

**MATHESON MINING CONSULTANTS, INC.
CONSULTING PROJECTS
1996 - Present**

Construction

- American Mine Services, Inc., Boulder, CO. Jefferson County, Colorado. September 2001. Pre-blast inspection of the Red Rocks Amphitheater.
- Bradley Blasting, Morrison, CO. Jefferson, Boulder, Gilpin, and Clear Creek Counties, Colorado. May 2000 – Present. Pre-blast inspections and direct coverage monitoring of land development blasting in the Greater Denver area.
- BT Construction, Inc., Henderson, CO. Denver County, Colorado. November, 2003. Pre-blast inspection of parking garage and direct coverage monitoring of installation and extraction of vibratory sheet piles. Denver County, Colorado. March – September, 2005. Direct coverage monitoring of Stout Street sewer improvements.
- Cherry Demolition, Houston, TX. Larimer County, Colorado. December 2003. Pre-blast inspection and direct coverage monitoring. Demolition of Holcim cement plant facilities.
- City of Black Hawk, CO. Clear Creek County, Colorado. March 2004. Road construction blasting ground motion & air over-pressure monitoring to protect city's back-up water plant.
- Controlled Demolition, Inc., Phoenix, MD. Denver County, Colorado, Las Vegas, Nevada. 1996 – Present. Inspection services and direct coverage vibration monitoring of various building demolitions including; Dunes Hotel, Wards Building, Bar-S Building, TerraCenter Office Tower, Shattuck Chemical Stack, 17th & California Office Building.
- J. A. Cesare & Associates, Inc., Centennial, CO. Boulder County, Colorado. March-December, 2001. Ground vibration and air overpressure monitoring for future site of City of Longmont Water Treatment Facility.
- Jennison Construction, Littleton, CO. Larimer County, Colorado. July-August 2005. Carter Lake Water Treatment Plant. Pre-blast inspection, attenuation studies, blast design and vibration monitoring for an addition to the existing water treatment plant.
- Lawrence Construction Company, Littleton, CO. Denver County, Colorado. January, June. 2006. Pre-construction inspections and monitoring of pile driving for railroad bridge.

- Mountain West Drilling and Blasting, Aurora, Colorado. Boulder, Denver, Jefferson Counties, Colorado. 1997 - Present. Pre-blast inspections and direct coverage monitoring of land development blasting.
- Recycled Materials, Inc. Arvada, Colorado. January 2005. Pre-blast inspection and vibration monitoring for building demolition at the Valero refinery in Commerce City, Colorado.
- Phillips South Central, Pueblo West, Colorado. Jefferson, Pitkin Counties, CO. 2005 – present. Pre-blast inspections and direct coverage monitoring of land development blasting.
- Tierdael Construction Co., Denver, CO. Jefferson County, Colorado. September, 2003. Pre-blast inspection of old town Morrison and direct coverage monitoring. H-pile driving for bike path.
- URS Corporation, Henderson, Nevada. Installation of 28 seismographs and remote monitoring stations at the Hoover Dam Bypass Bridge. January 2005.
- W. W. Clyde, Inc. Salt lake City, Utah April 2005 – Present. Pre and post construction inspections of 25 mile long Point of the Mountain water line.
- Yenter Companies, Arvada, Colorado. Arapahoe, Boulder, Douglas, Eagle, Grand, Jefferson, Park, Larimer San Miguel Counties. 1996 – Present. Pre-blast inspections and direct coverage monitoring of land development blasting.
- HDR, Abo Canyon, Socorro County, New Mexico. BNSF Expansion Project. 2009-Present. Pre-blast Inspections, Linear Regression Analysis & Remote Vibration Monitoring of Native American Cultural Sites.
- Yenter Companies, Williams Fork Dam Expansion. Grand County, Colorado. 2010. Pre-blast inspections and vibration monitoring.
- Alter Construction Company, Landmark Condominium Remodeling. Vail, Eagle County, Colorado. 2009. Remote Vibration Monitoring.

Petroleum Exploration

- Dawson Geophysical, Ashley Creek 3D, Uintah County, UT Jan. 2006. Ground motion attenuation study.
- El Paso Corporation, Pinal 2D Survey, Pinal County, Arizona. May, 2006. Vibroseis ground motion attenuation study and direct coverage monitoring.
- Sinclair Oil Corporation, Crowley 3D Survey, Tarrant/Johnson Counties, Texas. February-March, 2006. Vibroseis ground motion attenuation study and direct coverage monitoring.
- Bill Barrett, Inc., Gibson Gulch 3D, Garfield County, CO. Dec. 2005 – Jan. 2006 Direct coverage monitoring of water and oil wells, residences, pipelines.
- Vintage Petroleum, San Patricio County, Texas, 3D shothole monitoring. April-May 2005. PGS.
- Cimarex, Mecosta County, Michigan, accelerated weight drop attenuation study. Sept. 2005

- Range Resources, Kay and Noble Counties, Oklahoma, vibroseis attenuation study, August 2005
- Interactive Earth Sciences, SE of Dallas, Texas, 3D vibroseis monitoring and attenuation studies. May-June 2005. Tidelands.
- Tesla Exploration Ltd. Shothole and vibroseis attenuation studies in Oklahoma and Texas
- Bill Barrett, Inc., Stone Cabin 3D, Carbon County, Utah. August, 2004. Pre-survey meetings with the BLM, Vibroseis attenuation studies, direct coverage monitoring of historic rock art (pictographs). Polaris Explorer.
- PGS Onshore, Inc., Canyon Creek 3D, Sweetwater County, Wyoming. August, 2004. Vibroseis attenuation study.
- Calpine, Gibson Gulch 2D, Garfield County, Colorado. July, 2004. Pre- and Post-Survey water well sampling and direct coverage shothole monitoring. Tesla.
- Pure Exploration, Subsidiary of Unocal, Gomez 3D. Pecos County, Texas March-April 2004. Vibroseis direct coverage monitoring. Dawson Geophysical Company.
- Occidental Resources of California, Annapolis 3D. Merced County, California. March 2004. Shot-hole ground motion attenuation studies and direct vibration monitoring. Public testimony before water districts in permit process. Trace Energy. Wallace Bayne.
- Swift Energy, Lake Washington 3D, Plaquemines Parish, Louisiana. March, 2004. Shot hole ground motion attenuation studies (in 15 feet of water). Eagle Geophysical.
- Spanoil Exploration, Inc., Fulton 3D, Beauregard Parish, Louisiana. March, 2004. Shothole ground motion attenuation studies.
- Rosewood Resources, Inc., HBP #7 3D Survey, Yuma County, Colorado. February 2004. Vibroseis ground motion attenuation study & direct coverage monitoring. Tidelands Geophysical Company.
- Chesapeake Energy Corporation, Gator 3D, Calhoun County, Texas. February 2004. Vibroseis & Shothole ground motion attenuation studies. Tidelands Geophysical Company.
- Antero Resources, Vinson Ranch 3D, Wise & Tarrant Counties, Texas. January, 2004, Vibroseis ground motion attenuation studies & direct coverage monitoring. Paragon Geophysical.
- Royal Exploration Company, Inc., Tom Lyne 3D, Live Oak County, Texas. November, 2003. Vibroseis direct coverage monitoring & water well sampling. PGS Onshore, Inc.
- Slawson Exploration Company, Inc., Buffalo Camp 3D, Brazoria County, Texas. October, 2003. Vibroseis ground motion attenuation study & Shothole direct coverage monitoring. PGS Onshore, Inc.
- Chesapeake Energy Corporation, Blacklake 3D, Natchitoches Parish, Louisiana. September 2003, Shothole ground motion attenuation studies.
- Slawson Exploration Company, Inc., Buffalo Camp 3D, Brazoria County, Texas. August, 2003. Shothole ground motion attenuation study. PGS Onshore, Inc.

- Chesapeake Energy Corporation, Huntoon 3D, Beaver County, Oklahoma. August 2003. Vibroseis ground motion attenuation study. Dawson Geophysical Company.
- Chesapeake Energy Corporation, Arapahoe 3D, Custer County, Oklahoma. August 2003. Shothole ground motion attenuation studies.
- PEMEX, Mexican national oil/gas company, Pipila 3D, Villa Mendez, Tamaulipas, Mexico. August, 2003. Vibroseis ground motion attenuation studies. PGS Onshore, Inc.
- Tidelands Geophysical Company, Cunningham 3D, Kingman & Pratt Counties, Kansas. July 2003. Vibroseis ground motion attenuation studies & direct coverage monitoring.
- C.G.G. Canada Services Ltd., Robstown 3D, Nueces County, Texas. May, 2003. Vibroseis direct coverage monitoring.
- Square Mile Energy, Woodrow 3D, Jefferson County, Texas. May 2003. Shothole direct coverage monitoring. Veritas, Inc.
- Chesapeake Energy Corporation, Waynoka 3D, Woods County, Oklahoma. April, 2003. Vibroseis ground motion attenuation study. PGS Onshore, Inc.
- Chesapeake Energy Corporation, Woodward 3D, Woodward & Major Counties, Oklahoma. March 2003. Shothole ground motion attenuation studies. Trace Energy Service, Inc.
- Plains Exploration & Production. Inglewood Field 3D, Los Angeles County, California. February-May, 2003. Vibroseis ground motion attenuation studies & direct coverage monitoring. Trace Energy Services, Inc.
- Occidental Petroleum, West Athy 3D, Grant & Kearny Counties, Kansas. January-February 2003. Vibroseis direct coverage monitoring. Trace Energy Services, Inc.
- Chevron, Ross #10 3D VSP Survey, Hemphill County, Texas. January 2003. Vibroseis direct coverage monitoring & water well sampling. Trace Energy Services, Inc.
- WesternGeco, Monticello 3D, San Juan County, Utah. November, 2002. Vibroseis ground motion attenuation studies, water well sampling, direct coverage monitoring.
- PEMEX, Mexican national oil/gas company, Aquamar 3D, Santo Domingo, Tamaulipas, Mexico. July, 2002. Vibroseis ground motion attenuation studies. PGS Onshore, Inc.
- PGS Onshore, Inc., Taloga 3D, Dewey County, Oklahoma. December, 2001. Shothole ground motion attenuation studies.
- Newfield Exploration Mid-Continent, Inc., Fitts Phase II 3D, Coal County, Oklahoma, October, 2001, Shot hole ground motion attenuation studies. Dawson Geophysical.
- Condor Exploration, Horsetrap 3D, Lincoln County, Wyoming, September 2001, Vibroseis direct coverage monitoring. PGS Onshore.
- Williams Production, formerly Barrett Resources, Rulison Extension 3D, Garfield County, Colorado. August/September 2001. Vibroseis & Shothole ground motion attenuation studies and direct coverage monitoring. WesternGeco Geophysical.

- The Anschutz Corporation, Arvin Shelf 3D, Kern County, California, August, 2001, Direct coverage Vibroseis Monitoring. Trace Exploration.
- Williams Production, formerly Barrett Resources, Red Point 2D, Garfield County, Colorado. August 2001. Vibroseis direct coverage monitoring. WesternGeco Geophysical.
- Emerald Valley LLC, Monument 3D, Merced County, California, July, 2001. Shot hole ground motion attenuation studies. December 2001-January 2001, Engineering papers regarding biological and archaeological concerns. WesternGeco.
- Newfield Exploration Mid-Continent, Inc., North Foss 3D, Custer & Washita Counties, Oklahoma. July, 2001. Shot hole ground motion attenuation studies. Tidelands Geophysical.
- PGS Onshore Inc., Zacate 3D, Tamaulipas, Mexico, July, 2001. Vibroseis ground motion attenuation studies.
- Chevron Petroleum Technology Company, Rangely Field 3D, Rio Blanco County, Colorado. April 2001. Vibroseis direct coverage monitoring & ground motion attenuation study. Trace Ventures Group, now Trace Energy Services, Inc.
- EOG Resources, Red Bluff 3D, Marion County, Mississippi. February 2001 – May 2001. Ground motion attenuation study for shothole charge weight and standoff distance determination. Pre-blast residence inspections and water well sampling. Direct coverage ground motion monitoring. Tidelands Geophysical.
- Whiting Petroleum, Landa 3D, Bottineau County, North Dakota. January 2001. Direct Coverage Monitoring. Reliable Exploration.
- Copeland, Cook, Taylor, and Bush. Jackson, Mississippi. October, 2000 – present. Expert witness for water well damage claims, US District Court for Southern District of Mississippi, Jackson Division, for Enron Oil and Gas.
- Calpine, Grand Island 3D, Solano County, California. November 2000. Shothole regression studies in order to comply with permit requirements for reclamation district's ground motion requirements for levees. C.G.G. Land Seismic.
- EOG Resources, Hell Creek 3D, Pearl River County, Mississippi. October 2000. Direct coverage monitoring and shothole ground motion attenuation study. Tidelands Geophysical.
- EOG Resources, Fiddler Creek 3D, Jefferson Davis County, Mississippi. July-August 2000. Direct coverage monitoring and shothole ground motion attenuation study. Tidelands Geophysical.
- Occidental of Elk Hills, Inc., Buena Vista 2D, Kern County, California. May 2000. Vibroseis ground motion attenuation studies and direct coverage monitoring in city of Taft, CA. CGG Land Seismic.
- Bonneville Fuels Corporation. Banty Point 3D, Rio Blanco County, Colorado. April, 2000. Vibroseis and shothole ground motion attenuation studies and direct coverage monitoring. Trace Ventures Explorations, Inc.
- Berry Petroleum Company, Inc. Home Base 3D, Kern County, California. March 2000. Vibroseis ground motion attenuation studies and cogen plant monitoring. Western Geophysical.

- Occidental of Elk Hills, Inc., Elk Hills 3D seismic noise/source tests, Kern County, California. Vibroseis and shothole ground motion attenuation studies to protect pipelines, oil and gas wells and the California Aqueduct. CGG Land Seismic. Joel Scott, II.
- Burlington Resources, Sawtooth Ridge 3D, Montrose County, Colorado. November, 1999. Vibroseis ground motion attenuation study & Vibroseis and Shothole direct coverage monitoring. Western Geophysical.
- Interactive Earth Sciences Corp., Aneth NW 3D Survey, San Juan County, Utah. October, 1999. Shothole ground motion attenuation studies.
- Enron Oil and Gas. Bird Mountain 3D, Anderson & Cherokee Counties, Texas. April, May 1998. Shothole ground motion attenuation study, direct coverage monitoring, water well testing and pre-blast inspections. Eagle Geophysical.
- Pyr Energy. SE Maricopa 3D, Kern County, California. March 1998. Vibroseis ground motion attenuation studies. Western Geophysical.
- KCS Mountain Resources, Schuster Flats 2D, Washakie County, Wyoming. March 1998. Shothole ground motion attenuation study and pipeline monitoring. Reliable Exploration.
- Enron Oil and Gas. East Magee 3D, Simpson, Smith, and Covington Counties, Mississippi. January and February 1998. Shothole ground motion attenuation study and direct coverage monitoring. Veritas DGC Land.
- Enron Oil and Gas. West Ollie 2D, Polk County, Texas. October 1997. Shothole ground motion attenuation study and direct coverage monitoring. Veritas DGC Land.
- PEMEX, Papantla 3D, 3D Geophysical-Geo-evaluaciones S.A. de C.V. (now owned by Western Geophysical. Poza Rica, Veracruz, Mexico. Vibroseis ground motion attenuation studies and meetings with Pemex, December 1996 and direct coverage monitoring, October 1997.
- Marathon Oil. Sterling 3D, Soldotna, Alaska, March 1997. Vibroseis ground motion attenuation studies. Northern Geophysical of America (now WesternGeco).

Mining

- Western Energy Co., Rosebud County, MT Dec. 2005 – present. Blast vibration monitoring on a continuous basis with remote seismograph stations.
- Black Butte Coal Company, Sweetwater County, Wyoming. August 2005. Blast Vibration Attenuation Studies. Review of blasting practices.
- Westmoreland Resources Inc., Bighorn County, Montana. July, 2005. Drill and Blast Audit for State/Federal blasting compliance at the Absaloka Mine.
- Kennecott Energy, Sound monitoring for noise modeling project at the following mines : Colowyo, Antelope, Jacobs Ranch, Cordero Rojo and Spring Creek. Oct-Dec. 2004.
- Coteau Properties Co., Mercer County, North Dakota. September, 2004. Regression Analysis on historical blasting records at the Freedom Mine.

- Antelope Coal Company, Converse County, Wyoming. September, 2004. Condition Inspection for Damage Claim Investigation, Installation of seismograph monitoring station.
- Trapper Mining Company, Moffat County, Colorado. Installation of two seismographs and permanent monitoring. June 2004 – present.
- ANDALEX Resources, Inc. \ West Ridge Resources, Inc., Carbon County, Utah. September, 2004. Installation of two seismograph monitoring stations at the reservoir above the town of Sunnyside.
- Elk Creek Sand & Gravel, Jefferson County, Colorado. April, 2004. Quarry blasting vibration ground motion attenuation study.
- BHP, Navajo Mine, San Juan County New Mexico, 2002. Public hearings for vibration complaints in the town of Water Flow.
- Peabody Western Coal Company, Navajo County, Colorado 1996 – Present. Cast blast analysis, laser profiling, compliance engineering, Pre-blast inspections, damage investigations, ground motion attenuation studies, blasters certification training.
- Dakota Westmoreland Corporation, Beulah Mine. Mercer County, North Dakota. Damage claim investigation, pre-blast surveys, coal and overburden shot ground motion attenuation studies, direct coverage monitoring.
- Kennecott Energy, Colowyo Coal Company, Rio Blanco County, Colorado October 2003. Ground motion attenuation studies, compliance vibration monitoring.
- Kennecott Energy, Antelope Coal Company, Converse County, Wyoming, May 2001. Cast-blasting study, ground motion attenuation studies. Engineering study of ground motion affects on tipples.
- CSR Associated, Snohomish County, Washington. May 2000 – Present. Pre-blast inspections of residences and historic structures. Installation of seismograph recording stations.
- Cripple Creek and Victor Gold Mining Company, Teller County, Colorado. 1997 – Present. Pre-blast inspections of historic district, damage claim investigations, ground motion attenuation studies, assist in permit revision process, Victor city council meetings, Teller County Planning Commission and Colorado Mined Land Reclamation Board hearings, setup of remote seismic monitoring stations.
- Kennecott Energy Co., Spring Creek Mine, Big Horn County, Montana. 1999 – Present. Direct coverage monitoring.
- RockTek USA Ltd., Summer, 1998. Pressure measurements in a developmental rock hang-up cannon at the Colorado School of Mines experimental Edgar Mine, Idaho Springs, Colorado.
- Seneca Coal Company, Routt County, Colorado. Oil well and residential inspections, Ground Motion Attenuation Studies, installation of monitoring stations, September 1997-Present, ground motion attenuation study, February 1998.
- Man Takraf, Cananea Copper Mine, Sonora, Mexico. July 1997. Ground motion attenuation studies, direct coverage monitoring, and set-up of permanent monitoring station to protect new in-pit crusher.

- Holcim, US Inc. Portland Plant Quarry, Florence, CO 1996-Present. Remote Vibration Monitoring.
- Holcim, US Inc. Coadale Gypsum Quarry. Coaldale, CO. 2008. Pre-blast Inspections and Vibration Monitoring.
- Holcim, US Inc. Ste. Genevieve Quarry, Bloomsdale, MO. 2009-Present. Remote Vibration Monitoring.
- Peabody Coal Company, Powder River Coal Company's Caballo Mine. Gillette, Wyoming. 2008-Present. Pre-blast inspections and remote vibration monitoring.
- Cloud Peak Energy, Cordero Rojo Mine. Gillette, Wyoming. 2010. Remote vibration monitoring.