related industries will ensure quality engineering for this and all future OSR projects.

All five of our Offices are involved in the coal and mining industries and have developed many professional relationships with state and federal agencies including MSHA, Corps of Engineers, and multi-state regulatory agencies. CBC is vastly familiar with WVDEP's guidelines for preparing drawings, technical specifications, and supporting documents.

During the design engineering phase of our projects, CBC evaluates alternative analysis and works closely with WVDEP and all regulatory agencies involved to review options and select the most practicable plan. CBC engineers and technical staff work together to review all aspects of each construction package to ensure the most feasible and economically sound methods are applied.

## 2.2 Surveying and Mapping

---

Surveying will be performed by CBC's in-house surveyors to provide the most cost efficient and timely services. CBC has **three (3)** licensed professional surveyors with over 75 years of combined surveying experience. Our surveyors are experienced in all aspects of surveying such as topographic mapping, boundary and property surveys, and construction surveys for layout of work, record drawings, quantity measurements, and environmental sampling and monitoring.

CBC's survey crew utilizes state-of-the-art "Field to Finish" equipment and software such as, Total Stations and GPS surveying equipment, Autocad 2014 software, and a Hewlett Packard Designjet 1050c Plus. Technicians use this information to generate plan views, profiles, cross sections and other engineering drawings.

All surveys conducted by CBC are completed under the supervision of a licensed land surveyor and will be performed under the general direction of a West Virginia registered professional engineer, the CBC

project engineer and the project manager. All surveys and mapping are completed to the standards as outlined by the National Map Standards, as well as other applicable quality standards to include OSR specifications.

Additional information on CBC's corporate history and experience is included in the Consultant Confidential Qualification Questionnaire included in **APPENDIX E**.

Blasting design within 1000 feet of a protected structure, pre-blast surveys and realty appraisal work, if needed for reclamation of the site(s) will be performed by a sub-contractor.

### **2.3 Subsurface Investigation**

---

CBC maintains company-owned drill rigs and a laboratory testing facility that can provide all aspects of geotechnical engineering investigations. Each geotechnical report contains written recommendations and construction procedures to obtain desired results. CBC's engineers are experienced in making sound judgments and advising owners on the structural and economic feasibility of any given project; starting with the evaluation of subsurface conditions, and ending with the determination of the physical and engineering characteristics of the soil/rock, and their probable behavior under stress.

In some situations it is not economically feasible to move our drilling fleet to a project location, so CBC has developed relationships with several drilling firms in order to ensure the most cost efficient options are employed. Should timing and cost dictate, CBC may choose to sub-contract drilling work out as necessary, under the supervision of the principle-in-charge and project manager.

### **2.4 Laboratory Services**

---

CBC operates full-service soils and materials laboratories in several offices.

CBC offers a wide range of special inspection and materials testing services; performed by our certified field staff using the most modern and up-to-date testing equipment and procedures. Our testing facilities have the capability to analyze natural materials such as soil and rock, and manufactured materials such as concrete and steel. The soils analysis capabilities include classification and compaction, proctor, and specific gravity. CBC also maintains several nuclear densometer testing gauges to monitor field compaction.

Coal refuse and water analysis, if needed for reclamation of the site(s) will be performed by a sub-contractor.

### **3.0 Qualifications of Personnel**

---

CBC is a privately owned company that is dedicated to staying lean, innovative, and current on engineering practices, technologies and regulations. CBC strives to deliver high quality, cost effective engineering solutions and services on schedule and on budget by supporting the motivated, flexible, and

focused teams of experienced employees. CBC values the importance of client relationships and will strive to continue to offer the best client-consultant experience in the business.

Mr. Mitchell T. Hardert, P.E. will serve as the principle-in-charge. Mr. Hardert is registered in 48 U.S. states, and the District of Columbia. He has **eighteen (18)** years of experience in refuse, impoundment, and dam design; geotechnical investigations; foundation engineering; stability analysis; buried structure design; and remediation. Mr. Hardert has a good working relationship with federal, state, and local regulatory agencies.

Roger W. Cornett, P.E., PLS will serve as a project engineer. Mr. Cornett has over **thirty-five (35)** years of experience in surface and underground coal mining design and permitting, environmental impact statements, mine feasibility and planning, and acting as liaison between coal companies and state and federal regulatory agencies.

Eugene D. Highlander, P.E. will serve as a project engineer. Mr. Highlander has over **forty-six (46)** years of experience in the coal mining industry and has worked on multiple projects involving the reclamation of acid-producing refuse piles.

John Corda, P.E. will serve as a project geotechnical engineer. Mr. Corda has over **forty-eight (48)** years of experience and has participated in the design of nearly 400 projects for dams, foundations, and coal impoundments. He has extensive experience in slope stability analysis, liquefaction, internal and surface drainage calculations, seepage and dams break analysis, as well as reclamation of strip mine areas. Mr. Corda has authored or co-authored 25 paper and 40 professional reports in the geotechnical and civil engineering fields.

Deepa Nair, P.E. will serve as a project geotechnical engineer. Ms. Nair has over **seven (7)** years of experience. She will serve as the primary internal consultant for geotechnical investigations. Ms. Nair will be involved in stability analysis, soils classifications, and boring log analysis.

Tony Bowling, P.E., PLS will serve as a project surveyor. Mr. Bowling has over **thirty (30)** years of surveying experience. He has managed surveying and engineering activities for The Kentucky Transportation Cabinet for over twenty (20) years and has lead CBC's surveying activities in our Hazard office for nearly ten (10) years. Mr. Bowling is responsible for the management of all work performed by our Hazard office and ensures that any required surveying is performed correctly and on time.

Gerald L. DeNeal will serve as a project engineer. Mr. DeNeal has over **thirty-four (34)** years of direct coal mine land reclamation and project management experience. Mr. DeNeal has done extensive coal mine reclamation planning and budgeting for surface strip operations (dragline/shovel), two seam truck carry-back operations, large truck/shovel carry-back operations and all sizes of underground coal operations, including longwall subsidence reclamation. In his career, Mr. DeNeal has demonstrated highly successful coal mine reclamation innovation and special techniques that improved vegetative productivity on "pre-law" abandoned mine lands.



Michael L Cross will serve as a project manager. Mr. Cross has over **thirty-two (32)** years of experience in the mining industry, including mine design and reclamation, reclamation inspection, reclamation liabilities studies, seepage studies, and implemented water treatment facilities for acid mine drainage. Mr. Cross has vast experience with US Army Corps of Engineers permitting and has overseen and monitored stream restoration and creation projects.

Chad Reed will serve as a project manager and has over **fifteen (15)** years' experience in the mining industry. He is involved in overseeing CBC's impoundment inspection and certification department, all aspects of permitting, design, evaluation, and geological modeling. Mr. Reed is experienced with state and federal regulations in WV, KY and OH.

S. Mark Summers, PLS and Bill Robertson will serve as Technical Specialists. Mr. Summers is a senior project manager with an extensive background in reclamation inspection and has over **thirty-seven (37)** years of experience in the mining industry. Mr. Robertson is our Director of Field Services who coordinates all construction observation and geotechnical drilling services.

Edward. G. Galaska, Erika Dunham, and Meredith Coll-Atkins will serve as environmental scientists. Mr. Galaska supervises our Environmental department and has over **twenty-seven (27)** years of experience in the environmental and biological fields. Mr. Galaska brings experience across many sectors including Mining, Airports, Hospitals, Schools and Commercial Real Estate and will oversee the activities of Ms. Dunham and Ms. Coll-Adkins on this project.

Ms. Dunham has over **seventeen (17)** years in Phase I & II Environmental Site Assessments, Asbestos Inspections, and Environmental Audits. Ms. Dunham coordinates all field activities, inspections, testing and reporting on all work performed by CBC. Ms. Dunham will coordinate and execute any related field activities on this project.

Ms. Coll-Atkins is the lead environmental scientist in our Charleston, WV office with **twelve (12)** experience. Meredith's duties and responsibilities have included preparation of all WVDEP permitting, Environmental Mitigation Strategies, U.S. Fish and Wildlife Protection and Enhancement Plans, phase release applications, planting plans, selenium treatment, water and soils analysis, drainage design, and stream delineation. She has experience in managing surface mine and deep mine permitting and reclamation projects and has coordinated pre-submittal and reclamation inspections with West Virginia Department of Environmental Protection (DEP). She is well respected among the staff of WVDEP Charleston, Oak Hill and Logan offices.

All of CBC's engineers have direct experience with mine reclamation, grading/drainage, feasibility studies, water study and design, stream restoration, and preparation of construction documents.

CBC's project managers will be supported by a team of staff engineers, geologists, environmental scientists, biologists, technicians, CADD operators, word processor operators, secretaries, and draftspersons, who will provide the expertise and manpower to complete the project.

## 4.0 Management Plan

CBC's proposed management organization is presented in **Figure 1 (Appendix G)**. The work will be performed by CBC's Dayton, Ohio and Charleston, West Virginia offices, which will allow ready access to the project area. Our Charleston office is convenient with respect to the WVDEP Charleston office. Assistance, if and when needed, will be provided by staff located in the Kentucky offices.

CBC's professional, technical and support staff have extensive experience on OSR related projects and are extremely well qualified to serve the WVDEP on this contract. CBC is ready to commit the personnel and resources required to complete the project in a timely, technically sound and cost efficient manner.

Project Management will be provided by Mr. Mitchell T. Hardert, P.E. or Michael L. Cross as shown in Figure 1. Mr. Hardert will be the principle-in-charge, responsible for contract management and overall performance of the project. He will review the proposed project, assign a project manager, assemble a project team and appoint key staff to develop a proposed scope of work. The principle-in-charge and the project manager will visit the site with the WVDEP-OSR to review site conditions and the proposed services to be completed and guide the preparation of a detailed proposal and cost estimate. The detailed scope of work along with cost estimate and man hours will then be submitted to the WVDEP-OSR for review. Upon WVDEP-OSR approval of the proposal, the project manager will arrange for start of project activities. The principle-in-charge will review the project budget and schedule during performance of the project and will provide a final QA/QC review of the documents prior to submittal to the WVDEP-OSR. The Project Manager will generally supervise the work in progress and review work products at intermediate points and finally prior to submittal to the WVDEP, and will be responsible for maintaining liaison with the WVDEP Project Manager including project status report, as required.

Day-to-day project activities will be performed under the direction of the Project Manager by one of the Project Engineers or Project Technicians (Michael L. Cross, Deepa Nair, M.S., P.E., I. John Corda, M.S., P.E., Roger Cornett, P.E., PLS, Chad Reed, Tony Bowling, P.E., PLS, S. Mark Summers, PLS and Bill Robertson) as shown in **Figure 1 (Appendix G)**. Their main activities will include development of detailed step-by-step project work plans to ensure the project activities are completed on-budget and on-time, review the work products at intermediate points and at project completion, providing guidance and direction to project staff, as well as engineering and design work.

Mr. Edward G. Galaska will oversee all environmental services performed by CBC. Field and technical analysis will be performed by Ms. Meredith Coll-Atkins and Ms. Erika Dunham. Surveys, reports, and documents will be reviewed by Mr. Galaska for QA/QC prior to submittal.

CBC's experienced staff in multiple locations allows for quick response time, provides flexibility, and permits for quality input from in-house experts. CBC's project management plan is to build small teams of highly qualified personnel, which ensures clients budget conscious, quality work.

WVDEP-OSR has indicated that 60 days are required for submittal of deliverables for the Professional Mapping and Design Services at the Summersville Five Block S-3051-88 and Brady Cline Coal EM-97 Project. CBC stands ready to meet your timeframe.



## **4.1 Project Budget Control**

---

The project manager will be responsible for monitoring the project budget and keeping the principle-in-charge informed of its status. CBC's staff submits time sheets on a weekly basis. All charges including labor hours and other project expenses are compiled and reported to the project manager by Tuesday of the following week. A detailed description of project expenses is available upon request.

## **4.2 Schedule Control**

---

Direct responsibility for the schedule control lies with the project manager. Initially, the Project Manager will review the work directive schedule requirements (understood to be 60 days for submittal for preliminary design documents) to see how they can be achieved with the anticipated scope of work. As the project progresses, the Project Manager will monitor progress and compare it with the established schedule on a weekly basis, keeping the principle-in-charge aware of the schedule's status. In this manner, the principle-in-charge can make staff adjustments to maintain the project schedule. If circumstances develop that make it impossible to maintain the project schedule, the Project Manager will contact the WVDEP Project Manager to develop mutually acceptable adjustment to the schedule.

## **4.3 Quality Assurance/ Quality Control**

---

Submittals to the WVDEP-OSR will be reviewed and commented on by the project manager and principle-in-charge prior to submittal to the WVDEP-OSR. CBC uses standard Quality Assurance/ Quality Control (QA/QC)

## **5.0 Closing**

---

We look forward to serving WVDEP-OSR on the Summersville Five Block S-3051-88 and Brady Cline Coal EM-97 Project and bringing it to completion. Our commitment is to provide quality, cost effective and timely service, as well as exceed your expectations. We believe our track record of our professionals demonstrates our ability and commitment.

## **Appendix A**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/5/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

|  |  |   |  |                                       |
|--|--|---|--|---------------------------------------|
| <b>PRODUCER</b><br>The James B. Oswald Company<br>1100 Superior Avenue, Suite 1500<br>Cleveland OH 44114 |  | <b>CONTACT</b><br>NAME: Patricia Cholewa<br>PHONE (A/C, No, Ext): 216-839-2807<br>E-MAIL: PCholewa@oswaldcompanies.com<br>ADDRESS: PCholewa@oswaldcompanies.com |  | <b>FAX</b><br>(A/C, No): 216-839-2815 |
| <b>INSURED</b><br>CBC Engineers & Associates Ltd<br>125 Westpark Road<br>Centerville OH 45459            |  | <b>INSURER(S) AFFORDING COVERAGE</b>  |  | <b>NAIC #</b>                         |
|  |  | INSURER A: Charter Oak Fire Insurance Co  |  | 25615                                 |
|  |  | INSURER B: Travelers Indemnity Company  |  | 25658                                 |
|  |  | INSURER C: Hudson Specialty Insurance Co.   |  | 25054                                 |
|  |  | INSURER D:  |  |                                       |
|  |  | INSURER E:  |  |                                       |
|  |  | INSURER F:  |  |                                       |

**COVERAGES**

CERTIFICATE NUMBER: 648789632

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE   | ADDL INSR | SUBR WVD | POLICY NUMBER   | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS  |
|----------|---|-----------|----------|-----------------|-------------------------|-------------------------|---|
| A        | GENERAL LIABILITY<br><input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY<br><input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR<br><input checked="" type="checkbox"/> AI Primary &<br><input checked="" type="checkbox"/> Non-Contributory<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br><input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC | Y         | Y        | 8806108L13513   | 11/15/2013              | 11/15/2014              | EACH OCCURRENCE \$1,000,000<br>DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000<br>MED EXP (Any one person) \$10,000<br>PERSONAL & ADV INJURY \$1,000,000<br>GENERAL AGGREGATE \$2,000,000<br>PRODUCTS - COMP/OP AGG \$2,000,000<br>\$ |
|          | AUTOMOBILE LIABILITY<br><input checked="" type="checkbox"/> ANY AUTO<br><input type="checkbox"/> ALL OWNED AUTOS<br><input checked="" type="checkbox"/> HIRED AUTOS<br><input checked="" type="checkbox"/> AI Primary<br><input type="checkbox"/> SCHEDULED AUTOS<br><input checked="" type="checkbox"/> NON-OWNED AUTOS  | Y         | Y        | BA6080L18313    | 11/15/2013              | 11/15/2014              | COMBINED SINGLE LIMIT (Ea accident) \$1,000,000<br>BODILY INJURY (Per person) \$<br>BODILY INJURY (Per accident) \$<br>PROPERTY DAMAGE (Per accident) \$<br>\$  |
| B        | <input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR<br><input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE<br><input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$10,000   | Y         | Y        | CUP7686Y30913   | 11/15/2013              | 11/15/2014              | EACH OCCURRENCE \$1,000,000<br>AGGREGATE \$1,000,000<br>Excludes Professional \$  |
| A        | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below  | Y         | N/A      | UB8069Y63113-KY | 11/15/2013              | 11/15/2014              | <input checked="" type="checkbox"/> WC STATUTORY LIMITS <input checked="" type="checkbox"/> OTHER<br>OH Stop Gap<br>E.L. EACH ACCIDENT \$1,000,000<br>E.L. DISEASE - EA EMPLOYEE \$1,000,000<br>E.L. DISEASE - POLICY LIMIT \$1,000,000     |
| C        | Professional Liability<br>Claims Made<br>Retro Date: 9/15/1995  | N         | Y        | AEE7269502      | 11/15/2013              | 11/15/2014              | Each Claim \$1,000,000<br>Aggregate \$1,000,000<br>Pollution & Envir. Liab. Included  |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Additional Insured and Waiver of Subrogation as designated above is provided when required of the Named Insured by written contract or agreement.

**CERTIFICATE HOLDER****CANCELLATION**

Specimen-OH  
For Purposes of Evidencing  
Coverage Only OH 45459

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
11/5/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

|  |       |  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |
|--|-------|--|--|--|-------|--|-------|---------------------------------------|-------|---|-------|------------|--|------------|--|
| <b>PRODUCER</b><br>The James B. Oswald Company<br>1100 Superior Avenue, Suite 1500<br>Cleveland OH 44114   |       | <b>CONTACT NAME:</b> Patricia Cholewa<br><b>PHONE (A/C, No, Ext):</b> 216-839-2807<br><b>E-MAIL ADDRESS:</b> PCholewa@oswaldcompanies.com<br><b>FAX (A/C, No):</b> 216-839-2815  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |
| <b>INSURED</b><br>CBCEN-1<br>CBC Engineers & Associates Ltd; Cowherd, Banner & Carlson Engineers & Associates, Ltd.;<br>Cowherd Engineers<br>3860 Teays Valley Rd.<br>Hurricane WV 25526 |       | <b>INSURER(S) AFFORDING COVERAGE</b><br><table border="1"><tr><td>INSURER A: Charter Oak Fire Insurance Co</td><td>25615</td></tr><tr><td>INSURER B: Travelers Indemnity Company</td><td>25658</td></tr><tr><td>INSURER C: Standard Fire Insurance Co</td><td>19070</td></tr><tr><td>INSURER D: Hudson Specialty Insurance Co.</td><td>25054</td></tr><tr><td>INSURER E:</td><td></td></tr><tr><td>INSURER F:</td><td></td></tr></table> |  | INSURER A: Charter Oak Fire Insurance Co | 25615 | INSURER B: Travelers Indemnity Company | 25658 | INSURER C: Standard Fire Insurance Co | 19070 | INSURER D: Hudson Specialty Insurance Co. | 25054 | INSURER E: |  | INSURER F: |  |
| INSURER A: Charter Oak Fire Insurance Co   | 25615 |  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |
| INSURER B: Travelers Indemnity Company   | 25658 |  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |
| INSURER C: Standard Fire Insurance Co  | 19070 |  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |
| INSURER D: Hudson Specialty Insurance Co.  | 25054 |  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |
| INSURER E:   |       |  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |
| INSURER F:   |       |  |  |  |       |  |       |                                       |       |   |       |            |  |            |  |

**COVERAGES**

CERTIFICATE NUMBER: 1447940095

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE   | ADDL INSR | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS  |
|----------|---|-----------|----------|---------------|-------------------------|-------------------------|---|
| A        | GENERAL LIABILITY<br><input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY<br><input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR<br><input checked="" type="checkbox"/> All Primary &<br><input checked="" type="checkbox"/> Non-Contributory<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br><input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC | Y         | Y        | 6806108L13513 | 11/15/2013              | 11/15/2014              | EACH OCCURRENCE \$1,000,000<br>DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000<br>MED EXP (Any one person) \$10,000<br>PERSONAL & ADV INJURY \$1,000,000<br>GENERAL AGGREGATE \$2,000,000<br>PRODUCTS - COMP/OP AGG \$2,000,000<br>\$ |
|          | AUTOMOBILE LIABILITY<br><input checked="" type="checkbox"/> ANY AUTO<br><input type="checkbox"/> ALL OWNED AUTOS<br><input checked="" type="checkbox"/> HIRED AUTOS<br><input checked="" type="checkbox"/> All Primary<br><input type="checkbox"/> SCHEDULED AUTOS<br><input checked="" type="checkbox"/> NON-OWNED AUTOS   | Y         | Y        | BA6080L18313  | 11/15/2013              | 11/15/2014              | COMBINED SINGLE LIMIT (Ea accident) \$1,000,000<br>BODILY INJURY (Per person) \$<br>BODILY INJURY (Per accident) \$<br>PROPERTY DAMAGE (Per accident) \$<br>\$  |
| B        | <input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR<br><input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE<br><input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$10,000   | Y         | Y        | CUP7686Y30913 | 11/15/2013              | 11/15/2014              | EACH OCCURRENCE \$2,000,000<br>AGGREGATE \$2,000,000<br>Excludes Professional \$  |
| C        | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below  | Y/N<br>N  | N/A      | UB1825T57913  | 11/15/2013              | 11/15/2014              | <input checked="" type="checkbox"/> WC STATUTORY LIMITS<br><input type="checkbox"/> OTHER<br>E.L. EACH ACCIDENT \$1,000,000<br>E.L. DISEASE - EA EMPLOYEE \$1,000,000<br>E.L. DISEASE - POLICY LIMIT \$1,000,000                            |
| D        | Professional Liability<br>Claims Made<br>Retro Date: 9/15/1995  | N         | Y        | AEE7269502    | 11/15/2013              | 11/15/2014              | Each Claim \$3,000,000<br>Aggregate \$3,000,000<br>Pollution & Envir. Liab. Included  |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Additional Insured and Waiver of Subrogation as designated above is provided when required of the Named Insured by written contract or agreement.

**CERTIFICATE HOLDER****CANCELLATION**

Specimen-WV  
For Purposes of Evidencing  
Coverage Only WV 25526

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



**Bureau of Workers'  
Compensation**

30 W. Spring St.  
Columbus, OH 43215

## Certificate of Premium Payment

This certifies the employer listed below has paid into the Ohio State Insurance Fund as required by law. Therefore, the employer is entitled to the rights and benefits of the fund for the period specified. For more information, call 1-800-OHIOBWC.

This certificate must be conspicuously posted.

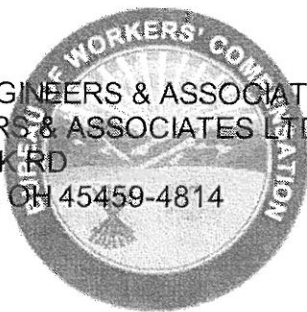
Policy No. and Employer

Period Specified Below

1172826

01/01/2014 Thru 08/31/2014

COWHERD ENGINEERS & ASSOCIATES LTD  
CBC ENGINEERS & ASSOCIATES LTD.  
125 WESTPARK RD  
CENTERVILLE, OH 45459-4814



ohiobwc.com

*Stephen Bucher*  
Administrator/CEO

You can reproduce this certificate as needed.

## Ohio Bureau of Workers' Compensation

### Required Posting

Effective Oct. 13, 2004, Section 4123.54 of the Ohio Revised Code requires notice of rebuttable presumption. Rebuttable presumption means an employee may dispute or prove untrue the presumption (or belief) that alcohol or a controlled substance not prescribed by the employee's physician is the proximate cause (main reason) of the work-related injury.

The burden of proof is on the employee to prove the presence of alcohol or a controlled substance was not the proximate cause of the work-related injury. An employee who tests positive or refuses to submit to chemical testing may be disqualified for compensation and benefits under the Workers' Compensation Act.



**Bureau of Workers'  
Compensation**

You must post this language with the certificate of premium payment.

DP-29 BWC-1629 7/7/08

## **Appendix B**

RFQ No. DEP16558STATE OF WEST VIRGINIA  
Purchasing Division**PURCHASING AFFIDAVIT**

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

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

**DEFINITIONS:**

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

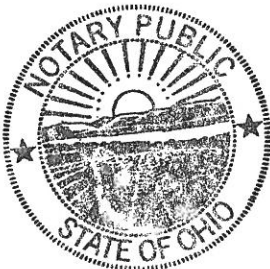
**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers'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

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

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

**WITNESS THE FOLLOWING SIGNATURE:**Vendor's Name: CBC ENGINEERS & ASSOCIATESAuthorized Signature: [Signature] Date: 6-10-2014State of OhioCounty of Montgomery, to-wit:Taken, subscribed, and sworn to before me this 10 day of June, 2014.My Commission expires September 2, 2015.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]

Purchasing Affidavit (Revised 07/01/2012)

LAURA E. BARKSDALE, Notary Public  
In and for the State of Ohio  
My Commission Expires Sept. 2, 2015


## **Appendix C**



CERTIFICATION AND SIGNATURE PAGE

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

CBC ENGINEERS & ASSOCIATES, LTD.  
(Company)

  
(Authorized Signature)

MITCHELL T. HARDERT - CHIEF ENGINEER & V.P.  
(Representative Name, Title)

937-428-6150      937-428-6154  
(Phone Number)      (Fax Number)

6-10-2014  
(Date)

## **Appendix D**

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.:**      DEP16558

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

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

**Addendum Numbers Received:**

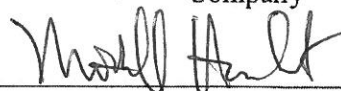
(Check the box next to each addendum received)

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

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

CBC ENGINEERS & ASSOCIATES, LTD.

Company



Authorized Signature

6-10-2014

Date

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

## **Appendix E**

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OSR CONSULTANT QUALIFICATION QUESTIONNAIRE**

Attachment "B"

|  |  |  |  |   |  |   |  |  |   |  |  |
|--|--|--|--|---|--|---|--|--|---|--|--|
| PROJECT NAME<br>Bond Forfeited Permits of Summersville<br>Five Block S-3051-88 & Brady Cline<br>Coal EM-97   |  | DATE (DAY, MONTH, YEAR)<br>06-19-2014  |  | FEIN<br>31-1443075  |  |   |  |  |   |  |  |
| 1. FIRM NAME<br>CBC Engineers & Associates, Ltd.   |  | 2. HOME OFFICE BUSINESS ADDRESS<br>125 Westpark Road, Centerville, Ohio<br>45459   |  | 3. FORMER FIRM NAME<br>N/A  |  |   |  |  |   |  |  |
| 4. HOME OFFICE TELEPHONE<br><br>(937)428-6150  | 5. ESTABLISHED (YEAR)<br><br>1995  | 6. TYPE OWNERSHIP<br><br>Partnership   |  | 6a. WV REGISTERED DBE<br>(Disadvantaged Business<br>Enterprise)<br><br>NO |  |   |  |  |   |  |  |
| 7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE<br>125 Westpark Road, Centerville, Ohio 45459/ 937-428-6150/ Mitchell Hardert/ 6 Dayton, 4 Charleston, 4 Lexington<br>3 Hazard, 3 Harrisburg  |  |  |  |   |  |   |  |  |   |  |  |
| 8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM<br>Al Banner, President & COO<br>Mitchell Hardert, Chief Engineer & Vice President   |  |  | 8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS<br>Joe Dennis, Director (937)428-6150<br>Edward Galaska, Director (937)428-6150 |   |  |   |  |  |   |  |  |
| 9. PERSONNEL BY DISCIPLINE   |  |  |  |   |  |   |  |  |   |  |  |
| <table style="width:100%; border: none;"> <tr> <td style="width:33%; vertical-align: top;"> <u>7</u> ADMINISTRATIVE<br/> — ARCHITECTS<br/> <u>3</u> BIOLOGIST<br/> <u>5</u> CADD OPERATORS<br/> — CHEMICAL ENGINEERS<br/> <u>7</u> CIVIL ENGINEERS<br/> <u>12</u> CONSTRUCTION INSPECTORS<br/> — DESIGNERS<br/> — DRAFTSMEN </td> <td style="width:33%; vertical-align: top;"> — ECOLOGISTS<br/> — ECONOMISTS<br/> — ELECTRICAL ENGINEERS<br/> — ENVIRONMENTALISTS<br/> — ESTIMATORS<br/> <u>1</u> GEOLOGISTS<br/> — HISTORIANS<br/> — HYDROLOGISTS </td> <td style="width:33%; vertical-align: top;"> — LANDSCAPE ARCHITECTS<br/> — MECHANICAL ENGINEERS<br/> <u>5</u> MINING ENGINEERS<br/> — PHOTOGRAMMETRISTS<br/> — PLANNERS: URBAN/REGIONAL<br/> — SANITARY ENGINEERS<br/> — SOILS ENGINEERS<br/> — SPECIFICATION WRITERS </td> </tr> <tr> <td colspan="3" style="text-align: right; vertical-align: top;"> <u>2</u> STRUCTURAL ENGINEERS<br/> <u>2</u> SURVEYORS<br/> <u>4</u> TRAFFIC ENGINEERS<br/> OTHER<br/> <br/> <b>46</b> TOTAL PERSONNEL </td> </tr> </table> |  |  |  |   |  | <u>7</u> ADMINISTRATIVE<br>— ARCHITECTS<br><u>3</u> BIOLOGIST<br><u>5</u> CADD OPERATORS<br>— CHEMICAL ENGINEERS<br><u>7</u> CIVIL ENGINEERS<br><u>12</u> CONSTRUCTION INSPECTORS<br>— DESIGNERS<br>— DRAFTSMEN | — ECOLOGISTS<br>— ECONOMISTS<br>— ELECTRICAL ENGINEERS<br>— ENVIRONMENTALISTS<br>— ESTIMATORS<br><u>1</u> GEOLOGISTS<br>— HISTORIANS<br>— HYDROLOGISTS | — LANDSCAPE ARCHITECTS<br>— MECHANICAL ENGINEERS<br><u>5</u> MINING ENGINEERS<br>— PHOTOGRAMMETRISTS<br>— PLANNERS: URBAN/REGIONAL<br>— SANITARY ENGINEERS<br>— SOILS ENGINEERS<br>— SPECIFICATION WRITERS | <u>2</u> STRUCTURAL ENGINEERS<br><u>2</u> SURVEYORS<br><u>4</u> TRAFFIC ENGINEERS<br>OTHER<br><br><b>46</b> TOTAL PERSONNEL |  |  |
| <u>7</u> ADMINISTRATIVE<br>— ARCHITECTS<br><u>3</u> BIOLOGIST<br><u>5</u> CADD OPERATORS<br>— CHEMICAL ENGINEERS<br><u>7</u> CIVIL ENGINEERS<br><u>12</u> CONSTRUCTION INSPECTORS<br>— DESIGNERS<br>— DRAFTSMEN  | — ECOLOGISTS<br>— ECONOMISTS<br>— ELECTRICAL ENGINEERS<br>— ENVIRONMENTALISTS<br>— ESTIMATORS<br><u>1</u> GEOLOGISTS<br>— HISTORIANS<br>— HYDROLOGISTS | — LANDSCAPE ARCHITECTS<br>— MECHANICAL ENGINEERS<br><u>5</u> MINING ENGINEERS<br>— PHOTOGRAMMETRISTS<br>— PLANNERS: URBAN/REGIONAL<br>— SANITARY ENGINEERS<br>— SOILS ENGINEERS<br>— SPECIFICATION WRITERS |  |   |  |   |  |  |   |  |  |
| <u>2</u> STRUCTURAL ENGINEERS<br><u>2</u> SURVEYORS<br><u>4</u> TRAFFIC ENGINEERS<br>OTHER<br><br><b>46</b> TOTAL PERSONNEL  |  |  |  |   |  |   |  |  |   |  |  |
| 2  |  |  |  |   |  |   |  |  |   |  |  |
| TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE:<br>*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to<br>supervise and perform this type of work.  |  |  |  |   |  |   |  |  |   |  |  |
|  |  |  |  |   |  |   |  |  |   |  |  |
|  |  |  |  |   |  |   |  |  |   |  |  |
|  |  |  |  |   |  |   |  |  |   |  |  |
|  |  |  |  |   |  |   |  |  |   |  |  |
|  |  |  |  |   |  |   |  |  |   |  |  |
| 10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO   |  |  |  |   |  |   |  |  |   |  |  |

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

|  |   |  |
|--|---|--|
| NAME AND ADDRESS:<br><b>Horn &amp; Associates</b><br>216 N. Main Street<br>Winchester, KY 40391                | SPECIALTY:<br><br><b>Soil Drilling</b>          | WORKED WITH BEFORE<br><br>___X___ Yes<br>____ No |
| NAME AND ADDRESS:<br><b>F Moore Drilling Service, Inc.</b><br>10585 Flagg Springs Pike<br>California, KY 41007 | SPECIALTY:<br><br><b>Soil Drilling</b>          | WORKED WITH BEFORE<br><br>___X___ Yes<br>____ No |
| NAME AND ADDRESS:<br><b>Central Star Drilling</b><br>288 Heron Road<br>Peebles, Ohio 45660                     | SPECIALTY:<br><br><b>Soil Drilling</b>          | WORKED WITH BEFORE<br><br>___X___ Yes<br>____ No |
| NAME AND ADDRESS:<br><b>Bowser Morner, Inc.</b><br>4518 Taylorsville Road<br>Dayton, Ohio 45424                | SPECIALTY:<br><br><b>Soil/Refuse Testing</b>    | WORKED WITH BEFORE<br><br>___X___ Yes<br>____ No |
| NAME AND ADDRESS:<br><b>REI Consultants, Inc.</b><br>PO Box 286<br>Beaver, WV 25813                            | SPECIALTY:<br><br><b>Soil Testing/ABA</b>       | WORKED WITH BEFORE<br><br>___X___ Yes<br>____ No |
| NAME AND ADDRESS:<br><b>Smith Adjusting, Inc.</b><br>2931 Hultz Road<br>Catlettsburg, Ky 41129                 | SPECIALTY:<br><br><b>Blasting Design/Survey</b> | WORKED WITH BEFORE<br><br>____ Yes<br>___X___ No |
| NAME AND ADDRESS:<br><b>Photo Science, Inc.</b><br>523 Wellington Way<br>Lexington, Kentucky 40503             | SPECIALTY:<br><br><b>Aerial Mapping</b>         | WORKED WITH BEFORE<br><br>____ Yes<br>___X___ No |

12. A. Is your firm experienced in Special Reclamation remediation/ Mine Reclamation Engineering?

YES Description and number of projects:

**CBC personnel, working directly for the coal industry, has experience in all phases of mine reclamation/engineering of over 25 permits/projects in WV including single and multiple seam contour surface mines, mountaintop removal surface mines, deep mines, refuse areas, prep plants and loadouts. Numerous other surface mines and deep mines in Kentucky were reclaimed to achieve final bond release.**

B. Is your firm experienced in soil analysis and coal refuse analyses?

YES Description and number of projects:

**CBC performs a geotechnical investigation for the refuse areas that it designs and permits. Soil analyses are part of investigation. Soil analysis are required for most surface and deep mine SMA's. CBC completes most soil investigations in-house but has used some sub-contractors depending on the type of soil analysis required.**

C. Is your firm experienced in hydrology and hydraulics for handling mine water discharges on mining sites?

YES Description and number of projects:

**WVDEP SMA's, NPDES applications and MSHA refuse areas designed and permitted by CBC contain detailed Storm Water Run-off Analysis (SWROA's), sediment control structures designs, conveyance channels designs and road designs including bridge, culverts, ditch designs. CBC has also prepared SMA's, NPDES applications and MSHA in Kentucky, and Illinois for the handling of mine water discharges on mining sites. Projects designed by CBC exceed 100+**

D. Does your firm produce its own aerial photography and development of contour mapping?

NO Description and number of projects:

**CBC has developed contour mapping based on field survey work related to coal refuse work. CBC does not own its own Aerial Photography service.**

E. Is your firm experienced in design of highwall elimination, grading and material handling plans for land reclamation?

YES Description and Number of Projects:

**CBC personnel, working directly for the coal industry, has experience in highwall elimination, grading and material handling of over 25 permits/projects. Highwalls eliminated ranged in height from 70 to 300 feet with slopes as steep as 1.33H:1V. Grading and materials handling conducted as part of final reclamation or contemporaneous reclamation plans of active permits.**

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

| NAME & TITLE (Last, First, Middle Int.)                  | YEARS OF EXPERIENCE             |   |  |
|--|---------------------------------|---|--|
|  | YEARS OF OSR DESIGN EXPERIENCE: | YEARS OF OSR RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Hardert, Mitchell, T.<br>Chief Engineer & Vice President |                                 | 18 Years                                |  |

Brief Explanation of Responsibilities

Mr. Hardert will serve as principle-in-charge and will be responsible for the day-to-day project activities and guidance of the CBC staff. His main activities will include development of detailed project work plans to ensure the project activities are completed on time and on budget, and that the personnel required to efficiently complete this project will be identified. He will review the project at intermediate points and at project completion, as well as engineering and design work. Mr. Hardert will be responsible for technical specifications, oversight of construction drawings, calculations and cost estimates. He will oversee the geotechnical aspects of the project, including but not limited to subsurface exploration, foundation and embankment design, and slope stability. He will coordinate contract issues with the State of West Virginia.

EDUCATION (Degree, Year, Specialization)  
B.S. Civil Engineering, 1998, University of Dayton  
MSHA Certified Impoundment Instructor and Inspector

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

ASCE

REGISTRATION (Type, Year, State) 46 Other States  
P.E., 2004, West Virginia  
P.E., 2003, Ohio

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

| NAME & TITLE (Last, First, Middle Int.) | YEARS OF EXPERIENCE             |   |  |
|---|---------------------------------|---|--|
|   | YEARS OF OSR DESIGN EXPERIENCE: | YEARS OF OSR RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Cross, Michael, L<br>Project Manager    |                                 | 34 Years                                |  |

Brief Explanation of Responsibilities

Mr. Cross will serve as the project manager. He is responsible for the day-to-day operations of the office, staff management, project management and business development. Mr. Cross has over 30 years' of experience in the mining industries including all aspects of the exploration, design, development, implementation, closure and reclamation of surface mines, deep mines, preparation plants and refuse disposal areas. He has developed an impeccable working relationship with the governmental agencies including but not limited to the WVDEP, USACE, MSHA, USEPA, and WVOMHST.

Mr. Cross will coordinate all engineering activities with CBC's primary office and manage all related engineering work performed by CBC's Charleston, WV office. He will be responsible for day-to-day project activities. Mr. Cross will oversee hydraulic/hydrologic aspects of the project, including but not limited to stormwater management, stream bank protection, erosion and sediment control, and mine discharge; oversee all construction inspections and field work; and assist with the geotechnical aspects of the project, including but not limited to subsurface exploration, foundation and embankment design, and slope stability.

Mr. Cross has over 18 years of direct coal mine land reclamation and project management experience with GEX Kentucky, Island Creek Coal Company and CONSOL. While working for Island Creek/CONSOL, Mr. Cross was the reclamation superintendent for large coal mine reclamation projects of surface mines and deep mines in WV. Mr. Cross has done extensive coal mine reclamation planning and budgeting.

EDUCATION (Degree, Year, Specialization)  
B.S. Mining Engineering, 1980, West Virginia University  
MSHA Certified Impoundment Inspector



|  |                                 |   |  |
|--|---------------------------------|---|--|
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                 | REGISTRATION (Type, Year, State)  |  |
| 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete data but keep to essentials)  |                                 |   |  |
| NAME & TITLE (Last, First, Middle Int.)<br><br>Cornett, Roger, W.<br>Project Engineer  | YEARS OF EXPERIENCE             |   |  |
|  | YEARS OF OSR DESIGN EXPERIENCE: | YEARS OF OSR RELATED DESIGN EXPERIENCE:<br>35 Years   | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Brief Explanation of Responsibilities<br><br>Mr. Cornett will serve as a project engineer, including field work, design, preparation of construction drawings, technical specifications, calculations and cost estimates. He will oversee hydraulic/hydrology aspects of the project, including but not limited to stormwater management, erosion, sediment control, and mine discharge. Mr. Cornett has served as project manager responsible for surface and underground mining permitting, design, and reclamation. |                                 |   |  |
| EDUCATION (Degree, Year, Specialization)<br>B.S. Physics & Mathematics, 1977, Morehead State University<br>M.S Civil Engineering, 1980, University of Tennessee  |                                 |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                 | REGISTRATION (Type, Year, State) 2 Other States<br>P.E., 2010, West Virginia      PLS, 1987, Kentucky<br>P.E., 1981, Kentucky |  |
| 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete data but keep to essentials)  |                                 |   |  |
| NAME & TITLE (Last, First, Middle Int.)<br><br>Corda, Ioan, John<br>Project Engineer   | YEARS OF EXPERIENCE             |   |  |
|  | YEARS OF OSR DESIGN EXPERIENCE: | YEARS OF OSR RELATED DESIGN EXPERIENCE:<br>48 Years   | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Brief Explanation of Responsibilities<br><br>Mr. Corda will serve as a project engineer, including develop grading plans, seepage analysis, seismic stability analysis, evaluate soil borrow areas, perform hydrologic and hydraulic design calculations, reclamation, and develop contract drawings and specifications.   |                                 |   |  |
| EDUCATION (Degree, Year, Specialization)<br>B.S. Civil Engineering, 1964, Construction Institute of Bucharest, Romania<br>M.S. Civil Engineering, 1977, Polytechnical Institute of Bucharest, Romania  |                                 |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                 | REGISTRATION (Type, Year, State)<br>P.E., 1997, Ohio  |  |
| 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete data but keep to essentials)  |                                 |   |  |
| NAME & TITLE (Last, First, Middle Int.)<br><br>DeNeal, Gerald L.<br>Project Engineer   | YEARS OF EXPERIENCE             |   |  |
|  | YEARS OF OSR DESIGN EXPERIENCE: | YEARS OF OSR RELATED DESIGN EXPERIENCE:<br>34 Years   | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |

**Brief Explanation of Responsibilities**

Mr. DeNeal will serve as Senior Technical Reclamation Advisor.

Mr. DeNeal has over 34 years of direct coal mine land reclamation and project management experience with Peabody Coal Company (now Peabody Energy Corp.), J.J. Track Mining Co, Inc., Kerr-McGee Coal Corp., and The American Coal Company, Inc. In this capacity, Mr. DeNeal was site manager for large coal mine reclamation projects in Kentucky, Illinois, Indiana, Missouri, Oklahoma, Arizona and Wyoming. Mr. DeNeal has done extensive coal mine reclamation planning and budgeting for surface strip operations (dragline/shovel), two seam truck carry-back operations, large truck/shovel carry-back operations and all sizes of underground coal operations, including longwall subsidence reclamation. In his career, Mr. DeNeal has demonstrated highly successful coal mine reclamation innovation and special techniques that improved vegetative productivity on "pre-law" abandoned mine lands.

**EDUCATION (Degree, Year, Specialization)**

B.S. Plant and Soil Science

**MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

American Society of Mining and Reclamation  
Mining and Reclamation Council (MARC) of America

**REGISTRATION (Type, Year, State)****13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete data but keep to essentials)****NAME & TITLE (Last, First, Middle Int.)**

Nair, Deepa  
Project Engineer

**YEARS OF EXPERIENCE****YEARS OF OSR DESIGN EXPERIENCE:**

YEARS OF OSR RELATED DESIGN  
EXPERIENCE:  
8 Years

YEARS OF DOMESTIC  
WATERLINE DESIGN  
EXPERIENCE:

**Brief Explanation of Responsibilities**

Ms. Nair will serve as a project engineer. Her responsibilities will include hydraulic calculations, layout, drawing preparation, design, technical specifications, cost estimates, and field work. She will serve as the primary internal consultant for geotechnical investigations. Ms. Nair will be involved in stability analysis, soils classifications, and boring log analysis.

**EDUCATION (Degree, Year, Specialization)**

B.S. Technology, 2002, University of Kerala, India  
M.S. Civil Engineering, 2005, Purdue University

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

P.E., 2011, Ohio

**13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete data but keep to essentials)****NAME & TITLE (Last, First, Middle Int.)**

Dunham, Erika  
Environmental Scientist

**YEARS OF EXPERIENCE****YEARS OF OSR DESIGN EXPERIENCE:**

YEARS OF OSR RELATED DESIGN  
EXPERIENCE:  
17 Years

YEARS OF DOMESTIC  
WATERLINE DESIGN  
EXPERIENCE:

**Brief Explanation of Responsibilities**

Ms. Dunham will serve as environmental scientist for the project. She will coordinate required environmental support services for the completion of this reclamation design. Ms. Dunham will supervise environmental field crews and evaluate all analytical

analy:

EDUCATION (Degree, Year, Specialization)

B.S. Ecological Engineering, 1995, Universidad Poplar Autonoma del Estado de Puebla (UPAEP)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)

YEARS OF EXPERIENCE

Bowling, Tony  
Project Surveyor

YEARS OF OSR DESIGN EXPERIENCE:

YEARS OF OSR RELATED DESIGN  
EXPERIENCE:  
30 Years

YEARS OF DOMESTIC  
WATERLINE DESIGN  
EXPERIENCE:

Brief Explanation of Responsibilities

Mr. Bowling will serve as Project Surveyor. He will coordinate required surveying for mapping if needed, establish construction benchmarks, topographic surveys, boundary surveys and/or property and deed research, survey of boring locations and profiling significant existing drainage courses. Mr. Bowling will oversee all survey crews and will provide QA/QC services for the project.

EDUCATION (Degree, Year, Specialization)

B.S Civil Engineering, 1983, University of Kentucky

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

P.E., 1985, Kentucky  
PLS, 1984, Kentucky

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

NAME & TITLE (Last, First, Middle Int.)

YEARS OF EXPERIENCE

Summers, S., Mark  
Project Surveyor/ Technical Advisor

YEARS OF OSR DESIGN EXPERIENCE:

YEARS OF OSR RELATED DESIGN  
EXPERIENCE:  
37 Years

YEARS OF DOMESTIC  
WATERLINE DESIGN  
EXPERIENCE:

Brief Explanation of Responsibilities

Mr. Summers will serve as Project Surveyor. He will coordinate required surveying for mapping if needed, establish construction benchmarks, topographic surveys, boundary surveys and/or property and deed research, survey of boring locations and profiling significant existing drainage courses.

EDUCATION (Degree, Year, Specialization)

B.S. Forestry, 1975, University of Kentucky

|  |   |
|--|---|
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS | REGISTRATION (Type, Year, State)<br>PLS, 1985, Kentucky |
|--|---|

|  |                                 |   |  |
|--|---------------------------------|---|--|
| 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete data but keep to essentials)  |                                 |   |  |
| NAME & TITLE (Last, First, Middle Int.)<br><br>Highlander, Eugene, D.<br>Field Engineer  | YEARS OF EXPERIENCE             |   |  |
|  | YEARS OF OSR DESIGN EXPERIENCE: | YEARS OF OSR RELATED DESIGN EXPERIENCE:<br>46 Years           | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Brief Explanation of Responsibilities<br><br>Mr. Highlander will serve as a field engineer. He will coordinate the drilling and geotechnical analysis for slope stability design, identification of borrow site for soil cover, and investigation and design of solutions for subsurface hydrogeology within the deep mines and recommendations for mine seals.                      |                                 |   |  |
| EDUCATION (Degree, Year, Specialization)<br>B.S. Civil Engineering, 1966, West Virginia Institute of Technology  |                                 |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                 | REGISTRATION (Type, Year, State)<br>P.E., 1973, West Virginia |  |
| 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete data but keep to essentials)  |                                 |   |  |
| NAME & TITLE (Last, First, Middle Int.)<br><br>Reed, Chad<br>Construction Engineer   | YEARS OF EXPERIENCE             |   |  |
|  | YEARS OF OSR DESIGN EXPERIENCE: | YEARS OF OSR RELATED DESIGN EXPERIENCE:<br>15 Years           | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Brief Explanation of Responsibilities<br><br>Mr. Reed will serve as construction engineer. He will coordinate the drilling and geotechnical analysis for slope stability design, identification of borrow site for soil cover, field verify mapping, and investigation and design of solutions for subsurface hydrogeology within the deep mines and recommendations for mine seals. |                                 |   |  |
| EDUCATION (Degree, Year, Specialization)<br>B.S. Civil Engineering, 1997, West Virginia University   |                                 |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                 | REGISTRATION (Type, Year, State)                              |  |

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

| <u>Equipment:</u>              | <u>Software:</u>                    |               |
|--------------------------------|-------------------------------------|---------------|
| Plotters                       | AutoCAD/ Civil 3D                   | Pile Buck     |
| Digital Cameras                | MicroStation                        | HY-B          |
| Photocopiers/Printers/Scanners | Microsoft Office Suites             | Cande         |
| Surveying Stations             | Sewer CAD                           | Retain Pro    |
| GPS Units                      | Water CAD                           | Scour         |
| Trucks                         | Hydrocalc Hydraulics                | Brass Culvert |
| ATV                            | TR-55                               | Math CAD      |
| Drill Rigs                     | Numerous Hydrology/Hydraulic Models | Multspan      |
| Nuclear Density Gage           | Maptech (Professional)              | BRG Abut      |
| Soils & Material Lab           | REAME                               | L-Pile        |
|                                | GeoPack Design                      | GeoSlope      |
|                                | ARC Gis                             | Key WA-II     |
|                                | Adobe                               | MSE WA-II     |
|                                | Carlson                             | PC Stable     |
|                                | HEC-Raz                             |               |
|                                | Geomotions                          |               |
|                                | SedCad                              |               |

## 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   |
|--|---|---|--|--|
| <i>CBC Engineers WV mining related experience - Design &amp; permitting projects</i>                       |   |   |  |  |
| Roaring Creek Refuse Area, O-2022-10, Refuse Impoundment / Coarse Refuse Fill, Brook Run, Randolph Co., WV | Roaring Creek Coal Co., LLC, 109 Appalachian Dr., Beckley, WV 25801 | Design and obtain approvals from MSHA, WVDEP - SMA, NPDES, Dam, 401 Certification & USACE 404 Individual Permits          | NA. New facility                       | MSHA - 95%<br>WVDEP SMA/Dam - 100% complete - waiting on final approval from WVDEP headquarters, NPDES 85%, 401 - 97%, 404 - 75% |
| Roaring Creek Deep Mine U-2016-10, Brook Run, Randolph Co., WV   | Roaring Creek Coal Co., LLC, 109 Appalachian Dr., Beckley, WV 25801 | Design and obtain approvals from WVDEP - SMA, NPDES, 401 Certification & USACE 404 Individual Permits<br>NA. New facility | NA. New facility                       | WVDEP SMA/NPDES - 100% complete - waiting on final approval of 401/404   |
| Roaring Creek Prep Plant O-2020-10, Brook Run, Randolph Co., WV  | Roaring Creek Coal Co., LLC, 109 Appalachian Dr., Beckley, WV 25801 | Design and obtain approvals from WVDEP - SMA, NPDES, 401 Certification & USACE 404 Individual Permits                     | NA. New facility                       | WVDEP SMA/NPDES - 100% complete - waiting on final approval of 401/404   |
| Payne Branch Refuse Impoundment, S-4003-99, Payne Branch, Wyoming Co., WV                                  | Bluestone Coal Corp., 100 Cranberry Creek, Beckley, WV 25801        | Design and obtain MSHA, WVDEP - SMA, NPDES, Dam permit  | NA. New facility                       | MSHA - approved<br>WVDEP SMA - 86%, NPDES - 71%, DAM 37%   |
| Nufac Combined Refuse Fill, S-4025-86, Little White Oak Creek of Pinnacle Creek                            | Bluestone Coal Corp., 100 Cranberry Creek, Beckley, WV 25801        | Design and obtain MSHA, WVDEP - SMA, NPDES,   | NA. New facility                       | MSHA - 75%<br>WVDEP SMA 61%, NPDES 57%   |
| TOTAL NUMBER OF PROJECTS:  |   |   | TOTAL ESTIMATED CONSTRUCTION COSTS: \$ |  |



## 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 |
|---|---|---|--|------------------|
| <b>CBC Engineers WV refuse related experience - Construction Monitoring</b> |   |   |  |                  |
| Tinsley Branch Impoundment, O-5032-99                                       | Bandmill Coal Corp.,<br>County Route 14, Rum<br>Creek Road<br>Yolyn, WV 25654 | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Monclo Impoundment, O-51-85   | Mingo Logan Coal Company, 1000 Mingo Logan Avenue,<br>Wharncliffe, WV 25651   | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Holden 22 Impoundment/Slurry Cells, P-606                                   | Coal-Mac, Inc., PO Box 1050 Holden, WV 25625                                  | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Lower Big Branch Impoundment/Capped, O-48-82                                | Performance Coal, PO Box 69, Naoma, WV 25140                                  | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Slippery Gut Impoundment, O-6-81  | Hobet Mining, LLC<br>PO Box 305<br>Madison, WV 25130                          | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Bragg Fork Impoundment, S-128-78  | Hobet Mining, LLC<br>PO Box 305<br>Madison, WV 25130                          | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| TOTAL NUMBER OF PROJECTS:   |   |   | TOTAL ESTIMATED CONSTRUCTION COSTS: \$ |                  |

## 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 |
|--|--|---|--|------------------|
| <b><i>CBC Engineers WV refuse related experience - Construction Monitoring</i></b> |  |   |  |                  |
| Delbarton Impoundment, O-5081-91   | Delbarton Mining Company, State Route 65, Thunder Ridge Road Delbarton, WV 25670 | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Rockhouse Impoundment, O-44-84   | Stirrat Coal Co., Route 44 South Stirrat, WV 25638                               | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Superior Sediment Pond #4, S-5017-98   | Stirrat Coal Co., Route 44 South Stirrat, WV 25638                               | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Ragland Holden 25 Impoundment, P-609   | Coal-Mac, Inc., PO Box 1050 Holden, WV 25625                                     | Conduct seven day inspections, prepare & submit quarterly certifications to WVDEP and annual certifications to MSHA | NA                                     | On going         |
| Brushy Fork Impoundment, O-3010-95   | Marfork Coal Company, Inc Route 3 Over 1 Pettus, WV 25209                        | Conduct seven day - Bi-weekly inspections   | NA                                     | On going         |
| Ellis Creek Dry Refuse Pile, O-3017-91   | Performance Coal, PO Box 69, Naoma, WV 25140                                     | Conduct monthly inspections, prepare & submit quarterly certifications to WVDEP                                     | NA                                     | On going         |
| River Fork Dry Refuse Pile, U-13-83  | Performance Coal, PO Box 69, Naoma, WV 25140                                     | Conduct monthly inspections, prepare & submit quarterly certifications to WVDEP                                     | NA                                     | On going         |
| TOTAL NUMBER OF PROJECTS:  |  |   | TOTAL ESTIMATED CONSTRUCTION COSTS: \$ |                  |
|  |  |   |  |                  |



## 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 |
|--|---|---|-----------------------------|------------------|
| <b><i>CBC Engineers WV refuse related experience - Construction Monitoring</i></b> |   |   |                             |                  |
| Low Gap Dry Refuse Pile, O-3005-94   | Marfork Coal Company, Inc<br>Route 3 Over 1<br>Pettus, WV 25209 | Conduct monthly inspections, prepare & submit quarterly certifications to WVDEP                 | NA                          | On going         |
| Little Horse Creek Dry Refuse Pile, S-106-77                                       | Hobet Mining, LLC<br>PO Box 305<br>Madison, WV 25130            | Visual Inspections  | NA                          | On going         |
| Blue Branch Refuse Area, O-10-83   | Green Valley Coal Co.<br>PO Box 190<br>Leivasy, WV 26676        | Obtained 401/404 permits, prepare annual reports, monitoring reclamation, submit annual reports | NA                          | On going         |
|  |   |   |                             |                  |
|  |   |   |                             |                  |
|  |   |   |                             |                  |
| TOTAL NUMBER OF PROJECTS:  |   | TOTAL ESTIMATED CONSTRUCTION COSTS: \$  |                             |                  |

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

[illegible]

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

| PROJECT NAME, TYPE<br>AND LOCATION   | NAME AND ADDRESS<br>OF OWNER   | ESTIMATED CONSTRUCTION COST            | YEAR | CONSTRUCTED<br>(YES OR NO) |
|--|--|--|------|----------------------------|
| <i>CBC Engineers WV refuse/impoundment related experience - Design &amp; permitting projects</i>   |  |  |      |                            |
| Tunnel Ridge Refuse Area,<br>Structural Slurry Cells, Short<br>Creek, Ohio Co., WV<br>The scope of work included<br>obtaining a SMA /NPDES from the<br>WVDEP. Approval obtained from the<br>WVDEP.   | Tunnel Ridge, LLC, 771 Corporate<br>Dr., Suite 1000, Lexington, KY 40503       | NA.                                    | 2010 | Under<br>construction      |
| Holden 22 Slurry Cells, Holden, WV<br>The scope of work included the<br>design of additional slurry cell<br>stages, sediment structures,<br>conveyance channels, an abandonment<br>plan and a revegetation plan.<br>Approval obtained from MSHA.   | Coal-Mac, Inc., PO Box 1050 Holden,<br>WV 25625                                | NA.                                    | 2013 | Under<br>construction      |
| Nufac Slurry Cells, S-4025-86,<br>Little White Oak Creek of Pinnacle<br>Creek, Wyoming Co., WV<br>The scope of work included the<br>design of slurry cells, sediment<br>control structures, conveyance<br>channels, an abandonment plan and a<br>revegetation plan. Approval<br>obtained from the WVDEP and MSHA.  | Bluestone Coal Corp., 100 Cranberry<br>Creek, Beckley, WV 25801                | NA.                                    | 2011 | Yes                        |
| Five Mile Hollow Impoundment, S-<br>3033-07, Kanawha Co., WV<br>The scope of work included<br>obtaining a SMA/NPDES permit.<br>Complete design for a slurry<br>impoundment including sediment<br>structures, conveyance channels, a<br>toxic material handling plan, an<br>abandonment plan and a revegetation<br>plan.  | Coyote Coal Co., LLC, 500 Lee St.<br>East, Suite 900, Charleston, WV,<br>25301 | NA                                     | 2013 | No                         |
| Five Mile Combined Refuse Fill, S-<br>3033-07 Kanawha Co., WV<br>The scope of work included<br>obtaining a SMA/NPDES permit.<br>Complete design for a slurry<br>impoundment including sediment<br>structures, conveyance channels, a<br>toxic material handling plan, an<br>abandonment plan and a revegetation<br>plan. Design included conversion<br>of a slurry impoundment to a<br>combined refuse fill. | Coyote Coal Co., LLC, 500 Lee St.<br>East, Suite 900, Charleston, WV,<br>25301 | NA                                     | 2013 | No                         |
| The American Coal Co., Reclamation<br>Cost Evaluation, Saline Co., IL<br>The scope of work included the<br>evaluation of the reclamation costs<br>for American Coal's use in planning<br>for the future closure of its<br>mining operations in southern<br>Illinois.   | The American Coal Co., PO Box<br>727, Harrisburg, IL 62946                     | Reclamation estimate \$22.9<br>million | 2013 | Under<br>construction      |

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

| PROJECT NAME, TYPE & LOCATION | NAME & ADDRESS OF OWNER | ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION | YEAR | CONSTRUCTED ( YES OR NO) | FIRM ASSOCIATED WITH |
|-------------------------------|-------------------------|--|------|--------------------------|----------------------|
|                               |                         |  |      |                          |                      |
|                               |                         |  |      |                          |                      |
|                               |                         |  |      |                          |                      |
|                               |                         |  |      |                          |                      |
|                               |                         |  |      |                          |                      |
|                               |                         |  |      |                          |                      |

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Office of Special Reclamation.

20. The foregoing is a statement of facts

Signature: Mitchell T. Harbert

VICE PRESIDENT

Title: CHIEF ENGINEER

Date: 6-10-2014

Printed Name: MITCHELL T. HARBERT

## **Appendix F**

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                  | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional<br>Info<br>Provided in<br>Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                   |            |           |            |                   |              |
|--|--|--|---------------------------------------|------------------------------------|----------------------|--------------------------------------|---------------------|-------------------------------|---|-----------------------------|------------------------|--|---|-----------------|--------------------------------|--------------------|------------------------|---|-------------------|------------|-----------|------------|-------------------|--------------|
|  |  |  | Forfeited Surface<br>Mine Reclamation | Forfeited Deep Mine<br>Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic<br>Design/Eval. | Remining Evaluation | Mine/Refuse Fire<br>Abatement | Subsidence<br>Investigation<br>Mitigation | Hazardous Waste<br>Disposal | Project Specifications | Water Quality<br>Evaluation/Nitigation/<br>Replacement | Construction<br>Inspection/Managem<br>ent | Water Treatment | Equipment/Structure<br>Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater<br>preparation   | Mitch Hardert, PE | John Corda | Chad Reed | Mike Cross | Roger Cornett, PE | David Hinkle |
|  |  |  |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |   |                   |            |           |            |                   |              |
|  |  |  |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |   |                   |            |           |            |                   |              |
| Tinsley Branch Impoundment<br>O-5032-99  | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      | X   | P/M               | P/M        | M         |            |                   |              |
| Monclo Impoundment<br>O-51-85            | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     | X                             | X   |                             | X                      |  | X   |                 |                                |                    | X                      | X   | P/M               | P/M        | M         |            |                   |              |
| Holden 22 Impoundment<br>P-606           | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         |            | P/M               | M            |
| Holden 22 Slurry Cells<br>P-606          | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         | M          | P/M               | M            |
| Lower Big Branch<br>Impoundment O-48-82  | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         |            |                   |              |
| Slippery Gut Impoundment<br>O-6-81       | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      | X   | P/M               | P/M        | M         |            |                   |              |
| Bragg Fork Impoundment<br>S-128-78       | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         | M          |                   |              |
| Delbarton Impoundment<br>O-5080-91       | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      | X   | P/M               | P/M        | M         |            |                   |              |
| Rockhouse Impoundment<br>O-44-84         | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         |            |                   |              |
| Superior Sed Pond #4<br>S-5017-98        | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               |   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         |            |                   |              |
| Ragland Holden 25<br>Impoundment P-609   | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         |            |                   |              |
| Brush Fork Impoundment<br>O-3010-95      | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         |            |                   |              |
| Ellis Creek Dry Refuse Pile<br>O-3017-91 | C/P                                      | 1  |                                       |                                    |                      | X                                    |                     |                               |   |                             | X                      |  | X   |                 |                                |                    | X                      |   | P/M               | P/M        | M         |            |                   |              |

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

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

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

Attachment "C"

1 WV refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT   | Exp. Basis<br>C=Corp.<br>P=Personal | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                  |                |           |            |  |
|---|-------------------------------------|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|---|------------------|----------------|-----------|------------|--|
|   |                                     |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation  | Mitch Harder, PE | John Corda, PE | Chad Reed | Mike Cross |  |
| River Fork Dry Refuse Pile U-13-83              | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        | P/M   | P/M              | M              |           |            |  |
| Low Gap Dry Refuse Pile O-3005-94               | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        | P/M   | P/M              | M              |           |            |  |
| Little Horse Creek Refuse Pile S-106-77         | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        | P/M   | P/M              | M              |           |            |  |
| Blue Branch Refuse Area O-10-83                 | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 | X                           | X                  | X                      | P/M   | P/M              |                | M         |            |  |
| Tunnel Ridge Strucutruat Slurry Cells O-2016-08 | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  |                        | P/M   | P/M              |                | M         |            |  |
| Campbells Creek Slurry Cells S-6027-88          | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      |   |                                    |                 |                             | X                  |                        | P/M   | P/M              | M              |           |            |  |
| 5 Mile Hollow Impoundment S-3033-07             | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  |                        | P/M   | P/M              |                | M         |            |  |
| 5 Mile Hollow Combined Fill S-3033-07           | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  |                        | P/M   | P/M              |                | M         |            |  |
| Coyote Slurry Cells S-6027-88                   | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   |                          | X                      |   |                                    |                 |                             | X                  |                        | P/M   | P/M              | M              |           |            |  |
| Bluestone Slurry Cells S-4025-86                | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  |                        | P/M   | P/M              | M              | M         |            |  |
| Nufac Combined Refuse Fill S-4025-86            | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  |                        | P/M   | P/M              |                | M         |            |  |
| Payne Branch Impoundment S-4003-99              | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  |                        | P/M   | P/M              |                | M         |            |  |
| Roaring Creek Impoundment O-2022-10             | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 | X                           | X                  |                        | P/M   | P/M              |                | M         |            |  |
| Daniel Hollow Refuse Area O-5016-04             | C/P                                 | 1  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   | X                                  |                 | X                           | X                  | X                      | P/M   |                  |                | M         |            |  |

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

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

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

Attachment "C"

1 WV refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                 | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |            |  |
|---|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|------------|--|
|   |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Mike Cross |  |
| Roaring Creek Deep Mine U-2016-10       | C/P                                      | 2  |                                    |                                 | X                    | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             |                    | X                      | X                            | P   |                |           | M          |  |
| Roaring Creek Prep Plant O-2020-10      | C/P                                      | 2  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             |                    | X                      | X                            | P   |                |           | M          |  |
| Mettiki E Mine U-2001-04                | C/P                                      | 2  |                                    |                                 | X                    | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X                            | P   |                |           | M          |  |
| Slabcamp Stockton Deep Mine U-3010-02   | C/P                                      | 2  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  | X                      | X                            |   |                |           | M          |  |
| Enduring Freedom Surface Mine S-3013-08 | C/P                                      | 2  |                                    |                                 |                      | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Hatchet Surface Mine S-3007-06          | C/P                                      | 2  |                                    |                                 |                      | X                                 | X                   |                            | X                                   | X                        | X                      | X   |                                    |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| PGM Surface Mine S-3014-05              | C/P                                      | 2  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X                            |   |                |           | M          |  |
| Federal Surace Mine S-3011-07           | C/P                                      | 2  |                                    |                                 |                      | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    |                 |                             |                    |                        | X                            |   |                |           | M          |  |
| Kayford No. 5 Surface Mine S-3005-99    | C/P                                      | 2  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X                            |   |                |           | M          |  |
| Skitter Creek No.2 Mine S-3011-99       | C/P                                      | 2  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              |   |                |           | M          |  |
| Lilly Fork Surface Mine S-3021-93       | C/P                                      | 2  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Hughes Creek Surface Mine S-3014-91     | C/P                                      | 2  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Sugarcamp Winifrede #3 Deep Mine        | C/P                                      | 2  |                                    |                                 | X                    | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    |                 |                             |                    | X                      | X                            |   |                |           | M          |  |

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

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

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

Attachment "C"

2 WV deep mine, surface mine, prep plant projects



**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                     | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in<br>Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |            |  |  |
|---|--|---|---------------------------------------|------------------------------------|----------------------|--------------------------------------|---------------------|-------------------------------|---|-----------------------------|------------------------|--|---|-----------------|--------------------------------|--------------------|------------------------|---------------------------------|---|----------------|-----------|------------|--|--|
|   |  |   | Forfeited Surface<br>Mine Reclamation | Forfeited Deep Mine<br>Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic<br>Design/Eval. | Remining Evaluation | Mine/Refuse Fire<br>Abatement | Subsidence<br>Investigation<br>Mitigation | Hazardous Waste<br>Disposal | Project Specifications | Water Quality<br>Evaluation/Mitigation/<br>Replacement | Construction<br>Inspection/Managem<br>ent | Water Treatment | Equipment/Structure<br>Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater<br>preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Mike Cross |  |  |
| Elk Run Freshwater<br>Impounmdent O-2012-96 | C/P                                      | 1   |                                       |                                    |                      | X                                    |                     |                               | X   |                             | X                      | X  |   |                 |                                |                    | X                      |                                 | P/M   |                |           | M          |  |  |
| Laxare East Surface Mine                    | C/P                                      | 1   |                                       |                                    |                      | X                                    |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                | M         |            |  |  |
| Jones Branch Loadout                        | C/P                                      | 2   |                                       |                                    | X                    | X                                    | X                   |                               |   |                             | X                      |  |   |                 |                                |                    |                        | P                               |   |                | M         |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |
|   | C/P                                      | 2   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |            |  |  |

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

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

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

Attachment "C"

2 WV deep mine, surface mine, prep plant projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT  | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                   |                |           |                   |              |              |   |
|--|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|---|-------------------|----------------|-----------|-------------------|--------------|--------------|---|
|  |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation  | Mitch Hardert, PE | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |   |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |   |                   |                |           |                   |              |              |   |
| Left Fork Combined Refuse Fill 848-9023            | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Right Fork Impoundment 848-9023                    | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Lovely Branch Impoundment 866-5152                 | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Puckett Impoundment 833-9055                       | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Fourseam Impoundment 897-9005                      | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Bloss Branch Impoundment 826-8036                  | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Little Camp Branch Impoundment 807-0298            | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Buckeye Creek Impoundment 897-0287                 | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Right Fork Impoundment 897-9004                    | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Beech Fork Slurry Cells 897-8039                   | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Stonecoal Impoundment / Coarse Refuse 897-0339     | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Guthrie Impoundment 897-5048                       | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |
| Big Branch Impoundment/ Coase Refuse Fill 680-8002 | C/P                                      |  | 3                                  |                                 |                      |                                   | X                   |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        | X   |                   | P/M            | P/M       |                   | P/M          | M            | M |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT  | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |                   |              |              |
|--|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|-------------------|--------------|--------------|
|  |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
| Halfmile Impoundment 866-8008                    | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            | X                                   |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Britton Br. Coarse Refuse Fill 866-0236          | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Adams Fork Impoundment 866-9001                  | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Right Fork Coarse Refuse Fill 866-9002           | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Whitesburg Slurry Cells 826-0683                 | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Manchester Plant Slurry Cells 826-8040           | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Stoney Fork Impoundment 807-8060                 | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Flint Ridge Impoundment / Coarse Refuse 813-8018 | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Minuteman Impoundment 889-8006                   | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            | X                                   |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Webb Br. Impoundment 836-8066                    | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            | X                                   |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Harris Br. Impoundment 897-8048                  | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            | X                                   |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Lick Br. Impoundment 860-9014                    | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Hurricane Br. Refuse / Slurry Cells 860-0467     | C/P                                      | 3  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    | X                      |                              | P/M   | P/M            |           | P/M               | M            | M            |
| Cow Branch Impoundment 898-9012                  | C/P                                      | 3  |                                    |                                 |                      | x                                 |                     |                            |                                     |                          | x                      |   |                                    |                 |                             |                    | x                      |                              | P/M   | P/M            |           | P/M               | M            | M            |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                  | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |                   |              |              |
|--|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|-------------------|--------------|--------------|
|  |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
| Alden Resources Permit 861-5353          | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Alden Resources Permit 861-5354          | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Alliance Coal LLC Permit 854-0252        | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Alliance Coal LLC Permit 854-0256        | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Arch Coal, Inc Permit 813-5025           | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Arch Coal, Inc Permit 813-5026           | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Arch Coal, Inc Permit 813-5035           | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Arch Coal, Inc Permit 813-5037           | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Century Operations, LLC Permit 807-5203  | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Consol of Kentucky, Inc. Permit 836-5238 | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Consol of Kentucky, Inc. Permit 860-5010 | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Consol of Kentucky, Inc. Permit 860-5218 | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Consol of Kentucky, Inc. Permit 867-5182 | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Lesline Resources Permit 813-5023        | C/P                                      | 4  |                                    |                                 | X                    | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |

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

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

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

Attachment "C"

4 Kentucky deep mine projects

|   |  |  |
|---|--|--|
| OSR and RELATED PROJECT EXPERIENCE MATRIX |  |  |
|---|--|--|

[illegible]

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

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

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

Attachment "C"

#### 4 Kentucky deep mine projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                 | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in<br>Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |                   | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |           |                   |              |              |  |
|---|--|---|---------------------------------------|------------------------------------|----------------------|--------------------------------------|---------------------|-------------------------------|---|-----------------------------|------------------------|--|---|-----------------|--------------------------------|--------------------|------------------------|---------------------------------|-------------------|---|-----------|-------------------|--------------|--------------|--|
|   |  |   | Forfeited Surface<br>Mine Reclamation | Forfeited Deep Mine<br>Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic<br>Design/Eval. | Remining Evaluation | Mine/Refuse Fire<br>Abatement | Subsidence<br>Investigation<br>Mitigation | Hazardous Waste<br>Disposal | Project Specifications | Water Quality<br>Evaluation/Mitigation/<br>Replacement | Construction<br>Inspection/Managem<br>ent | Water Treatment | Equipment/Structure<br>Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater<br>preparation | Mitch Hardert, PE | John Corda, PE  | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |  |
|   |  |   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |                   |   |           |                   |              |              |  |
| A&G Coal Corporation<br>Permit 867-0455 | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Alden Resources<br>Permit 861-0516      | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Alden Resources<br>Permit 918-0418      | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Appalachian Fuels<br>Permit 860-0401    | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 813-0291       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 813-0293       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 813-0294       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 813-0348       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 813-0448       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 860-0429       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 897-0456       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 897-0483       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 897-0543       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |
| Arch Coal Inc.<br>Permit 897-0575       | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |                   |   |           | P/M               | M            | M            |  |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                 | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in<br>Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |                   |              |              |
|---|--|---|---------------------------------------|------------------------------------|----------------------|--------------------------------------|---------------------|-------------------------------|---|-----------------------------|------------------------|--|---|-----------------|--------------------------------|--------------------|------------------------|---------------------------------|---|----------------|-----------|-------------------|--------------|--------------|
|   |  |   | Forfeited Surface<br>Mine Reclamation | Forfeited Deep Mine<br>Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic<br>Design/Eval. | Remining Evaluation | Mine/Refuse Fire<br>Abatement | Subsidence<br>Investigation<br>Mitigation | Hazardous Waste<br>Disposal | Project Specifications | Water Quality<br>Evaluation/Mitigation/<br>Replacement | Construction<br>Inspection/Managem<br>ent | Water Treatment | Equipment/Structure<br>Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater<br>preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
|   |  |   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |                   |              |              |
|   |  |   |                                       |                                    |                      |                                      |                     |                               |   |                             |                        |  |   |                 |                                |                    |                        |                                 |   |                |           |                   |              |              |
| B&W Resources, Inc.<br>Permit 826-0639  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 826-0683  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 863-0314  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 8266-0283 | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 866-0287  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 866-0322  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 866-0326  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 866-0330  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 866-0516  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 897-0450  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 897-0478  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 897-0489  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 897-0511  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |
| B&W Resources, Inc.<br>Permit 897-0512  | C/P                                      | 5   |                                       |                                    |                      | X                                    | X                   |                               |   |                             | X                      | X  |   | X               |                                |                    | X                      | X                               |   |                |           | P/M               | M            | M            |

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

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

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

Attachment "C"

3 Kentucky refuse projects



**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                   | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |                   |              |              |
|---|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|-------------------|--------------|--------------|
|   |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
|   |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |                   |              |              |
| B&W Resources, Inc. Permit 897-0516       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Bledsole Coal Corporation Permit 866-0236 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Bledsole Coal Corporation Permit 866-0256 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Blue Mountain Mining, Inc Permit 826-0650 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| CDR Miners Permit 860-0393                | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Century Operations, LLC Permit 807-0298   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Century Operations, LLC Permit 807-0367   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Cheyenne Resources Permit 860-0356        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Cheyenne Resources Permit 860-0358        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Cheyenne Resources Permit 860-0377        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Cheyenne Resources Permit 860-0385        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Cheyenne Resources Permit 860-0387        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Cheyenne Resources Permit 860-0393        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Cheyenne Resources Permit 860-0480        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                              | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |                   |              |              |   |
|--------------------------------------|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|-------------------|--------------|--------------|---|
|                                      |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |   |
|                                      |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |                   |              |              |   |
|                                      |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |                   |              |              |   |
| Cheyenne Resources Permit 860-0500   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Cheyenne Resources Permit 867-0348   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Cheyenne Resources Permit 867-0413   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Cheyenne Resources Permit 867-0421   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Cheyenne Resources Permit 867-0440   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Cheyenne Resources Permit 897-0421   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| D. Best Mining Permit 865-0078       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Dylan Mining Permit 865-0073         | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Frasure Creek Mining Permit 813-0300 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Frasure Creek Mining Permit 813-0321 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Frasure Creek Mining Permit 813-0328 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Frasure Creek Mining Permit 813-0350 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Frasure Creek Mining Permit 860-0467 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |
| Frasure Creek Mining Permit 860-0470 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           |                   | P/M          | M            | M |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                    | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |                   |              |              |
|--|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|-------------------|--------------|--------------|
|  |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |                   |              |              |
| Frasure Creek Mining Permit 897-0497       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Frasure Creek Mining Permit 897-0499       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Frasure Creek Mining Permit 897-0500       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Frasure Creek Mining Permit 897-0503       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| H&D Coal Company Permit 860-0412           | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Investment Energy Permit 918-0462          | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Jackson Coal Permit 826-0637               | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Jamieson Permit 807-0292                   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X                            |   |                |           | P/M               | M            | M            |
| Jamieson Permit 902-0051                   | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X                            |   |                |           | P/M               | M            | M            |
| J R Mining Permit 826-0595                 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| J R Mining Permit 826-0637                 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| J R Mining Permit 863-0290                 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| Kentucky Prince Mining Co. Permit 813-0249 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 813-0249          | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                           | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |                   |              |              |
|-----------------------------------|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|-------------------|--------------|--------------|
|                                   |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
| LLC Kentucky, LLC Permit 826-0249 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 860-0351 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 860-0356 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 860-0418 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 860-0419 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 866-0283 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 866-0284 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 866-0286 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 880-0011 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 880-0012 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 880-0108 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 880-0165 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 868-0166 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 880-0168 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            |   |                |           | P/M               | M            | M            |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                           | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                   |                |           |                   |              |              |
|-----------------------------------|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|---|-------------------|----------------|-----------|-------------------|--------------|--------------|
|                                   |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation  | Mitch Hardert, PE | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
|                                   |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |   |                   |                |           |                   |              |              |
| LLC Kentucky, LLC Permit 897-0315 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 897-0459 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 898-0401 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 898-0534 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 898-0748 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| LLC Kentucky, LLC Permit 898-0761 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Leeco, Inc Permit 860-0478        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Leeco, Inc Permit 860-0486        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Leeco, Inc Permit 867-0440        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Leeco, Inc Permit 897-0287        | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Locust Grove Permit 897-0396      | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Locust Grove Permit 897-0415      | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Locust Grove Permit 897-0416      | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Locust Grove Permit 897-0449      | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |

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

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

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

Attachment "C"

3 Kentucky refuse projects

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                               | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                   |                |           |                   |              |              |
|---------------------------------------|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|---|-------------------|----------------|-----------|-------------------|--------------|--------------|
|                                       |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation  | Mitch Hardert, PE | John Corda, PE | Chad Reed | Roger Cornett, PE | David Hinkle | Mark Summers |
|                                       |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |   |                   |                |           |                   |              |              |
| Locust Grove Permit 897-0451          | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Locust Grove Permit 897-0566          | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Locust Grove Permit 919-0053          | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Stafland/Locust Grove Permit 895-0186 | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Starfire Mining Permit 413-0075       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Starfire Mining Permit 860-0566       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Starfire Mining Permit 860-0157       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Sturgeon Mining Permit 813-0271       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Sturgeon Mining Permit 895-0171       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Sturgeon Mining Permit 895-0175       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Sturgeon Mining Permit 897-0442       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             |                    | X                      | X   |                   |                |           | P/M               | M            | M            |
| Sturgeon Mining Permit 895-0142       | C/P                                      | 5  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X   |                   |                |           | P/M               | M            | M            |
|                                       |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |   |                   |                |           |                   |              |              |

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

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

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

Attachment "C"

3 Kentucky refuse projects

# OSR and RELATED PROJECT EXPERIENCE MATRIX

| PROJECT                                      | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |            |               |               |
|--|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|------------|---------------|---------------|
|  |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Mike Cross | Gerald Deneal | Darrin Deneal |
| Sugar Camp East Refuse Area                  | C/P                                      | 6  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  | X                      |                              | P   | P              |           | M          | M             | M             |
| Sugar Camp Northwest Refuse Area             | C/P                                      | 6  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  | X                      |                              | P   | P              |           | M          | M             | M             |
| Sugar Camp Longwall #3 Refuse Area           | C/P                                      | 6  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  | X                      |                              | P   | P              |           |            | M             | M             |
| Sugar Camp Deep Mine/Prep Plant - Permit 382 | C/P                                      | 6  |                                    |                                 |                      | X                                 |                     |                            | X                                   |                          | X                      | X   |                                    | X               |                             |                    | X                      | X                            | P   |                |           |            | M             | M             |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |

- \* List whether project experience is corporate or personnel based or both.
- \*\* Use this area to provide specific sections or pages if needed for reference.
- \*\*\* List Primary Design personnel and their functional capacity for the projects listed.

Attachment "C"



# OSR and RELATED PROJECT EXPERIENCE MATRIX

| PROJECT                       | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |            |               |               |
|-------------------------------|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|------------|---------------|---------------|
|                               |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Mike Cross | Gerald Deneal | Darrin Deneal |
| WV State Route 161 Relocation | C/P                                      |  |                                    |                                 |                      | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    |                 |                             | X                  | X                      | X                            |   |                |           | M          |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |
|                               |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |               |               |

\* List whether project experience is corporate or personnel based or both.  
 \*\* Use this area to provide specific sections or pages if needed for reference.  
 \*\*\* List Primary Design personnel and their functional capacity for the projects listed.

|   |  |  |
|---|--|--|
| OSR and RELATED PROJECT EXPERIENCE MATRIX |  |  |
|---|--|--|

[illegible]

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

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

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

Attachment "C"

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                 | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |            |  |
|---|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|------------|--|
|   |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Mike Cross |  |
| Magnet Surface Mine 88-80               | P  | A  |                                    |                                 |                      | X                                 |                     |                            | X                                   | X                        | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Countour Surface Mine 5041-86           | S-P                                      | B  |                                    |                                 |                      | X                                 |                     |                            |                                     | X                        | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Countour Surface Mine 5042-88           | S-P                                      | B  |                                    |                                 |                      | X                                 |                     |                            |                                     | X                        | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Countour Surface Mine 5062-88           | S-P                                      | B  |                                    |                                 |                      | X                                 |                     |                            |                                     | X                        | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Island Creek Deep Mine U-5061-88        | P  |  |                                    |                                 | X                    | X                                 |                     |                            |                                     | X                        | X                      |   | X                                  |                 | X                           |                    | X                      | X                            |   |                |           | M          |  |
| Island Creek Deep Mine U-5060-88        | P  |  |                                    |                                 | X                    | X                                 |                     |                            |                                     | X                        | X                      |   | X                                  |                 | X                           |                    | X                      | X                            |   |                |           | M          |  |
| Magnet Surface Mine 64-82               | S-P                                      |  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Island Creek Surface Mine S-5013-95     | P  |  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Island Creek Surface Mine S-123-78      | P  |  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      |   | X                                  |                 |                             |                    | X                      |                              |   |                |           | M          |  |
| Island Creek Surface Mine S-5084-86     | P  |  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |
| Island Creek Surface Mine 5-80          | P  |  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      |   | X                                  |                 |                             |                    | X                      |                              |   |                |           | M          |  |
| Island Creek Refuse Impoundment O-37-85 | P  |  |                                    |                                 |                      | X                                 |                     |                            |                                     | X                        | X                      |   | X                                  |                 | X                           |                    | X                      | X                            |   |                |           | M          |  |
| Island Creek Prep Plant 27-82           | O-P                                      |  |                                    |                                 |                      | X                                 |                     |                            |                                     | X                        | X                      |   | X                                  |                 | X                           |                    | X                      | X                            |   |                |           | M          |  |
| Island Creek Surface Mine S-5041-89     | P  |  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      |   | X                                  |                 |                             |                    | X                      | X                            |   |                |           | M          |  |

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

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

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

Attachment "C"

A Island Creek projects - \$5 million reclamation project to abated outstanding NOV's

B Island Creek projects - \$2.2 million reclamation project to abated outstanding NOV's

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                     | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                |           |            |  |  |
|-----------------------------|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|----------------|-----------|------------|--|--|
|                             |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Mitch Hardert, PE   | John Corda, PE | Chad Reed | Mike Cross |  |  |
|                             |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |  |  |
| Seven Pines Surface Mine    | P  |  |                                    |                                 |                      | X                                 | X                   |                            | X                                   | X                        | X                      | X   |                                    |                 |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
| Poplar Fork Deep Mine       | P  |  |                                    |                                 | X                    | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    |                 |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
| Birch River Haulroad        | P  |  |                                    |                                 |                      | X                                 |                     |                            |                                     |                          | X                      | X   |                                    |                 |                             |                    | X                      | X                            |   |                |           | M          |  |  |
| Mercer Seam Deep Mine       | P  |  |                                    |                                 | X                    | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    |                 |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
| Cove Mountain Mine          | P  |  |                                    |                                 | X                    | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    |                 |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
| Brandy Station              | P  |  |                                    |                                 |                      | X                                 | X                   |                            |                                     |                          | X                      | X   |                                    |                 |                             | X                  | X                      | X                            |   |                |           |            |  |  |
| Slabcamp Stockton Deep Mine | P  |  |                                    |                                 | X                    | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
| Glory Surface Mine          | P  |  |                                    |                                 |                      | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
| Constitution Surface Mine   | P  |  |                                    |                                 |                      | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
| Mettiki E Mine              | P  |  |                                    |                                 | X                    | X                                 | X                   |                            | X                                   |                          | X                      | X   |                                    | X               |                             | X                  | X                      | X                            |   |                |           | M          |  |  |
|                             |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |  |  |
|                             |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |  |  |
|                             |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |  |  |
|                             |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |  |  |
|                             |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |  |  |
|                             |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |                |           |            |  |  |

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

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

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

Attachment "C"

A Island Creek projects - \$5 million reclamation project to abated outstanding NOV's

B Island Creek projects - \$2.2 million reclamation project to abated outstanding NOV's

**OSR and RELATED PROJECT EXPERIENCE MATRIX**

| PROJECT                                | Exp. Basis<br>C=Corp.<br>P=Personal<br>* | Additional Info<br>Provided in Section (s)<br>** | PROJECT EXPERIENCE REQUIREMENTS    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |  |  |  |  |  |
|--|--|--|------------------------------------|---------------------------------|----------------------|-----------------------------------|---------------------|----------------------------|-------------------------------------|--------------------------|------------------------|---|------------------------------------|-----------------|-----------------------------|--------------------|------------------------|------------------------------|---|--|--|--|--|--|
|  |  |  | Forfeited Surface Mine Reclamation | Forfeited Deep Mine Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic Design/Eval. | Remining Evaluation | Mine/Refuse Fire Abatement | Subsidence Investigation Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/Mitigation/Replacement | Construction Inspection/Management | Water Treatment | Equipment/Structure Removal | Stream Restoration | Geotechnical/Stability | NPDES/Stormwater preparation | Meredith Coll   |  |  |  |  |  |
| Synergy #1 Selenium Treatment Facility | P  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        | X   |                                    | X               |                             |                    |                        |                              | M   |  |  |  |  |  |
| Open Fork #2 Surface Mine              | P  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X                            | M   |  |  |  |  |  |
| Mandy Cline Deep Mine                  | P  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X                            | M   |  |  |  |  |  |
| Armstrong Deep Mine                    | P  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X                            | M   |  |  |  |  |  |
| Falcon #2 Contour Mine                 | P  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X                            | M   |  |  |  |  |  |
| Synergy #2 Surface Mine                | P  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          | X                      |   |                                    |                 |                             |                    |                        | X                            | M   |  |  |  |  |  |
| Greenbrier Smokeless Coal Mining, LLC  | C/P                                      |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        |                              | M   |  |  |  |  |  |
| Midland Trail Resources                | C/P                                      |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        | X   |                                    |                 |                             |                    |                        |                              | M   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |
|  |  |  |                                    |                                 |                      |                                   |                     |                            |                                     |                          |                        |   |                                    |                 |                             |                    |                        |                              |   |  |  |  |  |  |

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

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

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

Attachment "C"

## **Appendix G**

**West Virginia Department of Environmental Protection**  
**Office of Special Reclamation**

**Principle-in-charge**

Mitchell T. Hardert, P.E.—18 yrs.

**Project Manager**

Michael L. Cross—32 yrs.

**Soils, Geological, and  
Hydrological Evaluations**

Roger Cornett, P.E., PLS — 35 yrs.  
John Corda, P.E.— 48 yrs.  
Deepa Nair, P.E.— 8 yrs.  
Gerald DeNeal—34yrs.  
Erika Dunham— 17 yrs.

**Surveying**

Tony Bowling, P.E. PLS.—30 yrs.  
Mark Summers, PLS—37 yrs.

**Construction Monitoring**

Gene Highlander, P.E— 46 yrs.  
Chad Reed—15 yrs.  
Bill Robertson—13 yrs.

**CAD Designers**

David Hunt—18 yrs.  
Meredith Coll-Atkins—8 yrs.

**Environmental Scientists**

Edward G. Galaska—27 yrs.  
Meredith Coll-Atkins—12 yrs.  
Erika Dunham—17 yrs.



## **Appendix H**

# CBC Engineers & Associates, Ltd.

## **Location**

Saline County,  
Illinois

## **Client**

The American Coal  
Company

## **Services**

Reclamation Cost  
Evaluation / estimate

## **THE AMERICAN COAL COMPANY RECLAMATION COST EVALUATION**

**The American Coal Company**  
*Saline County, Illinois*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by The American Coal Company to evaluate reclamation costs for its use in planning for the future closure of the American Coal's mining operations in southern Illinois. These operations include a longwall mine, a 2600 TPH preparation plant and multiple refuse disposal areas. The reclamation involves approximately 1431 acres.

Reclamation costs were included in the estimate for the following items; 1. Removal of all surface coal handling equipment; 2. Demolition of silos; 3. Removal of all structures and equipment; 4. Removal of structural concrete; 5. Removal of contaminated soil; 6. Removal of gravel from areas other than permanent access roads; 7. Plugging all boreholes, shafts, and slope; 8. Placement of agricultural lime on the refuse area; 9) Placing soil cover over all disturbed areas; and 10. Stabilizing and planting disturbed area

The reclamation estimate includes the moving and placement of 2.8 million cubic yards of soil. CBC estimated the direct cost of final reclamation of the surface facilities at the Galatia Operations at near \$22.9 million.



# CBC Engineers & Associates, Ltd.

## Location

Ohio County,  
West Virginia

## Client

Tunnel Ridge LLC.

## Services

Mapping  
Drainage Design  
Sediment Pond Design  
Surface and Ground-  
water Monitoring  
Testing Design  
Geotechnical Investi-  
gation  
Transportation Plans  
Planting Plans  
Toxic Materials Han-  
dling Plans  
Slope Stability  
Refuse Disposal

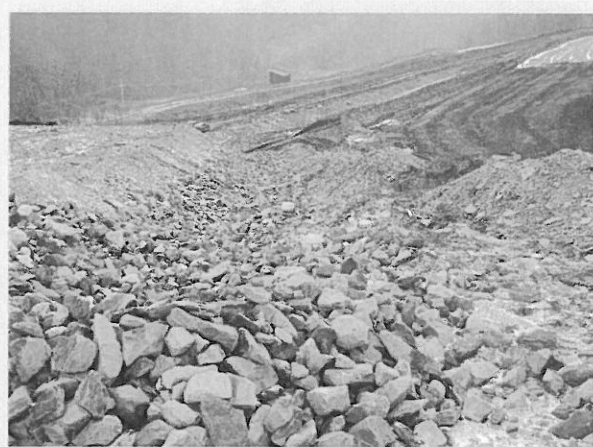
## TUNNEL RIDGE REFUSE FACILITY, WVDEP PERMIT APPLICATION

### Tunnel Ridge, LLC

*Ohio County, West Virginia*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Tunnel Ridge, LLC to permit a coal refuse disposal system for the Tunnel Ridge preparation plant's refuse production.

The new refuse facility will provide approximately 20 years of refuse storage. Because of its height and storage capacity, the structure was classified as a Class C, High Hazard Structure. CBC conducted an extensive review of the underground mine works as part of the Assessment of Failure and Consequences of Failure. CBC prepared an Emergency Waning Plan to protect the residents living downstream from the structure.



An existing combined refuse fill was located on the proposed site. CBC conducted an extensive environmental review as part of the permit application. Several environmental issues were present on the site. An alkaline cap was designed to prevent potential acid mine drainage issues for the Pittsburgh seam refuse. CBC prepared the mining and reclamation plan and incorporated the refuse plans submitted to MSHA.



The application was submitted to the WVDEP in December 2008 and approved in February 2010. Construction of the refuse facility began in summer of 2010.



# CBC Engineers & Associates, Ltd.

## Location

Owsley, Breathitt,  
Perry Counties  
Kentucky

## Client

Sturgeon Mining  
Company, Inc.

## Services

Mapping  
Drainage Design  
Excess Spoil Design  
Sediment pond Design  
Surface and Ground-  
water Monitoring  
Blasting Design  
Transportation Plans  
Planting Plans  
Toxic Materials Han-  
dling Plans  
Slope Stability

## FREEMAN FORK SURFACE MINE DESIGN AND PERMIT APPLICATIONS

**Sturgeon Mining Company, Inc.**  
*Owsley, Breathitt, Perry Counties KY*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Sturgeon Mining Co, Inc. to design and permit a surface, underground and highwall miner mine. CBC submitted a Technical Information for a Mining Permit (MPA03) and Notice of Intent KPDES applications to the KY Div. of Mine Permits and the KY Div. of Water for the respective permits.

CBC coordinated a stream delineation to determine if any jurisdictional waters of the U.S. would be impacted by the surface mine. No fills, sediment control facilities or ponds were located in any jurisdictional waters, therefore a Corps 404 permit and a State 401 Certification were not required.

The MPA03 and KPDES applications contain plans for mine reclamation including but not limited to mining and reclamation, backfilling and grading, mine sealing/management, excess spoil disposal, slope stability, toxic materials handlings, planting/revegetation, drainage and sediment control, transportation, subsidence, blasting, and water monitoring.

CBC evaluated the mining area to determine the Probable Hydrologic Consequences (PHC) of the mining operation, with respect to the hydrologic balance, on the permit area, adjacent areas, and over the proposed mineral extraction area. CBC developed a hydrologic reclamation plan to minimize disturbances to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; to meet applicable federal and state water quality laws and regulations; and to protect the rights of present water use.



CBC also prepared and submitted a Socio Economic Demonstration and Alternative Analysis KY Division of Water for the surface and underground mining operations describing the location, extent, duration and economic analysis and alternatives for the impacts of the mine on the surrounding area.

The mining permits and discharge permits were issued in 2005, 2006 and 2007. Mining operations are extracting the coal at the present time.





# CBC Engineers & Associates, Ltd.

## Location

Randolph County,  
West Virginia

## Client

Roaring Creek Coal  
Company

## Services

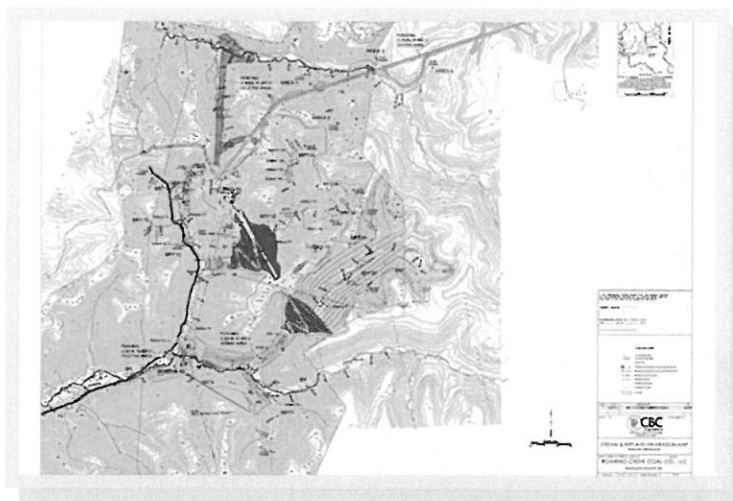
Mapping  
Surface and Ground-  
water Analysis  
Benthic Surveys  
Alternative Analysis  
Cumulative Impact  
Analysis  
Stream & Wetland  
Compensatory Mitiga-  
tion Plans  
Jurisdictional Determination  
NEPA Public Interest  
Factors  
Impact Analysis

## ROARING CREEK COMPLEX, CORPS 404 INDIVIDUAL PERMIT AND STATE 401 CERTIFICA- TION

**Roaring Creek Coal Company, LLC**  
*Randolph County, West Virginia*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Roaring Creek Coal Company, LLC to design and permit its Roaring Creek Complex. The complex consisted of a deep mine preparation plant and a coal refuse disposal area.

CBC submitted separate Surface Mine Applications (SMA's) and NPDES applications to the WVDEP for the deep mine, prep plant and refuse area. CBC submitted the refuse designs to MSHA. The refuse area consists of a coarse refuse embankment (slurry impoundment) and a coarse refuse fill (dry pile).



Due to the projected impacts to jurisdictional waters of the U.S., CBC prepared a 404 Individual Permit for submittal to the U.S. Army Corps of Engineers and a State 401 Certification to the WVDEP.

CBC prepared an Environmental Information Document (EID) for submittal to the Corps which contained an extensive alternative analysis to determine the least environmental damaging practicable alternative. As part of the evaluation of the project area, consideration was given to avoiding impacts to the aquatic ecosystem. If the impacts cannot be avoided, they must be minimized. CBC minimized the impacts. The EID also contained a determination of the cumulative effects on the aquatic ecosystem and addressed the NEPA Public Interest factors. CBC assisted with the development of Stream and Wetland Compensatory Mitigation Plan.

Work on the deep mine and prep plant sites has started. Work on the refuse area will commence once the remaining permit approvals are obtained.



# CBC Engineers & Associates, Ltd.

## Location

Randolph County,  
West Virginia

## Client

Roaring Creek Coal  
Company

## Services

Mapping  
Drainage Design  
Excess Spoil Design  
Sediment pond Design  
Surface and Ground-  
water Monitoring  
Blasting Design  
Geotechnical Investi-  
gation  
Transportation Plans  
Planting Plans  
Toxic Materials Han-  
dling Plans  
Slope Stability  
Refuse Disposal

## ROARING CREEK COMPLEX, DESIGN AND PERMIT APPLICATIONS

**Roaring Creek Coal Company, LLC**  
*Randolph County, West Virginia*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Roaring Creek Coal Company, LLC to design and permit it's Roaring Creek Complex. The complex consisted of a deep mine preparation plant and a coal refuse disposal area.

CBC submitted separate Surface Mine Applications (SMA's) and NPDES applications to the WVDEP for the deep mine, prep plant and refuse area. CBC submitted the refuse designs to MSHA. The refuse area consists of a coarse refuse embankment (slurry impoundment) and a coarse refuse fill (dry pile). The refuse facility will provide approximately 18.25 years of refuse storage.

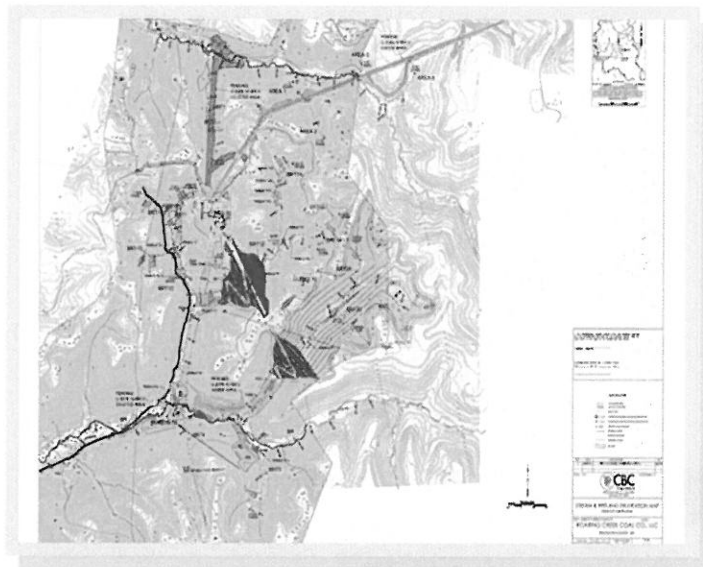
Due to its height and storage capacity, the slurry impoundment was classified as a Class C, High Hazard Structure.

The WVDEP applications prepared by CBC contain plans for mine reclamation including but not limited to mining and reclamation, backfilling and grading, mine sealing/management, excess spoil disposal, slope stability, toxic materials handlings, planting/revegetation, drainage and sediment control, transportation, subsidence, blasting, refuse disposal, and water monitoring.

CBC evaluated the mining area to determine the Probable Hydrologic Consequences (PHC) of the mining operation, with respect to the hydrologic balance, on the permit area, adjacent areas, and over the proposed mineral extraction area. CBC developed a hydrologic reclamation plan to minimize disturbances to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; to meet applicable federal and state water quality laws and regulations; and to protect the rights of present water users.

CBC conducted an extensive geotechnical evaluation of the refuse site including the collection of soil, geological, and hydrological data. CBC's engineering design included; 1) a hydrologic evaluation of the embankment, 2) an evaluation of hydraulic control structures, 3) the preparation of construction drawings and specifications, 4) the preparation of material specifications, compaction, and material qualities, 5) a slope stability analysis, 6) a seepage analysis, 7) a deep mine subsidence and breakthrough potential analysis, and 8) an access road designs.

Work on the deep mine and prep plant sites has started. Work on the refuse area will commence once the remaining permit approvals are obtained.



# CBC Engineers & Associates, Ltd.

## Location

Nicholas County,  
West Virginia

## Client

Alex Energy, Inc.

## Services

Mapping  
Drainage Design  
Excess Spoil Design  
Sediment pond Design  
Surface and Ground-  
water Monitoring  
Blasting Design  
Transportation Plans  
Planting Plans  
Toxic Materials Han-  
dling Plans  
Slope Stability

## HATCHET SURFACE MINE DESIGN AND PERMIT APPLICATIONS

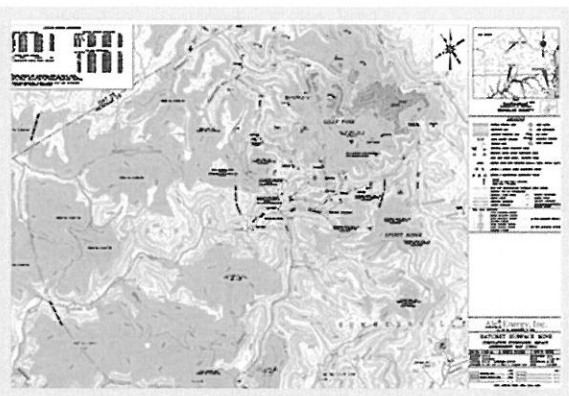
**Alex Energy, Inc.**  
*Nicholas County, West Virginia*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Alex Energy, Inc. to design and permit a surface and highwall miner mine. CBC submitted a Surface Mine Applications (SMA's) and NPDES application to the WVDEP.

CBC conducted a stream delineation to determine if any jurisdictional waters of the U.S. would be impacted by the surface mine. No fills, sediment control facilities or ponds were located in any jurisdictional waters, therefore a Corps 404 permit and a State 401 Certification were not required.

The SMA and NPDES applications contain plans for mine reclamation including but not limited to mining and reclamation, backfilling and grading, mine sealing/management, excess spoil disposal, slope stability, toxic materials handlings, planting/revegetation, drainage and sediment control, transportation, subsidence, blasting, and water monitoring.

CBC evaluated the mining area to determine the Probable Hydrologic Consequences (PHC) of the mining operation, with respect to the hydrologic balance, on the permit area, adjacent areas, and over the proposed mineral extraction area. CBC developed a hydrologic reclamation plan to minimize disturbances to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; to meet applicable federal and state water quality laws and regulations; and to protect the rights of present water use.



CBC also prepared and submitted a Community Impact Statement to the WV Office of Coalfield Community Development for the surface mining operations describing the location, extent, duration and impact of the mine on the surrounding area.

The SMA and NPDES applications were issued in 2006. Mining has been completed and the site has been reclaimed.





# CBC Engineers & Associates, Ltd.

## Location

Tucker County,  
West Virginia

## Client

Mettiki Coal (WV) LLC.

## Services

Mapping  
Hydrologic/Hydraulic  
Design & Evaluation  
Mine Design &  
Projections  
Water Treatment

## METTIKI E-MINE, WVDEP PERMIT APPLICATIONS

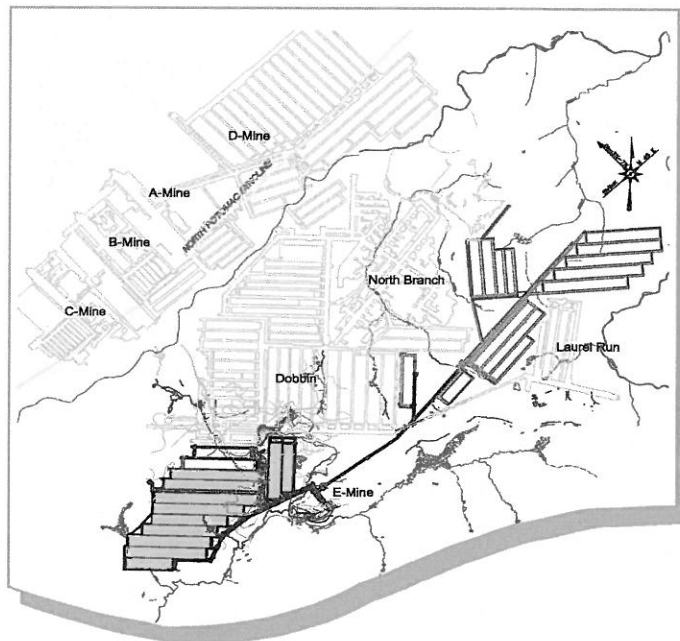
### Mettiki Coal (WV), LLC

*Tucker County, West Virginia*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Tunnel Ridge, LLC to prepare numerous revisions for their E-Mine Longwall Deep Mine. These revisions include numerous changes to their subsidence control plans and an Order from the Director involving mining near its freshwater impoundment. CBC has prepared detailed seepage analysis for all subsidence control plans and assisted with the development of post-mining water treatment system.

The E-Mine is located along the West Virginia and Maryland border. The E-Mine is currently mining the Upper Freeport Seam. The structure of this seam is influenced by the North Potomac Syncline, and is located in a highly sensitive environmental area near the Canaan Valley.

The E-Mine was initially approved in May 2005. The current revisions have extended the life of the mine approximately eight years.



# CBC Engineers & Associates, Ltd.

## Location

Mingo County,  
West Virginia

## Client

Delbarton Coal Company

## Services

Mapping

Surface and Groundwater  
Analysis

Geotechnic Surveys

Alternative Analysis  
Cumulative Impact Analysis

Stream & Wetland Compensatory Mitigation  
Plans

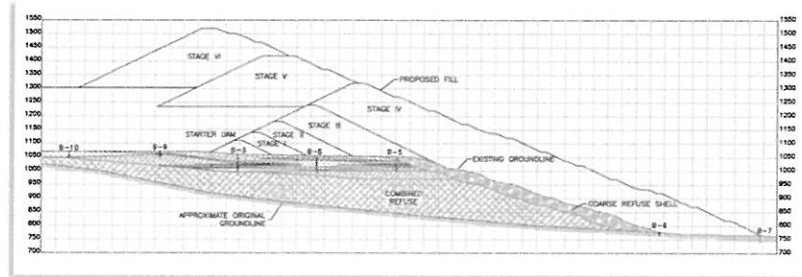
Jurisdiction Determination

NEPA Public Interest  
Factors

Impact Analysis

*More Than  
Geotechnical  
Engineering*

## Impoundment Design Mingo County, West Virginia



This project encompassed the design of an impoundment for disposal of coarse refuse and slurry near Bias in Mingo County, West Virginia. The site is located at 37° 45' 00" North latitude and 83° 12' 03" West longitude and can be found on the Delbarton and Myrtle West Virginia 7.5 minute quadrangle maps of the U.S. Geological Survey series. The design includes a structure to be constructed atop the existing refuse disposal area with a final crest elevation of 1520 feet, providing approximately 26 years of slurry and coarse refuse disposal. Slurry will be disposed in the reservoir created by the embankment.



Downstream - Post Stage III Construction



Upstream - Post Stage III Construction

The overall concept for this project calls for construction of a starter dam and six (6) stages, the starter dam and four (4) stages are to be constructed in a downstream manner above the existing refuse disposal embankment by extending that embankment up to elevation 1320 feet, and two (2) upstream stages will be constructed to extend the crest to a final elevation of 1520 feet. The main portion of the embankment for this project is to be constructed in a downstream manner, with two (2) upstream stages being provided to maximize the disposal volume for both coarse and fine refuse. The embankment will have a decant pipe which will provide storm water passage and decant of the pool for each stage. The pipe will pass the design storm with three (3) feet of freeboard or greater for each stage. The decant pipe will evacuate 90% of the stored storm water in less than 7 days for all stages.

The embankment will be constructed with an initial starter dam embankment being constructed of coarse refuse excavated from within the impoundment, overburden, or plan run refuse. The remainder of the embankment will be constructed from coarse refuse once the plant begins operation. The embankment has a total of seven stages including the starter dam.



# CBC Engineers & Associates, Ltd.

## Location

Boone County,  
West Virginia

## Client

Hobet Mining, LLC

## Services

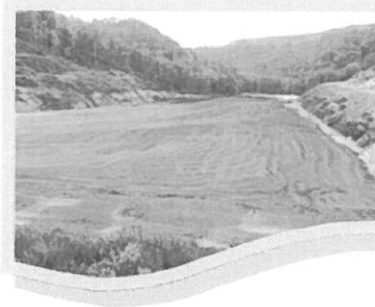
Mapping  
Drainage Design  
Sediment Pond Design  
Surface and Ground-  
water Monitoring  
Erosion Control Design  
Geotechnical Investi-  
gation  
Transportation Plans  
Planting Plans  
Toxic Materials Han-  
dling Plans  
Slope Stability  
Refuse Disposal

## BRAGG FORK REFUSE AREA, DESIGN AND PERMIT APPLICATION / CONSTRUCTION INSPEC- TION

**Hobet Mining, LLC**  
*Boone County, West Virginia*

CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Hobet Mining, LLC to design and permit a coal refuse disposal system for the Beth Station #79 preparation plant's refuse production. This new disposal facility was required due to the adjacent Slippery Gut Impoundment nearing completion.

CBC conducted a stream and wetland delineation and submitted a jurisdictional determination to the US Army Corps of Engineers to verify jurisdictional waters of the U.S. The least environmental damaging practicable alternative was selected for the location of the new refuse site; on top of an existing valley fill.

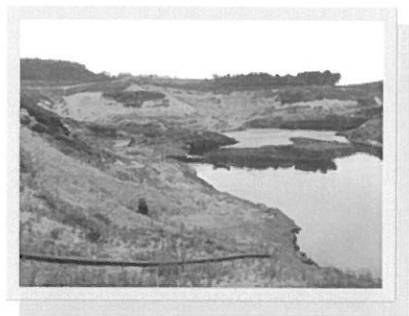


CBC conducted an extensive geotechnical evaluation of the site including the collection of soil, geological, and hydrological data. CBC's engineering design included; 1) hydrologic evaluation of the embankment, 2) evaluation of hydraulic control structures, 3) preparation of construction drawings and specifications, 4) preparation of material specifications, compaction, and material qualities, 5) slope stability analysis, 6) seepage analysis, and 7) access road designs.

The new refuse facility will provide approximately 21.2 years of refuse storage. Because of its height and storage capacity, the structure was classified as a Class C, High Hazard Structure. CBC submitted the refuse design to MSHA and the WVDEP. The WVDEP application consisted of an Incidental Boundary Revision (IBR), an NPDES modification and a dam control application.

CBC is currently performing seven day observation/construction inspections for the refuse project. These inspections include refuse density testing to ensure proper compaction of the refuse material. CBC is responsible for the submittal of quarterly certifications to WVDEP and annual certifications to MSHA.

Construction of the refuse facility began in September 2011.





# CBC Engineers & Associates, Ltd.

## Location

Nicholas County,  
West Virginia

## Client

Green Valley Coal  
Company

## Services

Mapping  
Surface and Ground-  
water Analysis  
Benthic Surveys  
Alternative Analysis  
Cumulative Impact  
Analysis  
Stream & Wetland  
Compensatory Mitiga-  
tion Plans  
Jurisdictional Determi-  
nation  
NEPA Public Interest  
Factors  
Impact Analysis

## BLUE BRANCH REFUSE AREA, 404 CORPS INDIVIDUAL PERMIT AND STATE 401 CERTIFICA- TION

**Green Valley Coal Company**  
*Nicholas County, West Virginia*



CBC Engineers & Associates, Ltd. Inc. (CBC) was retained by Green Valley Coal Company, LLC to obtain a 404 Corps Individual Permit and State 401 Certification for the expansion of their existing Blue Branch Refuse Area.

CBC coordinated a stream and wetland delineation to determine the projected impacts to jurisdictional waters of the U.S. CBC prepared and submitted a jurisdictional determination to the US Army Corps of Engineers to verify jurisdictional waters of the U.S.

CBC prepared an Environmental Information Document (EID) for submittal to the Corps which contained an extensive alternative analysis to determine the least environmental damaging practicable alternative. As part of the evaluation of the project area, consideration was given to avoiding impacts to the aquatic ecosystem. If the impacts cannot be avoided, they must be minimized. CBC minimized the impacts. The EID also contained a determination of the cumulative effects on the aquatic ecosystem and addressed the NEPA Public Interest factors.

CBC coordinated the development and implementation of Stream Compensatory Mitigation Plan and development of the Wetland Compensatory Mitigation Plan. Final approvals of the 404 Corps IP and the State 401 Certification were obtained by CBC.

