



Geosciences

MSE's Geoscience Group is staffed with a unique blend of professionals that can provide first rate engineering services in multiple facets of geoscience related areas.

Geosciences Services

- Geotechnical
- Geophysical
- Drilling (GeoProbe)
- Hydrogeological
- Environmental
- Remediation

Geotechnical Services

With more than 50 years of combined experience, MSE's Geoscience Group provides exceptional geotechnical engineering services:

- Engineering studies/designs for buildings, dams, roads, bridges, pipelines, industrial and commercial development, mine sites, landfills, and hazardous wastes disposal sites.
- Geologic hazard and landslide potential investigations

Geophysical Services

We offer geophysical methods for exploration and engineering. With more than 25 years experience, our geophysicists provide complete geophysical services:

- Seismic refraction and reflection
- Electrical resistivity, induced polarization, and self-potential
- Ground penetrating radar
- Gravity
- Magnetics and electromagnetics
- Borehole logging

Drilling (GeoProbe) Services

MSE uses the GeoProbe Advance Model 66DT for various site investigation needs. We provide:

- Geotechnical investigations
- Soil, groundwater, and soil gas sampling
- Pneumatic slug testing
- Monitoring well installation

Expertise and Certifications to Inspect

- Rebar
- Existing structures
- Masonry
- Structural steel connections
- Welding
- Monitoring well installation
- Fireproofing
- Deep foundation systems
- Bolting connections

Hydrogeological, Environmental, and Remediation Services

MSE hydrogeologists have a combined 70 years of experience and provide hydrogeological and environmental services:

- Characterization, remediation, and closure of contaminated sites including underground storage tanks (UST)
- Groundwater balance
- Surface water and groundwater interactions
- Groundwater resources evaluation
- Aquifer testing
- Laboratory experiments on solid matrix adsorptive properties for metals and tracers
- Surface water hydrology
- Mining hydrogeology (acid rock drainage)
- Extent of contamination investigations
- Innovative remediation and monitoring techniques
- Modeling - groundwater flow modeling and contaminant transport -- saturated and unsaturated zones



MSE - Geosciences Group - Geotechnical and Geophysical Engineers, Hydrogeologists

MSE Geosciences Group

Project Experience

geosciences group experience

- **Subsurface Investigation for the Integrated Waste Treatment Unit;** CH2M-WG Idaho, LLC (CWI); Idaho Falls, ID
- **Resource Recovery From Flooded Underground Mine Workings;** US Department of Energy, US Environmental Protection Agency; Butte, MT
- **INTEC Operable Unit 3-14 Tank Farm Soils Investigation;** Bechtel BWXT, LLC; Idaho Falls, ID
- **Geotechnical Investigation for the Feely Water Treatment Plant;** Robert Peccia & Associates; Feely, MT
- **Three-Phase Heating Technology Demonstration for Removal of a Free-Product Gasoline Plume Containing Methyl Tert-Butyl Ether (MTBE);** Montana Department of Environmental Quality; Ronan, MT
- **Charter Oak Tailings Impoundment Engineering;** USDA Forest Service
- **High K Subdivision Simulation of Viral Transport Through an Engineered Geotechnical Liner;** HKM Engineering; Bozeman, MT
- **Bozeman Deaconess Hospital Weld Inspection;** HKM Engineering; Bozeman, MT
- **Preliminary Geotechnical Evaluation of Original Mine Site;** Pioneer Technical Services; Butte, MT
- **Rex Mine Geotechnical Investigation;** Bureau of Land Management; Wallace, ID
- **Bair Dam Engineering Evaluation;** HKM Engineering; Meagher County, MT
- **Nevada Creek Dam Engineering Evaluation;** HKM Engineering; Avon, MT
- **Electrical and Mechanical Design for Bunkhouse Remodeling;** US Forest Service Region 1; Plains, MT
- **Moulton Water Treatment Plant Geotechnical Assessment;** Robert Peccia & Associates; Butte, MT
- **Delmoe Lake Dam Inspection;** Pipestone Water Users Association, Butte, MT
- **Geotechnical Investigation Butte-Silver Bow Water Company;** Robert Peccia & Associates, Butte, MT
- **Documentation and Support for Geotechnical Investigation;** Howard Consultants; Boise, ID
- **Blacktail Creek Restoration Project;** Butte-Silver Bow County; Butte, MT
- **Brown's Gulch Road;** Butte-Silver Bow County; Butte, MT
- **BFI Missoula Landfill Conceptual Options Study;** Blue Ridge Services, Missoula, MT
- **Caribou County Solid Waste Roll-Off System;** Caribou County, ID
- **Butte-Silver Bow Wastewater Treatment Facility.** Butte-Silver Bow County; Butte, MT
- **Silver Lake Water System Improvements;** Butte-Silver Bow County; Butte, MT
- **Franklin County Landfill Site Evaluation;** Franklin County, ID
- **Fremont County Landfill Closure Geotechnical Engineering;** Fremont County, ID
- **Inspection of Wire Rope Grips;** Teton Pass Ski Area

Commitment Precise, quality work Creativity, flexibility Ingenuity Active engagement



Accessibility Proactive communication Experienced professionals Stability of 30+ years

MSE Engineering Services -
Our Product is a Satisfied Customer

We find engineering solutions for our customers. MSE headquarters are on 45 acres in Butte, MT, with offices across the United States.



Technology Applications, Inc.

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