



OFFICE OF STATE COURTS ADMINISTRATOR
P.O. Box 104480
2112 Industrial Drive
Jefferson City, MO 65110-4480

RFP NO. OSCA 11-029
TITLE: Drug/Alcohol Testing
Equipment & Services
ISSUE DATE: June 5, 2014

CONTACT: Russell Rottmann
PHONE NO.: (573) 522-6766
E-MAIL: osca.contracts@courts.mo.gov

MAILING INSTRUCTIONS: Print or type **RFP Number** and **Return Due Date** on the lower left hand corner of the envelope or package.

RETURN PROPOSAL TO:

(U.S. Mail)
 Office of State Courts Administrator
 Contracts Unit
 PO Box 104480
 Jefferson City Mo 65110 - 4480

or

(Courier Service)
 Office of State Courts Administrator
 Contracts Unit
 2112 Industrial Dr
 Jefferson City Mo 65109

CONTRACT PERIOD: DATE OF AWARD THROUGH JUNE 30, 2015

DELIVER SUPPLIES/SERVICES FOB DESTINATION TO THE FOLLOWING ADDRESS:

MISSOURI TREATMENT COURTS THROUGHOUT THE STATE OF MISSOURI

The vendor hereby declares understanding, agreement and certification of compliance to provide the items and/or services, at the prices quoted, in accordance with all requirements and specifications contained herein and the Terms and Conditions Request for Proposal. The vendor further agrees that the language of this RFP shall govern in the event of a conflict with his/her proposal. The vendor further agrees that upon receipt of an authorized purchase order from the Office of State Courts Administrator or when this RFP is countersigned by an authorized official of the Office of State Courts Administrator, a binding contract shall exist between the vendor and the Office of State Courts Administrator.

SIGNATURE REQUIRED

AUTHORIZED SIGNATURE <i>Amanda Gibbs</i>		DATE 7/16/2014
PRINTED NAME Amanda Gibbs		TITLE VP & GM, Criminal Justice Business Unit
COMPANY NAME Technical Resource Management, Inc., d/b/a Norchem		
MAILING ADDRESS 1760 E. Route 66, Suite 1		
CITY, STATE, ZIP Flagstaff, AZ 86004		
VENDOR NO. (IF KNOWN)		FEDERAL EMPLOYER ID NO. 86-0814590
PHONE NO. 800-348-4422	FAX NO. 800-813-2404	E-MAIL ADDRESS amandag@norchemlab.com

NOTICE OF AWARD (OSCA USE ONLY)

ACCEPTED BY OFFICE OF STATE COURTS ADMINISTRATOR AS FOLLOWS: <i>IN ITS ENTIRETY AS SUBMITTED</i>		
CONTRACT NO. <i>OSCA 11-029-22</i>		CONTRACT PERIOD <i>July 31, 2014 through June 30, 2015</i>
CONTACTS COORDINATOR SPECIALIST <i>Russell W. Rottmann</i>	DATE <i>8/11/2014</i>	DEPUTY STATE COURTS ADMINISTRATOR <i>[Signature]</i>



Response to:

**State of Missouri
Office of State Courts Administrator
Request for Proposal OSCA 11-029-00
Drug/Alcohol Testing Services**

Submitted by:

**Technical Resource Management, Inc. (dba Norchem)
1760 E. Route 66, Suite 1
Flagstaff, AZ 86004**

Designated Contact:

**Amanda Gibbs
Vice President & General Manager,
Criminal Justice Business Unit
Phone: 800-348-4422, Ext: 241
Fax: 928-526-1777
amandag@norchemlab.com**



July 16, 2014

Russell Rottmann
Office of State Courts Administrator
Contracts Unit
2112 Industrial Dr
Jefferson City, MO 65109

RE: Request for Proposal OSCA 11-029 for Drug/Alcohol Testing Services

On behalf of Technical Resource Management, Inc. (dba Norchem), we are pleased to submit this proposal for Drug Testing Services.

Our commitment is to work closely with the State and its agencies, facilities, and contractors to meet and exceed your expectations. We will support your efforts to rehabilitate and reintegrate offenders into the community as law-abiding and responsible individuals, help to prevent future crimes through drug testing and compliance monitoring, stop the abuse of drugs and alcohol and the related criminal activity that results from it, and support the recovery of individuals affected by substance abuse.

Norchem has over 19 years of experience providing forensic drug testing, with a particular focus on serving criminal justice agencies. Our specific expertise is in providing *legally defensible results in industry-leading turn-around time*, coupled with web-based monitoring and dedicated client service, which result in improved outcomes and client satisfaction. We are an information technology driven laboratory where client service and forensic quality are our highest priorities.

We are confident that our highly reputable forensic certified laboratory, the strength of our integrated evidence based online substance abuse management program (Norchem SENTRY™), our philosophy of leveraging outcomes based reporting to improve compliance and rehabilitation, and our extensive experience providing these services for similar agencies, will make Norchem the most compelling and obvious choice to serve the State.

Norchem agrees to participate in the State's Cooperative Procurement Program.

I will be the designated contact for any questions or contract issues during the evaluation period for this RFP. Please do not hesitate to contact me if you have any questions or would like additional clarification on our proposal.

Thank you for considering our proposal. We hope you will allow us to serve you with our world-class laboratory testing, quick results, and dedicated customer support.

Sincerely,

A handwritten signature in blue ink that reads "Amanda Gibbs".

Amanda Gibbs
Vice President and General Manager, Criminal Justice Business Unit
Phone: 800-348-4422, ext. 241 | Email: amandag@norchemlab.com

Technical Resource Management (dba Norchem)
1760 E. Route 66, Suite 1, Flagstaff, AZ 86004
Phone: 800-348-4422 | Fax: 800-813-2404

Experience, Reliability, and Expertise of Personnel

Exhibit A – Vendor Information

- a. Provide a brief company history, including the founding date and number of years in business as currently constituted.

Norchem was founded in 1995 and has been in business as a corporation ever since. In 2013, Norchem became part of STERLING Healthcare Services (as a wholly owned subsidiary), a national healthcare company with a portfolio of laboratories that provide toxicology testing and medication monitoring services for a wide range of clients.

Norchem currently employs over 70 qualified individuals. Our laboratory currently averages 7,400 processed samples per day. We are staffed and equipped to support over 10,000 samples per day. We also maintain an active prospective candidate database so we can respond immediately to any increase in staffing demands.

- b. Describe the nature of the vendor's business, type of services performed, etc.

Norchem has over 19 years of experience providing forensic drug testing, with a particular focus on serving criminal justice agencies. Our specific expertise is in providing legally defensible results in industry-leading turn-around time, coupled with web-based monitoring and dedicated client service, which result in improved outcomes and client satisfaction. We are an information technology driven laboratory where client service and forensic quality are our highest priorities.

Since 1995, Norchem has provided forensic legally defensible laboratory testing, specimen collection services, evidence based substance abuse management and compliance monitoring and reporting system (Norchem SENTRY™). Norchem provides urine and oral fluid drug testing for all common drugs of abuse, EtG/EtS alcohol, Ecstasy, prescription drugs, etc., as well as designer substances like synthetic cannabinoids (Spice, K2), synthetic stimulants (Bath Salts), Soma, Buprenorphine, LSD, date rape, and more.

- c. Provide a list of and a short summary of information regarding the vendor's current contracts/clients. List, identify, and provide reasons for each contract/client gained and lost in the past 2 years.

Norchem has yielded national acclaim for our ability to provide quick, 24-48 hour turnaround time results to drug courts, departments of corrections, social services agencies, probation and parole agencies, and treatment centers. We pride ourselves on providing quality test results within the quickest turn-around times in the industry. No matter if the test is for a common substance or a designer substance, we prioritize our customers' needs to return results within the fastest time possible.

Listed below are just some of Norchem's key current customers:

- Colorado (8+ years)
 - Colorado Judicial Branch—22 districts, 23 probation departments, 50 probation offices
 - Denver County Court Probation
 - Over 100 private treatment providers supporting the probation departments statewide
- New York (3+ years)
 - New York State Parole
 - Rochester County DA Diversion Program
 - NYC Department of Corrections – correction officer recruit pre-employment drug testing
- California (10+ years)
 - San Diego County Probation
 - Santa Clara Department of Family and Children Services
- Arizona (18+ years)
 - Arizona Juvenile and Adult Probation
 - Arizona Department of Children and Family Service

- d. Describe the structure of the organization including any board of directors, partners, top departmental management, corporate organization, corporate trade affiliations, any parent/subsidiary affiliations with other firms, etc.

Technical Resource Management, Inc., d/b/a Norchem is a wholly owned subsidiary of STERLING Healthcare Services, a national healthcare company with a portfolio of laboratories that provide toxicology testing and medication monitoring services for a wide range of clients.

Norchem holds accreditation from CAP-FDT (College of American Pathologists/Forensic Drug Testing), licensure from CLIA (Clinical Laboratory Improvement Amendments) in Toxicology, and states where additional licensing is mandated including Pennsylvania, New York, Florida, Maryland, California, and Texas. Documentation of Norchem's College of American Pathologists (CAP) and CLIA certification and accreditation follow below:

The College of American Pathologists
certifies that the laboratory named below

**Norchem Drug Testing
Laboratory
Flagstaff, Arizona
Bert Toivola, PhD**

LAP Number: 6913001
AU-ID: 1334964

*has met all applicable standards for accreditation and
is hereby accredited by the College of American Pathologists'
Forensic Drug Testing Accreditation Program. Reinspection should
occur prior to May 22, 2015 to maintain accreditation.*

Accreditation does not automatically survive a change in director, ownership,
or location and assumes that all interim requirements are met.

Frank R. Rudy
Chair, Commission on Laboratory Accreditation

Gregory A. Hines
President, College of American Pathologists

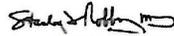
Accredited
Laboratory



The College of American Pathologists recognizes

Norchem Drug Testing
69130-01-01

For participation in the Surveys and Anatomic
Pathology Education Program


Stanley J. Robboy, MD, FCAP
CAP President

2012
Surveys, EXCEL®
and Anatomic
Pathology Education
Programs

**CENTERS FOR MEDICARE & MEDICAID SERVICES
CLINICAL LABORATORY IMPROVEMENT AMENDMENTS
CERTIFICATE OF COMPLIANCE**

LABORATORY NAME AND ADDRESS	CLIA ID NUMBER
TECHNICAL RESOURCE MGMT INC/NORCHEM 1760 E ROUTE 66, SUITE 1 FLAGSTAFF, AZ 86004	03D0936918
LABORATORY DIRECTOR	EFFECTIVE DATE
BERT T K TOIVOLA, PHD	06/18/2012
	EXPIRATION DATE
	06/17/2014

Pursuant to Section 353 of the Public Health Services Act (42 U.S.C. 263a) as revised by the Clinical Laboratory Improvement Amendments (CLIA), the above named laboratory located at the address shown hereon (and other approved locations) may accept human specimens for the purposes of performing laboratory examinations or procedures.
This certificate shall be valid until the expiration date above, but is subject to revocation, suspension, limitation, or other sanctions for violation of the Act or the regulations promulgated thereunder.



CENTERS FOR MEDICARE & MEDICAID SERVICES


Judith A. Yost, Director
Division of Laboratory Services
Survey and Certification Group
Center for Medicaid and State Operations

340 Certs2_030213

If you currently hold a Certificate of Compliance or Certificate of Accreditation, below is a list of the laboratory specialties/subspecialties you are certified to perform and their effective date:

LAB CERTIFICATION (CODE)	EFFECTIVE DATE	LAB CERTIFICATION (CODE)	EFFECTIVE DATE
TOXICOLOGY (340)	01/14/2000		




FOR MORE INFORMATION ABOUT CLIA, VISIT OUR WEBSITE AT WWW.CMS.HHS.GOV/CLIA
OR CONTACT YOUR LOCAL STATE AGENCY. PLEASE SEE THE REVERSE FOR
YOUR STATE AGENCY'S ADDRESS AND PHONE NUMBER.
PLEASE CONTACT YOUR STATE AGENCY FOR ANY CHANGES TO YOUR CURRENT CERTIFICATE.

- e. Provide a list summarizing pending litigation, any civil or criminal judgments, any bankruptcy proceedings, etc., that could affect the vendor's ability to perform. Failure to list such litigation may result in rejection of the proposal or in termination of any subsequent contract.

None.

- f. Document the vendor's financial solvency in a manner that is acceptable for public review. Audited financial statements for the last year will provide such documentation; however, the statements will become public information. If the vendor is a subsidiary, also provide the documentation for the parent company.

Please refer to Attachment 1 – Financial Statements.

Exhibit B – Prior Experience

Norchem provides the same or similar services to the following comparable agencies:

Colorado Judicial Department

- Contract Period: 2007 – Current
- Contract Value: \$720,000/year
- Services Provided: Urine and oral fluid screen and confirmation testing, statewide specimen transportation, SENTRY substance abuse management program and monitoring services, and testimony services. Norchem also implemented a custom built bi-directional interface between Norchem and the State of Colorado. Specimen volume is in excess of 50,000 specimens per month.
- Address: 1300 Broadway, Suite 1100, Denver, CO 80203
- Contact: Eric Philp, Phone (720) 625-5751, Fax (720) 625-5799, email eric.philp@judicial.state.co.us

The State of Arizona, Juvenile Justice Services Division

- Contract Period: 2000 – current
- Contract Value: \$386,000/year
- Services Provided: Urine and oral fluid screen and confirmation testing, specimen transportation, and testimony services.
- Address: 1501 W. Washington Street, Phoenix, AZ 85007
- Contact: Steve Tyrrell, JJSD Program Manager, Phone 602-452-3451, email STyrrell@courts.az.gov

County of San Diego Health & Human Services Agency

- Contract Period: 2002 – Current
- Contract Value: \$855,000/year
- Services Provided: Urine and oral fluid screen and confirmation testing, specimen transportation, and testimony services.
- Address: 3255 Camino Del Rio South, San Diego, CA 92108
- Contact: John Oldenkamp, Phone (619) 584-5046, Fax (619) 584-5080

As the contact person for the reference provided above, my signature below verifies that the information presented on this form is accurate. I am available for contact by OSCA for additional discussions regarding my company's association with the vendor referenced above:



Signature of Reference Contact Person

7/16/2014

Date of Signature

Exhibit C – Personnel Expertise

The following key personnel will be involved in the delivery of services to the County. Resumes are included with this proposal in Attachment 2.

- Dr. Bert Toivola, Ph.D., Scientific Director
- Rebecca Gibbs, B.S., MT (ASCP), Quality Assurance Officer
- Scott Wightman, M.S., Senior Certifying Scientist

Please refer to Attachment 2 – Resumes.

Personnel Qualifications - If personnel are not yet hired, the vendor should provide detailed descriptions of the required employment qualifications; and detailed job descriptions of the position to be filled, including the type of person proposed to be hired.

Staffing Credentials

At a minimum, our staff must meet the following qualifications:

Scientific Director

- Knowledge of: General lab operations; must be competent in all assigned functions to independently perform the duties and responsibilities of the area. Must be proficient in major functions of the lab.
- Ability to: Quickly and accurately handle incoming test flow processes. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination. Able to handle a high volume environment while maintaining the highest level of quality. Ability to direct the activities of various levels of lab personnel. Ability to present and explain complex analytical information to non-technical audiences.
- Education and Experience: PhD, preferably in analytical chemistry, physical chemistry or biochemistry required plus a minimum of 8 years' progressive scientific experience (experience within a forensic drug testing lab or other environment that specializes in forensic toxicology testing highly preferred); or MD or DO with current medical license in State of Arizona and Board-certified in Anatomic and/or Clinical Pathology; or MD, DO or DPM with current medical license in State of Arizona and 1 year laboratory training during medical residency; or MD, DO or DPM with current medical license in State of Arizona and 2 years' experience directing/supervising high-complexity testing. Experience with various laboratory equipment, including LC/MS/MS required; pipetting skills desirable. Background check and pre-employment drug screen required.

Certifying Scientists

- Knowledge of: General lab operations; must be competent in all assigned functions to independently perform the duties and responsibilities of the area
- Ability to: Quickly and accurately handle incoming test flow processes. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination. Able to handle a high volume environment while maintaining the highest level of quality.
- Education and Experience: Bachelor's degree in Life Science, with demonstrated knowledge/skills sets in Chemistry required. Additional related experience or formal education a plus. Experience with LC/MS/MS required; pipetting skills desirable. Background check and pre-employment drug screen required. Experience as a senior lab tech or analysis strongly preferred.

Senior Analysts

- Knowledge of: General lab operations; must be competent in all assigned functions to independently perform the duties and responsibilities of the area. Must be proficient in two or more major functions of the lab.
- Ability to: Quickly and accurately handle incoming test flow processes. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination. Able to handle a high volume environment while maintaining the highest level of quality.
- Education and Experience: Bachelor's degree in Life Science, with demonstrated knowledge/skills sets in Chemistry required. Additional related experience or formal education a plus. Experience with LC/MS/MS required; pipetting skills desirable. Background check and pre-employment drug screen required. Experience as a senior lab tech or analysis strongly preferred.

Analyst II

- Knowledge of: General lab operations; must be competent in all assigned functions to independently perform the duties and responsibilities of the area. Promotion to this level requires demonstrated and documented skills in two or more major functions.
- Ability to: Quickly and accurately handle incoming test flow processes and. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination. Able to handle a high volume environment while maintaining the highest level of quality.
- Education and Experience: Bachelor's degree in Life Science, with demonstrated knowledge/skills sets in Chemistry required. Additional related experience or formal education a plus. Background check and pre-employment drug screen required. Experience as a senior lab tech preferred.

Analyst I

- Knowledge of: General lab operations; must be competent in all assigned functions to independently perform the duties and responsibilities of the area.
- Ability to: Quickly and accurately handle incoming test flow processes and. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination. Able to handle a high volume environment while maintaining the highest level of quality.
- Education and Experience: Bachelor's degree in Life Science, with demonstrated knowledge/skills sets in Chemistry required. Additional related experience or formal education a plus. Background check and pre-employment drug screen required. Experience as a senior lab tech preferred.

Senior Lab Tech

- Knowledge of: Lab operations within the Specimen Handling area; must be competent in all assigned functions to independently perform the mini/merit, maxi and pulltron and/or aliquot functions. Basic knowledge of chemistry extremely helpful.
- Ability to: Quickly and accurately learn to read COC forms and to order proper tests; rapidly discern client mistakes and assign proper deficiency codes. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination. Able to handle a high volume environment while maintaining the highest level of quality. Ability to assist lesser experienced staff with exceptions. Ability to implement change in a positive manner.
- Education and Experience: High school degree or GED required at a minimum. Additional related experience or formal education a plus. Background check and pre-employment drug screen required. Experience equivalent to a senior lab tech preferred.

Lab Tech II

- Knowledge of: Lab operations within the Specimen Handling area; must be signed off by the Team Lead to independently perform the mini/merit, maxi and pulltron and/or aliquot functions. Basic knowledge of chemistry extremely helpful.
- Ability to: Quickly and accurately learn to read COC forms and to order proper tests; rapidly discern client mistakes and assign proper deficiency codes. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination. Able to handle a high volume environment while maintaining the highest level of quality.
- Education and Experience: High school degree or GED required at a minimum. Additional related experience or formal education a plus. Background check and pre-employment drug screen required.

Lab Tech I

- Knowledge of: Lab operations within the Specimen Handling area; must be signed off by the Team Lead to independently perform the mini/merit and maxi functions.
- Ability to: Quickly and accurately learn to read COC forms and to order proper tests; rapidly discern client mistakes and assign proper deficiency codes. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination.
- Education and Experience: High school degree or GED required at a minimum. Additional related experience or formal education a plus. Background check and pre-employment drug screen required.

Lab Tech Trainee

- Knowledge of: Lab operations a plus but not required
- Ability to: Quickly and accurately learn to read COC forms and to order proper tests; rapidly discern client mistakes and assign proper deficiency codes. Data entry skills via a keyboard (alpha and numeric) required. Strong eye-hand coordination.
- Education and Experience: High school degree or GED required at a minimum. Additional related experience or formal education a plus. Background check and pre-employment drug screen required.

Exhibit D – Description of Proposed Services

1. Describe what is provided with which to collect the each sample (cups, chain of custody forms, mailing packets).

Norchem will provide all collection and shipping supplies. To prevent facilities from running low on supplies, Norchem sends supplies on an automatic standing order basis to most facilities. This provides a consistent flow of supplies based on usage and prevents facilities from having to call for supplies, though Norchem welcomes calls for supplies via our toll free number. Supplies will include:

- Chain of Custody (COC) Forms: Both manual and electronic (SENTRY) COC forms will be provided. They will include pre-printed unique bar codes on the form and specimen security seal.
- Specimen Bags: Self-sealing specimen bags contain separate “pockets” for the specimen vial and Chain of Custody form. The specimen pocket contains an absorbent sheet that will absorb any potential spillage.
- Specimen Vials: Individually packaged heat-sealed vials which include a latch lock for specimen transport and stronger, improved protection against leakage. Norchem will provide both male and female style collection kits.
- Shipping Supplies: Norchem will provide all supplies necessary for next-day delivery to our lab.
- Female Wands: These devices provide for a more user-friendly female urine collection.

The specimen containers utilized for collection of urine are designed to be very resistant to leaks. These new, improved specimen containers are durable with specially designed lids to provide better protection against leakage. Following proper protocols in using these specimen containers will ensure the specimen does not leak and will not become an unusable sample once it reaches the lab. Urine specimen cups are sealed in the manufacturing process, which ensures a clinically clean container, free of any contamination. Specimens are opened by automated instrumentation, which further eliminates human error and ensures a clean and accurate process.

2. Describe the instruction or training provided to treatment court staff pertaining to properly collecting a sample and completing necessary documentation.

During implementation and throughout our partnership upon request of the State, Norchem will coordinate and present an onsite training presentation. Norchem's desire is to be flexible with regard to the State's needs and is able to provide training whenever and wherever it is needed. The training is interactive allowing for question and answer times and incorporates a PowerPoint presentation.

Training sessions cover the important issues of:

- Laboratory accreditation
- Contract panel and testing options
- Chain of Custody (layout and procedure for completing)
- Specimen collection protocol
- Screen and confirmation testing
- Specimen Validity (substitution, dilution and adulteration; how people can attempt to beat a drug test)
- THC creatinine ratio (determines new vs old use of marijuana)
- Drug detection times
- Differences between types of testing, i.e. urine versus EtG.
- Review of common test results and result interpretation
- Common drug testing myths and truths

Samples of chain of custody forms, specimen collection kits, and transportation supplies are utilized in the training. Individual training manuals, drug detection cards, and drug cross reference sheets (showing prescription and over-the-counter medications that can cause a false positive result) are provided to all attendees.

A key component in the training is the instruction on the proper procedure for specimen collection. A quality drug test begins with following all the steps necessary in providing an observed specimen collection and completion of the chain of custody form. In addition, a DVD presentation is available on the Norchem website at www.norchemlab.com, which describes in specific detail the procedure for performing an observed urine collection.

Norchem routinely notes any specimen collection error that occurs on all specimens received at our laboratory. These errors are recorded and reported on the test result, which can then be reviewed by the case worker. Norchem routinely runs collection error reports and contacts the appropriate facility to review the collection issues and go over the proper collection protocol.

In addition, Norchem provides training classes for our SENTRY web based application management system for directors, supervisors, and clerical staff and outside treatment providers. This is a hands-on technical training with practice laptops provided for a full in-depth understanding of how the testing process and SENTRY works.

3. Describe how the sample is transported to the testing laboratory (U S Postal, Fed Ex, UPS, etc.).

Once the collection has occurred and the Test Request & Chain of Custody form is completed, this form along with the specimen are placed in a tamper evident package for transfer to Norchem.

We are able to meet the pick-up and transportation needs of the State and its individual collection locations. We will work with the State to ensure pick-ups occur on the days and times and at the locations required. Depending on the collection volume at each collection location, we typically provide pre-paid, pre-addressed shipping labels for overnight service via FedEx. We have been using FedEx for many years and have received consistently superb, on-time service from them.

All specimen containers will be placed into plastic, double-pouch, sealable bags that include a piece of absorbent material to ensure that the sample stays intact and with the Chain of Custody form during storage, shipping, and processing. The shipping carton(s)/bag(s) used by our labs with couriers and FedEx allow us to ensure that test specimens are transported and arrive at our labs without damage.

4. Describe the methods of testing which are employed (LC/MS/MS, GS/MS, LC/MS, and/or Immunoassay methods).

Initial Screens

Testing for drugs in urine consists of initial screening test employing immunoassay techniques to identify negative samples from presumptive positive specimens, and a secondary confirmatory test to positively identify and provide quantitative results.

Once a specimen is delivered to our lab, it will be processed by Immunoassay screening. Norchem utilizes EMIT (Enzyme-Multiplied Immunoassay Technique), EIA (Enzyme Immunoassay), and CEDIA (Cloned Enzyme Donor Immunoassay) methods on our automated chemistry analyzers. EMIT, EIA, and CEDIA employ different enzymes and different drug-specific antibodies. The labeled enzyme used for EMIT produces NADH, which is detected with ultraviolet light (340 nm). The labeled enzyme used for CEDIA produces CPR, which is detected with yellow light (570 nm). Norchem also utilizes ELISA (Enzyme-Linked Immunosorbent Assay).

Deliberate efforts to mask drug use are not uncommon. For this reason the urine creatinine level of every specimen is measured. In addition, we employ a variety of analytical and subjective tools to determine specimen integrity.

Every specimen received undergoes a basic adulteration check to determine specimen tampering. Unusual color, physical characteristics, and instrument responses are assessed. Any specimen abnormalities or unusual instrument response will be reported on the test result. Each urine specimen is tested for creatinine. The creatinine level provides critical information on specimen dilution and provides a warning against possible false negative drug test results.

Specimen dilution is caused by an individual consuming an inordinate amount of fluid (primarily water) prior to testing in an effort to dilute the concentration of any drug that is present. Specimen dilution is the primary way an individual attempts to beat a drug test. This is why the reporting of a creatinine level on every specimen is so important. A creatinine level less than 20 mg/dL indicates a dilute specimen. If a creatinine value is less than 5 mg/dL we automatically order a Specific Gravity test.

If specimen abnormalities are identified, an extended adulteration panel can be performed. The following is a chart of the substances tested for in the extended adulteration panel:

Test	Normal	Adulterant	Possible Product
Creatinine	>20 mg/dL	Flushing	Golden Seal
PH	4.5 – 8.9	Strong Base or Acid	Oven Cleaner
Specific Gravity	1.0030 – 1.0300	Most Additives	Salt, Sugar
Nitrite	<500 ug/mL	Potassium Nitrite	Klear
Chromate	0	Pyridiniumchlorochromate	Urine Luck

Specimen Criteria:

- Dilute: A specimen with a creatinine level <20 mg/dL will have a comment on the result report “Specimen too dilute to assure valid NEGATIVE result”.
- Invalid/Unable to test: A specimen with a high particulate matter such as excessive blood or mucus.
- Substituted: A specimen with a creatinine level <5 mg/dL AND a specific gravity level between <1.001 or >1.02.
- Adulterated: A specimen which has an abnormal pH, or contains Nitrite, Gluteraldehyde, Oxidizing Substances, and/or Chromate.

Confirmation Tests

The confirmatory test *must use a physical chemical method distinctly different from the screening method* that is more sensitive and specific compared to screening methods. That is, if enzyme immunoassay (EIA) is used as a screening method, tests using other forms of immunoassay, radioimmunoassay (RIA), fluorescent polarization immunoassay (FPIA), enzyme linked immunoabsorbent assays (ELISA), etc., are excluded as acceptable confirmatory methods.

Historically, chromatographic methods such as Thin Layer Chromatography (TLC), Gas Chromatography (GC), and High Performance Liquid Chromatography (HPLC) were used as confirmatory methods, but they have been replaced by newer methods employing chromatographic separation, either GC or Liquid Chromatography (LC), that utilize mass spectrometry (MS) as detection systems.

The dual “mass-spec” of the LC/MS/MS provides for more specific and more sensitive analyses. The “more specific” feature means that it is better at distinguishing the analyte in question from interfering substances such as

adulterants or a similar drug. The “more sensitive” feature means it can measure the drug at much lower concentrations, making LC/MS/MS analyses less susceptible to dilution efforts by the client. LC/MS/MS will detect compounds at one-hundredth the concentration than can be achieved with GC/MS (picograms/mL vs nanograms/mL).

The 2008 Revised Mandatory Guidelines for Federal Workplace Testing Programs (73 FR 71858) allows the use of Liquid Chromatographic/Tandem Mass Spectrometric (LC/MS/MS) methods in addition to GC/MS as acceptable confirmatory methods. Similar guidelines have been published by the Society of Forensic Toxicologist (SOFT) and by the Toxicology Section of the American Academy of Forensic Sciences (AAFS). With these methods, chromatography is used to separate drugs or metabolites of drugs of interest, and mass spectrometry is used as the detection system. Mass spectrometry identifies drugs by their “chemical fingerprint”, greatly enhancing the specificity. Quantitative results in the ng/mL concentration range is readily achievable using GC/MS or LC/MS/MS methods.

In sum LC/MS/MS should be the preferred confirmatory test method for the State, due to its improved:

- **Specificity:** ability to discern and isolate a specific drug from possible interfering substances;
- **Sensitivity:** ability to detect drugs at very low levels, even with interfering adulterants and substances present; and
- **Linearity:** ability to directly analyze drug concentrations over a wider range, especially at very high concentrations, allowing for faster turn-around-time in reporting to clients.

Our LC/MS/MS methodologies meet or exceed Kelly-Frye standards for test results entered into evidence. A select group of nationally recognized toxicology laboratories have embraced and successfully implemented LC/MS/MS analyses for forensic, general and clinical toxicology, as well as the highly specialized and demanding analyses of drugs in alternative matrices like hair, saliva, and sweat (alternative matrices require greater sensitivity than GC/MS can provide).

All testing is performed according to CAP-FDT (College of American Pathologists-Forensic Drug Testing) and CLIA (Clinical Laboratory Improvement Act) guidelines, all confirmed test results are approved by certifying scientists, and results are legally defensible in a court of law.

5. Provide the testing cutoff levels which are available (100ng/mL, 250ng/mL, 500ng/mL, 1000 ng/mL). What cutoff level is recommended to safe guard against incidental false positive?
_____ ng/mL

Norchem applies cutoff levels that are within industry standards, as accepted by CAP-FDT. The table below lists our screen and confirmation cut-off level recommendations. We will work with the State to determine the feasibility of employing alternate cutoff levels if you desire levels that are different from these industry standards.

Description	Screen Cut Off	Method of Analysis	Confirmation Cut Off	Method of Analysis
Amphetamines/Methamphetamine	1000 ng/mL	EMIT	500 ng/mL	LC/MSMS
Methamphetamine (D/L)	N/A	N/A	20%	Send out GC/MS
MDMA	500 ng/mL	EIA	500 ng/mL	LC/MSMS
Barbiturates	300 ng/mL	EMIT	300 ng/mL	LC/MSMS
Opiates	300 ng/mL	EMIT	300 ng/mL	LC/MSMS
Opiates	2000 ng/mL	EMIT	2000 ng/mL	LC/MSMS
Oxycodone	300 ng/mL	EIA	300 ng/mL	LC/MSMS
6AM	10 ng/mL	EMIT	10 ng/mL	LC/MSMS
Cannabinoids	50 ng/mL	EMIT	15 ng/mL	LC/MSMS
Cocaine	300 ng/mL	EMIT	150 ng/mL	LC/MSMS
Benzodiazepines	300 ng/mL	EMIT	300 ng/mL	LC/MSMS
Methodone	300 ng/mL	EMIT	300 ng/mL	LC/MSMS
Propoxyphene	300 ng/mL	EMIT	300 ng/mL	Send out GC/MS
Phencyclidine	25 ng/mL	EMIT	25 ng/mL	LC/MSMS
LSD	0.5 ng/mL	ELISA	0.1 ng/mL	Send out LC/MSMS
Methaqualone	300 ng/mL	EIA	300 ng/mL	Send out LC/MSMS
Ketamine	100 ng/mL	ELISA	100 ng/mL	Send out LC/MSMS
Meperidine	200 ng/mL	EIA	100 ng/mL	LC/MSMS
Tramadol	200 ng/mL	EIA	100 ng/mL	LC/MSMS
Buprenorphine	5 ng/mL	EIA	5 ng/mL	LC/MSMS
Zolpidem	20 ng/mL	EIA	10 ng/mL	LC/MSMS
Fentanyl	2 ng/mL	EIA	1 ng/mL	LC/MSMS
Carisoprodol	100 ng/mL	EIA	100 ng/mL	LC/MSMS
Ethyl Glucuronide	500 ng/mL	EIA	500 ng/mL	LC/MSMS
Ethyl Sulfate	N/A	N/A	100 ng/mL	LC/MSMS
Rohypnol	300 ng/mL	EMIT	200 ng/mL	Send out LC/MSMS
Cotinine	500 ng/ml	EIA	200 ng/mL	Send out GC/MS
Ethanol	0.02%	EA	0.02%	GCFID
Chromate	Normal/Abnormal	EA	N/A	N/A
Nitrite	50 µg/ml	EA	N/A	N/A
Specific Gravity	Normal/Abnormal	Refractometer	N/A	N/A
pH	Normal/Abnormal	pH Meter	N/A	N/A
Creatinine	20 mg/dl	EA	N/A	N/A
Glucose	Normal/Abnormal	EA	N/A	N/A
Spice JWH (all types)	Present/Not Present	LC/MSMS	Presence confirmed	LC/MSMS
MDPV (Methylenedioxypropylvalerone)	Present/Not Present	LC/MSMS	Presence confirmed	LC/MSMS
Cathinone	Present/Not Present	LC/MSMS	Presence confirmed	LC/MSMS
Methcathinone	Present/Not Present	LC/MSMS	Presence confirmed	LC/MSMS
Mephedrone	Present/Not Present	LC/MSMS	Presence confirmed	LC/MSMS

6. Describe the turnaround time for results.

Norchem has yielded national acclaim for our ability to provide quick, 24-48 hour turnaround time results to drug courts, departments of corrections, social services agencies, probation and parole agencies, and treatment centers. We pride ourselves on providing quality test results within the quickest turn-around times in the industry. No matter if the test is for a common substance or a designer substance, we prioritize our customers' needs to return results within the fastest time possible.

Test results for common substances are provided within forty-eight (48) hours after receipt of specimens to the laboratory. Negative screen results are reported the same day of receipt to the laboratory. Norchem consistently delivers over 40% of confirmed positive results on common substances the same day as receipt of specimen, with the balance reported the following day. Results are noted individually as positive or negative.

All common substances submitted for testing that require a confirmation by LC/MS/MS will be processed within (2) days of the request for confirmation. In most cases, specimens will be processed within 24 hours of the request and then immediately reported. Designer substances submitted for testing that require a confirmation by LC/MS/MS will be processed within five (5) days of the confirmation request.

7. Describe how test results will be reported (telephone, fax, or e-mail).

Norchem understands the needs of public sector agencies and has extensive experience serving them. We know that officers, case managers, and administrators need information in a timely fashion to take appropriate actions regarding public safety. We also know that they need access to information that helps them clearly focus on what is most important, helps clients succeed, and measures outcomes. Armed with this understanding, Norchem developed SENTRY, an online substance abuse management program that allows its users to receive instant, real-time results, retrieve reports for violation hearings, and compliance scores for decision making in regards to supervision and evidence based practices for treatment and risk/needs.

SENTRY was developed specifically for, and is currently used by several drug courts, probation departments, and other criminal justice agency clients to assist in improving outcomes and saving costs. SENTRY supports client success indicators and evidence based practices by providing a level of accountability for offenders, real-time alerts for swift sanctions and rewards, comprehensive information sharing for targeted interventions and assessment of risks/needs, and instant online reports for outcome based decision-making.

SENTRY offers abundant reporting features readily available to all level of users. SENTRY is integrated with Norchem's Laboratory Information System (LIS) to report drug test results in real-time to State users. With SENTRY, officers, case managers, and administrators do not have to wait until the end of the day to receive drug test results on clients. SENTRY will enable the State to leverage

evidence-based practices to enhance its ability to protect communities, reduce crime, assist victims through offender accountability, and promote thriving families with a solution that will revolutionize its drug testing and sobriety monitoring programs.

SENTRY provides organizational level reporting in multiple formats to include:

- Result reporting 24/7
- Random selection reports
 - Who is testing
 - How many males
 - How many females
 - Who missed tests
 - Who missed call-in requirements
- Full history of laboratory testing
- Highlighted abnormal and issue test results
- Download complete results in multiple formats: XML, PDF, XLSX

Norchem and SENTRY provide robust reporting capabilities from the Administration level, to the Agency user level, to the Client level.

- Administrative level
 - Statistical, correlation, and trend reports for decision making for program evaluation and budgetary decisions.
- Agency User level
 - Caseload reports on entire caseloads or group reporting at the group level
- Client level
 - Detailed client reports for monitoring sobriety and compliance and court/hearing appearances:
 - Complete client compliance reports to include compliance scores
 - Audit logs showing all activity on the client's case
 - UA test reports
 - Client accountability

NORCHEM SENTRY Quick Search Home | Settings | Log Standard Training Acc Chris Zel

Recent Activity | Your Client Groups | **Reporting** | Office Setup | Admin: Workers

Select Report: Recent Results

Display last: 5 results. Filter: All Results
 Display last: 1 days. Format: In Browser
 Date Range: Start: 2014-04-12 End: 2014-04-13 Clients to Include: My Clients
 Selection Date Type: Result Date Granted Clients

Display Report

Result Post Time	Accession	COC	Result	Name	Client ID #
04/07/2014 8:27am MDT	VL0008893	AE4070100	Issue / Abnormal	Abdullah, Amir	CC365BAA90
03/20/2014 8:59am MDT	VL0008707	AE3200178	Issue / Abnormal	Abdullah, Amir	CC365BAA90
03/07/2014 7:10am MST	VL0008555	AE3070046	Issue / Abnormal	Abdullah, Amir	CC365BAA90
02/19/2014 7:29am MST	VL0008372	AE2180048	Issue / Abnormal	Abdullah, Amir	CC365BAA90
02/07/2014 5:49am MST	VL0008278	AE2070007	Issue / Abnormal	Abdullah, Amir	CC365BAA90

Cases in group: Demo Group 1 Edit Group Add New Case Grant access to...

Case	Case #	Abnormal	Total	1mo	3mo	6mo	Next Test	Last Test Taken	Last Test Result
Bleeker, Davon	447742	4	49	2	2	2	-	05/18/2009	Normal
Buechler, Stevie	562899	1	37	100	100	100	-	05/17/2009	Normal
Bultram, Gorge	413401	1	41	100	100	100	-	05/14/2009	Normal
Herrera, Lacy	970355	3	49	100	100	100	-	05/18/2009	Normal
Kempki, Garry	740364	3	57	100	100	100	-	05/18/2009	Abnormal
Lacter, Juana	277662	2	25	100	100	100	-	05/14/2009	Normal
Ponce, Tomora	818623	1	60	100	100	100	-	05/17/2009	Normal
Renzulli, Luther	759353	4	46	100	100	100	-	05/18/2009	Normal
Saenz, Laron	266297	2	59	100	100	100	-	05/17/2009	Abnormal
Ward, Yvette	176490	1	59	100	100	100	-	05/18/2009	Normal

Abnormal	Total	1mo	3mo	6mo	Next Test	Last Test Taken	Last Test Result
4	49	2	2	2	-	05/18/2009	Normal
1	37	100	100	100	-	05/17/2009	Normal

Sentry Print Close

1518 demo Demo Office 1 CAP-FDT #6913001 Norchem Drug Testing
 1760 E Rt 66 CLIA #03D0936918 P.O Box 70,000
 Flagstaff, AZ 86004 Flagstaff, AZ 86003
 (928) 526-1011 800-348-4422

CAP-FDT REPORT

NAME: Kempki, Garry COLLECTION DATE: 05-18-2009 17:00:00 PDT
 ACCESSION: DE4412205 ORDER DATE: 05-18-2009 17:00:00 MST
 COC #: A9518000f COMPLETION DATE: 05-20-2009 00:01:00 MST
 DOB/SEX: 02-01-1960 / M
 REQUESTED BY: Mansell, Natha (20)
 SSN: 175-93-1837
 CASE #: 740364

TESTS PERFORMED UNDER CAP-FDT CERTIFICATION
 SPECIMEN RECEIVED SEALED AND INTACT UNLESS OTHERWISE NOTED

Client Notes:
None

Profile/Test (Cutoff)	Results
Screening Tests by IA Opiates (300 ng/ml)	SEE BELOW



CAP-KUDT #6914001		NORCHEM DRUG TESTING	
CLIA #03D0936918		1760 E. ROUTE 66 STE 1	
		P.O BOX 70000	
		FLAGSTAFF, AZ 86003	
		(800) 348-4422	
NON-CAP FUDT REPORT			
NAME:		COLLECTION DATE:	
ACCESSION:		ORDER DATE:	
COC #:		COMPLETION DATE:	
DOB/SEX:			
REQUESTED BY:			
SSN:			
CASE #: 12111088			
SPECIMEN RECEIVED SEALED AND INTACT UNLESS OTHERWISE NOTED GCMS OR LCMSMS CONFIRMATION OF A POSITIVE SCREEN IS RECOMMENDED IF LEGAL ACTION IS ANTICIPATED			
Client Notes:			
METH/AMP LCMSMS PER			
PROFILE/TEST CUTOFF		RESULTS	FOOTNOTES
Screening Tests by IA			
URINE: Alcohol (0.02%)		negative	
URINE: Meth/Amphetamines (1000 ng/ml)		**POSITIVE	
URINE: Cocaine (300 ng/ml)		negative	
URINE: Opiate (300 ng/ml)		negative	
URINE: THC (50 ng/ml)		negative	
Verification Tests			
URINE: Meth/Amphetamine Repeat Analysis		**POSITIVE	1
Confirmation Tests			
Meth/Amphetamine by LC/MS/MS (500 ng/ml)			
URINE: Amphetamine		**POSITIVE	
URINE: Amphetamine LEVEL		>8000	2
URINE: Methamphetamine		negative	
URINE: Methamphetamine LEVEL		NOT Detected	
Specimen Validity Tests			
Specimen Validity Panel (20 mg/dl)			
URINE: Creatinine LEVEL		225.8	
Specimen Validity Panel (0)			
URINE: Basic Adulteration Check		normal	3
Footnotes:			
1. Initial screen verified by repeat analysis.			
2. Result consistent with drug listed on form.			
3. Specimen checked for unusual color, physical characteristics and abnormal instrument response.			
Report Released By: CJR - B.S., Certifying Scientist			
*** Specimen placed in frozen storage for 12 months.			
SC.DIR. B. TOIVOLA, PhD		Page 1 of 1	FINAL

STATISTICAL REPORT EXAMPLE						
Norchem Drug Testing						
Account Number and Name						
Period Date Range: 2013-03-01 - 2013-03-31						
YTD Date Range: 2013-01-01 - 2013-03-31						
Item	Period	YTD	Description			
Total Specimens Tested	28	79	Number of specimens sent to the lab for tests.			
Positive Specimens	17	32	Of specimens sent, number that had any positive tests reported.			
% Positive Specimens	61	41	Of specimens sent, percentage that had any positive tests reported.			
Diluted Specimens	2	3	Of specimens sent, number that had creat below 20.			
% Diluted Specimens	7	4	Of specimens sent, percentage that had creat below 20.			
Total Donors	25	53	Number of unique donors that provided specimen.			
Positive Donors	16	24	Of unique donors, number that had a positive test reported.			
% Positive Donors	64	45	Of unique donors, percentage that had a positive test reported.			
Month to Date Summary						
Drug	Tests	Positive	% Positive	Donors	Positive	% Positive
Alcohol	28	1	4	25	1	4
Amphetamine	26	2	7	25	2	8
Barbiturates	13	0	0	11	0	0
Cocaine	28	0	0	25	0	0
Opiates	24	1	4	21	1	5
PCP	13	0	0	11	0	0
Spice	1	0	0	1	0	0
THC	28	15	54	25	14	56
2 Drug Positive(s)						
Alcohol/THC		1				
Amphetamine/THC		1				

8. Organizational Chart

Please refer to Exhibit E – Organizational Chart on the following pages.

9. Along with a detailed organizational chart, the vendor should describe the following:

- How services of the contract will be managed, controlled, and supervised in order to ensure satisfactory contract performance.

The State will be assigned a designated Account Manager with extensive background in Business Management, Client Services, and science, who will serve as the State's single point of contact, to quickly respond to the needs of the State.

Norchem employs a Quality Management and Improvement program that continually monitors and improves operational processes. Pre-analytical quality management includes collection, supply, and delivery tracking. Analytical quality management includes the ability to detect significant clerical and analytical errors before reporting results. Much of the program focuses on analytical quality. Post-analytical quality management includes faxing and turn-around-time tracking. If a problem is identified through any of the monitoring processes, there is a tiered approach to solving it, including tech-specific remediation, process changes/improvement (PDCA or Plan-Do-Check-Assess) and root-cause analysis for serious incidents.

The on-going program is divided into three component parts:

- Training;
- Compliance; and
- Monitoring.

Training checklists and initial proficiency establish the baseline performance for each technical skill. Compliance metrics are tech and skill specific and are used to assess continued competence and process stability. Monitoring is the quality overview system where PCDA or root cause analyses are deployed to identify and solve systemic, rather than individual tech, problems.

- Total Personnel Resources - The vendor should provide information that documents the depth of resources to ensure completion of all requirements on time and on target. If the vendor has other ongoing contracts that also require personnel resources, the vendor should document how sufficient resources will be provided to the STATE OF MISSOURI.

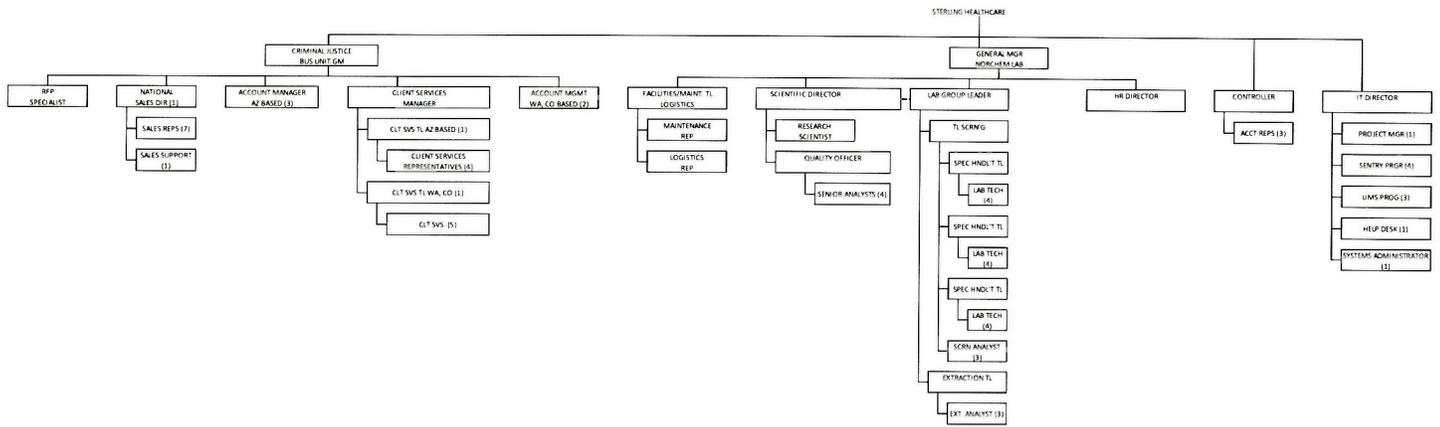
We have over 70 employees, and our laboratory currently averages 7,400 processed samples per day. We are staffed and equipped to support over 10,000 samples per day. We also maintain an active prospective candidate database so we can respond immediately to any increase in staffing demands.

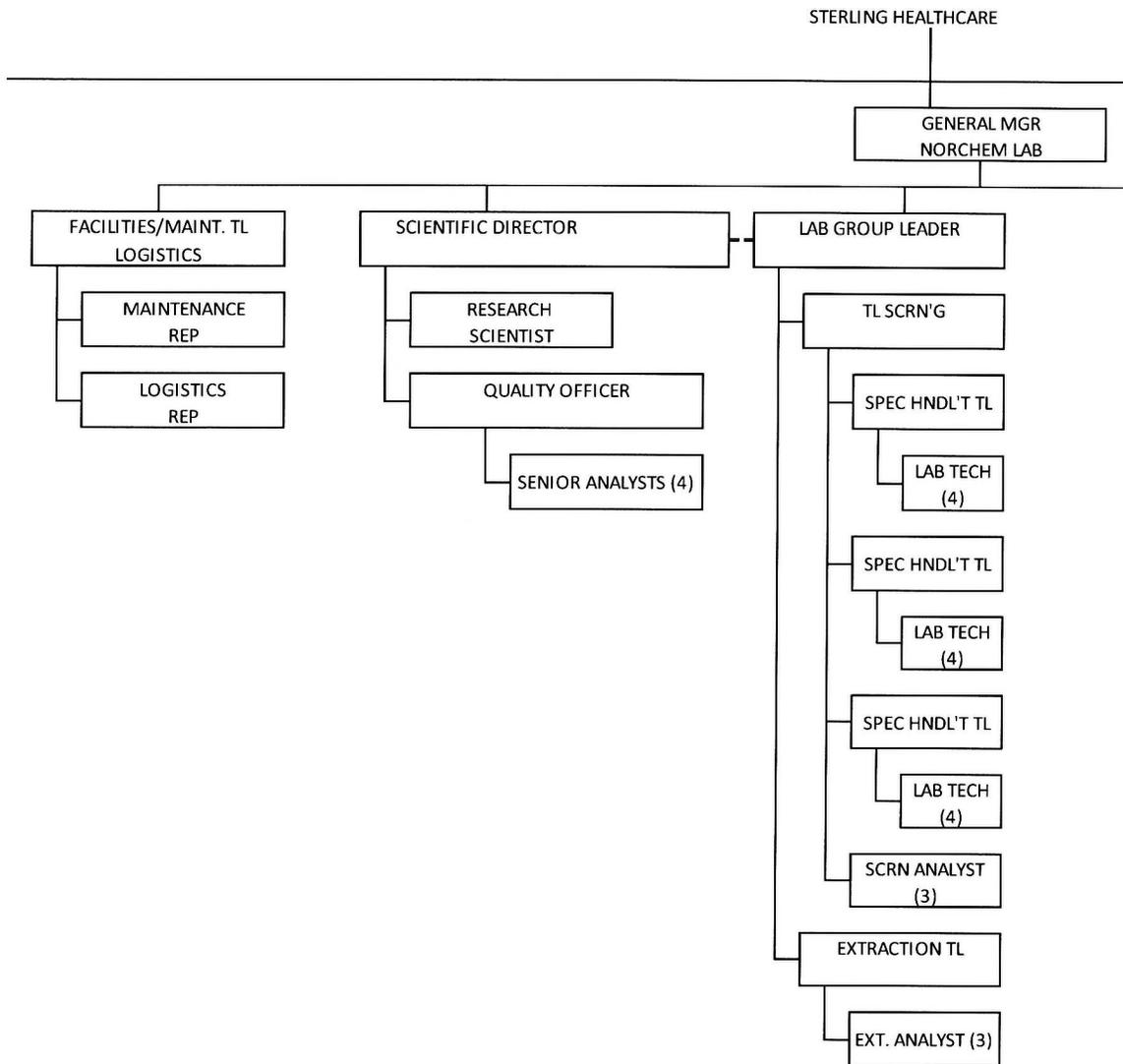


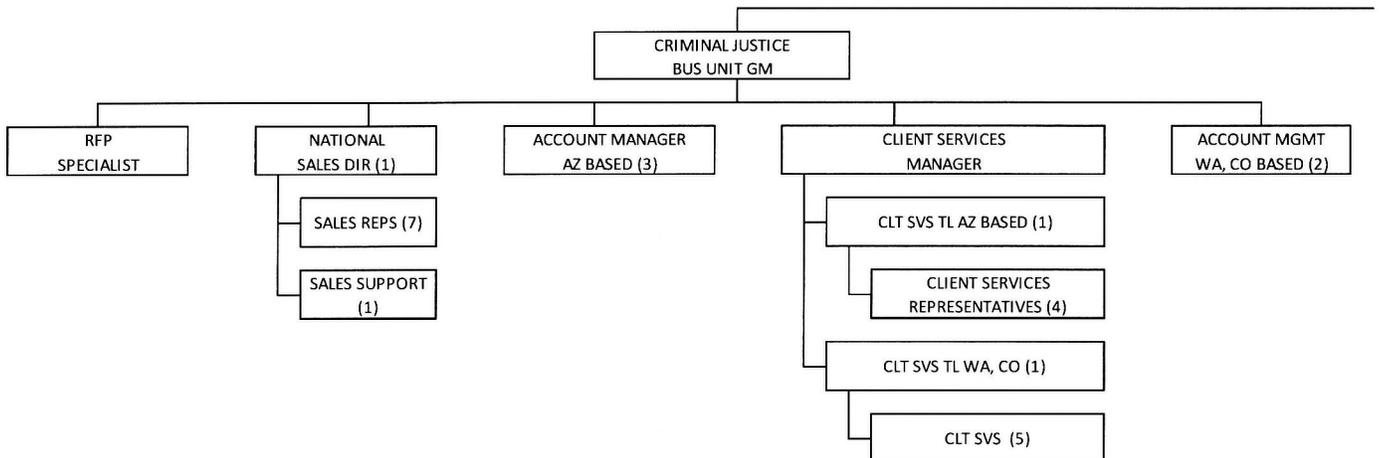
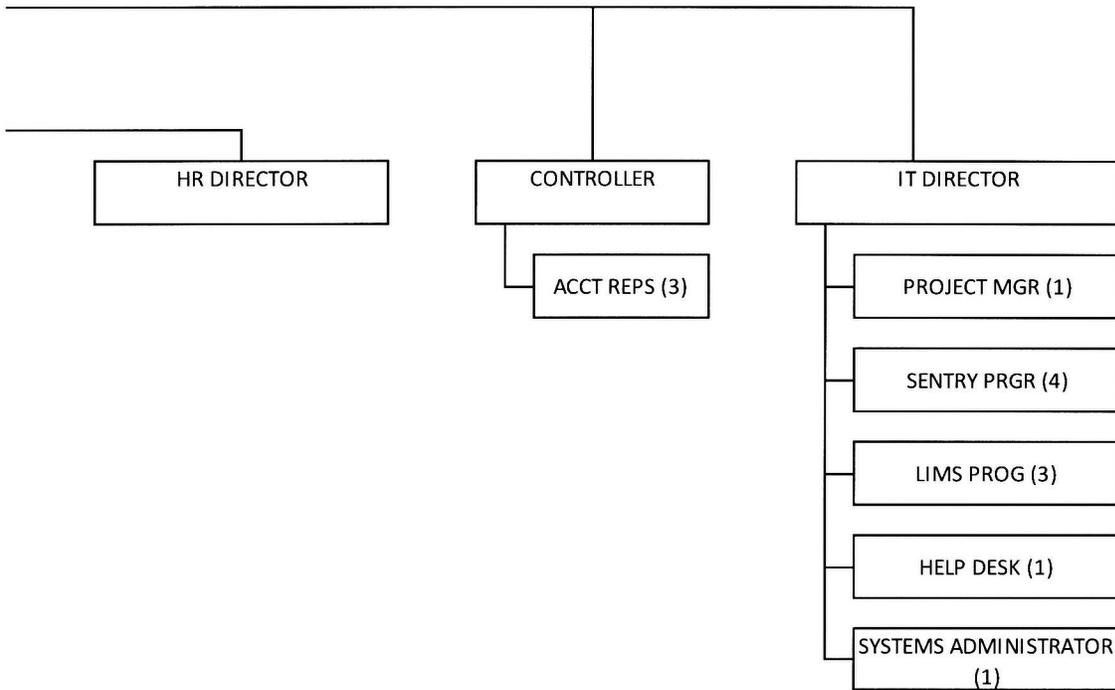
10. Outside United States - If any products and/or services offered under this RFP are being manufactured or performed at sites outside the United States, the vendor **MUST** disclose such fact and provide details in the space below or on an attached page.

No products or services are manufactured or performed at sites outside the United States.

Exhibit E – Organizational Chart







PRICING

Pricing for Laboratory Drug Testing

Description	Cost
5 Drug Panel Screen Only	\$7.75
6 Drug Panel Screen Only	\$7.90
7 Drug Panel Screen Only	\$8.05
8 Drug Panel Screen Only	\$8.20
10 Drug Panel Screen Only	\$8.50
Drug Confirmation Test (per drug)	\$15.00
Alcohol (EtG) Screen with Auto Confirmation of Positives (Positivity rate cannot exceed 20%)	\$10.00
Synthetic Marijuana (K2/Spice) Screen Only	\$15.00
Synthetic Marijuana (K2/Spice) Confirmation	\$20.00
Bath Salts Screen Only	\$15.00
Bath Salts Confirmation	\$20.00
<i>Additional Single Drug Screen Only Options:</i>	\$8.00 per drug selected
• Ecstasy	
• 6-AM (Heroin metabolite)	
• Buprenorphine	
• Soma	
• Tramadol	

Pricing for Field Test Kits

Description	Cost
6 Panel Onsite Screening Cup (AMP500 COC150 OPI OXY PCP THC)	\$4.20
7 Panel Onsite Screening Cup (AMP500 COC150 MDMA MET500 OPI PCP THC)	\$4.60
5 Panel Onsite Screening Dip (AMP500 COC150 OPI PCP THC)	\$2.65
6 Panel Onsite Screening Dip (AMP500 COC150 MDMA OPI PCP THC)	\$3.05
7 Panel Onsite Screening Dip (AMP500 COC150 MDMA MET500 OPI CPC THC)	\$3.50
7 Panel Onsite Screening Dip (AMP500 BZO COC150 MET500 OPI OXY THC)	\$3.50
11 Panel Onsite Screening Dip (AMP500 BAR BZO COC150 MDMA MET500 MTD OPI PCP PPX THC)	\$5.30
Spice (K2) Onsite Screening Dip	\$3.00

Pricing for Expert Testimony

Description	Cost
Telephonic or Video Conference	\$0.00
In-Person	\$150/hour (\$500/day maximum), travel expenses billed at cost
Litigation Packet	\$40 each

Key Assumptions for Pricing Above

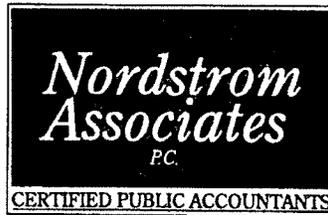
- The fees presented are based on Norchem’s understanding of the OSCA’s requirements and certain assumptions regarding the volume of specimens, shipping frequency, etc. Actual fees for individual agencies may be different.
- Fees include shipping but assume a minimum of 8 specimens per shipping container. A shipping surcharge may apply for shipments containing fewer than eight (8) specimens.
- Any of the following drugs can be selected for the 5 – 10 drug panels:
 - Alcohol (Ethanol test)
 - Amphetamine/Methamphetamine
 - Barbiturates
 - Benzodiazepines
 - Cocaine
 - THC
 - Opiates
 - Oxycodone
 - Methadone
 - PCP
 - Propoxyphene
- Fees include all collection supplies and shipping materials.
- Fees assume each agency/department will be responsible for conducting the collection of specimens.
- Norchem can provide these services in any Missouri county.
- Pricing for Electronic Alcohol Monitoring not provided as Norchem does not provide this product/service.
- Pricing related to onsite testing devices (cups and dips) does not include shipping. Shipping costs will added at the time of shipment. Additionally, shipping of product could take up to 4 weeks from order to delivery.
- Additional options are available for onsite devices, depending on the needs and cutoff requirements of the individual agencies.

TECHNICAL RESOURCE MANAGEMENT, INC.

FINANCIAL STATEMENTS

SEPTEMBER 30, 2012 AND 2011

Bruce J. Nordstrom, CPA
Godfrey C. Loper, Jr., CPA
Marjorie T. McClanahan, CPA
Timothy D. Hansen, CPA



MEMBER
American Institute of
Certified Public Accountants

Arizona Society of Certified
Public Accountants

Independent Accountant's Review Report

Board of Directors
Technical Resource Management, Inc.
Flagstaff, Arizona

We have reviewed the accompanying balance sheets of Technical Resource Management, Inc. (a corporation) as of September 30, 2012 and 2011, and the related statements of income, stockholders' equity, and cash flows for the years then ended. A review includes primarily applying analytical procedures applied to management's financial data and making inquiries of Company management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly we do not express such an opinion.

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America and for designing, implementing, and maintaining internal control relevant to the preparation and fair presentation of the financial statements.

Our responsibility is to conduct the review in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. Those standards require us to perform procedures to obtain limited assurance that there are no material modifications that should be made to the financial statements. We believe that the results of our procedures provide a reasonable basis for our report.

Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in conformity with generally accepted accounting principles.

Nordstrom & Associates, P.C.

January 4, 2013

TECHNICAL RESOURCE MANAGEMENT, INC.
BALANCE SHEETS
SEPTEMBER 30, 2012 AND 2011

ASSETS

	2012	2011
CURRENT ASSETS		
Cash	\$ 313,543	\$ 118,081
Accounts receivable - net of allowance for doubtful accounts (Note 2)	1,424,030	1,085,589
Laboratory supplies (Note 2)	90,623	79,161
Prepaid expenses	83,264	84,885
Deferred tax asset (Note 6)	4,665	11,052
Total Current Assets	1,916,125	1,378,768
FURNITURE AND EQUIPMENT- net (Notes 2 & 3)	1,390,850	1,115,594
OTHER ASSETS	32,679	14,219
Total assets	\$ 3,339,654	\$ 2,508,581

LIABILITIES & STOCKHOLDERS' EQUITY

CURRENT LIABILITIES		
Accounts payable	\$ 380,978	\$ 353,170
Accrued liabilities	114,422	130,404
Accrued employee related expenses	282,547	189,728
Deferred revenue	10,355	15,943
Line of credit (Note 5)	-	145,000
Loan payable to shareholders	50,000	50,000
Current portion of long-term debt (Note 4)	286,887	214,361
Total current liabilities	1,125,189	1,098,606
LONG-TERM DEBT, less current portion (Note 4)	510,261	405,495
OTHER LIABILITIES		
Deferred rent	13,721	28,409
Deferred tax liability (Note 6)	382,836	178,201
Total other liabilities	396,557	206,610
Total liabilities	2,032,007	1,710,711
STOCKHOLDERS' EQUITY		
Common stock, \$0.10 par, 10,000,000 shares authorized, 2,976,718 shares issued and outstanding at September 30, 2011.	-	297,672
Common stock, Series A, Voting, \$0.10 par, 8,000,000 shares authorized, 2,525,298 shares issued and outstanding at September 30, 2012.	252,530	-
Common stock, Series B, Non voting, \$0.10 par, 2,000,000 shares authorized, 410,920 shares issued and outstanding at September 30, 2012.	41,092	-
Additional paid-in capital	435,787	445,767
Retained earnings	578,238	54,431
	1,307,647	797,870
Total liabilities and stockholders' equity	\$ 3,339,654	\$ 2,508,581

TECHNICAL RESOURCE MANAGEMENT, INC.
STATEMENTS OF INCOME
FOR THE YEARS ENDED SEPTEMBER 30, 2012 AND 2011

	<u>2012</u>	<u>2011</u>
REVENUES		
Gross revenues	\$ 9,338,164	\$ 7,974,231
Less adjustment & credits	(26,881)	(29,016)
	<u>9,311,283</u>	<u>7,945,215</u>
COST OF SERVICES		
Materials	1,901,211	1,790,578
Direct labor	1,486,304	1,522,721
Shipping and transportation	1,113,293	976,259
Remote collection sites	359,348	352,770
Reference labs and MRO	86,413	81,883
Machine costs	404,647	405,353
Depreciation expense	451,734	392,969
Other cost of services expenses	98,286	116,139
	<u>5,901,236</u>	<u>5,638,672</u>
GROSS PROFIT	<u>3,410,047</u>	<u>2,306,543</u>
OPERATING EXPENSES		
General and administrative expenses	1,841,698	1,661,988
Selling expenses	461,256	482,765
Research and development expenses	187,533	191,930
Depreciation expense	80,148	79,906
	<u>2,570,635</u>	<u>2,416,589</u>
INCOME FROM OPERATIONS	839,412	(110,046)
OTHER INCOME (EXPENSE)		
Interest expense	(56,521)	(65,315)
Gain (loss) on sale of assets	14,056	2,178
Other income (expenses)	9,349	22,550
	<u> </u>	<u> </u>
INCOME BEFORE INCOME TAXES	806,296	(150,633)
INCOME TAX BENEFIT (EXPENSE)	<u>(282,489)</u>	<u>34,218</u>
NET INCOME	<u>\$ 523,807</u>	<u>\$ (116,415)</u>

TECHNICAL RESOURCE MANAGEMENT, INC.
STATEMENTS OF STOCKHOLDERS' EQUITY
FOR THE YEARS ENDED SEPTEMBER 30, 2012 AND 2011

	Common Stock Series A, Voting		Common Stock Series B, Non Voting		Common Stock		Additional Paid-In Capital	Retained Earnings	Total
	Shares	Amount	Shares	Amount	Shares	Amount			
Balance, September 30, 2010	-	\$ -	-	\$ -	2,977,593	\$ 297,759	\$ 445,945	\$ 170,846	\$ 914,550
Stock bonuses	-	-	-	-	117,125	11,713	23,848	-	35,561
Acquisition of treasury stock with immediate retirement (Note 8)	-	-	-	-	(118,000)	(11,800)	(24,026)	-	(35,826)
Net income								(116,415)	(116,415)
Balance, September 30, 2011	-	\$ -	-	\$ -	2,976,718	\$ 297,672	\$ 445,767	\$ 54,431	\$ 797,870
Reclassification of stock rights	2,525,298	252,530	451,420	45,142	(2,976,718)	(297,672)	-	-	-
Stock bonuses	-	-	41,000	4,100	-	-	6,482	-	10,582
Acquisition of treasury stock with immediate retirement (Note 8)	-	-	(81,500)	(8,150)	-	-	(16,462)	-	(24,612)
Net income								523,807	523,807
Balance, September 30, 2012	<u>2,525,298</u>	<u>\$ 252,530</u>	<u>410,920</u>	<u>\$ 41,092</u>	<u>-</u>	<u>\$ -</u>	<u>\$ 435,787</u>	<u>\$ 578,238</u>	<u>\$ 1,307,647</u>

See accompanying notes and accountants' report.

TECHNICAL RESOURCE MANAGEMENT, INC.
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED SEPTEMBER 30, 2012 AND 2011

	<u>2012</u>	<u>2011</u>
CASH FLOWS FROM OPERATING ACTIVITIES		
Net Income	\$ 523,807	\$ (116,415)
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation	531,882	472,875
(Gain)/Loss on disposal of assets	(14,056)	(2,178)
Stock-based compensation	10,582	35,561
Deferred income taxes	211,022	(45,930)
(Increase) decrease in:		
Accounts receivable, net	(338,442)	6,395
Laboratory supplies	(11,462)	22,462
Prepaid expenses	1,621	22,836
Other assets	(18,460)	(759)
Increase (decrease) in:		
Accounts payable	27,808	(5,138)
Accrued liabilities	76,837	47,932
Deferred revenue	(5,588)	(5,911)
Deferred rent	(14,688)	(10,896)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>980,863</u>	<u>420,834</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of furniture and equipment	(379,745)	(173,015)
Proceeds from sale of equipment	4,492	17,050
NET CASH USED IN INVESTING ACTIVITIES	<u>(375,253)</u>	<u>(155,965)</u>
CASH FLOWS FROM FINANCING ACTIVITIES		
Principal payments on long-term debt	(240,537)	(334,074)
Draws on line of credit	130,000	145,000
Payments on line of credit	(275,000)	-
Acquisition of treasury stock	(24,612)	(35,826)
NET CASH USED IN FINANCING ACTIVITIES	<u>(410,149)</u>	<u>(224,900)</u>
NET INCREASE IN CASH	195,461	39,969
CASH AT BEGINNING OF YEAR	<u>118,081</u>	<u>78,112</u>
CASH AT END OF YEAR	<u>\$ 313,542</u>	<u>\$ 118,081</u>
 SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:		
Interest paid	\$ <u>56,521</u>	\$ <u>65,315</u>
Income taxes paid	\$ <u>30,336</u>	\$ <u>11,807</u>
 SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Equipment purchased under long-term debt	\$ <u>417,829</u>	\$ <u>137,241</u>
Issuance of stock for employee compensation	\$ <u>10,582</u>	\$ <u>35,561</u>

**TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011**

(1) Organization

Technical Resource Management, Inc. (the "Company") was formed in Arizona in 1995. The Company is engaged in providing forensic drug testing services under the name of Norchem. The Company operates in many states. For years ended September 30, 2012 and 2011, approximately 81% and 85%, respectively, of gross revenues were generated in California, Colorado, Texas, and Arizona.

(2) Significant Accounting Policies:

a. Cash and Cash equivalents

For the purposes of the statement of cash flows, the Company considers all highly liquid debt instruments purchased with maturities of three months or less to be cash equivalents. The carrying amounts reported in the balance sheets for cash and cash equivalents approximate those assets' fair values.

b. Accounts receivable

The Company extends unsecured credit to its customers in the ordinary course of business, but mitigates the associated credit risk by performing credit checks and actively pursuing past due accounts. An allowance for doubtful accounts of \$27,454 and \$36,792 has been established for the years ended September 30, 2012 and 2011, respectively. The Company estimates the allowance based on its historical experience of the relationship between actual bad debts and net credit sales. Account receivables are considered past due once the balances are outstanding for more than 30 days. Account receivables are written off once all internal collection attempts have been exhausted.

c. Laboratory supplies

Laboratory supplies are stated at the lower of cost or market. Cost is determined using the first in first out method.

d. Property and equipment

Property and equipment are stated at historical cost. Repairs and maintenance are charged to operations in the year incurred and major additions to property and equipment are capitalized. When assets are sold or retired, the cost and related accumulated depreciation are removed from the appropriate accounts, and the resulting gain or loss is included in operations.

Depreciation is computed using the straight-line and accelerated methods based upon estimated useful lives of the assets. Estimated useful lives are as follows:

	<u>YEARS</u>
Vehicles	5
Furniture	5-10
Laboratory equipment	5-10
Office equipment	5
Computer software	3-10
Leasehold improvements	39 or life of lease, whichever is less

TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011

(2) Significant Accounting Policies, Continued

e. Revenue Recognition

Revenues from drug testing services are recognized as earned at such time as the Company has completed services. The Company's services are considered to be complete when it has performed the applicable laboratory testing services and the results have been sent to the Company's customers or posted to the Company's secure website.

f. Stock Based Compensation

The Company uses the fair value based method of accounting prescribed by Statement of Financial Accounting Standards No. 123 (R), *Share-Based Payment* (FASB ASC 718), for its employee stock bonus program. Under Statement No. 123 (R) (FASB ASC 718), compensation expense related to the stock bonus program is determined based on the estimated fair value of the stock. The Company determines the fair value of the stock by completing an independent stock appraisal every year. For the years ended September 30, 2012 and 2011, the Company recognized \$10,582 and \$35,561, respectively, in compensation expense related to the stock bonuses.

g. Income taxes

The Company is taxed as a C Corporation. Accordingly, income taxes are provided for the tax effects of transactions reported in the financial statements and consist of taxes currently due plus deferred taxes. Deferred taxes are recognized for differences between the basis of assets and liabilities for financial statement and income tax purposes. The differences primarily relate to net operating losses, depreciation expense, bad debt expense, and deferred rent. The deferred tax assets and liabilities represent the future tax return consequences of those differences, which will either be deductible or taxable when the assets and liabilities are recovered or settled. Deferred taxes are also recognized for operating losses and tax credits that are available to offset future taxable income. The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions. The Company is no longer subject to U.S. federal, state and local income tax examinations by tax authorities for years before 2007.

h. Use of estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011

(3) Furniture and Equipment

Furniture and equipment consist of the following at September 30, 2012 and 2011:

	<u>2012</u>	<u>2011</u>
Furniture	\$ 135,063	\$ 125,658
Laboratory equipment	2,028,461	1,725,161
Office equipment	124,123	103,778
Computer software	1,155,721	962,931
Leasehold improvements	448,048	446,190
	<u>3,891,416</u>	<u>3,363,718</u>
Less accumulated depreciation	<u>(2,500,566)</u>	<u>(2,248,124)</u>
	<u>\$ 1,390,850</u>	<u>\$ 1,115,594</u>

(4) Long-Term Debt

Long-term debt at September 30, 2012 and 2011 is as follows:

	<u>2012</u>	<u>2011</u>
Note payable to a living trust, a related party, due in monthly installments of \$3,397 including interest at 7% beginning February 2009 through January 2012; paid in full in January 2012.	—	13,392
Capital lease for laboratory equipment, due in monthly installments of \$617 including interest at 9.24% through July 2012, secured by equipment; paid in full in July 2012.	—	5,347
Capital lease for laboratory equipment, due in monthly installments of \$4,111 including interest at 10.75% through September 2013, secured by equipment	42,879	85,106
Capital lease for computer software, due in monthly installments of \$2,394 including interest at 9.44% through November 2013, secured by software	31,619	56,092
Note payable to Susquehanna Commercial Finance, Inc. for laboratory equipment, due in monthly installments of \$1,106 including interest at 10.32% through April 2014, secured by equipment	19,318	29,995
Capital lease for laboratory equipment, entered into in conjunction with a purchase agreement (see Note 11), due in monthly installments of \$7,208, including interest at 8.17% through May 2014, secured by equipment	134,353	206,639

TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011

(4) Long-Term Debt, Continued

	2012	2011
Note payable to National Bank of Arizona, due in monthly installments of \$5,158 including interest at the 5-year LIBOR/Swap rate plus 4.25% through October 2015; secured by laboratory equipment.	173,607	223,285
Note payable to National Bank of Arizona, due in monthly installments of \$4,027 including interest at 5.40% through April 2017; secured by laboratory equipment.	195,486	—
Note payable to National Bank of Arizona, due in monthly installments of \$3,807 including interest at 3.99% through July 2017; secured by laboratory equipment.	199,886	—
	797,148	619,856
Total	797,148	619,856
Less current portion	(286,887)	(214,361)
Total long-term debt	\$ 510,261	\$ 405,495

Maturities of long-term debt are as follows for year ending September 30, 2012:

2013	\$	286,887
2014		201,633
2015		140,713
2016		103,239
2017		64,676
	\$	797,148

The Company's loan agreements with National Bank of Arizona include various covenants, including a prohibition against incurring further indebtedness without consent of the Bank, paying dividends, and the transfer, sale, or lease of significant assets. The loan agreements also contain financial covenants, including maintaining specified levels of tangible net worth and debt service coverage ratio. As of September 30, 2012, the Company is in compliance with all financial covenants.

(5) Line of Credit

The Company has a \$250,000 line of credit with National Bank of Arizona. The interest rate on the line of credit is Prime Rate (as published by the Wall Street Journal) plus 1%, with a floor of 6%. The line is collateralized by the Company's accounts receivable. There were no balances outstanding on the line of credit at September 30, 2012. The balance outstanding on the line of credit at September 30, 2011 was \$145,000.

TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011

(6) Income Taxes

The components of deferred tax assets and liabilities at September 30, 2012 and 2011 are as follows:

	2012	2011
Current deferred tax asset:		
Deferred rent	4,665	9,659
Charitable contributions	—	1,393
	\$ 4,665	\$ 11,052
Non-current deferred tax liability:		
Provision for doubtful accounts	\$ 2,588	\$ 5,763
Net operating losses	—	99,164
Depreciation expense	(385,424)	(283,128)
	\$ (382,836)	\$ (178,201)

The provision for income taxes for the year ended September 30, 2012 consists of current federal taxes of \$47,651, current state taxes of \$23,816 and deferred tax expense of \$211,022. The provision for income taxes for the year ended September 30, 2011 consists of current state taxes of \$11,712 and deferred tax benefit of \$45,930. At September 30, 2011, the Company had unused operating loss carry-forwards of \$291,659, all of which were used in fiscal year 2012.

(7) Lease Obligations

Operating Leases

The Company leases office facilities and equipment under non-cancelable lease agreements expiring at various dates through September 30, 2015. Under the lease agreement for the office facilities, the Company is responsible for taxes, licenses, insurance, and general maintenance. In addition, the Company has various month-to-month leases for laboratory and office equipment. Rental expense was \$278,117 and \$274,932 for the years ended September 30, 2012 and 2011, respectively.

The future minimum rental payments, exclusive of any increases related to the Consumer Price Index required under the office facility lease, as of September 30 are as follows:

2013	\$	113,225
2014		23,652
2015		11,024
	\$	147,901

**TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011**

(7) Lease Obligations, Continued

The Company sublet space to Axiom Medical Accounts, LLC, which expired on September 30, 2012. The agreement was renewed on a month-to-month basis. Rental income was \$9,066 and \$9,066 under this agreement for the years ended September 30, 2012 and 2011, respectively.

Capital Leases

The Company leases various equipment under capital lease agreements. See Note 4 for details of these leases. The assets are amortized over their estimated productive lives. Amortization of assets under capital leases is included in depreciation expense. The cost of the equipment and accumulated depreciation at September 30, 2012 was \$783,374 and \$579,866, respectively. The cost of the equipment and accumulated depreciation at September 30, 2011 under these capital leases was \$802,717 and \$459,802, respectively.

The future minimum lease payments as of September 30, 2012 are as follows:

2013	\$	160,444
2014		62,452
		222,896
Less amount representing interest		(14,045)
Present value of lease obligation	\$	208,851

The current portion of the capital lease obligation as of September 30, 2012 and 2011 was \$148,179 and \$140,638, respectively.

(8) Treasury Stock

The Company has a policy of retiring all treasury shares upon purchase. As such, the 81,500 and 118,000 treasury shares purchased during the years ended September 30, 2012 and 2011, respectively, were recorded as a reduction to common stock and additional paid-in capital.

(9) Employee Retirement Plan

The Company has a SIMPLE IRA plan, whereby eligible employees may contribute up to the statutory limits. The Company makes matching contributions of up to 3% of the participant's compensation. Employees are eligible if the employee earned at least \$5,000 in the year prior to entering the plan and the employee is expected to have annual compensation of at least \$5,000 during the following year. The Company's contributions to the plan for the years ended September 30, 2012 and 2011 were \$30,888 and \$38,396, respectively.

TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011

(10) Concentrations

For the years ended September 30, 2012 and 2011, the Company generated 60% and 59%, respectively, of its revenue from eleven customers, two of which ended services during fiscal year 2012. Similarly, the receivable balances from these customers comprised 54% and 58% of the total receivable balance at September 30, 2012 and 2011, respectively.

The Company primarily uses two transportation companies for the shipment of the laboratory samples to be tested. Management believes that other suppliers could provide similar services on comparable terms. However, a change of suppliers could cause a possible disruption in the business.

A concentration of credit risk exists with the Company's cash balances, as cash balances will exceed \$250,000 at various times during the year. The Company limits the amount of credit risk exposure by placing its cash with high credit quality financial institutions and generally tries to limit the balances that would be in excess of the FDIC insurance coverage limit of \$250,000.

(11) Purchase Commitment

In a prior year, the Company entered into an agreement with a vendor to purchase certain laboratory supplies for a term of six years in exchange for the use of certain upgraded laboratory equipment. If the Company fulfills its minimum annual purchase commitment, the Company will have the option to purchase the equipment for \$1. This agreement states that the Company's annual purchase commitment includes \$7,208 per month that is allocable to the purchase of the equipment. The equipment portion of the agreement has been accounted for as a capital lease (see Note 4). The Company's minimum annual purchase commitment is \$399,678 for the first three years of the agreement. In the fourth through sixth years of the agreement, the vendor has the right to increase the prices by 3%. For the year ended September 30, 2012, the Company has purchased \$359,595 from this vendor.

(12) Related Party Transactions

Both the Chairman of the Board and the President of the Company loaned the Company \$25,000, for a total due to shareholders of \$50,000. The loans bear interest at 8.5% and were originally due in full on October 1, 2008. Annual one-year extensions have been executed each year of the loan. On October 1, 2012, another extension was executed, resulting in a revised due date of October 1, 2013. Interest payments totaling \$4,250 were paid to these related parties during both the years ended September 30, 2012 and 2011.

The Chairman of the Board is paid director fees for his service to the Company in this capacity. Fees paid during the years ended September 30, 2012 and 2011 were \$34,250 and \$26,750, respectively.

The S.P. Revocable Trust (the Trust) is an owner of the Company. In a prior year, the Trust loaned \$100,000 to the Company, accruing interest at 7%. This loan was paid in full in fiscal year 2012. The balance on this note payable was \$13,392 as of September 30, 2011. Interest paid under this note during the year ended September 30, 2011 was \$2,105.

TECHNICAL RESOURCE MANAGEMENT, INC.
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED SEPTEMBER 30, 2012 AND 2011

(13) Subsequent Events

The Company has evaluated subsequent events through January 4, 2013, the date when the final statements were available for issuance. No significant subsequent events have been identified that would require adjustment of or disclosure in the accompanying consolidated financial statements.



POSITION: Scientific Director

EDUCATION: 1968 B.A., University of Washington, Seattle, Chemistry
1972 Ph.D., University of Washington, Physiology and Biophysics

Postgraduate Training:

1973 Senior Fellow, Division of Endocrinology, Department of Medicine, School of Medicine, University of Washington, Seattle
1981-1982 Senior Research Associate, Department of Laboratory Medicine, University of Washington
1982-1986 Fellow, Department of Laboratory Medicine, University of Washington
1985-1986 Senior Fellow, Department of Laboratory Medicine, University of Washington

PROFESSIONAL EXPERIENCE:

2013-Current Scientific Director, Technical Resource Management, Inc. (dba Norchem Lab), Flagstaff, AZ
2006-2013 Technical Director, Sterling Reference Laboratory, Tacoma, WA.
2009-2013 Alternate Responsible Person, SAMHSA Certified Lab, Sterling Reference Laboratory, Tacoma, WA
2006-2013 College of American Pathologist Lab Inspector, Sterling Reference Laboratory, Tacoma, WA
2004-2006 Associate Technical Director, Sterling Reference Laboratory, Tacoma, WA.
1997 Clinical Laboratory Consultant, Seattle, Washington

Faculty Positions:

1973-1979 Assistant Scientist, Wisconsin Regional Primate Research Center, University of Wisconsin, Madison, Wisconsin.
1974-1979 Assistant Professor, Department of Physiology, School of Medicine, University of Wisconsin
1979-1980 Instructor, Seattle Central Community College, Seattle, Washington.
1986-1990 Acting Assistant Professor, Department of Laboratory Medicine, University of Washington
1990-1997 Assistant Professor, Department of Laboratory Medicine, University of Washington

Expert Witness Experience:

Qualified as Expert Witness in Washington, Oregon, Alaska and Colorado Courts.
Testified in Frye Motion Hearings regarding Ethylglucuronide Testing.
Testified in numerous cases involving drug testing results. Washington, Oregon

Honors:

Ballard General Hospital Undergraduate Scholarship (1964-1968)
NIH Pre-doctoral Fellow, Physiology Training Program, Department of Physiology and Biophysics, University of Washington (1969-1972).
Young Investigator Award, Academy of Clinical Laboratory Physicians & Scientists (1984)
Clinical Pathology Resident Training Award (1996-1997). Residents in Laboratory Medicine
Outstanding Speaker Award (1997), AACC

Board Certification:

Clinical Chemist, National Registry in Clinical Chemistry Certificate #2189, 1990
Certificate of Qualification, Laboratory Director, Clinical Toxicology and Forensic Toxicology, New York State Department of Health, 2013

Organizations:

American Association for Clinical Chemistry (AACC)
1990-1995 Delegate, AACC House of Delegates
1990-1991 Member, HOD Career Enhancement Committee
1992-1993 Member, Local Section Affairs Committee
1992-1993 HOD Liaison, Commission on Publications
1994 Chair, HOD Nominating Committee
1994 Chair, HOD Task Force on International Members
1995 Member, Fiscal Affairs Committee
1994-1995 Member, 1995 Annual Meeting Organizing Committee
1995- Member, ENDO LIP Committee
Pacific Northwest Section of AACC
1988-1989 Member, 1989 Instrumentation Symposium Organizing Committee
1990-1998 Member, Executive Committee of PNW-AACC
1993-1996 Legislative Liaison
1993-1994 Member, 1994 Instrumentation Symposium Organizing Committee
1999-2000 Chairperson, PNW Local Section
Academy of Clinical Laboratory Physicians and Scientists
American Physiological Society
Endocrine Society
American Association for Advancement of Science
University & Hospital Responsibilities:
University of Wisconsin
1977-1978 Member, Research Animal Advisory Committee
University of Washington
1983-1984 Acting Director, Rapid Response Section, Dept. of Laboratory Medicine, University Hospital and Harborview Medical Center.
1985-1986 Immunology and Nutrition Divisions, Dept. of Laboratory Medicine
1986-1992 Director, Community Services Program, Dept. of Laboratory Medicine
1986-1997 Adjunct Medical Staff, University Hospital and Medical Center
1986-1997 Adjunct Medical Staff, Harborview Medical Center
1986-1997 Member, Curriculum Committee, Dept. of Laboratory Medicine
1986-1997 Member, Medical Technology Advisory Committee, Dept. of Laboratory Medicine

1987-1992 Director, General Chemistry Section, Dept. of Laboratory Medicine
1987-1997 Director, Endocrinology Section, Dept. of Laboratory Medicine
1994-1997 Member, School of Medicine Radioactive Drug Research Committee
Private Hospital and Laboratory Positions
Ostex International Inc., Seattle WA
1998- 2000 Clinical Laboratory Director
St. Mary's Medical Center, San Francisco, CA.
2002-2003 Director, Clinical Laboratory, Pathology and Nuclear Medicine
Continuing Education:
2007 AACC Annual Meeting, San Diego, CA
2008 SOFT, Annual Meeting, Phoenix, AZ
2009 SOFT, Annual Meeting, Oklahoma City, OK
2010 AACC, Annual Meeting, Anaheim, CA
2011 SOFT/TIAFT Annual Meeting, San Francisco, CA
2012 SOFT, Annual Meeting, Boston, MA

Publications:

Recent:

Toivola, B., Lu, G., Baker, D., Friel, P. Synthetic Cannabinoid Screening Assay in Urine Specimens by LC/MS/MS. *Abstract* in Program 2011 SOFT – TIAFT Meeting, San Francisco, CA.
Lu, G., Toivola, B., Baker, D., Friel, P. A Validated Quantitative Method for Analysis of MDPV and Mephedrone (Bath Salts) in Urine Using LC-MS/MS. *Abstract* in Program 2011 SOFT – TIAFT Meeting, San Francisco, CA.

Books:

Kaplan A, Jack R, Opheim KE, Toivola B, Lyon AW Clinical Chemistry: Interpretation and Techniques. 4th Ed, Baltimore, Williams & Wilkins (1995).

Articles:

1. Toivola P, Gale CC: Effect on temperature of biogenic amine infusion into hypothalamus of baboon. Pg 95-97 in *Proc 9th AnnResMeeting, Vol. 2*. Wash. State Dept. of Institutions, (1969).
2. Gale CC, Desbarats-Schonbaum ML, Toivola P, Proppe D: Thyroid sympathetic nervous system interactions in thermoregulation in baboons. Pg 94 in *Proc 9th Ann Res Meet Vol 2*. Wash. State Dept. of Institutions, (1969).
3. Toivola P, Gale CC: Effect on temperature of biogenic amine infusion into hypothalamus of baboon. *Neuroendocrinology* 6:210-219 (1970).
4. Gale CC, Toivola P: Interaction of the central nervous system with the endocrine system in thermoregulation in baboons. *Hormones*. 1:164-192 (1970).
5. Gale CC, Muramoto K, Toivola P, Stiner D: Sympathetic control of substrates and thermogenesis during central cooling. *Int J Biometerology*. 15:162-167 (1971).
6. Toivola P, Gale CC: Stimulation of growth hormone release by microinjection of norepinephrine into hypothalamus of baboons. *Endocrinology* 90: 895-902 (1972).
7. Toivola PTK, Gale CC, Goodner CJ, Werrbach JH. Central alpha adrenergic regulation of growth hormone and insulin. *Hormones* 3:193-213 (1972).

8. Toivola PTK, Gale CC: Central adrenergic regulation of growth hormone. *Int J Neurosci* 4:53-68 (1972).
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10. Koerker DJ, Goodner CJ, Toivola PTK, Gale CC, Ensinnck JW: Adaptation to fasting in baboon. I. Influence of feeding schedule. *Am J Physiol* 227:520-530 (1974).
11. Toivola PTK, Bridson WE, Robinson JA: Effect of LH/FSH-RH on the secretion of luteinizing hormone, follicle stimulating hormone and testosterone in adult male rhesus monkeys. *Endocrinology* 102: 1815-1821 (1978).
12. Steiner RA, Illner P, Rolfs AD, Toivola PTK, Gale CC. Noradrenergic and dopaminergic regulation of GH and prolactin in baboons. *Neuroendocrinology* 26:15-31 (1978).
13. Leshner AI, Toivola PTK, Terasawa E: Circadian variations in plasma cortisol levels in female rhesus monkeys. *J Endocrinol* 78:155-156 (1978).
14. Hill RT, Toivola PTK: Effect of sacral cordotomy on the reproductive organs of the male guinea pig. *Biol Reproduct* 19:64-68 (1978).
15. Farver CF, deWied D, Toivola PTK: Effect of ACTH(1-24) on cortisol secretion in castrated rhesus monkeys. *J Endocrinol* 79: 247-248 (1978).
16. Sholl SA, Toivola PTK, Robinson JA: The dynamics of testosterone and dihydrotestosterone metabolism in the adult male rhesus monkey. *Endocrinology* 105: 402-405 (1979).
17. Austin D, Toivola B. A laboratory evaluation of an immunochemiluminometric assay of triiodothyronine in serum. *Clin Chem* 36: 334-337, (1990).
18. Bomszytk K, Toivola B, Emery DW, Rooney JW, Raichie NA, Sibley CH. Role of cyclic AMP in interleukin induced kappa light chain gene expression in murine B cell line. *J Biol Chem* 265: 9413-9417, (1990).
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20. Jacobs CA, Baker PE, Roux ER, Picha KS, Toivola B, Waugh S, Kennedy MK. Experimental autoimmune encephalomyelitis is exacerbated by IL-1 β and suppressed by soluble IL-1 Receptor. *J Immunol* 146: 2983-2989, (1991).
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23. Grubin CE, Daniels T, Toivola B, Landin-Olsson M, Hagopian WA, Li L, Karlsen AE, Boel E, Michelsen B, Lernmark, Å. A novel radioligand binding assay to determine diagnostic accuracy of isoform-specific glutamic acid decarboxylase antibodies in childhood IDDM. *Diabetologia* 37: 344-350, (1994).
24. Pollema CH, Tucker DJ, Toivola B, Ruzicka J, Christian GD. The fountain cell: A new tool for chemiluminescence analysis by flow injection. *Analyst* 119:975-979, (1994).
25. Stewart BK, Nazar-Stewart V, Toivola B. Biochemical discrimination of pathologic pregnancy from early, normal intrauterine gestation in symptomatic patients. *Am J Clin Path* 103: 386-390 (1995).

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29. Bowen, D., Clifford, C. K., Coates, R., Evans, M., Feng, Z., Fouad, M., George, V., Gerace, T., Grizzle, J. E., Hall, W.D., Hearn, M., Henderson, M., Kestin, M., Kristal, A., Leary, E. T., Lewis, C. E., Oberman, A., Prentice, R., Raczynski. J., Toivola, B., and Urban, N. The women's health trial feasibility study in minority populations: design and baseline descriptions. *Annals of Epidemiology* 6: 507-519 (1996).
30. Quddusi, S., Browne, P., Toivola, B., and Hirsch, I. B. Cushing syndrome due to surreptitious glucocorticoid administration. *Archives of Internal Medicine* 158: 294-296 (1998).
31. Schranz, D. B ., Bekris, L., Landin-Olsson, M., Torn, C., Nilang, A., Toll, A., Gronlund, H., Toivola, B., and Lernmark, A A simple and rapid microSepharose assay for GAD65 and ICA512 autoantibodies In diabetes. Diabetes Indidence Study In Seattle, WAeden (DISS). *J of ImmunologicMethods* 213: 87-97 (1998).
32. Prinz, P.N., Scanlan, J.M., Vitaliano, P.P., Moe, K.E., Borson, S., Toivola, B., Merriam, G.R., Larsen, L.H., Reed, H.L. Thyroid Hormones: Positive relationships with cognition in healthy, euthyroid older men. *J. Gerontology A. Medical Sciences* 54: M111-116 (1999).
33. Gallay, B.J., Ahmad, S., Xu, L., Toivola, B., Davidson, R.C. Screening for primary aldosteronism without discontinuing hypertensive medications: plasma aldosterone-renin ratio. *American J. Kidney Diseases* 37: 699-705 (2001). Bert Toivola, Ph.D
34. Chen-Levy, A., Wener, M.H., Toivola, B., Daum, P., Reyes, M., Fine, J.S. Factors affecting urinary myoglobin stability *in vitro*. *American J. Clinical Pathology* 123: 432-438 (2005).

Abstracts:

1. Toivola P, Gale CC: Effect on temperature of biogenic amine infusion into hypothalamus of baboon. *Clin Res* 17:147 (1969).
2. Gale CC, Toivola P: CNS-endocrine interactions in thermoregulation. *Acta Endocrinol Supplement.* 138:238 (1969).
3. Gale CC, Toivola P, Schonbaum MLD: Thyroid sympathetic nervous system interactions in thermoregulation. Pg. 144 in *Program, 51st Ann Meet Endocrine Society, New York, (1969)*.
4. Toivola, P., Gale, C.C., Goodner, C.J. and Werrbach, J.H.: Effect of biogenic amines on temperature regulation and neuroendocrine function. *The Physiologist.* 12: 377 (1969).
5. Toivola P, Proppe D, Gale CC: Thyroid sympathetic nervous system interactions in thermoregulation in baboons. In *Abs NW Conf Comparative Endocrinol.* University of Washington, (1969).
6. Gale CC, Toivola P, Werrbach JH, Goodner CJ: Further studies of adrenergic mechanisms mediating reciprocal release of growth hormone and insulin in baboons. *Fed Proc* 29:377 (1970).
7. Toivola PTK, Gale CC: Growth hormone release by microinjection of norepinephrine into hypothalamus of conscious baboon. *Fed Proc.* 30:26 (1971).

8. Toivola PTK, Gale CC: Stimulation of growth hormone secretion by microinjection of norepinephrine into hypothalamus of conscious baboon. *Acta Endocrinol Supplement*. 155:32 (1971).
9. Gale CC, Williams R, Toivola P: Thyroid-sympathetic nervous system interactions in thermoregulation. *Acta Endocrinol Supplement*. 155:34 (1971).
10. Toivola P, Goodner CJ: Further studies of growth hormone secretion by central and systemic norepinephrine stimulation in the baboon. *Fed Proc*. 31:3363 (1972).
11. Goodner CJ, Koerker D, Toivola P, Gale CC, Ensinck J: Evidence for participation of the central nervous system (CNS) in the transition from the fed to the fasted state. *J Clin Invest*. 51:38a (1972).
12. Toivola PTK, Gale CC: Norepinephrine and dopamine microinjection into the hypothalamus of baboons: Effect on growth hormone secretion. *Fed Proc*. 32:292 (1973).
13. Gale CC, Toivola PTK, Lee A, Illner P, Steiner RA, Schiller H: Studies of LH regulation in baboons. Pg. 234 in Program, *57th Ann Meet Endocrine Society*, New York, (1975). Bert Toivola, Ph.D
14. Toivola PTK, Bridson WE, Robinson JA: Effect of luteinizing hormone releasing factor on the secretion of luteinizing hormone, follicle stimulating hormone, and testosterone in adult male rhesus monkeys. *Fed Proc* 36:504 (1977).
15. Toivola B, Davison BD, Szabo LL, Kenny MA: Serum aluminum assay in normal volunteers and chronic renal dialysis patients utilizing Zeeman background corrected graphite furnace atomic absorption spectroscopy. *Acad Clin Lab Phys Sci*, Salt Lake City, Utah, (1984).
16. Rettmer RL, Labbe RF, Toivola B.: Reference ranges of biochemical markers for nutritional status in an elderly population. *Clin Chem* 34:1307, (1988).
17. Austin D, Toivola B. Laboratory evaluation of a chemiluminescent triiodothyronine immunoassay. *Acad Clin Lab Phys Sci*, Stonybrook, New York, (1989).
18. Vertrees S, Wilson C, Ubungen R, Wilson D, Baskin D, Toivola B, Jacobs C, Baker P. Dose dependent effects of IL—2beta on IDDM and thyroid disease in the BB rat. *Diabetes* 39: Suppl. 1, 931. (1990).
19. Rohrer C, Krueger-Neilson S, Toivola B. Laboratory evaluation of a chemiluminescent immunoassay for beta-HCG. *Clin Chem* 37:1086 (1990).
20. Austin D, Toivola B. Free thyroxine (FT4) and TSH as screening tests for thyroid disease. *Acad Clin Lab Phys Sci* San Diego, California, (1990).
21. Rosenzweig IB, Toivola B, Jack R, Fligner C, Siebert J, Haas J. Evaluation of carnitine concentrations in post mortem blood of victims of SIDS. *Acad Clin Lab Phys Sci*, San Diego, California, (1990).
22. Melchior A, Kreuger-Nielsen S, Raisys VA, Toivola B. Comparison of HPLC, RIA, and EMIT assays for routine monitoring of cyclosporine in whole blood. *Clin Chem* 37: 991, (1991)
23. Chen-Levy Z, Dorman H, Zucker J, Toivola B, Fine J, Clayson K. Myoglobin and creatine kinase as markers of myocardial ischemia during coronary artery bypass surgery. *Clin Chem* 38: 962, (1992).
24. Chiu L, Davison B, Paxton W, Melchior A, Toivola B, Raisys V. Comparison of Cyclosporine determinations by HPLC, Emit, and RIA in heart, liver, and kidney transplant recipients. *Clin Chem* 38: 994, (1992).
25. Chen-Levy Z, Dorman H, Zucker J, Toivola B, Fine J, Clayson K. Myoglobin and creatine kinase as markers of myocardial ischemia during coronary artery bypass surgery. *Acad Clin Lab Phys Sci*, San Francisco, California, (1992). Bert Toivola, Ph.D

26. Stewart BK, Toivola B. Discrimination of normal intrauterine gestation from abnormal gestation by pregesterone and serial human chorionic gonadotrophin (hCG) levels. *Acad Clin Lab Phys Sci* San Francisco, California, (1992).
27. Paxton WB, Toivola B, Raisys V. Comparison of Cyclosporine determinations by HPLC, Emit, and RIA in heart, liver, and kidney transplant recipients. *Acad Clin Lab Phys Scie*, San Francisco, California, (1992).
28. Miller B, Davison B, Toivola B. Laboratory evaluation of thyroid function tests on the SYVA VISTA ® immunoassay analyzer system. *Clin Chem* 39: 411 (1993).
29. Chen-Levy Z, Toivola B, Clayson K, Fine JS. Evaluation of serum myoglobin as a marker of myocardial ischemia. *Clin Chem* 39: 64 (1993).
30. Lyon ME, Lyon AW, Toivola B. Concordance of clinical thyroid status with thyroid function tests: a quality assurance program. *Acad Clin Lab Phys Sci*, New Haven, Connecticut, (1993).
31. Chen-Levy Z, Daum P, Wener M, Fine J, Toivola B. Urine myoglobin: Evaluation of the Behring NA latex myoglobin method reveals instability of myoglobin in urine. *Acad Clin Lab Phys Sci*, New Haven, Connecticut, (1993).
32. Wu CC, Daum PR, Wener MH, Chen-Levy Z, Toivola B. Immunologic Stability of Myoglobin in Urine. *Clin Chem* 40:1116, (1994).
33. Mason BO, Toivola B. Evaluation of LH, FSH, Prolactin and hCG Assays on the SYVA VISTA Immunoassay System. *Clin Chem* 40: 1044, (1994).
34. Xu L, Viering E, Davidson R, Toivola B. The diagnosis of primary hyperaldosteronism (PHA) using plasma aldosterone -to-renin activity ratio. *Am J Clin Path* 102: 257 (1994).
35. Chinn K, Toivola B. Evaluation of the Sanofi Diagnostics Pasteur hLH and hFSH assay on the Access Automated Immunoassay system. *Clin Chem* 41: (1995)
36. Wasylenko M, Davidson R, Gallay B, Toivola B. Evaluation of an immuno-radiometric assay for the quantitative determination of renin mass in human plasma. *Am J Clin Path* 104: (1995)
37. Le, Q.C., Ka, M., Chiu, L., and Toivola, B. Laboratory evaluation of reproductive hormone assays on the immulite automated immunoassay system. *Am. J. Clin Path* 106: 139 (1996). Bert Toivola, Ph.D

Teaching Experience:

University of Wisconsin

1973-1979 Physiology 675 - Graduate seminar in endocrinology

Physiology 503 - Human physiology for graduate students.

Physiology 235 - Human physiology for students in allied health professions.

Pathophysiology of the Endocrine System - Endocrine pathophysiology for second year medical students.

University of Washington

1982- 1997 Lab Medicine 596 - Clinical Chemistry for graduate students and post-doctoral fellows.

Lab Medicine 681 - Interpretation of laboratory results for third and fourth year medical students.

Lab Medicine 423 - Clinical Chemistry Practicum for senior medical technology students.

Lab Medicine 418 - Advanced Topics in Clinical Chemistry for medical technology students

Lab Medicine 322 - Introduction to Clinical Chemistry for medical technology students.

1993-97 Human Biology 544 - Endocrine Core Course for Medical Students

Invited Lectures and Presentations:

1978 Lawrence University, Appleton, Wisconsin. Senior Biology Seminar "Neuroendocrine Regulation of Reproduction."

1983 St. Joseph's Hospital and Medical Center, Bellingham, Washington. "Neuroendocrinology of Reproduction and IN VITRO Fertilization."

1984 Wenatchee Valley Clinic, Wenatchee, Washington. "Thyroid Function Testing."

1986 Providence Hospital, Anchorage, Alaska. "Endocrine and Laboratory Aspects of IN VITRO Fertilization."

1987 Washington Academy of Family Physicians 38th Convention and Scientific Assembly, Pasco, Washington. "Laboratory Testing in the Physician's Office."

1988 Northwest Medical Laboratory Symposium, Seattle, Washington. "Sugar, Salt and Sex."

1988 Seattle Society for Medical Technology, Seattle, Washington. "Thyroid Function Testing: Past, Present and Future."

1989 Northwest Medical Laboratory Symposium, Portland, Oregon. "Sports Medicine and the Clinical Laboratory".

1989 Washington State Medical Technology Spring Seminar, Spokane, Washington. "Trace Elements and Heavy Metals in the Clin Laboratory."

1990 Highline Community Hospital-Riverton Campus, Seattle, Washington. "Current Trends in Thyroid Function Testing"

1991 Idaho State Medical Technology Society Annual Meeting, Idaho Falls, Idaho. "A to Z of Heavy Metals and Trace Elements". Bert Toivola, Ph.D

1992 Northwest Medical Laboratory Symposium. Tacoma, Washington. "Growth Hormone: Is it The New Fountain of Youth."

1992 Intra Mountain States Scientific Symposium, Jackson, Wyoming. "The Current Status of Thyroid Function Testing."

1993 SYVA Company, San Jose, California. "Reproductive Physiology and Endocrine Aspects of In Vitro Fertilization."

1993 Fairbanks Memorial Hospital, Fairbanks, Alaska. "Current Trends in Thyroid Function Testing."

1994 Northwest Medical Laboratory Symposium, Bellevue, Washington, "The Role of the Clin Laboratory in Reproductive Endocrinology, Assisted Reproductive Technology and Pathophysiology of Reproductive Endocrinology."

1994 Upstate New York Section of AACC, Rochester, NY, "Automated Immunoassay Systems."

1994 San Francisco State University, Department for Advanced Medical Technology. San Francisco, CA. "Automated Immunoassay Systems."

1995 Washington State Council on Renal Nutrition. Seattle, WA "Current Status of PTH Assays"

1995 AACC Audio Conference. "Biochemical Diagnosis of Ectopic Pregnancy"

1995 Washington State Society for Clinical Laboratory Sciences, Spring Seminar, Bellevue, WA "Automated Immunoassay Systems: 1995 to the 21st. Century"

1995 AACC National Meeting Roundtable. Anaheim CA, " Biochemical Diagnosis of Ectopic Pregnancy".

1996 Washington State Council on Renal Nutrition, Seattle WA, "PTH Assays".

1996 Consortium of Laboratory Professionals, Indianapolis, IN, "Reproductive Endocrinology".

1996 Clinical Laboratory Scientists Symposium, Fairbanks, AK, "Reproductive Endocrinology".

1996 AACC National Meeting Roundtable, Chicago, IL, " Biochemical Diagnosis of Ectopic Pregnancy".

1997 AACC National Meeting Roundtable, Chicago ,IL, " Biochemical Diagnosis of Ectopic Pregnancy".

1997 American Medical Technologist Annual Meeting, Seattle, WA. "Diagnosis of Pathologic Pregnancy by Biochemical Methods."

1999 Ostex International Inc. Seattle, WA. "Blood Borne Pathogen Exposure"

1999 Washington Center for Reproductive Medicine, Bellevue, WA. "Blood Borne Pathogen Exposure"

2001 Ostex International Inc. Seattle, WA. "Blood Borne Pathogen Exposure"

2001 Washington Center for Reproductive Medicine, Bellevue, WA. "Blood Borne Pathogen Exposure"

2008 Snohomish County Drug Court, Everett, WA. "Understanding Urine Drug Testing"

2008 Eastern Oregon Treatment Centers, Baker City, OR. "Understanding Urine Drug Testing".

2008 National Association of Drug Court Professionals, Annual Meeting, St. Louis, MO. "Ethylglucuronide: The Upside and Downside of Monitoring Alcohol Abstinence with EtG. A Laboratorian's Perspective." Bert Toivola, Ph.D

2008 Addiction Professionals Association of Lane County, Eugene OR. "Understanding the Fundamentals of Urine Drug Testing".

2008 ADAPT, Roseburg, OR. "Unraveling the Mysteries of Urine Drug Testing".

2009 Alcohol and Drug Dependency Services, Ellensburg, WA. "Unraveling the Mysteries of Urine Drug Testing".

2009 Alcohol and Drug Dependency Services, Moses Lake, WA "Unraveling the Mysteries of Urine Drug Testing".

2009 King County Drug Court, Seattle, WA. "Unraveling the Mysteries of Urine Drug Testing".

2009 Children's Administration, Washington State Department of Social and Health Services. Olympia, WA "The Drug Testing Process".

2009 Southern Oregon Public Defenders, Inc. Medford, OR. "Unraveling the Mysteries of Urine Drug Testing".

2009 Josephine County Drug Court Program, Grants Pass, OR. "Unraveling the Mysteries of Urine Drug Testing".

2009 Kootenai County Justice Services, Coeur d'Alene, ID. "The Drug Testing Process".

2009 Department of Children's and Family Services, Spokane, WA. "Unraveling the Mysteries of Urine Drug Testing".

2009 NIATx and SAAS National Conference, Tucson, AZ. "Monitoring Alcohol Abstinence with Ethylglucuronide and Ethyl Sulfate".

2010 King County Drug Court, Seattle, WA. "Unraveling the Mysteries of Urine Drug Testing".

2010 Skagit Valley Community College, Mt. Vernon, WA. "Unraveling the Mysteries of Urine Drug Testing".

2010 Thurston County District Court, Olympia, WA. "Monitoring Alcohol Abstinence with Ethylglucuronide and Ethyl Sulfate".

2011 King County Drug Court, Seattle, WA. "Spice: Does it Measure Up"

2011 Washington Osteopathic Medical Association: Pain Management Update for the Primary Care Provider. Seattle, WA. "Drug Testing in Chronic Pain Management".

2011 Skagit Valley Bar Association, Mt. Vernon, WA. . "Unraveling the Mysteries of

Urine Drug Testing”.

2011 King County Drug Court, Seattle, WA. “Dilute Urine aka Creatinine, THC/Creatinine and Artificial Urine”.

2011 Washington Association of Addiction Professionals, Fifth Annual Providers Conference, Lynwood, WA. “Basics of Ethylglucuronide Testing and ‘1001 Excuses for ‘Why I Tested Positive’”.

2011 Skagit Valley Community College, Mt. Vernon, WA “Unraveling the Mysteries of Urine Drug Testing”.

2011 Washington State Association of Drug Court Professionals, 14th. Annual Fall Conference, Seattle, WA. “Current Trends in Designer Drugs”.

2011 Washington State Department of Social and Health Services, DCFS. Spokane, WA “Current Trends in Designer Drugs”.

2011 Agilent Technologies Lunch and Learn, SOFT/TIAFT, San Francisco, CA.

Synthetic Cannabinoid Screening Assay in Urine Specimens by LC/MS/MS”.

2011 ADAPT, Roseburg, OR. “Unraveling the Mysteries of Urine Drug Testing”.

2012 Chemical Dependency Training Consortium of the Northwest. Vancouver, WA.

“Current Trends in Designer Drugs”. Bert Toivola, Ph.D

2012 Agilent Technologies E-Seminar, Seattle, WA. “Robust LC/QQQ Assays for Synthetic Cannabinoids and Bath Salts in Urine”.

2012 Skagit Valley Community College, Mt. Vernon, WA “Unraveling the Mysteries of Urine Drug Testing”.

2012 King County Drug Court, Seattle, WA. “Unraveling the Mysteries of Urine Drug Testing”.

2012 Chelan County Juvenile Court Services, Wenatchee, WA. “Current Trends in Designer Drugs”.

2012 Spokane Regional Health Department, Spokane, WA. . “Unraveling the Mysteries of Urine Drug Testing”.

2012 King County Family Treatment Court, Seattle, WA. “Dilute Urine aka Creatinine, THC/Creatinine and Artificial Urine”.

2012 Washington Health Professional Services, Olympia, WA. . “Unraveling the Mysteries of Urine Drug Testing”.

2012 Seattle Municipal Court Probation, Seattle, WA. . “Current Trends in Designer Drugs”.

2012 Pain Week, Las Vegas, NV. “Laboratory Aspects of Pain Management”.

2013 Washington State Department of Corrections, Renton, WA. . “Current Trends in Designer Drugs”.

Grants and Contracts:

1973-1979 NIH, Base operating grant, Wisconsin Regional Primate Research Center.

1978-1979 WARF Foundation, "Effect of Sacral Cordotomy on Male Reproductive Function."

1977-1978 WARF Foundation, "Regulation of Gonadotrophin Secretion in the Male Rhesus Monkey."

1993-1994 SYVA Co. "Clinical trial of reproductive hormone assays on the VISTA analyzer."

1994-1995 SANOFI PASTEUR DIAGNOSTICS INC. "Clinical trial of LH and FSH assays on the ACCESS automated immunoassay system."

1996-1998 SANOFI PASTEUR DIAGNOSTICS, INC. “Clinical trial of Progesterone



POSITION: Laboratory Manager / Quality Assurance Officer

EDUCATION: B.S. Northern Arizona University, 1975
M.T. Tucson Medical Center, Internship 1976

EXPERIENCE:

Laboratory Manager: Responsible for all operational areas of analytical laboratory including specimen acquisition, analysis and reporting. Responsibilities include laboratory information system maintenance, analytical method development and validation, quality control maintenance and review, documentation of technical procedures, supervision of cost allocations, staffing, providing technical support for sales and marketing efforts, and technical review and reporting of client data.

Quality Assurance Officer: Work with Scientific Director to ensure that all laboratory activities are conducted in accordance with CAP-FUDT requirements and that all appropriate documentation is maintained and accessible; all newly hired technicians receive orientation and training and that each technician's proficiency is documented; prepare and review all incident reports and corrective actions; conduct quarterly Continuous Quality Improvement meetings with review of QC, new Method Validations, Proficiency Testing results, Operational Incidents and quality indicator statistics.

Recent Accomplishments:

- CAP-FUDT Inspector Training 2002.
- New client with 125,000 specimens/year completely set-up and delivered (including new drug cut-offs, supplies, training, transport) in two weeks with no errors
- Completion of the year 2000 CLIA audit with no deficiencies.
Method validation for qualitative automated analyses (screening) of Amphetamine-Methamphetamine, Benzoyllecgonine, THC, Barbiturates, Benzodiazepines, Propoxyphene, Opiates, LSD, and PCP.
- Method validation for quantitative automated analyses (screening) of alcohol, THC, Creatinine.
- Successfully completed multi-drug analysis of 10,000 specimens over 10 days (in addition to normal daily workloads).
- Successfully upgraded to two state-of-the-art automated chemistry analyzers over a one month period with no missed reporting deadlines.
- Olympus AU 600 Training

Previous Experience:

Medical Technologist (ASCP) at Alliance Medical Laboratory (1991-1999), Flagstaff, Arizona. Primary responsibilities included clinical analysis in hematology, microbiology, serology, and toxicology.

Medical Technologist (ASCP) at Tucson Medical Center (1976-1977), Tucson, Arizona.



TRAINING SESSIONS/CERTIFICATIONS/AWARDS

- CAP-FUDT inspector training, October 2002
- Certificate, Medical Technologist MT(ASCP). American Society of Clinical Pathologists (1975-1976)
- Post-Degree Secondary Education Certification in Biology. Northern Arizona University, Flagstaff, AZ (1997-1998)
- Certificate, Application and Operation of Abbott CellDyne 3000 (1994)
- Certificate, Application and Operation of Abbott AxSYM immuno-chemistry analyzer (1995)
- Certificate, Application and Operation of Olympus AU600 chemistry analyzer (1999)

PROFESSIONAL MEMBERSHIPS:

American Society of Clinical Pathologists (1975-Present)



POSITION: Senior Certifying Scientist

EDUCATION: M.S. Texas A&M University, 1987
B.S. Northern Arizona University, 1983
Certificate: Forensic Toxicology, University of Florida, 2008

EXPERIENCE:

Current Position: Senior Certifying Scientist. Primary responsibility involves establishing and continuing preventative maintenance routines and protocols for all LC/MS/MS, GC/MS and GCFID instrumentation; and preparation and documentation of standards and controls preparation for conformation assays. Secondary responsibilities include confirmatory data acquisition in an analytical forensic laboratory specializing in urine analysis of drugs-of-abuse. This primary duty includes specimen preparation; instrument operation; analytical data reduction, certification, and entry; results reporting to clients; and compliance with established laboratory quality assurance guidelines. Secondary responsibilities include instrument maintenance (gas chromatograph-mass spectrometer), thin-layer chromatography, breath alcohol testing, technical support for client inquiries, reagent maintenance, oversight of laboratory water system, inventory control, and support for the Scientific Director regarding data collection for method validation.

Additional responsibilities include updating quality assurance documentation, waste minimization, hazard communication, and health and safety officer duties.

Recent Accomplishments:

- Completion of company-wide Quality Assurance Plan
- Preventative maintenance and troubleshooting for Waters LCMSMS instruments; resurrected retired Varian 1200L for Spice testing

Previous Experience:

Analytical Chemist (1995-1996), Hydro Geo Chem, Long Beach, California. Primary responsibilities involved trace chemical analysis using gas chromatography, updating company quality assurance plan, on-site data acquisition, and QA review of final reports to clients.

Associate Investigator (1993-1995) for Water Movement Study (Yucca Mountain), University of California-Los Alamos National Laboratory, Los Alamos, New Mexico. Primary responsibilities involved chemical analysis for anions and isotopes of chlorine at picogram levels.

Analytical Chemist (1990-1993), Hydro Geo Chem, Tucson, Arizona. Primary responsibilities involved method development and validation for the analysis of ground water tracer compounds using gas chromatography; and, on-site data acquisition at more than 100 hazardous waste sites across the United States.

Analytical Chemist (1998-1990), Turner Laboratories, Tucson, Arizona. Primary responsibilities involved microbiological, organic/inorganic, physical/chemical analyses of waters, wastewaters, and soils.

Research Assistant (1995-1997), Center for Semi-Arid Forest Resources, Texas A&M University, Kingsville, Texas. Primary responsibilities included field design and sampling of soils and biomass for inorganics using X-ray fluorescence, atomic absorption, scanning electron microscopy (with energy-dispersive microanalysis), and colorimetry. In addition, performed mineral identification using X-ray diffraction techniques. Also provided graduate student instruction in the use of instrumentation and sample prep; and supervision of the soils lab.

TRAINING SESSIONS/CERTIFICATIONS/AWARDS:

- Certificate, High Resolution Accurate Mass Spec (HRAM) in Forensic and Clinical Toxicology, The International Association of Forensic Toxicology-Society of Forensic Toxicology, Sept 2011
- Certificate, Forensic Toxicology Expert Witness Testimony: What to Expect / How to Prepare, The International Association of Forensic Toxicology-Society of Forensic Toxicology, Sept 2011
- Certificate, Analytical Advances in Oral Fluid Drug Testing, The International Association of Forensic Toxicology-Society of Forensic Toxicology, Sept 2011
- Certificate, Applications of Oral Fluid Drug Testing, The International Association of Forensic Toxicology-Society of Forensic Toxicology, Sept 2011
- Completed graduate Certificate Program in Forensic Toxicology, University of Florida, Gainesville 2008
- Certificate, Instructor of Breath Alcohol Technicians, Intoximeters (St. Louis, MO) June 2000
- Certificate, Calibration Technician for Evidentiary Breath Testing, Intoximeters (St. Louis, MO) June 2000
- Certificate, Basic Drug Screening, ANSYS (Lake Forest, CA), March 1999
- Certificate, Breath Alcohol Training, Norchem (Flagstaff, AZ) November 1997
- Award, Quality Assurance Compliance, Los Alamos National Laboratory, Yucca Mountain Project, July 1995.
- Certificate, Waste Generator Training and Documentation, Los Alamos National Laboratory, March 1995.
- Certificate, Hazard Communication, Los Alamos National Laboratory, February 1995.
- Certificate, Radiological Worker II Training, Los Alamos National Laboratory, February 1995.
- Los Alamos National Laboratory, Yucca Mountain Site Characterization Project Orientation. May 1992.
- Arizona Department of Health Services-The Analytical Laboratory: A Tool for Decision Making (Tucson, AZ), May 1989.
- Arizona Department of Environmental Quality-Leaking Underground Storage Tank Seminar (Phoenix, AZ), August 1988.
- Hewlett Packard/O.I. Analytical-VOC Analysis by Purge-and-Trap (Tempe, AZ), April 1988.
- Fellowship, US Department of Energy, 1985-1987.

MEMBERSHIPS:

- Society of Forensic Toxicology