

Jason W. Maehl

IT Manager, Engineering Technician, GPS Surveyor

AREAS OF EXPERTISE

- Abandoned Mine Reclamation
- GPS Surveying
- Land Record Searches

EDUCATION

B.S. Visual Communications (3/2004),
Westwood College - Valedictorian.

PROFESSIONAL HISTORY

2015 – Present. IT Manager, Engineering Technician and GPS Surveyor for Spectrum Engineering and Environmental LLC, Billings, MT
2004 – 2015. IT Manager, Engineering Technician and GPS Surveyor for Spectrum Engineering Inc., Billings, MT
1995 – 2004. Part-time Engineering Technician and GPS Surveyor for Spectrum Engineering

BACKGROUND

Jason Maehl has been providing engineering services and GPS surveying for Spectrum Engineering since 1995. He constructed Spectrum's web site in addition to his other duties.

REPRESENTATIVE EXPERIENCE

Abandoned Mine Reclamation

Mr. Maehl has provided many facets of work associated with abandoned mine sites reclamation. The sites have included surface and underground coal mine fires; open pit and underground base metal hardrock mines; as well as underground uranium, alunite, and gilsonite mines. Tasks have included:

- Each project has required a historical records search for old maps and other pertinent data. All data is posted onto field maps including Utah Geological Survey crib sheet info, mineral survey plat data, and all other sources of mine data.
- Hardrock: Field inventory and data collection on the following Utah Hardrock Projects: Ridgeline, Sand Trap Bonanza, Paiute Trail Phases I, II, and III, Stateline, Ophir Canyon Phase II, Serviceberry, Gold Hill Phases I and II, Mammoth, Sand Trap Bonanza, North Tintic Phases I, II, and III, San Francisco, Carbonate Gulch, Silver City, Dutch Mountain, Clifton, Overland Canyon, Topache Peak, Picacho Peak, and Diamond Gulch East. The field work has included field measurements, environmental data collection, GPS surveying, photo documentation, steel washer stamping and tag labeling, and access route determination.
- Coal: Field investigations and data collection on the Utah Summit-Morgan County, Uintah Basin, Carbon/Emery County Coal Maintenance, South-Central Coal Mine Maintenance, Church and Weber, and Sego Projects. This work included revisited previously reclaimed coal sites and determining what, if any, new work was required on each site. This included review of past bid packages and photographs to determine where the reclaimed sites used to be. Field measurements were taken, GPS surveying with disturbance polygons, and photo documentation.

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REPRESENTATIVE EXPERIENCE (cont.)

- Database compilation and closure volume calculations.
- Provide construction management for Utah San Francisco Project.
- Ownership information, claim identification and deed research.
- Preparation of photo documentation for eight final construction close-out reports.
- Assist in compiling final reports documenting all reclamation activities at the Zortman and Landusky mines.
- Assess 94 coal mine sites in Wyoming's Park, Big Horn, Hot Springs, Fremont, and Washakie Counties as well as the Wind River Indian Reservation. Work included field investigations, site eligibility, WY AMLIS entry form completion, surveying and mapping, and assistance on pre-design reports.

Jason has been involved in site characterization of 6,444 hardrock AML sites in Utah, 285 coal mines and 15 coal fires in Utah, 22 AML coal fire sites in Wyoming, and 94 coal mine sites in northwestern Wyoming.

GPS Surveying

Most mine reclamation work requires surveying. Mr. Maehl has used both centimeter accuracy (Trimble 4800) and meter accuracy (Trimble GeoXH) GPS surveying equipment to record mine related features:

- Montana DEQ construction quantity surveying for the Landusky Mine reclamation project;
- Montana DEQ well location and surface water sampling sites, soil pits location, and vegetation transect location surveying for the Zortman mine, Landusky mine, and Goslin Flats LAD areas;
- Wyoming AML surveying of 22 active coal fires (WY 17G Project) including all cracks and subsidence areas;
- Wyoming AML surveying of 94 coal mine sites in northwestern Wyoming as part of Wyoming Project 17M.
- Utah AML surveying of all hardrock mine sites and disturbance polygons for the Sand Trap Bonanza Project, Gold Hill Phases I and II Projects, Mammoth Project, Serviceberry Project, Ophir Canyon Phases II and III Projects, North Tintic Phases I, II, and III Projects, San Francisco Project, Carbonate Gulch, Silver City Project, Dutch Mountain, Clifton, Overland Canyon, Topache Peak, Picacho Peak, and Diamond Gulch East. This has included GPS surveying of 6,444 hardrock mine sites since the Utah DOGM first initiated GPS data collection under their AML program.
- GPS surveying was also provided for the 285 coal mines and 15 coal fires inventoried under the Utah AML Program.
- Utah AML surveying of all cultural sites and culturally cleared construction access for the North Tintic Phase III Project, San Francisco Project, Silver City Project, Carbonate Gulch, Silver City Project, Dutch Mountain, Clifton, Overland Canyon, Topache Peak, Picacho Peak, and Diamond Gulch East.

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Land Records and Title Searches

The abandoned mine reclamation work has required Mr. Maehl to assist in tracking down the legal ownership for all sites going to construction. The following work has been performed in six Utah counties:

- Secure and cross-check title plats from the Bureau of Land Management and the U.S. Forest Service against each other and against the county records;
- Secure ownership deeds from county courthouses;
- Secure unpatented claim information from the Bureau of Land Management; and,
- Internet searches to identify current landowner phone numbers and contact information.

IT Management

1. Manage information technology and computer systems
 - Plan, organize, direct, control and evaluate the operations of information systems and electronic data processing (EDP)
 - Develop and implement policies and procedures for electronic data processing and computer systems operations and development
 - Meet with managers to discuss system requirements, specifications, costs and timelines
 - Manage information systems personnel and contractors to design, develop, implement, operate and administer computer and telecommunications software, networks and information systems
 - Manage the computer systems budgets and expenditures
 - Ensure all personal are equipped with an email account and an email client software
 - Create, monitor, and maintain Wordpress website
 - Manage ftp access of files
 - Manage local file server and maintain up to date user/group permissions
 - Manage local pc and file server backups
 - Manage an off-site NAS Network Attached Storage backup
 - Manage and maintain firewall securities
 - Manage and maintain VPN remote access login
 - Maintain printer/plotter up time

2. Ensure technology is accessible and equipped with current hardware and software
 - Main Activities
 - Troubleshoot hardware, software and network operating system
 - Be familiar with all hardware and software
 - Be familiar with network operating system
 - Provide orientation to new users of existing technology
 - Train staff about potential uses of existing technology
 - Train staff about new and potential use
 - Provide individual training and support on request
 - Provide recommendations about accessing information and support
 - Maintain current and accurate inventory of technology hardware, software and resources

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3. Monitor and maintain technology to ensure maximum access

Main Activities

- Troubleshoot all technology issues
- Make recommendations about purchase of technology resources
- Research current and potential resources and services
- Provide orientation to new users of existing technology
- Provide network access to all staff
- Train staff about new and potential use
- Connect and set up hardware
- Load all required software
- Provide network accounts and passwords as required
- Monitor security of all technology
- Install and maintain hacker-proof passwords
- Input and maintain IP addresses
- Advise staff of security breach and/or change in password or security status
- Identify and prepare hardware for disposal when appropriate
- Ensure hardware is stripped and secured before disposal

TRAINING AND CONTINUING EDUCATION

- 8-hour ERSI Introduction to GPS.
- 4-hour ERSI Mobile GIS Technology Update.
- 3-day Arcpad 10 with GPS Analyst Training.
- Wyoming AML Portal Certified.
- 3-hour Wyoming AML Database Training.
- 8-hour Basic First Aid.
- 40-hour MSHA Training.
- 40-hour AutoCAD Training.
- 40-hours OSHA Hazwoper Training.
- 8-hour OSHA Hazwoper Supervisor Training.
- 8-hour OSHA/MSHA Yearly Refresher Training.
- Corporate Ethics Plan, Code of Business Conduct, Training.
- Harassment Prevention Training.