DEPARTMENT OF TOXIC SUBSTANCES CONTROL

ENVIRONMENTAL CHEMISTRY LABORATORY

Contract Laboratory Audit Report: Test America

ECL REPORT 2008-02

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Environmental Chemistry Laboratory Report

Contract Laboratory Audit Report: Test America

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AUDIT REPORT

Audit of Test America
Environmental Chemistry Laboratory's (ECL) Contract Laboratory

PURPOSE

The Contract Laboratory Management team audited Test America, Morgan Hill on January 15, 2008. The purpose of the audit was to ensure that laboratory analyses from Test America comply with the contract requirements specified in the Scope of Work, Agreement No. 07-T3347 and that good quality and legally defensible laboratory data is generated.

AUDIT PREPARATION

An audit notification letter was sent to Test America on October 2, 2007. The date of the audit was set on January 15, 2008. ECL requested a copy of the Test America organization chart. On January 11, 2008, the agenda of the audit was sent: Audit Notification Letter (Attachment 1), Test America Organization Chart (Attachment 2) and Agenda (Attachment 3)

MEETING REPORT

Introduction of ECL Staff and Test America Staff:

Each staff introduced himself/herself, their titles duties and responsibilities. KC introduced himself and explained the purpose and the plan of the visit.

DTSC, ECL Contract Lab Team:
Lorna Garcia, Contract Lab Manager
Juliet S. Tabajonda, Assistant Contract Lab Manager
Jiong Cao, IT Specalist
Modan Gill, Team Member
KC Ting, Section Chief

Test America Management Team:
Kenneth Lee - Laboratory Director
Kathryn Hart - QA Manager
Tim Costello - Client Services Manager
Pedro, Hufano, Jr. - Sample Control /Field Services Manager
Beau Sullivan - Semi Volatiles Analyses Manager
Allen Wan - Inorganics and Metals Analyses Manager
Megan Tran - Volatiles Analyses Manager

TOUR OF THE LABORATORY

Tim Costello led the audit team walked thru the different sections of the laboratory showing the different laboratory operations. (Attachment 4)

Sample Receiving Section: Pedro Hufano, Jr showed how samples were received; inspected for appropriate conditions, checked the temperature, seals and containers; logged in the data base system; labeled and stored at controlled temperature. Emphasis was given on the chain of custody making sure that the printed names, signatures and inclusive dates of the originator were legible and complete. Internal chain of custody was checked in their computerized data system. ECL's finished samples were stored in a separate refrigerator and are kept until advised.

Semi volatiles, Volatiles, Metals and Inorganic Sections: Each section's lead analysts/managers explained their operation following the SOP from extraction/digestion; analyses and how they administer their QA program to data processing and report writing. SOPs, and log books for instrument maintenance, standard preparation, initial calibration, and daily calibration were checked. Each instrument has updated maintenance logbook. Most of their data are in their data system. Hard copies were requested and were easily generated.

Discussion with the Laboratory Management Staff:

The importance of complying with the requirements as specified in the Scope of Work Agreement No. 07-T3347 was explained and clarified. Non compliant issues reported to ECL were discussed for resolution.

Chain of custody, SAR and ARF: Printed names, signatures and inclusive dates are emphasized. No gaps on the chain of custody. Copy of names with their respective signatures was provided to ECL. ECL must be notified for incomplete SAR, eSAR and ARF forms. ARF, SAR and electronic SAR must always be provided by the collectors.

Holding Time and Turn Around Time (TAT) must be met at all times. Failure to meet holding time and TAT must seek DTSC collector's approval prior to analysis. All communication must be documented.

Only SW-846 Methods must be used for all hazardous waste analyses unless otherwise specified. No deviation from the method unless authorized by ECL.

Quality including Chain of Custody, holding times, method blanks, laboratory control sample, matrix spike/matrix spike duplicate, sample duplicate, surrogate and other QC specified in the method must be within the acceptance criteria.

The contract provided the method's target compound lists which must be analyzed and reported.

Sample photograph will be enforced. Photograph samples must show the seal, size, label and condition. Digital colored photos should be included as part of the laboratory report. An example of the sample photograph was shown. ECL and Test America will coordinate in setting up the sample picture.

For insufficient amount of sample for all analysis, ECL recommended to keep a record of the weight/volume of samples received on the sample receiving log.

Electronic Data Report: Send electronic data file to ECL but keep the hard copy data report for defensibility.

Dilution: ECL recommended to screen the samples first to help identify the right dilution. The undiluted run must be submitted together with the right dilution. Periodic analysis of blind samples will be enforced.

Communication: ECL or DTSC requestors should be contacted immediately by phone, e-mail or fax to communicate urgent issues.

DOCUMENTS (ATTACHMENT 5-13)

The following documents were attached: SOP for Sample Receiving, 11/30/07 (Attachment 5), SOP for Legal Chain of Custody Procedure, 2/28/07. Employee Signature : Log for Sample Receiving and Problem Chain of Custody Form (Attachment 6), SOP for Maximum Holding Times, 2/28/07 (Attachment 7), SOP for Sample Storage Temperature Requirements, 2/28/07, Refrigeration/Freezer Log Corrective Action Report, Refrigeration/Freezer Log at Location: Sample Control, Main Lab/Field Services, Walk-in/Extactions and GC/Extraction (Attachment 8), Instrument Maintenance Logs (Attachment 9), Analytical Standard Record (Attachment 10), SOP for Waste Extraction Test, 4/20/07 (Attachment 11), 9/28/07 NELAC Soil/Hazardous Proficiency Testing Results ,1/11/08 NELAC Water Pollution Proficiency Testing Results (Attachment 12), and Test America, Morgan Hill Change of Ownership Notification Letter and Letter to Maureen F. Gorsen, DTSC Director, January 14, 2008 (Attachment 13).

CONCLUSION

The initial visit of ECL to Test America was a productive meeting. Meeting the staff opened the door for a better communication and faster resolution of relevant issues. ECL's role is to oversee the performance of the laboratory and its conformance to the contract. ECL wants to see Test America to be a more productive and effective laboratory that can handle samples with such integrity to stand in court.

Test America is willing to cooperate and open to ECL's recommendations in achieving good quality data and eliminating errors.

On sample photograph and the electronic data transfer, ECL and Test America's IT /LIMS will work together to set it up.

The SOPs for Sample Receiving, Sample Control and Chain of Custody were reviewed, evaluated and found to be clear, direct and specific. The samples were carefully inspected for complete documentation, proper condition and preservation. Chain-of-custody and Internal-Chain-of-custody were cautiously maintained fully aware of the vital importance of these documents to ensure the legal defensibility of the data. Detailed instructions of sample preparation and storage were discussed. In the event of out-of-control data or samples exceeding holding times, corrective action is set in place and proper instructions on whom to notify was specified. Good record keeping and proper documentation is essential. They keep logs for Chain-of-Custody, Sample Receipt, Problem Chain-of-Custody and Short Hold Samples. Most of their data were logged into (ELLEMENT), the laboratory's LIMS.

Results of 9/28/07 NELAC Soil/Hazardous Proficiency Testing Study and results of 1/11/08 NELAC Water Pollution Proficiency Testing Study were evaluated and are acceptable.

FUTURE ACTIVITY

Follow-up to check if the issues are resolved, corrected and implemented
Set up for sample pictures
Set up the electronic data transfer
Set up periodic testing of blind samples
Plan for unannounced/announced visit

ATTACHMENT 1

NOTIFICATION AUDIT LETTER

ATTACHMENT 2

TEST AMERICA ORGANIZATION CHART

ATTACHMENT 3

AGENDA OF THE AUDIT

ATTACHMENT 4

TOUR OF THE LABORATORY PICTURES

ATTACHMENT 5

SOP for SAMPLE RECEIVING AND SAMPLE CONTROL
SAMPLE RECEIPT LOG FORM

ATTACHMENT 6

SOP FOR LEGAL CHAIN OF CUSTODY PROCEDURE
EMPLOYEE SIGNATURE LOG FOR SAMPLE RECEIVING
PROBLEM CHAIN OF CUSTODY FORM

ATTACHMENT 7

SOP FOR SAMPLE HOLDING TIMES

ATTACHMENT 8

SOP FOR SAMPLE STORAGE TEMPERATURE REQUIREMENTS
REFRIGERATION/FREEZER LOG CORRECTIVE ACTION REPORT
REFRIGERATOR/FREEZER TEMPERATURE LOG AT LOCATION: SAMPLE CONTROL
MAIN LAB/FIELD SERVICES, WALK-IN/EXTRACTIONSAND GC/EXTRACTION

ATTACHMENT 9

INSTRUMENT MAINTENANCE LOG

ATTACHMENT 10

ANALYTICAL STANDARD RECORD

ATTACHMENT 11

SOP FOR CALIFORNIA WASTE EXTRACTION TEST

ATTACHMENT 12

RESULTS OF SOIL/HAZARDOUS WASTE PROFICIENCY TEST STUDY
RESULTS OF WATER POLLUTION PROFICIENCY TESTING STUDY

ATTACHMENT 13

CHANGE OF OWNERSHIP NOTIFICATION, JANUARY 14, 2008