

ACZ Laboratories, Inc.

Statement of Qualifications 2015-2016

Statement of Qualifications

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Certificates

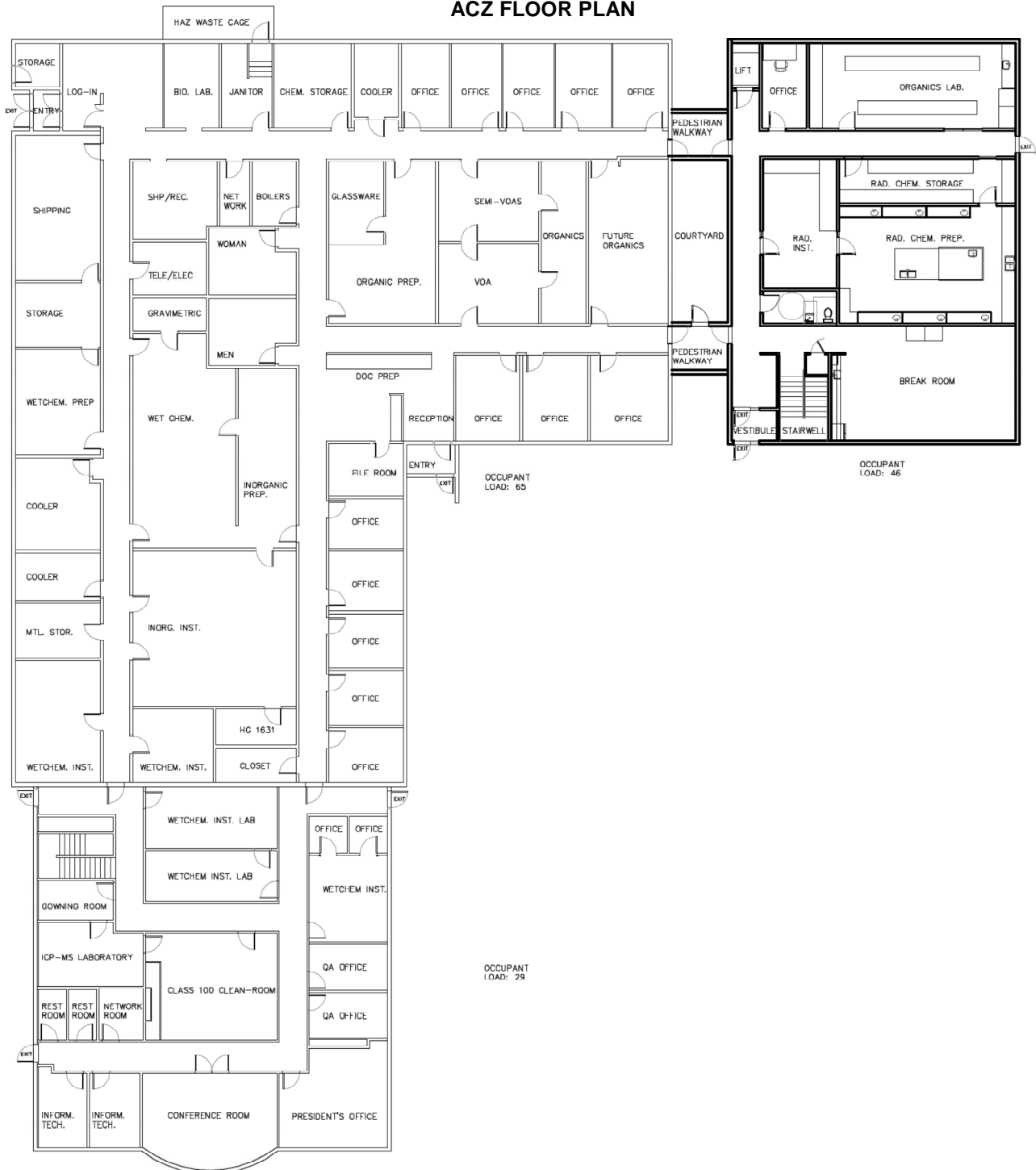
ACZ maintains laboratory accreditation with the agencies listed below:

- NELAP Utah, Primacy Certification
- EPA Region 8 - Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming
- Radioactivity License
- USDA Foreign Soils Permit
- Alaska
- Arizona
- Arkansas
- California
- Colorado Drinking Water
- Hawaii Radiochemistry Drinking Water
- Montana Radiochemistry Drinking Water
- Nevada
- New Mexico
- Oklahoma
- Oregon
- South Carolina
- Texas
- Washington

Scopes of accreditation vary depending on agency characteristics and client demand. Current certificates may be viewed at <http://acz.com/certifications/>.

2773 Downhill Drive, Steamboat Springs

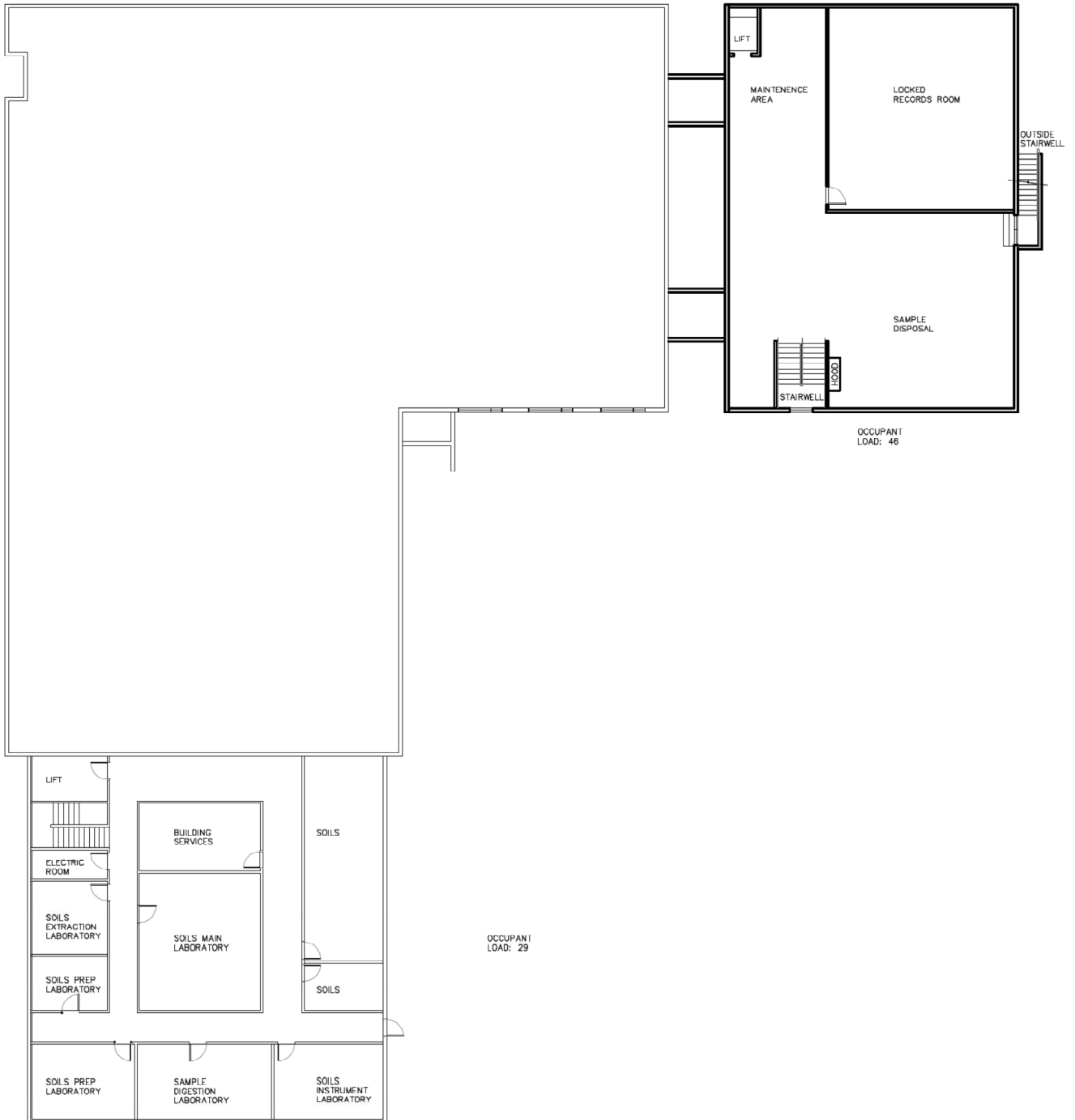
ACZ FLOOR PLAN



ACZ LABORATORY INC.

MAIN LEVEL PLAN

2773 Downhill Drive, Steamboat Springs



ACZ LABORATORY INC.

BASEMENT LEVEL PLAN

Facilities
Instruments & Equipment

Laboratory Instruments

Inorganic Instrument

#	Type	Brand & Model	Auto-sampler	Computer	Purchase Date
1	CVAFS	SETAC Quick-trace M-8000	52 place	Dell Optiflex 7010	10/14
3	ICP/MS	Agilent 7500 C-E (Octopole Reaction Cell)	180 place	Pentium with Chem-Station	5/03 & 12/05 & 09/15
1	ICP	Thermo – iCAP 6500 Radial	270 place	Dell-iteva	2/11
1	ICP	Thermo – iCAP 6300 Radial	270 place	Dell-iteva	6/13
1	Hydride AA	Perkin Elmer - 400 AA with Hydride	150 place	HP	5/07
1	CVAA	Leeman - Hydra AA	88 place	Pentium with WinHg	3/02
1	Hg Analyzer	Milestone – DMA-80	40 place	Milestone	5/09
2	Autoblock	Thomas Cain - DEENA	60 place	Dell - ASD(1) Asus Netbook – ASD (2)	11/07 and 1/12

Wet Chemistry

#	Type	Brand & Model	Auto-sampler	Computer	Purchase Date
1	FIA	QuikChem 8000	360 place	Pentium	5/98
2	FIA	QuikChem 8500	360 place	Pentium	10/04 & 03/15
1	IC	Dionex ICS2000	AS-40	Pentium	10/05
1	TOC	Skalar – FormacsHT	150 place	Dell - Skalar	7/10
1	Spectrophotometer	HACH DR3900	N/A	N/A	02/15
1	Discreet Analyzer	AquaKem - 250	Internal	Dell	2/07
1	FS3100	OI Analytical – OI FS3100	3090	Dell	7/12
1	Auto Titrator	ManTech – PC – Titration Plus	55	Dell	9/03
1	Auto Titrator	ManTech – PC – Titration Plus	104	Dell	5/07

Soils

#	Type	Brand & Model	Auto-sampler	Computer	Purchase Date
1	Microwave	Milestone – Ethos EX (10 place)	N/A	Milestone	12/10
1	Sulfur / Carbon Analyzer	LECO - SC-144DR	N/A	HP	8/99
1	Sulfur / Carbon Analyzer	LECO – SC632	LECO - 50 Place	Dell T 1600	6/12
1	Rotary Extractor	Environmental Express, TCLP Rotary Extractor (10 place)	N/A	none	5/92
2	Rotary Extractor	Environmental Express, TCLP Rotary Extractor (12 place)	N/A	none	11/08 and 11/10
1	Spectrophotometer	HACH DR4000V	N/A	N/A	02/95

Facilities
Instruments & Equipment

Laboratory Instruments

Organics

#	Type	Brand & Model	Auto-sampler	Computer / software	Purchase Date
1	GC1	HP 5890 II	100 place	HP Enviroquant	1/90
1	GC6	HP 5890 II	MPM 16 P& T	HP Enviroquant	2/87
1	GC7	HP 5890 II	MPM 16 P& T	HP Enviroquant	1/02
1	GC8	HP 5890 II	100 place	HP Enviroquant	5/14 (New Detector)
1	GC9	HP 6890	NONE	HP Enviroquant	11/11
1	GC10	HP 5890 II	NONE	HP Enviroquant	6/13
	GC11	HP 7890	100 place 7693	HP Enviroquant	3/15
1	GC/MS C	HP 5890II/5971	OI 4452	HP Enviroquant	1/99
1	GC/MS D	HP 5890/5973	HP783	HP Enviroquant	1/99
1	GC/MS F	Agilent 6890/5975	OI 4552/4660	HP Enviroquant	7/06
1	GC/MS G	Agilent 7890A/5975C	OI 4552/4660	HP Enviroquant	6/08
1	GC/MS H	Agilent 5890/5973N	HP7683	HP Enviroquant	1/10
1	GC/MS I	Agilent 5890/5973N	HP7683	HP Enviroquant	1/13
1	Horizon Oil and Grease	3000XL	NONE	N/A	4/09
1	SEVAP	14169	NONE	N/A	2/15
1	N-EVAP	122	NONE	N/A	11/14

Radiochemistry

#	Type	Brand & Model	Auto-sampler	Computer	Purchase Date
9	Radon Flask Counter	Ludlum - Model 182	5 place manual	2model 2000 Scaler 3model 1000 Scaler	11/91- 11/07
2	Survey Meter	Ludlum Measurements Model 3	N/A	N/A	2/90 2/11
1	Survey Meter	Ludlum Measurements Model 2241-2	N/A	N/A	10/97
1	/ Counter	Tennelec XLB 5100 Alpha/Beta System	Auto Sampler	Eclipse Version 3.1.2	2/01
2	/ Counter	EG & G Berthold LB 7700 Alpha/Beta System	10 place man.	EG&G Berthod 770 Version 2; UMS Version 1.16	12/95
8	Alpha Spec.	EG & G 450 mm 2 Ultra Alpha Spectrometers	N/A	Octete PC Alpha Vision 32	9/97
8	Alpha Spec Plus	EG & G 450 mm 2 Ultra Alpha Spectrometers	N/A	Octete Plus Alpha Vision 32	1/09
2	Gamma Spec	EG & G A65-BI with 1 Germanium detector	Manual	Gamma Vision 32 Version 6.01	9/97 and 6/11
1	Liquid Scintillation Counter	Beckman LS 6000 TA	Auto Sampler	LS 6000 Series Winn Connection suite. Version 1.1	7/95

Computer Equipment

Software and Hardware

ACZ is constantly investing in new software applications and hardware to ensure that the company can take advantage of the latest technologies. The core server technology is a network based on both SuSE Enterprise Linux and Windows Server (2000 – 2008). The ACZ LIMS (Laboratory Information Management System) uses an Oracle database running on an HP DL580 server under SuSE Linux. An identical server is maintained for testing and as a standby should the production server fail. ACZ maintains a large number of Windows-based servers which perform a variety of network tasks including archiving of all lab data (In April 2007, ACZ Laboratories established a record retention period of 10 years), systems backup, web server hosting, email hosting, and systems health monitoring. Data backups are performed nightly. Backups are stored both on and off-site. ACZ uses MS Office 2007 applications for its business communication needs.

The network itself consists of approximately 100 PCs. Most of these are capable of running ACZ's proprietary LIMS front-end. The front end is an MS Access 2007 VBA application. The LIMS is an extension of the Labvantage Seedpak application. An Oracle Forms based interface to the Seedpak core is also maintained by ACZ.

Approximately 40 of the network PCs control instruments. Instrument data from these computers is directly uploaded to the ACZ LIMS. Instrument PCs and software are consistently upgraded to utilize the latest updates from our instrument vendors. Additionally, five PCs are licensed to produce EPA CLP and CLP-like deliverables for ILM 4.2 and ILM5.3 SOWs.

All software on the ACZ network is restricted to approved applications. All software on the network is monitored for compliance to this policy and all software is properly licensed.

ACZ Laboratories has over 34 years of experience providing analytical support to the Mining industry and has built a reputation as one of the highest quality environmental laboratories in the industry. Approximately sixty to seventy percent of our current clients are directly involved with the mining industry. We support mining operations throughout the United States including Alaska, Africa, Central & South America, Russia, as well as Asia.

ACZ is able to support our mining clients in all areas of environmental analytical services including routine groundwater and surface water monitoring, overburden testing, acid-base accounting (all Nevada NDEP/BLM Rock Characterization methods), kinetic testing including ASTM D5744-07 Humidity Cell Testing, and bioaccumulation studies. This broad range of analytical support coupled with a staff that is highly experienced in the matrix difficulties inherent to many mining related samples makes ACZ one of the leading environmental laboratories supporting the industry. ACZ's USDA Foreign Soils Permit allows for samples to clear customs without any delay or quarantine.

Types of Mining Operations Supported:

- Gold / Silver
- Copper
- Coal
- Uranium
- Molybdenum
- Soda / Trona
- Rare Earth

Types of Matrices Analyzed:

- Water
- Soil
- Overburden
- Air Filters
- Sludge
- Plant Tissue
- Animal Tissue

Please contact an ACZ representative for a list of specific references from the mining industry.

Related Experiences

Petroleum / Petrochemical

ACZ has over 30 years of experience serving the Petroleum industry. Throughout a variety of projects ranging from long-term monitoring to short-term assessment studies, we have maintained a high level of data quality while meeting our customers' needs. We understand that quick turn-around times are inherent to the needs of the petroleum industry. ACZ is committed to meet our clients' expectations and project requirements.

ACZ routinely works with refineries, pipelines, oil and gas production, oil shale pilot plants and UST sites on monitoring and natural attenuation, site assessments and remediation projects. In addition to identifying Hydrocarbons, PCB's, or other organic contaminants, ACZ is capable of providing "fingerprinting" identification fuels. We also have the capacity to handle large on-going projects requiring both organic and inorganic RCRA analyses. We routinely perform monitoring on domestic wells surrounding oil and gas developments in Colorado and perform all of the Colorado 910-1soil tests "in-house". Our data quality and customer service combine to make ACZ a good choice for the petroleum industry.

Types of Projects Supported:

- Surface/Groundwater Monitoring
- Site Assessments
- UST Analyses
- Hazardous Waste Characterization

Types of Matrices Analyzed:

- Water
- Oil
- Soil
- Rags
- Air (Tedlar Bags)
- Sludge

Please contact an ACZ representative for a list of specific references from the petroleum industry.

ACZ has over 25 years of experience in analyzing biota for trace metal, radiochemical, and PCB contaminants. We have prepared and analyzed a variety of biota samples from across the world, including the Antarctic and the South Pacific. Due to the sensitivity of native organisms to many low-level man-made contaminants, ACZ protocol includes rigorous QA/QC to determine and verify our results. We supply litigation-quality data that will withstand extensive review.

Dual instrumentation in our facility enables us to accept large projects and maintain timely delivery of results. Our clean room allows us to see trace levels of metal contaminants that otherwise would not be detected. ACZ made a substantial investment in this area with the purchase of three Agilent (HP) 7500 ICP-MS's, SETAC Quick-trace M-8000 Mercury Analyzer, and Milestone DMA-80 Direct Mercury Analyzer for Solids and Solution by Thermal Decomposition. As federal and state regulations get more stringent, ACZ will be capable of supporting the new, lower detection limits required for biota testing.

ACZ has performed trace metal analysis on minuscule samples using a micro-digestion and a smaller final sample volume in order to achieve very low detection limits. We are also capable of homogenizing large samples and performing analysis on a representative aliquot, as well as prepping deer mice, which may carry Hanta Virus in a Level III Bio-Safety hood. Our experience and our facility set us apart in this area of environmental analysis, and we are proud to be an industry leader.

Types of Projects Supported:

- PCB Contamination in Aquatic Tissue
- Radiochemical Contamination in Benthic Organisms
- Complete Bio-Accumulation Studies
- Trace Metal Analysis in Small Mammal Organs, benthic tissue, plant tissue, fish

Types of Biota Analyzed:

- Fish (both large and small)
- Snakes/Small Reptiles
- Insects
- Small Mammals
- Benthic Organisms
- Plants

Please contact an ACZ representative for a list of specific projects relating to biological tissue studies.

ACZ has over 34 years of experience in performing various leach studies. We have performed long-term humidity cell tests (EPA and ASTM), upflow/downflow column leach studies, serial and sequential batch extractions and analyses, Meteoric Water Mobility Procedure (MWMP) testing, SHAKE tests and other leachability and attenuation studies. Our technical knowledge and skills, attention to detail, and high quality data make us a dominant force in this analytical niche.

During our extensive history in the mining industry, ACZ has been a part of many interesting leach studies. We are able to implement client-specific modifications to any given variable and thus make the study more similar to each site's actual situation. Both long-term and short-term studies are valuable for making predictions about acid rock drainage, waste leachability, and the migration of hazardous ions through soil. ACZ's experienced and knowledgeable staff can assist with technical support in this area; call your ACZ representative for more details.

Types of Leach Studies Performed:

- Long-Term Humidity Cell Testing (20-40 weeks)
- Continuous Column Leaching
- Serial Batch Extraction Testing
- Meteoric Water Mobility Testing
- Toxicity Characteristic Leaching Procedure
- Synthetic Precipitation Leach Procedure
- Waste Extraction Test- WET (California Administrative Code)

Please contact an ACZ representative for a list of specific projects relating to leach studies.

Municipal Landfill and POTW

ACZ has over 30 years of experience in Municipal Landfill and POTW sludge monitoring and analysis. We can analyze a wide range of parameters on a variety of matrices including drinking water, surface water, wastewater, groundwater, soil, sludge, and other biosolid material.

Our ICP-MS instrumentation, in a class-100 clean room, allows us to detect ppb and lower levels of heavy metals in drinking water and surface water. We also provide analytical testing services for long-term groundwater monitoring near landfills. Along with quarterly testing of influent and effluent for wastewater treatment plants, we perform routine monitoring on surface waters, soils, plant tissue and test WWTP sludge for land application requirements.

ACZ provides our clients high quality data in a timely manner. A commitment to quality and extensive experience make ACZ the right choice for your analytical service needs.

Types of Municipality Projects (including Landfills, POTW, WWTP):

- Long-Term Groundwater Monitoring
- Influent/Effluent Testing
- Drinking Water Testing
- Sludge Testing
- Hazardous Waste Characterization
- Low-Level Surface Water Monitoring

Please contact an ACZ representative for a list of specific projects relating to Municipal Landfills and POTW work.

ACZ has experience with the Department of Defense (DOD) and the Department of Energy (DOE). We have worked on several different projects entailing inorganic, organic and radiochemical parameters on a variety of matrices. Full Level IV and CLP-Like data reporting, including Electronic Diskette Deliverables, are available with this type of work.

Department of Energy Experience:

- Uranium Mine Tailings Remedial Action (UMTRA) contract lab
- Hanford Site, Groundwater / Soil investigation project (inorganic, organic, radiochemical)
- Oak Ridge – Y-12 site remediation project
- LANL site remediation Projects

DOD, Army Experience:

- Iowa Munitions Plant - groundwater monitoring
- Point Mugu, CA- remediation project
- Ft. Sill, OK – Hazardous Waste Characterization
- Yuma Providing Grounds - Groundwater / Soil investigation project
- USACE validation (metals and radiochemistry)
- USACE Restoration of Abandoned Mine Sites (RAMS) Western Region (multiple mine projects)

DOD, Air Force & Navy Experience:

- Malstrom AFB – remediation projects
- China Lake – Bio-Accumulation study

Personnel
Organizational Chart

ACZ Laboratories, Inc (2012)

