PROVEN GROUND CONSULTING LLC

KEITH GILBERT

CONSTRUCTION & MINING EXPERT WITNESS

Heavy Civil Construction • Mining • Underground Hard-Rock Mining • Reclamation • Transportation • Railroad Operations • Construction Claims • Equipment & Production

PROFESSIONAL PROFILE

Keith is a construction and mining professional with approximately 30 years of progressive, hands-on experience in heavy civil construction, mining, underground hard-rock mining, reclamation, earthwork, transportation, railroad operations, project management, estimating, heavy equipment operations, project supervision, executive leadership, and construction company ownership.

His career began in the field, working alongside his father in a large construction company from childhood through his early adult years. He progressed from equipment fueling and lubrication, mechanical work, pipe laying, and grade checking into the operation of heavy construction equipment and ultimately into supervision, estimating, project management, executive leadership, ownership, and independent consulting.

This progression has provided Keith with a practical understanding of construction and mining from the operator's seat to the project-management office, estimating department, executive level, ownership, and consulting environment.

Throughout his career, Keith has worked on major projects and operations in Utah, Nevada, California, Idaho, and Virginia.

His experience includes highways, bridges, dams, flood-control facilities, landfills, master-planned developments, solar projects, open-pit mining, underground hard-rock mining, mine reclamation, iron ore mining and processing, aggregate production, crushing and screening, railroad infrastructure, heavy-haul transportation, asphalt hot-mix production, asphalt paving, trucking, and large-scale earthmoving.

Keith has also built an asphalt hot-mix plant and paving company from the ground up, developing an integrated operation that included aggregate production, asphalt hot-mix production, trucking, aggregate placement and finish grading, and asphalt hot-mix laydown. The company supplied aggregate and hot-mix asphalt to clients throughout Southern Utah and performed roadway, parking-lot, driveway, utility-patch, and overlay projects.

Keith's experience includes projects involving millions of cubic yards of earthwork, millions of tons of mined material, large heavy-equipment fleets, underground mine operations, railroad transportation systems, major infrastructure construction, asphalt production and paving operations, and complex construction logistics.

He has also provided consulting services in which he was directly involved in coordinating field production, equipment, manpower, maintenance, material processing, construction sequencing, and General Contractor interests.

CORE EXPERTISE

HEAVY CIVIL CONSTRUCTION

Mass excavation • Mass grading • Highways • Interstate construction • Bridges • Highway interchanges • Dams • Flood control • Landfills • Utilities • Pipelines • Site development • Solar projects • Asphalt paving • Reclamation • Public works • General engineering

MINING

Open-pit mining • Underground hard-rock mining • Mine development • Reclamation • Overburden stripping • Drill and blast • Ore production • Ore blending • Sampling • Haulage • Dewatering • Crushing • Processing • Material handling • Iron ore • Leach pads • Mine infrastructure

ASPHALT & AGGREGATE OPERATIONS

Aggregate production • Aggregate crushing • Aggregate screening • Asphalt hot-mix plant construction • Hot-mix asphalt production • Asphalt trucking • Aggregate trucking • Aggregate placement • Finish grading • Asphalt laydown • Roadway construction • Parking lots • Driveways • Utility patches • Asphalt overlays • Paving operations • Production scheduling • Material delivery • Paving equipment • Quality control

EQUIPMENT & PRODUCTION

Fleet selection • Fleet sizing • Equipment utilization • Production rates • Earthmoving productivity • Scrapers • Haul trucks • Front shovels • Loaders • Excavators • Dozers • Motor graders • Crushers • Conveyors • Screening • Processing equipment • Pumps • Dewatering systems • Asphalt paving equipment

TRANSPORTATION & HEAVY HAUL

DOT transportation • Heavy-haul operations • Oversized equipment • Bridge girders • Large haul trucks • Front shovels • Loaders • Scrapers • Equipment mobilization • Construction logistics • Transportation planning • Aggregate trucking • Hot-mix trucking

RAILROAD OPERATIONS

Short-line railroad development • Mine-to-rail transportation • Unit trains • Rail loadout • Railcar maintenance • Track maintenance • Railroad logistics • Union Pacific interchange • Mine shipping operations

CONSTRUCTION CLAIMS

Construction disputes • Change orders • Productivity • Equipment utilization • Production • Costs • Contractor performance • Means and methods • Scheduling • Project execution • Construction logistics • Quantity and cost tracking • Field conditions

CONSULTING

Project reviews • Estimating • Construction planning • Equipment/fleet analysis • Mining operations • Project feasibility • Contractor evaluation • Owner/investor due diligence • Construction claims support

EXPERT WITNESS

Case evaluation • Technical analysis • Site inspections • Expert reports • Depositions • Trial testimony • Construction means and methods • Equipment and production analysis • Mining and reclamation analysis

PROFESSIONAL LICENSES & CERTIFICATIONS

UTAH

- E100 Contractor License
- B100 Contractor License
- St. George City Water Card

NEVADA

- General Engineering Contractor License
- Reported $10 million limit

IDAHO

- Public Works Contractor License

MSHA

- MSHA Part 48 Subpart B — Surface Train-the-Trainer Certification
- MSHA Part 48 Trainer
- MSHA Part 46 Trainer

COMMERCIAL DRIVER LICENSE

- Class A CDL
- Doubles / Triples Endorsement
- Tanker Endorsement
- Combination Vehicles

AVIATION

- Private Pilot License

GEOGRAPHIC EXPERIENCE

Keith's construction, mining, transportation, and project-management experience extends across the Western United States and includes major work in:

Utah • Nevada • California • Idaho • Virginia

His experience in these states includes heavy civil construction, public works, transportation infrastructure, mining, underground mining, reclamation, landfill construction, solar

development, aggregate production, asphalt production and paving, railroad operations, and large-scale earthmoving.

PROFESSIONAL EXPERIENCE

PROVEN GROUND CONSULTING LLC

Principal | Construction & Mining Consultant | Expert Witness

Proven Ground Consulting LLC provides independent consulting and expert-witness services based upon Keith's extensive hands-on construction and mining experience.

Services include:

- Case evaluation
- Technical analysis
- Project review
- Construction-site inspections
- Field investigations
- Construction means-and-methods analysis
- Production analysis
- Equipment-utilization analysis
- Fleet analysis
- Construction estimating
- Mining operations consulting
- Project planning
- Project feasibility
- Contractor evaluation
- Construction claims support
- Owner/investor due diligence
- Expert reports
- Deposition testimony
- Trial testimony
- Arbitration and mediation support

Each engagement is evaluated based upon the facts, available documentation, and whether the subject matter falls within Keith's demonstrated experience.

SELECTED PROJECT EXPERIENCE

KIEFER LANDFILL OPERATION

Construction & Field Operations Consultant

More than 4 Million Cubic Yards | 35+ Caterpillar 657 Scrapers

Keith was retained to provide consulting and field-management services on a major landfill operation involving the excavation and movement of more than 4 million cubic yards of earth.

The project utilized a fleet of more than 35 Caterpillar 657 scrapers, together with extensive support equipment. The fleet was described as the largest scraper fleet operating in the United States during the project period.

Keith was directly involved in pushing and coordinating the scraper spread and overseeing daily production.

Responsibilities included:

- On-site field consulting
- Daily production coordination
- Scraper-spread management
- Coordination of field operations
- Providing a superintendent
- Providing a grade setter
- Providing a finish dozer
- Equipment deployment
- Manpower planning
- Maintenance scheduling
- Coordination with Peed Equipment
- Equipment and manpower requirements
- Protecting the General Contractor's interests
- Material screening and processing
- Underliner material processing
- Cover-liner material processing

Major Equipment

- 35+ Caterpillar 657 scrapers
- D10 dozers for ripping
- D8 dozers
- D6 dozers
- Motor graders
- Water trucks
- Support equipment
- Screening and processing equipment

Keith's involvement provides direct experience relevant to large-scale earthmoving, scraper production, fleet utilization, production rates, equipment costs, manpower requirements, landfill construction, material processing, and construction means and methods.

CML IRON MINE

Vice President / Project Manager

Iron County, Utah | Approximately $25 Million Annual Operations

Keith served as Project Manager for a large iron-mining operation involving mining, processing, material handling, infrastructure, rail transportation, and production management.

Responsibilities included:

- Mining contract bidding and negotiation
- Dewatering
- Drill and blast operations
- Overburden stripping
- Interburden mining
- Ore mining
- Ore blending
- Sampling
- Crushing
- Material handling
- Infrastructure
- Billing and collections
- Safety implementation
- Purchasing
- Train-loadout construction
- Train-loadout operations
- Quality control
- Railroad coordination
- Port coordination

The operation shipped more than 2 million metric tons of iron ore annually by rail.

Keith helped design, manufacture, maintain, and operate a train-loadout tipple capable of approximately 6,000–7,000 tons per hour.

The project required coordination between mine production, processing, rail transportation, ports, mobile equipment, and customer delivery requirements.

CML RAILROAD

Short-Line Railroad Development & Mine Transportation Operations

Iron County, Utah

Keith was heavily involved in the development and startup of CML Railroad, a short-line railroad established to transport approximately 2 million metric tons of iron ore annually from the CML Metals mine to Iron Springs.

At Iron Springs, Union Pacific Railroad received loaded unit trains and supplied empty unit trains for continued mine operations.

The railroad was necessary because of steep grades encountered approaching the mine. Grades of approximately 4% to 6% were encountered near the upper portion of Iron Mountain, and Union Pacific did not operate its locomotives directly to the mine because of the steep operating conditions.

Keith helped build the railroad operation from the ground up.

Railroad responsibilities and experience included:

- Short-line railroad startup
- Mine-to-rail transportation

- Unit-train operations
- Rail logistics
- Train scheduling
- Rail loadout
- Track maintenance
- Railcar maintenance
- Equipment coordination
- Union Pacific interchange
- Continuous shipping operations

CML Railroad maintained approximately 14 miles of track and more than 500 railcars supporting the mine's shipping operation.

The system supported a 24-hour, seven-day-a-week iron-ore shipping operation.

This experience provides practical knowledge of the relationship between mine production, processing capacity, rail capacity, track conditions, railcar availability, maintenance, loading rates, and delivery requirements.

LHOIST NORTH AMERICA

UNDERGROUND HARD-ROCK MINE RECLAMATION

Project / Field Leadership

Ripplemead, Virginia

Keith provided crews and heavy equipment to assist Lhoist North America with an exceptionally difficult underground reclamation and material-recovery operation.

The project involved extracting approximately 500,000 cubic yards of lime kiln dust (LKD) that had been deposited in old areas of an underground hard-rock mine dating to the 1940s.

The lower levels of the mine had flooded, and the operation involved elevation changes exceeding 700 vertical feet.

Access to the material was extremely limited and required substantial underground pioneering.

Dewatering requirements changed continuously as crews advanced through the mine.

The historical mine plan had been developed decades before the reclamation operation, requiring the field team to work through uncertain underground conditions and establish actual access and material locations.

Mining and reclamation progressed by following hard-rock faces and establishing actual underground geometry needed to recover the LKD.

Equipment included:

- 988 front-end loaders
- 336 excavators
- 773 haul trucks

Once material was pushed to designated loading areas, it was hauled through the mine using a one-way traffic system for more than 1.5 miles.

After reaching the surface, the material was hauled more than 5 miles to a designated disposal area.

Surface operations included:

- Haul-road maintenance
- Disposal-area maintenance
- Mobile-equipment maintenance
- Surface logistics
- Loading and unloading
- Personnel coordination
- Equipment support
- Material disposal

This project provides particularly relevant experience in underground mining, hard-rock reclamation, mine access, dewatering, difficult underground conditions, equipment deployment, underground haulage, production, material recovery, and construction/mining feasibility.

MIDAS SECTION 22 TAILINGS STORAGE FACILITY

Superintendent — Ames Construction

Midas, Nevada | Approximately $12 Million

Keith oversaw construction of a new tailings storage facility involving two earthen embankment dams constructed in an existing canyon.

Major quantities and operations included:

- Approximately 300,000 cubic yards of unsuitable flowable mud excavation
- Extensive dewatering
- Dewatering cutoff trenches
- Multiple pumping stations
- Excavation to bedrock
- Concrete-encased underdrain
- French-drain laterals
- Approximately 1.3 million cubic yards of general fill
- Approximately 300,000 cubic yards of clay-zone material
- Approximately 50,000 cubic yards of crushed cover material
- HDPE primary liner installation
- Quality control
- Construction sequencing

Under Keith’s direction, there were no failed depth or permeability tests.

GARNET INTERCHANGE DESIGN-BUILD

General Superintendent — Ames Construction

Las Vegas, Nevada | Approximately $50 Million

Major design-build transportation project involving approximately five miles of greenfield highway construction and two bridge structures.

Project scope included:

- Approximately 600,000 cubic yards of cut and fill
- Approximately 150,000 cubic yards of road-base aggregate
- Approximately 55,000 tons of asphalt
- Two bridge structures
- Precast girders
- Precast deck panels
- Bridge removal and replacement
- I-15 mainline traffic coordination
- Design-build coordination

Keith participated in the bidding process by assisting with subcontractor selection, aggregate sources, and construction methods.

He subsequently oversaw project execution and coordinated field operations with the office and design team to address construction and design issues while maintaining production.

CML CONCENTRATE DESIGN-BUILD

Vice President / Project Manager

Iron County, Utah | Approximately $100 Million

Keith served as Project Manager for a major design-build concentrate facility.

Responsibilities included:

- Bidding and contract negotiations
- Earthwork
- Mass grading
- Excavation
- Granular crushing
- Material placement
- Finish grading
- Footing excavation
- Subcontractor management
- Concrete
- Structural steel
- Millwright operations
- Electrical
- Mechanical coordination
- Equipment delivery

- Owner coordination
- Design coordination
- Safety
- Cost control

During winter construction, Keith implemented alternative scheduling and temperature-control methods and mobilized an additional batch plant and trucks.

Under his direction, approximately 3,500 cubic yards of concrete were placed in one continuous pour.

CORAL CANYON DEVELOPMENT

Jr. Vice President / Superintendent

Washington, Utah | Approximately $50 Million

Keith was responsible for field operations for a 2,500-acre master-planned development containing residential, commercial, recreational, and industrial components.

Responsibilities included:

- Earthwork
- Mass grading
- Sewer
- Water
- Storm drainage
- French drains
- Electrical utilities
- Concrete
- Asphalt paving
- Aggregate production
- Crushing
- Construction sequencing
- Field management

Ground conditions included:

- Mudstone
- Basalt
- Sand
- Expansive blue clay
- Granite boulders

Keith was instrumental in developing an aggregate operation that supplied the project and expanded into the regional market.

Coral Canyon Ridge

A particularly difficult phase involved approximately 1 million tons of blasted basalt that had to be sized and crushed to meet geotechnical specifications before being placed as general fill.

The approximately 245-lot phase had an intensive construction schedule. Keith implemented sub-phasing and sequencing that allowed finished pads, utilities, and paving to become available rapidly while maintaining the homebuilding schedule.

ELIIM VALLEY DEVELOPMENT

Jr. Vice President / Project Manager

Hurricane, Utah | Approximately $5 Million

Managed a 150-lot development involving:

- Off-site improvements
- Community parks
- Mass storm drainage
- Mass grading
- Over-excavation
- Recompaction
- Cut/fill operations
- Utilities

Project quantities included approximately:

- 500,000 cubic yards of over-excavation and recompaction
- 150,000 cubic yards of cut/fill balance

The project had an eight-month schedule with significant liquidated-damages exposure.

Keith developed and implemented a detailed construction sequence averaging approximately 25,000 cubic yards of over-excavation and replacement per day.

The project was completed one month ahead of schedule, using one shift with limited overtime.

TWENTY-NINE PALMS — 100-YEAR FLOOD-CONTROL PROJECT

Project Manager

San Diego County, California | Approximately $4.5 Million

Managed construction involving dewatering existing ponds and wetlands and expanding retention capacity.

Scope included:

- Approximately 500,000 cubic yards of excavation
- Pond-bottom excavation
- Channel diversion
- Dewatering
- Retention ponds

- Stormwater management
- Approximately 80 acres of park improvements
- Approximately 12 miles of trapezoidal drainage channels
- Reclamation

ALAMO DAM WEIR

Project Manager

California | Approximately $1 Million

Project for the U.S. Army Corps of Engineers involving diversion of the Bill Williams River and construction within an active water environment.

Responsibilities included:

- River diversion
- Cofferdams
- Continuous pumping
- Diesel pumps
- Culvert installation
- Construction management
- Environmental compliance
- Maintaining water flow for fish and wildlife
- Construction sequencing

ASPHALT HOT-MIX PLANT & PAVING COMPANY

Founder / Owner / Operator

Southern Utah

Keith also built an asphalt hot-mix plant and paving company from the ground up, developing an integrated construction-material and paving operation serving clients throughout Southern Utah.

The operation incorporated the complete production and delivery chain, including:

- Aggregate production
- Aggregate crushing and processing
- Asphalt hot-mix plant construction
- Hot-mix asphalt production
- Aggregate trucking
- Hot-mix asphalt trucking
- Material delivery to clients
- Aggregate placement
- Finish grading
- Asphalt paving
- Asphalt hot-mix laydown
- Paving operations

- Equipment coordination
- Production scheduling
- Field supervision

The company performed a broad range of asphalt and aggregate work, including:

- Roadway construction
- Parking lots
- Driveways
- Utility patches
- Asphalt overlays
- Driveway construction and paving
- Aggregate base placement
- Finish grading
- Asphalt hot-mix placement

Keith's involvement covered the operation from raw aggregate production through processing, trucking, placement, grading, hot-mix production, transportation, and final asphalt laydown.

This experience provides direct practical knowledge relevant to disputes and technical issues involving aggregate quantities, aggregate production, crushing and screening, asphalt hot-mix production, trucking, material delivery, paving production, equipment utilization, grading, asphalt placement, roadway construction, parking lots, utility patches, overlays, and construction sequencing.