

**RESPONSE TO USEPA COMMENTS TO
THE QAPP PREPARED FOR THE
REMEDIAL INVESTIGATION AT EARLE NWS
RECEIVED 21 DECEMBER, 1990**

The following responses refer to USEPA comments titled Attachment II, received 21 December 1990. Several major issues were resolved in a telephone conference between NAVFAC, WESTON and USEPA on 14 February 1991. The responses reflect that discussion.

- A. Well development and purge water. Currently all development water from newly installed wells is being drummed. Drill cuttings are being handled in accordance with Section 2.5.4.5 of the QAPP. HNu levels and visual condition of soils has not indicated the need to drum any cuttings as of 12 February 1991. However drums are on hand if required. EPA has noted that BNA's were detected in previous samples of existing on site wells. These wells will be purged prior to sampling in March. It is the Navy and Weston's opinion that the levels found in several wells (0.1 ppm or less) do not warrant containing the purge water. Since EPA has not provided guidance to the contrary, we plan to proceed as currently outlined in the QAPP.
- B. The procedures for well slug tests is included in the QAPP addendum distributed to the TRC on 13 February 1991.
- C. Detection limits for all analysis will be in accordance with CLP methods. NJDEP has accepted these detection limits for this round of sampling.
- D. Based on Weston's telephone discussion with A. Jackson on 14 February 1991, Weston will provide confirmation analysis results for the Type II water for the first round of surface water samples and for the first round of ground water samples. The results for the first water lots will be provided, with the understanding that backup is available if required for all Type II water.
- E. During the telephone conference of 13 February 1991 it was also agreed that prior to the start of data validation, resumes for specific individuals doing the data validation will be provide to EPA for informational purposes. These resumes are provided in Attachment I. Also included in Attachment I, is a list of the specific individual responsible for conducting validation of determinant analytical parameters.

Specific Comments

1. Except for resumes noted in Comment E, we believe that all information on Heartland Inc. has been provided to USEPA since this request was made.
2. Critical data points will be noted in the RI report as requested.
3. See response to comment C.
4. Comment noted. This will be included in (Item 10) of the addendum to the QAPP, February 1991.
5. Decontamination waste water generated in the field will be drummed. Drums will be labeled accordingly. Disposition of the waste water will be determined based upon the analytical results.
6. Chain of custody seals will be used on all sample shipping containers.
7. HNu or OVA readings will be taken primarily for personnel safety monitoring. Readings will be taken over cuttings and other samples, but no rigorous methodology will be used. Activities will be documented in the field notes.
8. See response to comment C.
9. See Comment 1 response.
10. (Navy to respond to Data Storage Issue)
- 11a. See Comment D response.
- 11b. Rinse blanks will be analyzed for each sampling event. See February Addendum, Item 7.
12. As noted by EPA, because temporary piezometers are no longer proposed in the RI/FS Work Plan, the reference to the temporary piezometers on page 2-8 (first paragraph) of the revised QAPP should be deleted.
13. Discussion of purge water handling has been consolidated and moved to section 2.5.4.5 of the QAPP.
14. A revised figure 2-3 (monitor well construction) is included in the February Addendum to the QAPP.

15. The NJDEP requirements for monitor well construction will be included in the QAPP and the addendum. Copies of site specific well specifications are being maintained at the site. Weston has been in close contact with NJDEP representatives during the field program to discuss well construction modifications and well development issues. NJDEP has stated that final development of the wells can be determined based on the following criteria:
- When primary indicators of the discharge water (temperature, ph and specific conductance) have achieved a 3 point statistical deviation, "three consecutive readings" within 5 to 10%, or
 - When discharge water achieves an end point where it is turbid free or sediment free.
16. See response to Comment 14.
- 17a. As previously requested by NJDEP samples for soluble metals analyses will not be collected. Since only total metals will be collected field filtering will not be required.
- 17b. Comment noted regarding VOC sampling.
- 17c. Tables 2-2 and 2-3 have been replaced with new tables (5-4 and 5-5) included in the February Addendum.
18. Tables 2-2, 2-3 and 2-4 have been revised and are included in the February Addendum.
19. All soil samples will be collected consistent with the methods referenced in Section 2.5.2 of the QAPP. "At each location, sediment samples will be taken with a stainless steel trowel. Samples for VOCs analysis will be taken directly; all other samples will be homogenized in a stainless steel bowl."
20. A revised decontamination rinse sequence is included in the February Addendum to the QAPP.
- 21 and 22. These comments have been addressed in the February Addendum to the QAPP. Revised Table 2-4: Nitrate/Nitrites are included; sample container numbers have been added; holding times were corrected where necessary.
23. Field duplicates will be collected for water and soils at a rate of 5% as agreed in discussions with NJDEP and USEPA.



HEARTLANDS ENVIRONMENTAL SERVICES, INC.

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ATTACHMENT I

February 15, 1991

Mr. John Williams
Roy F. Weston Inc.
Weston Analytical Division
208 Welsh Pool Road
Lionville, PA. 19353

Dear Mr. Williams:

Per your conversation with Chris Scarpellino this afternoon regarding Heartlands data validation procedures, I have enclosed several support documents. I am submitting Ms. Magdolna M. Bodor's resume. She has been accepted by the State of New Jersey as a GC data validation reviewer. She will assist with the GC data reviewer for Pest/PCBs analysis. I have also enclosed a sample copy of a data validation report for your review. This review can be configured in any manner you require. You will notice that several pages have been left out of the sample report. These pages contain the calculations used by our staff to verify that the results are correct as reported on the different forms submitted by the laboratory.

The following personnel will be used for the sections as listed. It should be pointed out that each section will have a secondary review by a qualified individual.

Explosives	Primary - Eugene Watson Secondary - Chris Scarpellino
TAL Metals/ Cyanide	Primary - Paul Humburg Secondary - Chris Scarpellino
Pest/PCBs	Primary - Chris Scarpellino/Magdolna Bodor Secondary - Eugene Watson
Voa/SemiVOA	Primary - Eugene Watson Secondary - Chris Scarpellino/Paul Humburg
TPHC	Primary - Paul Humburg Secondary - Chris Scarpellino

I hope this will clear up any questions by the USEPA. We look forward to working with your firm in the near future. Should have any questions, please do not hesitate to call me at 314-278-8232.

Sincerely

Paul B. Humburg
Paul B. Humburg
Vice President

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RESUME

MAGDOLNA M. BODOR
CHEMIST, DATA REVIEWER

EMPLOYMENT HISTORY

- * Oct. 1990 to date: Chemist, Heartland Environmental Services, Inc.
- * Sept. 1988 to Sept. 1990: GC Analyst/Group Leader, a Commercial Environmental Laboratory
- * 1986 to 1988: GC Technician/Sample Preparation Group Leader, a Commercial Environmental Laboratory
- * 1975 to 1983: Laboratory Supervisor/Technician, County Water and Waste Water Laboratory, Hungary

SUMMARY OF EXPERIENCE

Mrs. Bodor has a total of 12 years of analytical laboratory experience, including 8 years in her native country of Hungary and 4 years in the U.S. She became a naturalized U.S. citizen in 1989. Her laboratory experience includes:

- * U.S. EPA CLP Pesticide/PCB analyses of water soil and waste samples, and data package preparation using Lotus, Nelson Chromatography and QA Formaster software systems, Methods 8080 and 608 Pest/PCB analyses, and Method 609 nitroaromatics analyses.
- * Operation of HP 5880 and 5890 Gas Chromatographs for CLP analyses using Multichrom V chromatography data system.
- * Supervision and training of staff in the preparation of soil and water samples for GC and GC/MS analyses, including the use of Gel Permeation Chromatography clean-up procedures.
- * Sample preparation and Inorganic analyses by spectrophotometric, polarographic, flame photometric, ion selective potentiometric, and wet chemical methods.

EDUCATION

C.T. Chemical Technologist in general chemistry, College of Chemistry, Veszprem, Hungary, 1979 (U.S. equivalent: B.S.)

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RESUME

EUGENE M. WATSON
ASSISTANT VICE PRESIDENT
CHIEF CHEMIST-ORGANIC SECTION

EMPLOYMENT HISTORY

- * September 1990 to date: Chief Chemist in charge of data review organic section, Heartland, ESI
- * January 1989 to March 1990: GC/MS, GC Supervisor a Commercial Environmental Laboratory
- * 1986 to March 1990: GC/MS Chemist, a Commercial Environmental Laboratory
- * 1984 to 1986: GC Chemist, a Commercial Environmental Laboratory

SUMMARY OF EXPERIENCE

Mr. Watson is an experienced chemist in the areas of gas chromatography, high performance liquid chromatography, gas chromatography/mass spectrometry, and general wet chemistry. Specific examples of his proficiency are listed below.

- * Performed extraction, analysis and documentation review of volatile organic compounds, base neutrals/acids, pesticides, polychlorinated biphenyls, dioxins, dioxin/furans, and various other organic compounds in matrices that included water, waste, soils, and foods.
- * Performed dioxin analyses by GC/MS for a USEPA contract for rapid response dioxin analyses; project required 16 hour turnaround of results.
- * Performed gas chromatography and gas chromatography/mass spectrometry analyses for Weldon Springs Sites Remedial Action Project.
- * Experienced in performing analyses within guidelines of strict quality assurance/quality control program that meets or exceeds USEPA Contract Laboratory Program/HAZWRAP/USATHAMA requirements.
- * Methodologies utilized include 40CFR, Part 136 Methods 601, 602, 603, 604, 608, 609, 610, 613, 624, 625; SW846

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Methods 8010, 8015, 8020, 8030, 8080, 8140, 8150, 8240, 8270, 8280; Drinking Water Methods 501.3, 505, 524.2, 525; CLP Methods for VOA, BNA, Pesticide/PCB, and Dioxin; and Air Toxic Methods TO-1, TO-2, TO-14, VOST.

- * Experienced in the operation/maintenance of Hewlett-Packard 5880, 5890, 5890/5970 MSD, 5995, 5988, RTE-E and RTE-A Series Software, Nelson 2600 Series Chromatography Software. Attended Hewlett-Packard RTE Software Systems Manager School and Mass Spectra Interpretation Short Course.

EDUCATION

B.A., Biology (minor Chemistry), Blackburn College, 1984.

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RESUME

**CHRISTOPHER D. SCARPELLINO
PRESIDENT
CHIEF ENVIRONMENTAL ENGINEER**

EMPLOYMENT HISTORY

- * March 1989 to date: President, Co-Founder, Heartland Environmental Services Inc.
- * August 1988 to March 1990: Quality Assurance Manager, a Commercial Environmental Laboratory
- * November 1982 to August 1988: Unit Manager/Senior Scientist, a prime Contractor for U.S. DOE
- * 1978 to 1982: Research Assistant, Univ. of Iowa

SUMMARY OF EXPERIENCE

Mr. Scarpellino has 12 years of experience in environmental chemistry and engineering. His wide range of experience includes project management, quality assurance/quality control and research. Highlights of his career include the following:

- * Providing quality data validation and various other specialized technical consulting services through Heartland ESI for a variety of government agencies and industrial clients.
- * Quality Assurance Manager for a CLP and USATHAMA lab, data validation and remediation/reconciliation of Pest/PCBs and all GC/MS work, including VOAs, Semi-VOAs, and Region VII Rapid Dioxins. Originally indentified problems associated with some analyses which lead to lab self-reporting and subsequent federal investigation.
- * Served as Quality Assurance Officer for the EG&G/Idaho National Engineering Laboratory (INEL) Hazardous Waste Site Evaluation Program, associated with Consent Order/Compliance Agreement between DOE and EPA Region X; assisted in the development of computer-based data management system for chemical analytical data validation, verification and evaluation to satisfy requirements of EPA CLP; as Unit Manager of Technical Support Unit of the Environmental, Safety and Health Division was responsible for overall site compliance with all applicable environmental regulations, i.e. RCRA CERCLA, TSCA, FIFRA, SARA, and DOE Orders.

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- * Task Manager of independent laboratory verification program for DOD demonstration project to evaluate electrical transformer PCB retrofill technologies designed to achieve reclassification of transformers to non-PCB status.
- * Program Manager for DOD Hazardous Waste Analysis Plan Update including detailed hazardous waste sampling and analysis plan development to meet EPA and State of California regulations; provided contractual guidance and subcontracting services for laboratory analyses, and modifications of hazardous waste inventory and worker right-to-know documentation systems.
- * Provided technical review and evaluation of chemical sampling and analyses for DOD industrial waste collection system evaluation and DOD dioxin incineration program including full-scale EPA trial burn and delisting of residual material.
- * Performed GC, AA and various classical wet chemistry analyses for a number of environmental monitoring and evaluation programs through the University of Iowa.

EDUCATION

M.S., Civil and Environmental Engineering, University of Iowa
1982.

B.S., Fisheries and Wildlife Biology, Iowa State University
1977.

Additional post-degree coursework in Radiochemistry.

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RESUME

**PAUL BRYAN HUMBURG
VICE-PRESIDENT
CHIEF INORGANIC CHEMIST**

EMPLOYMENT HISTORY

- * March 1989 to date: Vice-President, Co-founder, Heartland Environmental Services Inc.
- * August 1986 to March 1990: Principal Chemist/Assistant V-P, a Commercial Environmental Laboratory
- * 1984 to 1986: Inorganic Laboratory Manager, a Commercial Environmental Laboratory
- * 1977 to 1984: Environmental Chemist and Safety Manager, a Commercial Environmental Laboratory

SUMMARY OF EXPERIENCE

Mr. Humburg is an experienced chemist who brings thirteen years of laboratory management and analytical spectroscopy experience to his position. Prior to establishing Heartland ESI, Mr. Humburg was an Assistant Vice-President in charge of instrumentation for the laboratory including GC, GC/MS, AA/ICP and Radiological equipment. Previously, Mr. Humburg was associated with another environmental laboratory as Inorganic Laboratory Section Manager, supervising wet chemistry and instrumental analyses including spectroscopy (atomic absorption, ICP, etc.) His experience includes the following:

- * Providing quality data validation and various other specialized technical consulting services through Heartland ESI for a variety of government agencies and industrial clients.
- * Inorganic Analysis Manager for contamination surveys of twelve government installations for U.S. Army Toxic and Hazardous Materials Agency (USATHAMA).
- * Extensive experience performing metals analysis on soils sediments and water; conducted trace metal analyses associated with NPDES programs. Verification of discharge pollutants including analysis of turn around deadlines.
- * Project Chemist (metals analyses uses) for USEPA project for the development of effluent guidelines and standards of performance for various industrial categories.

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- * Manager, Inorganic Analyses for hazardous waste monitoring programs at U.S. Department of Energy's Savannah River Plant in Aiken, South Carolina.

- * Manager, Inorganic Analyses for U.S. Geological Survey Project to analyse samples from Aberdeen Proving Ground MD; analysis of samples from the Great Lakes region; and water quality testing programs conducted by the U.S. Corps of Engineers (St. Louis).

EDUCATION

B.S., Chemistry, University of Missouri-St. Louis 1977.

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RESUME

JACKIE CLEVELAND
CHEMIST, DATA REVIEWER

EMPLOYMENT HISTORY

- * March 1990 to date: Chemist, Heartland Environmental Services
- * Sept 1989 to March 1990: Quality Assurance Assistant, a Commercial Environmental Laboratory
- * Sept 1988 to Sept 1989: Inorganic Chemist with QA function for metals section, a Commercial Environmental Laboratory

SUMMARY OF EXPERIENCE

Mrs. Cleveland has 1.5 years of experience in atomic absorption and ICP analysis with nine months experience in data review as assistant QA/QC Officer. Her experience includes the following:

- * Operation of Perkin Elmer Atomic Absorption Instrument on environmental samples such as soil, waste and water.
- * Review of AA and ICP data for the quality assurance section. Communication with individual agencies for certification procedures to here maintain laboratory position in CLP and state programs.
- * Analysed samples for DOE and Army facilities under USATHAMA and CLP programs.
- * Approved Technical Data Reviewer by State of New Jersey Department of Environmental Protection.

EDUCATION

B.S., Chemistry University of Illinois 1988.