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Header @ 1

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- General Information
- Contact
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Procurement Folder: 1047618

Procurement Type: Central Purchase Order

Vendor ID:

Legal Name: CTL ENGINEERING OF WV INC

Alias/DBA:

Total Bid: \$0.00

Response Date:

Response Time:

Responded By User ID:

First Name:

Last Name:

Email:

Phone:

SO Doc Code: CEOI

SO Dept: 0313

SO Doc ID: DEP2200000014

Published Date: 6/22/22

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Close Time: 13:30

Status: Closed

Solicitation Description:

Total of Header Attachments: 1

Total of All Attachments: 1

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Professional Svcs - Laurel Point (Travinski) Mine Openings				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Laurel Point (Travinski) Mine Openings

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Professional Svcs - Left Fork of Little Sandy Subsidence				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Left Fork of Little Sandy Subsidence

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Professional Svcs - McAlpin (Lambert) Landslide				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - McAlpin (Lambert) Landslide

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Professional Svcs - Smith Run Portal				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Smith Run Portal



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

State of West Virginia
 Centralized Expression of Interest
 Architect/Engr

Proc Folder: 1047618			Reason for Modification:
Doc Description: EOI - 2022 AML Contract 5 Project North			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2022-05-26	2022-06-22 13:30	CEOI 0313 DEP2200000014	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Customer Code:

Vendor Name :

Address :

Street :


City :

State : **Country :** **Zip :**

Principal Contact :

Vendor Contact Phone: **Extension:**

FOR INFORMATION CONTACT THE BUYER
 Joseph E Hager III
 (304) 558-2306
 joseph.e.hageriii@wv.gov

Vendor Signature X  **FEIN#** 55-063-183 **DATE** June 21, 2022

All offers subject to all terms and conditions contained in this solicitation

west virginia



EXPRESSION OF INTEREST

EOI – 2022 AML Contract 5 Project North

CEOI 0313 DEP2200000014

June 22, 2022





EXPRESSION OF INTEREST

Engineering Services

EOI – 2022 AML Contract 5 Project North

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SECTION 1 INTRODUCTION



June 21, 2022

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

Re: CEOI 0313 DEP2200000014
Expression of Interest
Design Engineering Services
EOI – 2022 AML Contract 5 Project North

Joseph E. Hager III;

CTL Engineering, Inc. is very pleased to present this Letter of Interest to provide design engineering and related services for the West Virginia Abandoned Mine Lands and Reclamation Program. With over 95 years in the business, we feel our firm can provide the professionals and facilities the State of West Virginia is looking for.

CTL has evolved into a recognized leader in the Abandoned Mine Lands Engineering Design and Investigation field. We offer the services necessary to provide a non-subcontract, quality product to support your program. Our capabilities include laboratory facilities, drilling rigs, surveying systems, design equipment, and a qualified staff. We have Professional Engineers registered in West Virginia that have direct AML Design Experience. Our in-house disciplines of professionals include: Civil & Mining Engineers, Geotechnical Engineers, CAD Designers, Surveyors, Geologists, Hydrologists and Biologists. We are experienced in completing more than 50 projects annually that require aerial mapping, support surveying with GPS, and final contouring for design.

Our in-house ability reaches beyond simply being an AML design firm. We also have extensive contract administration, and management experience with the procedures of the state of West Virginia. Our invoicing procedures and accounting software has been accepted, used, and audited by various state agencies.

CTL will be teaming with the Markosky Group to provide NEPA for the project. Markosky brings valuable knowledge and local experience for the project. Markosky is currently providing NEPA services for the WVDOH and has a local office in Charleston, WV. Markosky will also be available to address potential environmental permitting or construction issues.

CTL's primary staff has over 125 years of experience with mine reclamation engineering on both a national and international level. Our qualifications and facilities are unsurpassed when it comes to Abandoned Mine Reclamation Design. With an office Morgantown, we can effectively respond to any AML Design tasks throughout West Virginia. In addition, we have a dedicated design team available to complete AML design projects. Our staff members have extensive experience relative to reclamation design, highwall elimination, abandoned portal seals and drainage control structures. The Sullivan Refuse Project is similar in scope to more than 35 AML design projects that we have successfully completed. Attached to this EOI are numerous examples of similar projects which we have successfully designed and completed.

CTL has completed numerous landslide projects in several different states, for both private and public entities. CTL is currently working with FEMA on several landslide projects in Ohio. CTL has completed over 50 landslide projects in the FEMA program over the last two years and is currently working on 25 active landslide projects. CTL has several geotechnical engineers with experience regarding landslide stabilization and repair.

Our team has the experience and knowledge to provide services to all levels of the public and private sector. The general engineering requirements in your request actually describe the areas of expertise and experience of the team. CTL has provided designs and specifications for Public Projects and Private throughout the region



We sincerely appreciate the opportunity to submit this proposal to you for consideration. Should you have any questions or need additional information, please contact our office.

Respectfully submitted,
CTL Engineering of West Virginia, Inc.

A handwritten signature in blue ink, appearing to read 'Joe Stanley', written in a cursive style.

Joseph Stanley
Business Development Manager



SECTION 2 CORPORATE HISTORY AND QUALIFICATIONS



FIRM INFORMATION – CTL Engineering

CTL WV is a full-service consulting civil & geotechnical engineering, drilling, materials testing and construction observation service company. CTL WV was founded in 1983 to provide regional service to West Virginia, Maryland and Pennsylvania. CTL WV is part of CTL Engineering, Inc. formerly known as Columbus Testing Laboratory, which was established in Columbus, Ohio in 1927 as an independent engineering testing laboratory serving the local community. Since 1927 our expertise has focused mainly on foundation engineering, construction testing and inspection services.

CTL WV has a state-wide staff of over 20 people; including licensed professional engineers, licensed land surveyors, environmental scientists, geologists and certified engineering technicians. Nationwide CTL Engineering sustains a staff of over 250 employees, providing additional professional expertise as well as staff and equipment resources for meeting project needs and goals.

Over our 39 years in West Virginia, CTL WV has provided numerous civil site designs, geotechnical designs, stormwater plans and surveys for commercial and residential developments and roadway projects. We have successfully prepared State and Federal 401 and 404 Permit submittals, Ms4 Phase II stormwater permits and conducted Environmental Site Assessments. CTL WV also has significant experience working on mining related projects including mine plans and permitting, mine refuse reclamation and subsidence evaluations. These projects were completed by conscientious interaction with Architects, Engineers, State and Federal Agencies and Owners.



CTL WV has certified engineering and laboratory technicians providing material testing and construction observation services. Our Morgantown lab is annually inspected by the West Virginia Division of Highways. CTL WV maintains a fleet of four drill rigs including truck, rubberized track and ATV mounted. Our crews have experience in steep terrain and barge drilling and deep boring exploration to depths greater than 300 feet. Additionally, CTL Engineering has a total of 13 drill rigs allowing CTL to place multiple rigs on one site, if project schedule demands.



FIRM INFORMATION – The Markosky Engineering Group

The Markosky Engineering Group, Inc. (Markosky) is headquartered in Ligonier, PA. We have offices in Charleston, WV, Steubenville, OH, and York, PA. Our Charleston Office will take the lead on this proposal and potential projects.

Markosky is a Woman-Owned Disadvantaged Business Enterprise that employs over 80 professionals, including nine environmental scientists and planners with experience completing NEPA documentation (including Environmental Impact Statements, Environmental Assessments, and Categorical Exclusions) on behalf of a variety of lead federal agencies in numerous states, including West Virginia, Pennsylvania, Ohio, Indiana, North Dakota, Colorado, Wyoming, and North Carolina.

Markosky provides environmental consulting, construction management/inspection, and civil engineering services to public and private sector clients, including the following:

- NEPA compliance and permitting
- Regulatory agency coordination
- Environmental consulting, planning, and permitting
- Wetland /stream delineation and functional assessments
- Botanical surveys
- T&E Species coordination
- Waterway permitting
- Stream and wetland restoration and mitigation design
- Water sampling
- AMD treatment design
- Regulated material reviews
- Construction management and inspection
- Cultural resource investigations
- Geomorphological surveys
- Phased archaeological investigations
- Above ground historic structures evaluations
- Section 106 compliance
- Site restoration and grading design



At Markosky, we place great importance on collaboration within our team and with our clients. Collaboration at Markosky means more than just working together. We know that good ideas come from different perspectives: internal team members, diverse technical disciplines, outside experts, clients, and owners. Sifting these ideas and applying the best of them appropriately to the project is the work of collaboration. Our managers handle this task through cross-discipline reviews, team meetings, clear communication, and close client contact. Our effective collaboration process leads to meeting our clients' goals of quality projects delivered on time and within budget.

TECHNICAL AREAS OF STRENGTH FOR THE TEAM

Engineering Categories	Technical Areas of Strength
Geotechnical Engineering Services	✓
Civil Site Design (Mining and Reclamation)	✓
Professional Surveying Services	✓
Environmental	✓
Construction Inspection/Administration & Materials Testing	✓

Geotechnical Capabilities

CTL's Routinely Performs Subsurface Explorations and Soil and Rock Testing

CTL annually performs over 350 geotechnical explorations, including soil and rock testing, for highway, bridge and geohazard projects throughout the states of West Virginia, Ohio, Indiana and Kentucky. CTL owns and operates its own fleet of 13 drill rigs, the largest of which can drill, core rock, and take samples up to 300 feet deep. Our rigs are capable of accessing difficult locations since many of them are track-mounted, ATV or 4-wheel drive truck-mounted rigs.

In addition, CTL utilizes in-house geophysical equipment and software to evaluate variations in subsurface conditions such as the identification of the bedrock surface. These capabilities include Refraction Microtremor (ReMi), Electrical Resistivity Imaging (ERI) along with Ground Penetrating Radar (GPR) equipment to locate voids or other anomalies. CTL also has Pile Driving Analyzer (PDA) equipment for performing dynamic testing of driven piles.



CTL houses AASHTO–Accredited geotechnical testing laboratories in several office locations, which are each managed by Professional Engineers specializing in geotechnical engineering. These laboratories provide a detailed analysis of the surface and subsurface composition and chemistry of soils and rock encountered during geotechnical explorations and are equipped to conduct Consolidation, Tri-axial Shear, Unconfined Compressive Strength, Direct Shear, Moisture Density Relationship (Proctor Tests), and CBR tests.

CTL is well-known for providing cost-effective, yet safe solutions to difficult subsurface conditions. We review a significant number of geotechnical reports prepared by others for the purpose of providing alternative recommendations that are more constructible, less conservative, yet maintain an appropriate factor of safety.

CTL has 20 geotechnical engineers with a majority of the engineers with Master's degrees and Professional Engineer Registration.



Civil Site Design

CTL WV's Design Team has the capabilities to handle any size project.

The main goals of civil site design are functionality, quality and efficient use of space, and overall appearance. Our design team consist of qualified people who live and work in the area and take pride in seeing their designs benefit the community. We have performed civil site design services for a wide variety of projects in Morgantown and throughout West Virginia, Pennsylvania and Ohio. These projects consist of **mining and AML related projects**, medical facilities, restaurants, and shopping centers. In addition, we have performed engineering for local school districts and universities. In our efforts to be a full-service company, we provide assistance through the funding process, design every element of a site, and manage the construction process, ensuring not only a quality product, but also the success of our clients. These are some civil site design services we can offer:



CTL WV provides the following Civil Design services:

Complete Site Development	Infrastructure Planning and Design
Conceptual Design / Presentations	Reclamation Design
Stormwater Management	Permitting (NPDES)
Erosion and Sediment Control	As-Built Surveys and Drawings

Professional Surveying Services

CTL WV Maintains a Full-Service In-house Surveying and Mapping Team



CTL WV has the professional staff and the latest equipment to support eight (8) full survey crews. Our equipment includes a Global Positioning System and Robotic Surveying Instruments which gives us an added dimension to our surveying and mapping capabilities.

We have performed surveying and mapping on many of our civil/site projects and have supplied construction stakeout and monitoring for many of our clients.

- Multi-disciplined offices within the region staffed with qualified and experienced personnel.
- Multiple crews equipped with the most up to date survey equipment: Trimble GPS, Trimble Robotic Instruments.
- Drone capabilities with multiple licensed pilots. We also have experience with the latest 3D modeling software.

Construction Administration & Inspection

CTL WV's Construction Administration Services Include On-site Daily Inspections

Federal, State, and Locally funded Construction Projects require a high level of administration and quality control to meet the project's demands. Counties and Municipalities, as well as private owners, developers, and contractors have selected CTL WV for Construction Administration, knowing that we have the experienced staff to be accurate, dependable, and perform these services in a timely manner. Our experienced engineers, inspectors, and technicians are your partners in construction. We help in completing these projects successfully and meeting the specific project requirements.



CTL WV's qualified construction inspectors will observe and inspect your construction project and complete the necessary daily documentation required by the Federal, State, and Local funding agencies participating in the project. CTL WV also provides in-house testing services such as concrete, asphalt, and sub-grade compaction, as well as daily on-site inspection services.

CTL WV provides the following CA services:

- Conduct Pre-Construction Conference
- Project Team Coordination
- Field Reports & Construction Documents' Admin
- Field Engineering and Inspections
- Material Certification and Shop Drawing Reviews
- Progress Meetings and Schedule Tracking
- Payments and Reimbursements
- Change Order Reviews
- Prevailing Wage Compliance
- EEO/DBE Contract Requirements
- Project Closeout Activities

CTL WV's on-site inspector provides and/or participates in the following daily on-site Inspection services:

- Pre-Construction Conference
- Prepare Field Inspection & Quantities Reports
- Prepare Construction Docs & provide to Construction Admin
- Field Engineering in conjunction with Construction Administrator
- Observe & verify materials being used for the project
- Observe, identify and notify Construction Admin of deficiencies
- Provide Admin w/ monthly quantities for payment prep
- Material Testing, i.e., compaction, concrete, asphalt, etc.

Materials Testing and Laboratory Services

CTL WV is a Leader in Providing Analytical Services to the Construction Industry

We maintain a staff of experienced personnel and accurate equipment to guarantee dependable results. We evaluate all types of construction materials. Additionally, CTL can prepare and test Portland Cement and bituminous concrete mixes for optimization studies to insure the proper mix design for specific jobs.

CTL offers petrographic examination of construction materials. These specialized microscopic evaluations allow us to closely evaluate concrete quality and determine the causes and extent of failures in concrete, in addition to potential future performance.

In addition to the standard ASTM tests of strength, absorption, dimensions unit weights etc., CTL provides several specialty tests on concrete block and brick, including the fire rating test, specified by the BOCA, and efflorescence testing required by many architectural firms.



Environmental Services

CTL Provides Environmental Services for Projects Varying in Complexities for Diversified Clients

CTL's environmental staff has a combined total of 144 years of experience in managing and conducting environmental projects of varying complexities. CTL performs over 500 environmental projects per year and follows the various ASTM standards, BUSTR and EPA regulations, and ODOT Guidelines for ESA Screening, Phase I and Phase II ESAs, UST Closures, Tier I & II Assessments, HazMat management and remediation. We also perform wetland delineation, permitting, and mitigation; asbestos, lead-based paint, and hazardous materials surveys, sampling, evaluation, as well as abatement project design & monitoring; waste management and disposal; GPR surveys; environmental monitoring/inspections during construction.



Markosky brings another level of depth to our team by adding or strengthening the following services

Markosky provides environmental consulting, construction management/inspection, and civil engineering services to public and private sector clients, including the following:

- NEPA compliance and permitting
- Regulatory agency coordination
- Environmental consulting, planning, and permitting
- Wetland /stream delineation and functional assessments
- Botanical surveys
- T&E Species coordination
- Waterway permitting
- Stream and wetland restoration and mitigation design
- Water sampling
- AMD treatment design
- Regulated material reviews
- Construction management and inspection
- Cultural resource investigations
- Geomorphological surveys
- Phased archaeological investigations
- Above ground historic structures evaluations
- Section 106 compliance
- Site restoration and grading design



SECTION 3 PROJECT APPROACH



Project Overview

Sullivan Refuse and Clogged Stream

The successful A/E Firm will be responsible for Design of the following (as may be applicable for each of the Projects as listed in Section Two):

- Access or accesses as required.
- Geotechnical investigation and analyses.
- Landslide Stabilization(s).
- Hydrologic and hydraulic analyses.
- Clear and grub affected areas.
- Regrade as necessary.
- Install drainage channels, underdrains, and/or other controls to safely convey water off-site.
- Demolition and removal / disposal of a silo and other structures.
- Condition and revegetate all disturbed areas.
- Obtain required permits as determined at the Pre-Design Meeting.

Locations: Projects are in Monongalia, Harrison, and Preston Counties.

Project 1: Laurel Point (Travinski) Mine Openings is located southwest of the City of Westover, in Monongalia County, WV. The project is for the mitigation of open and collapsed portals. Access to the portal locations is needed on the near bank between US Route 19 and Dents Run (south side of Dents Run). The portals are located on the opposite side and within 30-foot of Dents Run (north side).

Project 2: Left Fork of Little Sandy Subsidence is located south of the Town of Tunnelton, in Preston County, WV, off County Route 70 (Number 4 Road). The project is for the mitigation of a stream capture in a subsidence feature, and multiple other subsidence features. Design of access road will be required. Trash and other debris have been dumped into some subsidence features which will require removal from the site and be disposed of properly.

Project 3: McAlpin (Lambert) Landslide is located north of the City of Bridgeport, in Harrison County, WV, at the western side of the community of McAlpin, WV, off Harrison County Route 707 (Shinns Run Road). The project is for the stabilization of a dangerous landslide and associated AMD issues on a recently completed AML project.

Project 4: Smith Run Portal consists of a previously constructed AML site located north of the City of Bridgeport, in Harrison County, WV, and off Harrison CR 24 (Meadowbrook Road). The project is for the demolition of a concrete silo (approximately 60-foot high, 40-foot diameter) and various other abandoned buildings and structures. Derelict equipment, vehicles, scrap metal, tires, etc., shall be removed from the site and be disposed of properly. Regrade and cover refuse with suitable soils. Install wet or modified wet mine seals in collapsed portals, design AMD drainage systems and conveyance channels.



Project Management Plan

Our approach to the AML Contract 5 Project North will be similar to other CTL AML projects. The Project Management Plan we have developed for these sites are as follows:

The project manager will be solely responsible for expedient and accurate completion of each phase of the individual projects performed under this contract. He will review the project sites and discuss the specific scope of work for the project with the project representative from the WVDEP. A cost proposal will be prepared, in accordance with contract unit rates, based upon an estimate of manpower, equipment, and laboratory needs.

CTL will engage (Markosky) to begin the NEPA scope of the project. Markosky will be directed by the CTL project manager. Proposed federal actions require compliance with the National Environmental Policy Act of 1969 (NEPA) (42 USC 4321, *et seq.*), and the Council on Environmental Quality Regulations for Implementing NEPA (40 C.F.R. Parts 1500-1508), among other more discipline-specific regulations including but not limited to Section 7 of the Endangered Species Act (ESA) of 1973, as amended, and Section 106 of the National Historic Preservation Act of 1966. Through the preparation of NEPA documents (including Environmental Impact Statements, Environmental Assessments, and Categorical Exclusions) on behalf of numerous federal agencies, Markosky's technical staff possess the knowledge and expertise to ensure compliance with these federal regulations.

As NEPA requires all federal agencies to review and analyze the environmental consequences associated with proposed actions, the US Department of Interior (DOI) Office of Surface Mining Reclamation and Enforcement (OSMRE) is also required to comply with NEPA whenever the bureau proposes to take an action, or authorizes any other entity to take an action, that could possibly affect environmental resources. For the projects proposed, Markosky would ensure that all DOI and OSMRE-specific NEPA protocols and procedures for AML reclamation are followed during preparation of the environmental review document(s) on behalf of the OSMRE. This will ensure that the significance of impacts for these AML reclamation projects is thoroughly evaluated in order to prepare the appropriate decision documents and allow the projects to move forward.

CTL will then mobilize a fully equipped survey crew to set survey control and map the project site. Permanent control monuments will be established to ensure that the construction contractor can tie into the necessary baselines. The project manager will supervise the surveying tasks and provide budgetary control for this portion of the work.

A geotechnical exploration and analysis will be performed to delineate the thickness of mine refuse to determine and design the optimum stable grading plan. This exploration will be performed with a focus on safety to insure the safety of the local inhabitants and dwellings as well as the safety of the drilling and geotechnical personnel. For Landslide projects CTL will perform a geotechnical exploration to determine the cause(s) of the slip. We will prepare a geotechnical report which will include proposed alternatives for the repair of the slip.

Should field conditions dictate that additional work or a major modification is required, the project manager will contact the WVDEP representative immediately to confirm the changed conditions.

Following completion of the surveying, geotechnical exploration and any material sampling, the analytical design work will begin. The Project Manager and Engineer will review the project data, evaluate the feasible alternatives and prepare a preliminary set of construction documents. The documents will include at a minimum:

1. A site map indicating existing conditions;
2. A tax map overlay with the parcels identified that may be impacted by the proposed design;
3. Reclamation Plans for the project area.
4. Proposed site plans for the repair and stabilization of the landslide, including safely dewatering and excavation of all portals, if needed.
5. Provide Sedimentation and Erosion Control Plan
6. Site Profiles



7. Cross Sections
 8. Drainage systems and control structures, with details
 9. NPDES Permit
 10. MM109 Permit
 11. Survey control points
 12. Miscellaneous Site details
- CTL will also provide all necessary data for the MM109 and NPDES permit including S&E Control Plans as required for the site construction and if deemed necessary, perform environmental assessments. CTL will make submittals for the NPDES permit.
 - In addition to preparation of the above-described drawings, a complete set of specifications will be prepared and outlined to describe in detail the scope and methods of work to be accomplished. An estimate of construction costs and the design calculations will also be submitted to the WVDEP for review and future reference.
 - Following the submission of the construction documents, a project design review meeting will be coordinated with the WVDEP, CTL, and appropriate individuals to review the proposed plans.
 - Recommendations for plan revisions will be discussed and implemented, as necessary, into the final design documents. Upon completion, all final documents, drawings, plans and specifications will be forwarded to the WVDEP for bidding purposes.
 - CTL will assist the WVDEP in the bidding process with any design or constructability questions.
 - CTL will provide engineering technicians to provide QA/QC and materials testing throughout construction activities.
 - CTL will provide daily reports and document the construction process and assist the WVDEP in the project closeout.

Project Goals

AML Contract 5 Project North

Project and Goals:

- 2.1. NEPA tasks and IJJA compliance.
- 2.2. Determine legal ownership of properties and provide legal documentation to substantiate legal ownership findings (if required).
- 2.3. Develop construction plans and technical specifications for all aspects to reclaim mine portals, demolition of structures (silo, buildings, etc.), drainage controls and systems, slope stabilization, coal refuse reclamation, stream restoration, subsidence repair, limits of disturbance, storm water and erosion and sediment control, regrade and revegetation, and all other conditions encountered on the project sites.
- 2.4. Obtain/maintain/release all required permits.
- 2.5. Provide resident project representative, QA/QC certification, and prepare daily field activity logs summarizing construction activities.

***CTL's abilities to complete the project scope and goals:***

Tim Darrah will be the project manager for CTL. All communication through the owner for the duration of the project will be through Mr. Darrah. Mr. Darrah has the authority to engage any of CTL's staff or services for the completion of the project.

CTL has referenced several projects in (section 5) that were completed on time and on budget. CTL provides engineering services to a wide variety of projects with similar challenges as laid out in the EOI. We have a vast history providing engineering services to AML projects in WV and the surrounding states.

CTL will use the following project Management outline. CTL has accounting software that can provide work in progress reports weekly.

Plan Schedule Management

- Define Scope
- Sequence scope tasks
- Estimate Resources and cost
- Estimate Durations and cost to complete tasks
- Develop Schedule
- Control Schedule

CTL provides services to several projects throughout the year that are constructed timely and efficient.

Construction Management Plan

- Project Organization
- Project Planning
- Project Monitoring
- Project Control

CTL completes several projects a year that involve: landslide reclamation, civil site design, stormwater and drainage control, construction administration, construction inspection and testing, geotechnical engineering, surveying and environmental engineering.



SECTION 4 PROJECT PERSONNEL



CTL TEAM ORGANIZATION

west virginia



Timothy Darrah
Project Manager

Patrick Gallagher, PE
Subject matter expert
AML Reclamation

Reuben Haight, PE
Engineer of Record

Geotechnical

Joe Grani, PE
Geotechnical Lead

Carl Selfridge
Geotechnical Engineer

Design / Engineering

Timothy Darrah
Design Lead
Environmental Lead

Joseph Stanley
Staff Engineer

Environmental

Karen Reed (Markosky)
Environmental Lead

Susan Gerlach (Markosky)
Environmental Scientist

Hydraulic Modeling

Millard "Bucky" Nicholson
Storm Modeling Lead

Reuben Haight, PE
Civil Engineer

Construction Services

Joe Grani, PE
Construction Services Lead

Caroline Ornowski
Engineering Technician

CTL Team Key Personnel / Experience

Tim Darrah | Civil/Site and Surveying Department Manager

Education: B.S. Civil Engineering

Summary: Mr. Darrah will serve as the project manager for CTL. Mr. Darrah is presently responsible for department management for reclamation design, municipal engineering, civil site design, commercial development and surveying projects. Mr. Darrah also serves as project manager on various types of civil engineering projects including water, sewer and stormwater designs as well as residential, commercial developments and reclamation design projects. Office work includes project management, site designs, hydrology calculations, quantity calculations, and various other forms of engineering related duties.



Relevant Project Experience

- Guernsey Power Plant and Substation – Mine Grouting and Stabilization Design
- ODNR Bond Forfeiture Program – 20 plus Projects
- Morgantown Anderson Portals & Highwall – Abandoned Mine Land Reclamation Design, Morgantown, West Virginia
- Hopewell Church Refuse and Acid Mine Drainage – Abandoned Mine Lands, Preston County, West Virginia
- Fairmont (Jackson Addition) Subsidence Project – Abandoned Mine Land Reclamation, Marion County, West Virginia
- Shinns Run Portals & Acid Mine Drainage – Abandoned Mine Lands Reclamation, Harrison County, West Virginia
- Ream Refuse Piles – Abandoned Mine Lands Reclamation, McDowell County, West Virginia
- Cheat Neck (Lenhart) Landslide, Monongalia County, West Virginia
- St. Clair Portals – Abandoned Mine Lands Reclamation, Monongalia County, West Virginia
- Morning Star Baptist Church Subsidence, Marion County, West Virginia
- Fairmont United Methodist Church-Subsidence Investigation & Mitigation, Fairmont, West Virginia
- Eccles and MacArthur Subsidence, Raleigh County, West Virginia
- Peninsula Highwalls – Abandoned Mine Lands Reclamation, Monongalia County, West Virginia

Reuben Haught, P.E. | Civil Engineer

Education: B.S. Civil Engineering Technology

Summary: Mr. Haught is a licensed professional engineer in West Virginia and Pennsylvania and will be the engineer in charge for the project. He is a Project Engineer whose responsibilities include mining reclamation plans, impoundment stability inspections, project management, site design, site grading, stormwater design, and stormwater permitting. He is proficient in AutoCAD Civil 3D and Hydraflow Hydrographs.



Relevant Project Experience

Morgantown Municipal Airport Runway Extension: Project Manager

More than 150 Weekly, Quarterly, and Annual Pond impoundment inspections each year since 2016.

Courtney Run Abandonment Plan Revision 18: Permitting through MSHA and WVDEP

WVU Willowdale Road Parking Garage: Road Adjustment Design and Permitting; Grading Design; Underground Storage and Pipe Network Layout, Sizing, and Permitting.

Patrick E. Gallagher, PE, CPGS | Technical Advisor**Education:** B.S. Civil Engineering, Minor in Geology**Summary:** Mr. Gallagher will serve as technical oversight for the project. Projects successfully completed under Mr. Gallagher's direction include: Civil Site Design, Foundation Design, Stormwater Management, Waste Water Design, Roadway Design, Parking Lot Design, Geotechnical Investigations & Design, Site Stability Analyses, Mine Subsidence Evaluations, Failure Investigations and Environmental Investigations and Expert Witness Testimony. Prior to joining CTL Engineering, Mr. Gallagher was the chief of the Abandoned Mine Reclamation Program for the State of Maryland, Department of Natural Resources, and Bureau of Mines. In addition, he was also responsible for overall engineering/geologic support to the Maryland Bureau of Mines Program. His career began in Pittsburgh as a project geotechnical engineer with Orbital Engineering.**Relevant Project Experience**

- ODOT 11-16 – Mine Voids Mitigation SR 2, Ottawa County, OH
- Step&J 11-12 – Eastern/Patriot Kopperston Refuse Impoundment, Wyoming County, WV
- LP Mineral 11-17 – Overhead Conveyor Yearly Inspection, Monongalia County, WV
- MDE 2012 – Douglas Avenue Landslide Repair Project – Task Order #9, Allegany County, MD
- WV DEP 12-13 – Fairmont (Jackson Addition) Subsidence Project (DEP 15594), Marion County, WV
- CONSOL 2013 – Annual Certification – Loveridge, Marion County, WV
- Mepco 13-14 – Seal Certification – Prime No. 1 Mine, Monongalia County, WV
- MDE 2014 – Shaft Firehall (TO#22), Frostburg, MD
- Island Creek 2015 – North Branch Annual Certifications, Grant County, WV
- MDE 14-15 – Aarons Run, Garrett County, MD
- AECOM 14-16 – I-79 Interchange Mine Subsidence and Grout Stabilization, Monongalia County, WV
- Beaver 2015 – Cowgill Waterline – Stability Analysis, Noble County, OH
- MDE 15-16 – Upper Georges Creek Stream Sealing Project Acid Mine Drainage, Allegany County, MD

Joseph Grani, P.E. | Geotechnical Engineer**Education:** M.S. Geotechnical Engineering, 1994; B.S. Civil Engineering, 1991**Summary of Experience:** Mr. Grani will be the geotechnical lead for the project. Mr. Grani has over 30 years of experience in the geotechnical field. He is responsible for the supervision of all subsurface exploration projects including landslides, foundation analyses and recommendations for roadways, bridges, sewers, buildings, towers, and tanks. He has managed geotechnical drilling operations for confirmation borings on large scale deep mine grouting projects. He has also worked on several roadway rehabilitation projects where unsuitable soils were encountered. His innovative solutions to projects have included using geogrid to bridge soft soils and decrease required pavement thicknesses and the use of drying agents such as cement and lime to stabilize the soils. Mr. Grani was the Project Manager for various landslide projects including a 1,590-foot long plug pile retaining wall (HEN-110-0.66), and a 1,170-foot long plug pile retaining wall (ADA-125-13.30).

Also, Mr. Grani served as the Project Manager for the geotechnical explorations with varying level of design calculations on over 150 landslides in West Virginia and Ohio. In addition to landslides, in the past 5 years, Mr. Grani has served as Geotechnical Project Manager on over 50 other transportation projects including roadway realignments, as well as bridge and culvert replacements.

Carl Selfridge | Geotechnical Engineer**Education:** B.S. Civil Engineering Technology**Summary:** Mr. Selfridge will serve as a geotechnical engineer and provide geotechnical oversight and review for the project.

Mr. Selfridge's responsibilities include management of field drilling activities, field classification of soil and rock, field and laboratory safety procedures, and performing geotechnical evaluations. Engineering evaluations include foundation recommendations, settlement analysis, slope stability analysis, earth pressure coefficients and report preparation.

Relevant Project Experience

- Eccles and MacArtur Subsidence-Subsidence Investigation & Mitigation. Raleigh County, W.V.
- Shinns Run Portals & AMD-AML Reclamation & Geotechnical Services. Harrison County, W.V.
- Tunnel Ridge Slurry Cell A-Piezometer Installations & Geotechnical Services. Ohio County, W.V.
- Pine Creek: Omar Landfill-Geotechnical Services. Logan County, W.V.
- WV State- wide Landfill-Geotechnical Services.
- Buzzard Pond Dam-Geotechnical Services. Marshall County, W.V.

Millard "Bucky" Nicholson | Civil Engineer**Education:** B.S. Civil Engineering**Summary:** Mr. Nicholson will serve as the Stormwater Modeling Lead. Mr. Millard L. Nicholson Jr. is a Staff Engineer, Project Manager, and CAD Designer in the Morgantown, West Virginia office of CTL Engineering, Inc. His responsibilities include assisting in the planning and design of civil site design projects involving land planning and site development aspects, stormwater for MS4 communities and permitting. He is proficient in AutoCAD Civil 3D, HEC-RAS, TR-55, Hydraflow Hydrographs, Microsoft Word, and Microsoft Excel. His projects include commercial and residential properties, mine and energy sites, and, also, state, county, and local roads. Mr. Nicholson expertise in stormwater and hydraulic modeling are crucial for any project CTL completes. All site development designs are coordinated through Bucky and rely on his calculations and analyses for site specific specifications. Bucky has completed numerous studies and analyses in support of modification to FEMA Flood Maps via LOMR (Letter of Map Revision) process. He has modeled several sites using HEC-RAS to determine the actual floodplain limits. Bucky also is our lead for green design in stormwater, such as biocells and rain gardens. Ditch calculations and drainage areas are other examples of Bucky's experience.**Relevant Project Experience**

- LOMR and FEMA permits various locations in West Virginia
- Site Development stormwater design, various locations in West Virginia
- Hydraulic Modeling for Bridge Analysis, Monongalia County, West Virginia
- Fairmont Subsidence – Abandoned Mine Land Reclamation, Marion County, West Virginia
- Morgantown Anderson Highwalls – Abandoned Mine Land Reclamation Design, Monongalia County, West Virginia
- Shinns Run Portals – Abandoned Mine Land Reclamation & Portal Closure, Harrison County, West Virginia
- Williams Refuse Pile – Land Reclamation, Harrison County, West Virginia

Joseph Stanley | Civil Engineer

Education: A.S. Drafting and Design

Summary of Experience: Mr. Joe Stanley is a Staff Engineer, Project Manager, and CAD Designer in the Morgantown, West Virginia office of CTL Engineering, Inc. His responsibilities include assisting in the planning and design of civil site design projects involving land planning and site development aspects. His projects vary from commercial and residential properties, mine and energy sites, and also includes state, county, and local roads.

**Relevant Project Experience**

- Fairmont Subsidence – Abandoned Mine Land Reclamation, Marion County, West Virginia
- Morgantown Anderson Highwalls – Abandoned Mine Land Reclamation Design, Monongalia County, West Virginia
- Shinns Run Portals – Abandoned Mine Land Reclamation & Portal Closure, Harrison County, West Virginia
- Hopewell Church Refuse – Abandoned Mine Drainage, Preston County, West Virginia
- Peninsula Highwalls – Abandoned Mine Land Reclamation, Monongalia County, West Virginia
- Cheat Neck Landslide, Monongalia County, West Virginia

Karen Reed | Environmental Project Manager (Markosky Group)

Education: B.A. Anthropology Fort Lewis College, 2000

Summary of Experience: Ms. Karen Reed is a project manager with 17 years of experience in preparing NEPA documents and obtaining the required clearances for resources. She is also an archaeologist with significant experience with Section 106 of the National Historic Preservation Act. She has uniquely served as both an archaeological consultant on smaller bridge replacement and larger linear transportation projects but was also the acting Archaeology Unit Leader while working for the West Virginia DOH. In her position at the DOH, she became directly familiar with the policies and guidelines of the DOH, and managed and conducted various Section 106 tasks within a broad range of transportation project types. This also exposed her to understanding the interdisciplinary cooperation of NEPA and natural resource efforts within the DOH to be able to effectively move projects forward while considering parallel design services. These experiences also included the preparation of Environmental Assessments (EA) and Categorical Exclusions (CE).

**Relevant Project Experience**

- Greenbag Road Improvement Project (NEPA) – WVDOH, Monongalia County, West Virginia
- Quick Curve Relocation Project (NEPA) – WVDOH, Randolph County, West Virginia
- Seminole Road Project (NEPA) – WVDOH, Summers County, West Virginia
- Allegheny Circle Road Improvement Project (NEPA) – Pittsburgh, PA

Susan Gerlach | Environmental Scientist (Markosky Group)

Education: B.S. Environmental Resources Management The Pennsylvania State University, 2011

Summary of Experience: Ms. Susan Gerlach has over 8 years of experience conducting technical assessments, evaluating resource constraints, and providing foundational information for planning, project, and policy decisions for the United States Department of the Interior, the North Carolina Department of Transportation, the Federal Highway Administration, and numerous municipal clients in the State of North Carolina. She has over 2 years of experience developing express design feasibility study reports and National Environmental Policy Act documents such as Environmental Assessments (EA), Categorical Exclusions (CE), and Community Studies reports. Susan's responsibilities encompass resource agency coordination, public involvement, and qualitative and quantitative impact evaluations for highway, rail, and bridge projects. She is proficient in geospatial analysis, GIS mapping, and GPS data collection and processing, with additional skillsets in water resource monitoring, modeling, and assessment.

**Relevant Project Experience**

- Greenbag Road Improvement Project (NEPA) – WVDOH, Monongalia County, West Virginia

Caroline Ornowski | Engineering Technician**Education:** B.S. Civil Engineering, Fairmont State University 2016**Summary of Experience:**

Caroline is Level III construction inspector with 5 years of construction experience in quality control testing and inspection of roadway, bridges and other infrastructure projects. She also has experience in construction – Above Ground Training OSHA – administration and inspection of general items such as: structures, storm sewers, sanitary sewers and waterlines.



Caroline has been assigned as the lead inspector on the MGW Runway Extension Runway construction project in Morgantown. This project features over **100,000 yards of rock excavation** and potential stakeholder encroachment. She has strong knowledge and experience with quality control testing, coordination of other technicians and serving as liaison between clients, owner and contractor. She also maintained as-built drawings, measured various material quantities and provided daily report of the construction activities.

Relevant Project Experience

- Morgantown Airport Runway Extension – City of Morgantown, West Virginia QA / QC
- Guernsey Power Plant and Substation – Mine Grouting and Stabilization Design QA / QC
- I79 Widening – WVDOH Asphalt QA / QC



SECTION 5 PAST PERFORMANCE



AML & Relevant Project Experience

HIGHWALLS

- Anderson Highwalls, WVDEP
- Peninsula Highwalls, WVDEP
- St. Clair Portals, WVDEP
- Collins Mining, ODNR
- Miller Mining, ODNR

OPEN PITS

- Shinn's Run Portals, WVDEP
- Jones Trucking, ODNR
- General Clay #1 & #2, ODNR

OPEN MINE SHAFTS

- Kennel Mine Closure, MDE, AMLD
- Frostburg North Closure, MDE, AMLD
- Zilman Closure, MDE, AMLD

REFUSE PILES

- Hopewell Church Refuse & AMD, WVDEP
- Ream Refuse Pile, WVDEP
- Williams Refuse Pile, Private
- Harrison Power Plant, Allegheny Power

MINE SUBSIDENCE

- Fairmont Subsidence, WV DEP
- Lower Consol Road MDE, AMLD
- Terra Haute Airport, IN AML
- Farmington UMC, WV DEP Emergency
- Morningside Baptist, WV DEP Emergency
- Eccles Subsidence, WV DEP
- McArthur Subsidence, WV DEP
- Mark Kempner, NJ Private
- WV BRIM
- OMSIUA



MINE DRAINAGE/STREAM RESTORATION

- St. Clair Portals, WV DEP
- Aarons Run, MDE, AMLD
- Deckers Creek, WVDEP

LANDSLIDES

- Douglas Avenue Landslide, MDE, AMLD
- Schramm Landslide, MDE, AMLD
- Gordon Landslide, MDE, AMLD
- East Franklin Landslide, MDE, AMLD
- Cheat Neck Landslide, WV DEP
- McCourt Landslide, ODNR
- Caldonia Hill Slope Stability, MDE, AMLD

WATER SUPPLY REPLACEMENT

- Douglas Avenue Stormwater System Repair, MDE, AMLD
- Bald Knob & Potomac Hollow Water Investigations, MDE, AMLD
- Pee Wee Hill Supply Design, MDE, AMLD
- Pee Wee Will Water Feasibility Study, MDE, AMLD
- Fairview Water Feasibility, WV DEP
- Tioga Water Feasibility, WV DEP



AML / Mine Related-Past Performance Matrix

Name	Location	Landslide	Subsidence	Highwalls	Refuse Piles	AMD	Mine Openings	Stream Design / Restorations	Construction Docs / Bidding
Anderson Highwall	Monongalia County, WV			X			X		X
Tars Hill Landslide	Jefferson County Ohio	X							X
Oakhill Landslide	Allegheny County Maryland	X							X
Riddles Run Landslide	Jefferson County, Ohio	X							X
Aarons Run Road Failure & Landslide	Garrett County, Maryland	X							X
Peninsula Highwall	Monongalia County, WV			X			X		X
St. Clair Portals	Monongalia County, WV			X	X	X	X	X	X
Aaron's Run	Garrett County, MD					X		X	X
George's Creek	Garrett County, MD							X	X
Shinn's Run Portals	Harrison County, WV					X	X		X
Williams Refuse Pile	Harrison County, WV				X	X			X
Maryland Deep Mine Closures	Allegheny & Garrett County, MD						X		X
Hopewell Church & AMD, WVDEP	Preston County, WV			X	X	X	X		X
Fairmont Subsidence	Fairmont, WV		X						X
Blackwater River AMD	Tucker County, WV					X			X
Taylor Creek Impoundment	Clay County, WV				X			X	X
Thomas Subsidence	Thomas, WV		X						X
Red Hollow Refuse Pile	Mc Comas, WV				X				X
Alderson Branch Refuse Pile	Raleigh County, WV				X				X
General Clay	Medina County, Ohio			X					X
Zerger Quarry	Noble County, Ohio			X					X

Past Project Experience

Project: Anderson Highwall

Client: WVDEP AML

Contact: AML Division (Bridgeport Office)

Phone: (304) 926-0499

Location: Monongalia County, West Virginia

Project Description: The site consisted of dangerous highwalls, seven or more open or partially open portals and a dangerous scrap yard with potentially dangerous materials. CTL provided surveying, geotechnical investigation, civil design and construction bidding documents.



Project: Tars Hill Landslide

Client: ODNR – Division of Mineral Resource Management

Contact: AML Division

Phone: (614) 265-7079

Location: Jefferson County, Ohio

Project Description: CTL Engineering, Inc. provided engineering design services and construction documents necessary to repair and stabilize a landslide that has damaged a road and made it impassable. In addition, the hillside above the damaged road has become unstable and has several large slip areas. Abandoned deep mines, on both sides of the hollow, produce a significant number of ground water sources, which has added to the instability of the area.



Site design will begin on the collection and diversion of ground water, slope stability and road replacement once the final site investigation has been completed.

Project: Oakhill Landslide

Client: Maryland Department of Environment – Bureau of Mining

Contact: MBOM

Phone: (301) 689-8020

Location: Allegheny County, Maryland

Project Description: CTL Engineering, Inc. provided engineering design services and construction documents necessary to reclaim and stabilize a landslide encroaching on Georges Creek and reducing the flow area of the stream. The site had been backfilled with mine spoil and mine drainage was saturating the slope and creating the instability. Subsurface investigations were performed to determine soil characteristics, strata depths and water levels, using piezometers. Slope stability analyses were performed to determine the corrective actions required to stabilize the area. Surface and subsurface drainage structures, a toe key, and stream bank protection were designed to correct the instability problems and provide long term protection to the area.



Project: Riddles Run Landslide
Client: ODNR – Division of Mineral Resource Management
Contact: AML Division
Phone: (614) 265-7079
Location: Jefferson County, Ohio

Project Description: CTL Engineering, Inc. provided engineering design services and construction documents necessary to repair and stabilize a landslide that has damaged a road. Mine drainage of abandoned deep mine entries have saturated the soil causing it to slide down the slope toward the road. In addition, trees whose roots have been loosened by the movement of soils are in danger of sliding onto the roadway.

This 0.15-acre site was cleared and grubbed to install a sub-surface drain that will carry mine drainage away from the slip area.

This drain was constructed above and perpendicular to the slip. An additional surface drain was constructed and lined with rock to direct the flow from the subsurface drain to natural drainage.



Project: Oakhill Landslide
Client: Maryland Department of Environment – Bureau of Mining
Contact: MBOM
Phone: (301) 689-8020
Location: Garrett County, Maryland

Project Description: CTL Engineering of West Virginia Inc. provided site investigation, geotechnical drilling and engineering services and remediation design for this road failure which was caused by subsidence from abandoned deep mines. The mines were within 50 feet of the road surface and had active water discharge on the outslope of the roadway. The design required the excavation of all material to the deep mine, create and engineered embankment to the road level and move the roadway further into the uphill side of the existing roadway.

This design was selected as the most cost effective way to remediate the failure and utilize nearby material for the fill.



Project: Peninsula Highwall
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499
Location: Monongalia County, West Virginia

Project Description: This site contained 1,800 LF of vertical to sloughed highwalls 15 to 25 feet high, 7 partially of totally collapsed mine portals, 1 open mine portal, subsidence depressions behind the portals and water present at or flowing from the portals. CTL Engineering of West Virginia, Inc. was retained to provide the design for the access road into the site, wet seal 2 portals, regrade face of 2 portals, riprap channel and additional channel to carry water off site, backfill of highwalls and subsidence areas, restoration of golf path asphalt, and conditioning and revegetation of all disturbed areas.



Project: St. Clair Portals
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499
Location: Monongalia County, West Virginia

Project Description: The site consisted of coal refuse, acid mine drainage with impounded water, collapsed mine portals and highwalls. 17 portals were found along the highwall bench. Three impoundments of approximately 70,000 sq.ft. had water flowing at 300 gpm with a pH value of 3.1 and iron >10 mg/l. A 35' to 45' high refuse pile was in the middle of the site as well as scattered refuse throughout the site.



CTL Engineering of West Virginia, Inc. was retained to provide the design for excavation and wet seal of at least 17 mine portals, dewater three impoundments, 2000 LF of stream reconstruction, regrade and cover of coal refuse and spoil areas on mine bench, drainage control channels to carry water off site. CTL was also responsible for the backfill of highwalls using spoil material to original contour and conditioning and revegetation of all disturbed areas.

Project: Aaron's Run AMD Project
Client: Maryland Department of Environment – AML Division
Contact: Mike Garner
Phone: (301) 689-1440
Location: Garrett County, Maryland

Project Description: CTL Engineering of West Virginia, Inc. was retained to provide the design for multiple AMD treatment systems, 2 SAP cells, slurry doser, settling ponds, and natural wetlands. CTL also provided full site grading plans & drainage controls, access road & highway rated bridge, all state & federal permitting, and construction specifications and drawings.



Project: Upper Georges Creek Stream Sealing Project
Client: Maryland Department of Environment – AML Division
Contact: Tim Miller
Phone: (301) 689-1440
Location: Garrett County, Maryland

Project Description: CTL Engineering of West Virginia Inc. was retained to perform geologic and hydrologic assessments of the Upper Georges Creek Watershed to determine the extent and amount of stream flow lost to underground mines. CTL was responsible for conducting cooperative meetings with several stakeholders, reviewing existing reports and data on file at the AMLD office and based on available data along with possibly field measurements or drilling, develop plans to monitor streams to locate stream water loss zones. CTL then performed stream flow measurements within the study area to locate the areas of most significant water loss. Also, assessments to each tributary was completed as a part of the study. Upon completion of the study, CTL provided remediation options for sealing the streams.



Project: Shinns Run

Client: WVDEP AML

Contact: AML Division (Bridgeport Office)

Phone: (304) 926-0499

Location: Harrison County, West Virginia

Project Description: CTL Engineering provided surveying, reclamation design and subsurface investigations for this Abandoned Mine Lands and Reclamation project. The surveying was completed in order to establish the areas that will be reclaimed and to locate utilities that were not apparent on the mapping provided for the job. CTL provided drilling services near the mine entries to determine the mine pool as well as near a bridge on site to determine the foundation depth and bearing capacity. CTL also developed sedimentation and erosion control plans for all disturbed sites.



Project: Williams Refuse Pile

Client: Targe Energy

Contact: Van Plocus

Phone: (412) 784-0750

Location: Harrison County, West Virginia

Project Description: CTL Engineering of West Virginia, Inc. was selected to perform engineering related services including environmental services, site design, and permitting for Targe Energy Reclamation, LLC during this *turnkey project*. This project was treated very similar to a complete surface mine application. The scope of services provided by CTL included a refuse removal plan, field reconnaissance, ash backfill design, permits preparation, and environmental sampling.



Project: Maryland Deep Mine Closures

Client: Maryland Department of Environment – AML Division

Contact: Tim Miller

Phone: (301) 689-1440

Location: Allegheny and Garrett County, Maryland

Project Description: CTL Engineering of West Virginia, Inc. was retained to provide the develop detailed engineering design plans and construction plans including; cost estimates, bid documents, project drawings, maps, plans & specifications for the reclamation construction of multiple mine mouth closures. Design and Plans included dry and wet mine seals, bat gates, regrading, drainage structures and site reclamation.



Project: Fairmont Subsidence

Client: WVDEP AML

Contact: AML Division (Bridgeport Office)

Phone: (304) 926-0499

Location: Harrison County, West Virginia

Project Description: CTL Engineering provided surveying, reclamation design and subsurface investigations for this Abandoned Mine Lands and Reclamation project. The surveying was completed in order to establish the areas that will be reclaimed and to locate utilities that were not apparent on the mapping provided for the job. CTL provided drilling services near the mine entries to determine the mine pool as well as near a bridge on site to determine the foundation depth and bearing capacity. CTL also developed sedimentation and erosion control plans for all disturbed sites.



Project: Blackwater River

Client: WVDEP AML

Contact: AML Division (Bridgeport Office)

Phone: (304) 926-0499

Location: Tucker County, West Virginia

Project Description: CTL Engineering of West Virginia, Inc. provided Engineering Design Services and construction documents to rehabilitate an existing concrete dam and install a rotating drum and limestone slurry treatment facility on the Blackwater River. This project was a cooperative project with West Virginia Department of Environmental Protection and West Virginia Division of Natural Resources. This project has been recognized by "Trout Unlimited" and was mentioned in the February 1993 issue of "Outdoor Life". The Blackwater River/Beaver Creek Treatment Project has successfully transformed a formally dead section of the Blackwater River into a high quality trout fishery and was recognized by the *US Dept of Interior, Office of Surface Mining, as the 1999 Appalachian Region Award Winner.*



Project: Taylor Creek Impoundment

Client: WVDEP AML

Contact: AML Division (Bridgeport Office)

Phone: (304) 926-0499

Location: Clay County, West Virginia

Project Description: CTL Engineering of West Virginia, Inc. provided Engineering Design Services and construction documents necessary for the reclamation and extinguishment of a 120-acre burning refuse pile. This project also included the subsurface investigation of burning material to depths of approximately 110 feet, and the design and reconstruction of approximately 3,400 feet of Taylor Creek. Several areas of slope instability required stabilization. Additionally, an existing 24-acre coal related impoundment had to be evaluated, dewatered and the area stabilized.



Project: Morgantown Airport Runway Extension

Client: City of Morgantown

Contact: Michael Baker

Phone: (304) 284-7405

Location: Monongalia, West Virginia

Project Description: The Runway Extension Project is a five-year initiative taking place at the Morgantown Municipal Airport – the busiest airport in West Virginia. The scope of work for this project

is to extend the existing runway by 1,001 feet, creating a safer takeoff and landing space for outgoing and incoming flights. Over 100,000 CY of rock excavation was part of the scope of the PH-1 project.





SECTION 6
CCQQ
RPEM

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

PROJECT NAME AML Contract Project 5 North	DATE (DAY, MONTH, YEAR) 06-21-2022	FEIN 55-063-1834
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1. FIRM NAME CTL Engineering, Inc.	2. HOME OFFICE BUSINESS ADDRESS 2860 Fisher Road Columbus, OH 43204	3. FORMER FIRM NAME Columbus Testing Laboratories
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4. HOME OFFICE TELEPHONE (614)276-8123	5. ESTABLISHED (YEAR) CTL-1927 CTL-WV 1983	6. TYPE OWNERSHIP Individual <u>Corporation</u> Partnership Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES <u>NO</u>
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6. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
1091 Chaplin Road, Morgantown, WV 26501/ 304-292-1135/ CK Satyapriya, President / Morgantown - 16

<p>7. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM</p> <p>C. K. Satyapriya – CEO Ali Jamshidi – CFO Bipender Jindal – Secretary Hassan Zahran – Principal Ali Karaki – Principal David Breitfeller – Principal Kevin Reichert – Principal</p>	<p>8a. NAME, TITLE, & TELEPHONE NUMBER – OTHER PRINCIPALS</p> <p>Joe Grani – President – Geotechnical and Branch Manager of CTL Engineering of WV Timothy Darrah – Design Manager – CTL Eng. of WV</p> <p>Office Telephone: 304-292-1135</p>
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9. PERSONNEL BY DISCIPLINE

<u>1</u> ADMINISTRATIVE - ARCHITECTS - BIOLOGIST <u>4</u> CADD DESIGNERS - CHEMICAL ENGINEERS <u>3</u> CIVIL ENGINEERS <u>7</u> CONSTRUCTION INSPECTORS - DESIGNERS <u>1</u> DRAFTSMEN	- ECOLOGISTS - ECONOMISTS - ELECTRICAL ENGINEERS <u>1</u> ENVIRONMENTALISTS - ESTIMATORS <u>2</u> GEOLOGISTS/GEOTECH ENG. - HISTORIANS <u>1</u> HYDROLOGISTS	- LANDSCAPE ARCHITECTS - MECHANICAL ENGINEERS <u>1</u> MINING ENGINEERS - PHOTOGRAMMETRISTS - PLANNERS: URBAN/REGIONAL - SANITARY ENGINEERS <u>1</u> SOILS ENGINEERS <u>1</u> SPECIFICATION WRITERS <u> </u> f	- STRUCTURAL ENGINEERS <u>2</u> SURVEYORS/RODMEN - TRAFFIC ENGINEERS <u> </u> X OTHER, <u>1</u> Geotechnical Drillers <u>1</u> Driller Helpers <u>3</u> Geotechnical Engineers <u>2</u> Laboratory Technicians
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 32 TOTAL PERSONNEL

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

The TOTAL PERSONNEL number is for CTL Engineering, Inc. Morgantown, WV Office

TOTAL PERSONNEL for CTL Engineering, Inc. is 250, which includes the Morgantown Office.

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

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

YES Description and Number of Projects: CTL Engineering has completed more than 800 AML related projects nationally and internationally. See attached "AML Past Project Experience" for some specific examples. CTL completes un excess of 100 testing projects each year.

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: Our in-house laboratories perform all ASTM mechanical, organic and in-organic analyses for soils. Our labs are certified by WVDOH, OEPA and US Corps of Engineers.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: Each of our site design and AML projects require hydrology & hydraulic evaluations. We estimate that annually, we complete more than 100 projects requiring hydrology design.

NO

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

YES Description and Number of Projects:

NO However, we annually complete more than 25 projects requiring aerial photography & mapping. While we sub-contract the aerial photography, in-house we provide GPS, surveying and develop the contouring as needed. CTL deploys a drone to support contour mapping typicall for sites less than 10 acres.

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

YES Description and Number of Projects: We have completed numerous waterline design projects and our in-house staff has more than 50 years of combined experience with aquifer degradation.

NO

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

YES Description and Number of Projects: CTL has developed more than 20 active and passive treatment systems for AMD. More than 50 of our AML Design projects required some form of AMD evaluation and design.

NO

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Gallagher, Patrick E., PE President, Project Manager	40	40	32

Brief Explanation of Responsibilities
 President of CTL Engineering of WV, Inc.; responsible for the overall administration of the Morgantown, WV office along with the management of the individual engineering projects. His administration and management responsibilities include marketing, proposal preparation, client contact, supervision of design personnel, scheduling, budget control, and report preparation. Projects successfully completed by Mr. Gallagher include: Geotechnical Investigations, Foundation Design Investigations, Dam Stability Analyses, Mine Subsidence Evaluations, Mineral Reserve Studies, Landslide Investigations, Mine Reclamation Designs, Failure Investigations, and Mining Permits.

EDUCATION (Degree, Year, Specialization)
 B.S., 1975, Civil Engineering
 B.S., 1975, Equivalent, Geology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
American Society of Civil Engineers Society of Mining Engineers of A.I.M.E. Triangle Fraternity of Engineers, Architects and Scientists International Society of Soil Mechanics and Foundation Engineers American Institute of Professional Geologists	Registered Professional Engineer; 1983-West Virginia, 1984-Ohio, 1983-Maryland, 1993-Pennsylvania, 2006-Wyoming, 2006-North Carolina Certified Professional Geological Scientist - 1984 Professional Surveyor, 1995-West Virginia

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Selfridge, Carl G. Department Head, Geotechnical Services	11	11	

Brief Explanation of Responsibilities
 Department Head Geotechnical Engineering. Responsible for subsurface investigations, geotechnical reporting, foundation analysis & recommendations, program development for investigative and laboratory analysis.

EDUCATION (Degree, Year, Specialization)
Graduate Studies, 1996-1999, Civil Engineering (Geotechnical)
 B.S., 1996, Civil Engineering, Geotechnical and Structural
 A.S., 1994, Engineering Science
 A.A.S., 1991, Mechanical Technology - Design & Drafting

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
Fellow of the American Society of Civil Engineers, The GEO-Institute, Timber Framers Guild, Construction Institute (ASCE)	Engineering Intern (EI), 1996, New York Level II Drilling Inspector, 1999, PennDOT

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

NAME & TITLE (Last, First, Middle Int.) Darrah, Timothy A. Civil Site Dept. Mgr., Project Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 26	YEARS OF AML RELATED DESIGN EXPERIENCE: 26	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE 26

Brief Explanation of Responsibilities
Mr. Darrah is presently responsible for Management and Design for various types of civil engineering projects including reclamation design, commercial and residential development projects. He is also responsible for scheduling, invoicing and client contacts for all surveying projects including topographic, property and construction layout. Mr. Darrah's duties include drafting, writing of property descriptions, hydrology calculations, quantity calculations and various other forms of surveying and civil engineering related duties. He is also proficient in computer software including AutoCAD, Civilsoft, HEC-1, HEC-RAS and various other engineering software.

EDUCATION (Degree, Year, Specialization)
B.S., 1988, Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.) Stanley, Joseph Project Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 12	YEARS OF AML RELATED DESIGN EXPERIENCE: 12	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9

Brief Explanation of Responsibilities
Mr. Stanley is responsible for Reclamation Design, Drafting Hydrology, Quantity Calculations, Stability Analysis, Residential Development, Valley Fill Footprinting, Surveying, Subsidence Surveys, Pre-Blast Surveys, Acid Base Accounts, Groundwater Inventory. PC Software includes Hydrologic TR-20, TR-55, Excel, Harstad Methods, Word, AutoCADD Land, Quarttro, Access.

EDUCATION (Degree, Year, Specialization)
A.S., 2001 Civil -Engineering Technology Drafting & Design

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.) Grani, Joe Branch Manager (WV) Geotechnical Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 28	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities

Mr. Grani is the Branch Manager of the WV office and also responsible for field review and exploration for the Geotechnical Engineering Department for CTL Engineering of West Virginia. Joe is involved in the management of field drilling, classification of soil and rock, field safety procedures, assignment of project specific lab testing, and performing geotechnical evaluations. Engineering evaluations include subsidence evaluation, foundation recommendations, settlement analysis, slope stability analysis, earth pressure coefficients and report preparation.

EDUCATION (Degree, Year, Specialization)

B.S., 1991, The Ohio State University, Civil Engineering
 M.S., 1994, The Ohio State University, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASHE ACEC	REGISTRATION (Type, Year, State) Civil Engineering Professional Engineer, # [REDACTED] Ohio
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14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES.

OFFICE EQUIPMENT

3 HP Color Plotters
HP Color Scanner
Duplicating equipment, copiers, blueprinting, laser printers, etc.
Facsimile Machine

DESIGN SOFTWARE

Windows XP & 2000 based operating systems

Microsoft Office 2000 & 2002 is used for word processing, spreadsheet creation, data processing, and presentation creation. Alternative software including Corel Suite is available, if necessary Project designs and specifications are produced in our Computer Aided Drafting and Design (CADD) section using all versions of AutoCAD including Release current civil 3d version.

Hydrogeologic Studies

MODFLO

MODPATH

SURFER

CAPZONE

GWPATH

SKUGIS

PHREEQCI

WATEQ4F

Groundwater for Windows

Civil Engineering Software

Civil 3D

Profiling

Civilsoft

TR-20 & TR-55

SEDCAD

HEC 1 & 2

HEC-RAS

Arc GIS

ArcPAD

Carson Software

Geotechnical

GINT

STABL6

SHAFT

WSPRO

Various Bridge, Pavement, Pile and Foundation Software

SURVEY EQUIPMENT

- 8 - Trimble GPS Systems - 6-R8 Receivers & 2- R10 Receiver
- 6 Total Stations (2- Robotics)
- DJI Inspire II Drone
- NAK Micrometer Level System & Direct Levels
- 4X4 Vehicles, including ATV for off-road use
- 2-Way Radios

SUBSURFACE INVESTIGATION EQUIPMENT

• CTL Engineering Inc.'s subsurface exploration equipment is adaptable for use on barges or all terrain vehicles (ATV's). CTL can mobilize special equipment or a fleet of drilling rigs to a particular project requiring multiple units. CTL Engineering currently owns and operates twelve (12) drill rigs with a capacity of drilling to a depth of 500 feet. Other equipment includes large diameter soil boring and rock core sampling equipment, in-situ pressure meters, field vane, GUS Sampler along with other field sampling and testing.

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• CTL's drill rigs are rotary drilling rigs equipped to conduct standard split-spoon sampling with the use of hollow-stem augering, continuous sampler, casing with advancer, air and mud rotary, down-hole hammer, etc. The rigs are also equipped with Moyno pumps, wire-line or standard coring equipment for proper and efficient execution of a subsurface investigation program.

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- For this proposal, CTL owns and operates the following rigs:
- 1996 CME 45C Skid, trailer, and/or Truck Mounted Drill Rig System
- 1988 CME 55 Truck Mounted Rig
- 1978 CME 75 Truck Mounted Rig
- 1985 CME 75 Truck Mounted Rig
- 1987 CME 75 Truck Mounted Rig
- 2012 CME 550X Rubber Tired ATV Mounted Rig
- 2015 CME 550X Rubber Tired ATV Mounted Rig
- 1995 SIMCO 4000 Rubber Track Mounted Rig
- 2002 CME 55 Rubber Track Mounted Rig
- 2005 CME 550 Rubber Track Mounted Rig
- 2015 Mobile B-57 Rubber Track Mounted Rig
- Mobile "Minuteman" Small Portable Drilling Rig with Tripod System
- Portable Electric Core Drill with Truck Mount System

- Portable barges for water borne drilling (including supply boats w/outboard motors)
- In-situ permeability apparatus
- Single or double ring field infiltrimeters for hydraulic conductivity testing
- Down hole temperature gauges
- Color Borehole Camera with 300 foot range
- Ground Penetrating Radar Undisturbed shelby tube sampling devices
- Standard penetration testing equipment (1", 2", 3" split spoons)
- Settlement probes
- Tripod portable drilling equipment for interior drilling with 7 feet of clearance
- CBR equipment
- Hand Augers
- Solid flight augers - 4" O.D.
- Hollow stem augers - 33", 43", 63" 83" I.D.
- Rotary drilling capability up to 12" O.D.
- Hydro Punch - In-situ groundwater monitoring
- Conventional and wireline coring capabilities - (1", 2", 3", & 4")
- Soil-gas survey equipment
- Pump testing equipment
- Decontamination Equipment - Steam cleaners, drums, generators, etc.
- Electronic Data Loggers
- Field Sampling equipment for soil, water and groundwater
- Nuclear Densometer - Soil Compaction
- PID, FID, CGI and various field monitoring equipment
- Groundwater and Soil Remediation Equipment
- Mobile activated carbon system
- Air and chemical stripping of soils and water

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
Geotechnical Engineering	ODOT District 9 ODOT District 6	Geotechnical Engineering and Drilling	NA	90%
WV Statewide Drilling Contract	WVDOT Charleston, WV	Geotechnical Engineering and Drilling	NA	2019-2022
Scioto County Engineer Landslides	Scioto County Ohio Engineer	Geotechnical Engineering and Drilling	NA	2022
Red Oak Development	MAGCS, LLC 308 Cheat Road Morgantown, WV 26508	Civil Site Design, Surveying, Geotechnical Engineering	CTL Fees \$65,000	50%
Monongahela Soils Conservation, Impoundments	Monongahela Soils Conservation Morgantown, WV	Civil Site Design, Geotechnical Engineering	NA	50%
TOTAL NUMBER OF PROJECTS: 57				

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

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Morgantown Airport Expansion	Construction Management and Inspection	Michael Baker	2025	\$40,000,000	\$500,000
Cacapon Resort	Civil Site Design and Surveying	Paradigm Architecture 2223 Cheat Rd. Morgantown, WV	2022	\$25,000,000	\$140,000
Sunnyside TIF Project	Geotechnical Engineering and Surveying	Herbert, Rowland and Grubic, Inc 829 Fairmont Road Morgantown, WV	2022	\$6,000,000	\$50,000
Jefferson County Schools	Jefferson County Schools, WV	Geotechnical Engineering and Drilling	2024	\$32,000,000	\$60,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
WVU Aquatic Center Morgantown, WV	West Virginia University	\$45,000,000	2018	YES
Guernsey Power Plant Mine Grout Project Cambridge, Ohio	Gemma Power Systems Glastonbury, CT	\$1,000,000,000	2018- 2020	YES
WVUH Drug Rehab Center	WVU Hospitals 1 Medical Center Drive Morgantown, WV 26506	\$30,000,000	2018	YES
Southern WV Drilling	Department of Environmental Protection Office of the AML	\$650,000	2017- 2018	YES

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Fremont City Schools 4 elementary schools	Civil Site Design and Surveying	SSOE Group, 1001 Madison Ave. Toledo, Ohio	2020	\$52,000,000	\$400,000
Cacapon Resort	Civil Site Design and Surveying	Paradigm Architecture 2223 Cheat Rd. Morgantown, WV	2019	\$25,000,000	\$140,000
Sunnyside TIF Project	Geotechnical Engineering and Surveying	Herbert, Rowland and Grubic, Inc 829 Fairmont Road Morgantown, WV	2019	\$6,000,000	\$50,000
Arizona Infrastructure Project	Civil Site Design	Rizzo International	2020	NA	NA
West Run Widening Morgantown, WV	Surveying and Geotechnical	Herbert, Rowland and Grubic (HRG)	2020	\$28,000,000	\$175,000

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.
For the past 30 years, CTL has successfully designed more than 200 AML projects. We have worked nationally and internationally on a variety of AML problem sites. We have developed unique solutions that have been applied to site development, AMD Treatment, Mine Subsidence Abatement, Mine Fires and Highwall Elimination. Routinely, CTL is involved with highwall and refuse pile stabilization, extinguishment and landslides.

20. The foregoing is a statement of facts.

Signature: _____ Title: Business Development

Date: June 21, 2022

Printed Name: Joseph Stanley

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

AML and RELATED PROJECT EXPERIENCE MATRIX (2008 - 2022)

PROJECT	Exp. Basis C=Corp. P=Personal *	Additional Info Provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS													PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional					
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine Refuse/ Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/ Structure Removal	Stream Restoration	Geotechnical/Stability	PATRICK GALLAGHER, PE	TIM DARRAH	JOSEPH STANLEY	CARL SELFRIE
MORGANTOWN ANDERSON HIGHWALLS (WV AML '12)	C			X	X	X					X						MP	MP	P		P
SCHRAMM - GORDON -EAST FRANKLIN LANDSLIDES (MD AML '12)	C		X	X							X					X	MP	MP	P	P	
DOUGLAS AVENUE STORMWATER SYSTEM (MD AML '12)	C					X					X						MP				
FAIRMONT SUBSIDENCE (WV AML '12)	C	Profile		X					X		X					X	MP	MP	P	P	P
DOUGLAS AVENUE LANDSLIDE (MD AML '12)	C			X		X			X		X					X	MP	MP	P	P	P
LOWER CONSOL ROAD SUBSIDENCE (MD AML '11)	C		X	X					X		X					X	MP	MP	P	P	P
BALD KNOB WATER SUPPLY STUDY (MD AML '12)	C					X					X						MP	MP			
SHINNS RUN PORTALS (WV AML '11)	C	Profile		X	X											X	MP	MP	P	P	P
REAM REFUSE PILE (WV AML '10)	C	Profile	X						X								MP	MP	P		
PEE WEE HILL WATER SUPPLY (MD AML '10)	C										X						MP	MP			
TERRA HAUTE AIRPORT (IN AML '10)	C			X	X				X		X					X	MP	MP		P	
KENNEL MINE CLOSURE (MD AML '10)	C		X	X	X						X						MP	MP	P		
FROSTBURG NORTH CLOSURE (MD AML '10)	C		X	X	X						X						MP	MP	P		
PEE WEE HILL WATER FEASIBILITY (MD AML '10)	C										X						MP	MP		P	
WILLIAMS REFUSE PILE #2 (Private AML '09)	C		X			X	X			X	X	X	X			X					
PENINSULA HIGHWALLS (WV AML '09)	C	Profile	X	X		X			X		X					X	MP	MP	P	P	P
ST. CLAIR PORTALS (WV AML '09)	C	Profile	X	X	X	X					X				X	X	MP	MP	P	P	P
CHEAT NECK LANDSLIDE (WV AML '09)	C	Profile			X	X					X					X	MP	MP	P	P	
FARMINGTON UMC (WV DEP EMER. '09)	C								X		X						MP	MP		P	
MORNINGSIDE BAPTIST (WV DEP EMER. '09)	C								X		X						MP	MP		P	
COLLINS MINING (ODNR FOR. '09)	C		X								X						MP	MP	P		
FAIRVIEW WATER FEASIBILITY(WV AML '09)	C										X						MP	MP			
AARON'S RUN (MD AML '09)	C	Profile	X			X					X	X		X		X	MP	MP	P		
ECCLES SUBSIDENCE (WV AML '08)	C								X		X					X	MP	MP		P	
McARTHUR SUBSIDENCE (WV AML '08)	C								X							X	MP	MP		P	
TIOGA WATER FEASIBILITY (WV AML '08)	C										X						MP	MP			
McCOURT LANDSLIDE(ODNR FOR. '08)	C		X			X					X					X	MP	MP	P	P	
JONES TRUCKING (ODNR FOR. '08)	C		X								X						MP	MP	P		
MILLER MINING (ODNR FOR. '08)	C					X					X	X					MP	MP	P		
ZILMAN CLOSURE (MD AML '08)	C			X	X						X						MP	MP	P		
CALDONIA HILL SLOPE STABILITY (MD AML '08)	C		X													X	MP	MP			
WEST VIRGINIA BRIM (2005 - 2012) 42 Projects	C								X							X	MP	MP		P	
OMSIUA (2005 - 2010) 47 Projects	C								X							X	MP	MP		P	
(2005 - 2008) 20 Additional AML Projects for WV, MD, OH, PA	C		X	X	X				X		X	X	X			X	MP	MP		P	

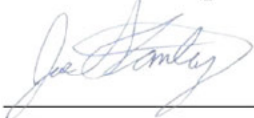
* List whether project experience is corporate or personnel based or both.

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

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


Attachment "B"

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Name, Title)  Business Development Manager
(Printed Name and Title) Joe Stanley, Business Development Manager
(Address) 1091 Chaplin Road Morgantown, WV 26501
(Phone Number) / (Fax Number) 304-292-1135 / 304-296-9302
(email address) jstanley@ctleng.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

CTL Engineering of West Virginia, Inc
(Company)  Business Development Manager
(Authorized Signature) (Representative Name, Title)
Joe Stanley Business Development Manager June 21, 2012
(Printed Name and Title of Authorized Representative) (Date)
3014-292-1135 / 304-296-9302
(Phone Number) (Fax Number)
jstanley@ctleng.com
(Email Address)

ABANDONED MINE LANDS (AML) CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement (OSMRE) to determine if you are eligible to receive an AML contract. This requirement can be found under OSMRE's regulations at 30 CFR 874.16. **NOTE:** This form must be signed and **dated within 30 days** of submission to be considered for a current bid.

Part A: General Information

Business Name: CTL Engineering of West Virginia
 Tax ID #: 55-063-183
 Address: 1091 Chaplin Road
 City, State, & Zip: Morgantown, WV 26501
 Phone Number: 304-292-1135
 Email Address: jstanley@ctleng.com

Part B: Obtain an Organizational Family Tree (OFT) from the Applicant Violator System (AVS)

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. Instructions for downloading an OFT from the AVS can be found at:

<https://www.osmre.gov/resources/forms/OMB1029-0119instructions.pdf>

If you require assistance you may contact the AVS Office by phone at: 800-643-9748, or by email at:

avshelp@osmre.gov.

Part C: Certifying and updating information in the AVS

Select one of the options, follow the instructions for the selected option, sign, and date below.

I, _____, have express authority to certify that:
 (Print Name)

1. Our business is listed in the AVS. The information is accurate, complete, and up to date. (If you select this option, you must attach an Entity OFT from the AVS to this form). **Do not** complete Part D.
2. Our business is in the AVS. The information needs to be updated. (If you select this option, you must attach an Entity OFT from the AVS to this form). Complete Part D to provide the missing or corrected information.
3. Our business is not listed in the AVS. The information needs to be added. Complete Part D to provide the information.

06/21/2022

Date



Signature

Business Development Manager

Title



AVS OFT Report - 6/21/2022 3:37:49 PM

All OFT's where the selected entity is listed as an entity or related entity

Entity Selected (138901) CTL Engineering Inc

Parent Entity	Relationship	Description	Related Entity	% Ownership	Begin Date	End Date
(247114) CTL Engineering Inc ESOP	Shareholder		CTL Engineering Inc		1/15/1999	
(138901) CTL Engineering Inc	Owner		CTL Engineering of Indiana Inc	100%	12/1/2007	
(138901) CTL Engineering Inc	President		C K Satyapriya		5/10/1986	
(138901) CTL Engineering Inc	Shareholder		C K Satyapriya	17%	7/1/1980	
(138901) CTL Engineering Inc	Chief Executive Officer		C K Satyapriya		1/15/1999	
(138901) CTL Engineering Inc	Chairman of the Board		C K Satyapriya		1/15/1999	
(138901) CTL Engineering Inc	Shareholder		CTL Engineering of Indiana Inc	80%	3/20/1998	1/15/1999
(138901) CTL Engineering Inc	Chairman of the Board		Asbjorn Kvammen Jr		11/23/1980	1/15/1999
(138901) CTL Engineering Inc	Chief Executive Officer		Asbjorn Kvammen Jr		11/23/1980	1/15/1999
(138901) CTL Engineering Inc	Shareholder		Asbjorn Kvammen Jr	73%	6/27/1980	1/15/1999
(138901) CTL Engineering Inc	Shareholder		CTL Engineering of Indiana Inc	29%	1/15/1999	12/1/2007