

**Data Validation – Ascon Water Samples**  
**January 2005**

Level II data packages were received in the Geosyntec-Knoxville, TN office in January, 2005 for data validation. The following documents were referenced with regard to performing this data validation, USEPA National Functional Guidelines for Organic and Inorganic Data Review, EPA SW846 and Standard Methods. The data review process provides information on the analytical limitations of data based on specified quality control (QC) criteria.

The data are discussed by report number and analytical test as follows:

**INL0876**

<b><u>Client ID</u></b>	<b><u>Laboratory ID</u></b>
MW16-GW04-12/04	INL0876-01
MW17-GW04-12/04	INL0876-02
TB1-GW04-12/04	INL0876-03

Matrix: Water

No case narrative was included with the data.

All technical holding times were met.

**EPA 5030B/8260B Volatile Organic Compounds (VOC)** - All results are acceptable for use without qualification.

**EPA 3520C/8270C MOD Semi-volatile Organic Compounds (SVOC), 1,4-Dioxane** – All results are acceptable for use without qualification.

**EPA 7470A Mercury –EPA 6020 Metals** – All results are acceptable for use without qualification.

**EPA 3520C/8270C Semi-volatile Organic Compounds (SVOC)** – For all of the SVOC samples, benzidine is “R” qualified as rejected due to 0% recovery of this compound in the laboratory control spike (LCS).

For sample MW17-GW04-12/04 all acid extractible compounds are “UJ” qualified as estimated with a low bias due to two of the three surrogate recoveries for that fraction being below the acceptable limit. This includes all of the phenolic compounds on the analyte list.

**INL0908**

<b><u>Client ID</u></b>	<b><u>Laboratory ID</u></b>
MW19-GW04-1204	INL0908-01
MW18-GW04-12/04	INL0908-02
MW20-GW04-12/04	INL0908-03
MW4-GW04-12/04	INL0908-04
TB2-GW04-12/04	INL0908-05

Matrix: Water

No case narrative was included with the data.

All technical holding times were met.

The chain-of-custody (COC) had an obliteration under the “Project” area instead of the proper use of error correction of a single line strikethrough with the initials and date of the person making the correction.

**EPA 5030B/8260B Volatile Organic Compounds (VOC)** - All results are acceptable for use without qualification.

**EPA 3520C/8270C MOD Semi-volatile Organic Compounds (SVOC), 1,4-Dioxane** – All results are acceptable for use without qualification.

**EPA 7470A Mercury** – All results are acceptable for use without qualification.

**EPA 6020 Metals** – All results are acceptable for use without qualification.

**EPA 3520C/8270C Semi-volatile Organic Compounds (SVOC)** – For all of the SVOC samples, benzidine is “R” qualified as rejected due to low percent recovery of this compound in the laboratory control spike (LCS). For all of the SVOC samples, benzoic acid is “UJ” qualified with a low bias due to the low recoveries of this compound in the LCS/LCSD.

**INL0998**

<b><u>Client ID</u></b>	<b><u>Laboratory ID</u></b>
AW3-GW04-12/04	INL0998-01
MW13-GW04-12/04	INL0998-02
D130A-GW04-12/04	INL0998-03
FB1-GW04-12/04	INL0998-04
EB1-GW04-12/04	INL0998-05
MW15-GW04-12/04	INL0998-06
MW9-GW04-12/04	INL0998-07
TB3-GW04-12/04	INL0998-08

Matrix: Water

No case narrative was included with the data.

All technical holding times were met for the samples.

**EPA 5030B/8260B Volatile Organic Compounds (VOC)** - All results are acceptable for use without qualification.

**EPA 3520C/8270C MOD Semi-volatile Organic Compounds (SVOC), 1,4-Dioxane** – All results are acceptable for use without qualification.

**EPA 7470A Mercury** – All results are acceptable for use without qualification.

**EPA 6020 Metals** – In sample AW3-GW04/12/04, selenium and zinc are “J-“ qualified as estimated with a low bias due to low recovery in the matrix spike/matrix spike duplicate (MS/MSD). All other results are acceptable for use without qualification.

**EPA 3520C/8270C Semi-volatile Organic Compounds (SVOC)** – For all of the SVOC samples, benzidine is “R” qualified as rejected due to 0 % recovery of this compound in the laboratory control spike (LCS). For all of the SVOC samples, benzoic acid is “UJ” qualified as estimated due to the high relative percent difference for this compound in the LCS/LCSD.

**INL1089**

<b><u>Client ID</u></b>	<b><u>Laboratory ID</u></b>
AW1A-GW04-12/04	INL1089-01
AW1-GW04-12/04	INL1089-02
NMW1-GW04-12/04	INL1089-03
AW8-GW04-12/04	INL1089-04
TB4-GW04-12/04	INL1089-05

Matrix: Water

No case narrative was included with the data.

All technical holding times were met for the samples.

**EPA 5030B/8260B Volatile Organic Compounds (VOC)** - All results are acceptable for use without qualification.

**EPA 3520C/8270C MOD Semi-volatile Organic Compounds (SVOC), 1,4-Dioxane** – All results are acceptable for use without qualification.

**EPA 7470A Mercury** – All results are acceptable for use without qualification.

**EPA 6020 Metals** – All results are acceptable for use without qualification.

**EPA 3520C/8270C Semi-volatile Organic Compounds (SVOC)** – All results are acceptable for use without qualification.

**INL1190**

<b><u>Client ID</u></b>	<b><u>Laboratory ID</u></b>
NMW1-GW04-12/04	INL1190-01
GP23-GW04-12/04	INL1190-02
GP12-GW04-12/04	INL1190-03
GP24-GW04-12/04	INL1190-04
TB5-GW04-12/04	INL1190-05

Matrix: Water

All technical holding times were met for the samples.

No case narrative was included with the data.

**EPA 5030B/8260B Volatile Organic Compounds (VOC)** - All results are acceptable for use without qualification.

**EPA 3520C/8270C MOD Semi-volatile Organic Compounds (SVOC), 1,4-Dioxane** – All results are acceptable for use without qualification.

**EPA 7470A Mercury** – All results are acceptable for use without qualification.

**EPA 6020 Metals** – For sample NMW1-GW04-12/04, silver is “J-“ qualified as estimated with a low bias due to low recoveries in the MS/MSD. All other results are acceptable for use without qualification.

**EPA 3520C/8270C Semi-volatile Organic Compounds (SVOC)** – All results are acceptable for use without qualification.

**INL1285**

<b><u>Client ID</u></b>	<b><u>Laboratory ID</u></b>
GP1-GW04-12/04	INL1285-01
AW4A-GW04-12/04	INL1285-02
AW5-GW04-12/04	INL1285-03
TB6-GW04-12/04	INL1285-04

Matrix: Water

There is a typo on the client ID for TB6-GW04-12/04 on the cover sheet.

No case narrative was included with the data.

All technical holding times were met for the samples.

**EPA 5030B/8260B Volatile Organic Compounds (VOC)** - All results are acceptable for use without qualification.

**EPA 3520C/8270C MOD Semi-volatile Organic Compounds (SVOC), 1,4-Dioxane** – All results are acceptable for use without qualification.

**EPA 7470A Mercury** – All results are acceptable for use without qualification.

**EPA 6020 Metals** – For sample GP1-GW04-12/04, cadmium and zinc are qualified as “J-” estimated with a low bias, due to low recoveries in the MS/MSD. All other results are acceptable for use without qualification.

**EPA 3520C/8270C Semi-volatile Organic Compounds (SVOC)** – For all of the SVOC samples benzidine and hexachloroethane are “UJ” qualified with a low bias due to low recoveries of these compounds in the LCS. All other results are acceptable for use without qualification.

**INL1386**

<b><u>Client ID</u></b>	<b><u>Laboratory ID</u></b>
B4A-GW04-12/04	INL1386-01
D40A-GW04-12/04	INL1386-02
FB2-GW04-12/04	INL1386-03
EB2-GW04-12/04	INL1386-04
B7-GW04-12/04	INL1386-05
TB7-GW04-12/04	INL1386-06

Matrix: Water

No case narrative was included with the data.

All technical holding times were met for the samples.

The COC indicated that although on ice, the samples were received at a temperature of 10°C. This is due to the short amount of time between sample collection and delivery to the laboratory.

**EPA 5030B/8260B Volatile Organic Compounds (VOC)** - All results are acceptable for use without qualification.

**EPA 3520C/8270C MOD Semi-volatile Organic Compounds (SVOC), 1,4-Dioxane** – All results are acceptable for use without qualification.

**EPA 7470A Mercury** – All results are acceptable for use without qualification.

**EPA 6020 Metals** – All results are acceptable for use without qualification.

**EPA 3520C/8270C Semi-volatile Organic Compounds (SVOC)** – For all of the SVOC samples, benzidine is “R” qualified as rejected due to 0 % recovery of this compound in the laboratory control spike (LCS).

**INL1414**

**Client ID**

**Laboratory ID**

CH-GW04-12/04

INL1414-01

Matrix: Water

No case narrative was included with the data.

All technical holding times were met for the samples.

The COC indicated that although on ice, the samples were received at a temperature of 9°C. This is due to the short amount of time between sample collection and delivery to the laboratory.

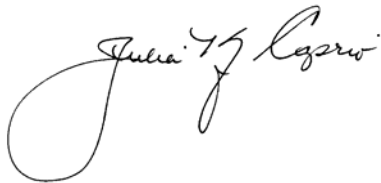
**EPA 7470A Mercury** – All results are acceptable for use without qualification.

**EPA 6020 Metals** – All results are acceptable for use without qualification.

**General Minerals:** All results are acceptable for use without qualification.

---

The data packages were reviewed. The data are acceptable for use as qualified except for the benzidine (EPA 8270) that was rejected due to unacceptably low recovery in the LCS.



Reviewer: Julia K. Caprio  
Geosyntec Consultants  
January 14, 2005