March 25, 2015

Office of Legal Affairs
Attention: Rulemaking Petitions
New Jersey Department of Environmental Protection
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P.O. Box 402
Trenton, New Jersey 08625-0402

Mark Pedersen, Assistant Commissioner
New Jersey Department of Environmental Protection
Mail Code 401-06
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Trenton New Jersey 08625

Re: Public Petition Pursuant to N.J.A.C. 7:1D-1.1 to Amend the Groundwater Quality Standards, N.J.A.C. 7:9C, Specifically a Petition for the NJDEP to Promulgate a Lower Practical Quantitation Limit (PQL) and Groundwater Quality Standard (GWQS) for the Contaminant bis (2-chloroethyl) ether, (aka BCEE), Based Upon 20 Years of Ever Improving Laboratory Detection Methodology

Greetings:

Please accept this letter petition for rulemaking on behalf of myself pursuant to N.J.S.A. 52:14B-1 *et seq.*, aka the Administrative Procedures Act. It is the understanding of the petitioner the NJDEP has the authority (power to grant rulemaking petition through its establishment in N.J.S.A. 13:1B-1 *et seq.*, and N.J.S.A. 13:1D-1 et seq.) and based upon the following:

- The New Jersey Safe Drinking Water Act (N.J.S.A. 58:12A-1 et seq.);
- The New Jersey Water Pollution Control Act as revised (N.J.S.A. 58:10A-1 through 58:10A-14.6, and 10A-15 through 58:10A-20);
- The New Jersey Water Quality Management Planning and Spill Compensation and Control Act (N.J.S.A. 58:10-23.11a through 58:10-23.11z, and 58:10-23.15 through 58:10-23.19);
- The New Jersey Water Supply Management Act (N.J.S.A. 58: 1A-1 et seq.); and
- The Pollution Prevention Act (N.J.S.A. 13:1D-35 et seq.).

As you are aware, N.J.S.A. 52:14B-4 provides as such:

> *"(f) An interested person may petition an agency to adopt a new rule, or amend or repeal any existing rule. Each agency shall prescribe by rule the form for the*

petition and the procedure for the submission, consideration and disposition of the petition. The petition shall state clearly and concisely:

(1) The substance or nature of the rule-making which is requested;
(2) The reasons for the request and the petitioner's interest in the request;
(3) References to the authority of the agency to take the requested action."

The following information is submitted pursuant to N.J.A.C. 7:1D-1.1 to support this petition.

1. The Full Name and Address of the Petitioner(s)

Ernie Risha
112 Kirschling Drive
Woolwich Township, New Jersey 08085

2. The substance or nature of the rulemaking which is requested

The constituent is an unusual, but an extremely toxic and persistent contaminant (Exhibit 1, Toxicity Information on BCEE), known as bis (2-chloroethyl) ether, aka BCEE (CAS No. 111-44-4) which has a federal recommended (but not promulgated) MCL in groundwater of 0.03 ppb (Exhibit 2, USEPA National Recommended Water Quality Criteria-2002). To support the position of its extreme toxicity, BCEE is recognized as an analogue or surrogate to the compound bis (2-chloroethyl) sulfide, also known as the chemical warfare agent Mustard Gas.

To attest to the toxicity of BCEE, the NJDEP has also promulgated a health-based Groundwater Quality Standard (GWQS) of 0.03 ppb (Exhibit 3, gwqsbb excerpt, Exhibit 4, NJDEP BCEE GWQS), it is assumed the NJDEP based this value upon a generally accepted 1 in 1,000,000 cancer risk (e.g. $1x10^{-6}$), the expose route through contaminated drinking water ingestion.

It is requested NJDEP amend Table 1 of the GWQS (N.J.A.C. 7:9C) to include a practical quantitation level (PQL) for the contaminant BCEE based upon the most recent version of the USEPA Method 8270 select ion monitoring (SIM) from USEPA's Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, also known as SW-846. The petitioner believes the current minimum detection limit (MDL) which can be obtained is 0.02 ppb and a more representative PQL for the contaminant BCEE a minimum of 0.1 ppb, the latter is thus the requested PQL for promulgation.

It is also requested NJDEP amend Table 1 of N.J.A.C. 7:9C to reflect a GWQS for BCEE more in-line with the current laboratory detection limits, in compliance with the respective and applicable laws and regulations cited below, and thus more protective of human health and the environment. The petitioner believes a more representative GQWS for the contaminant BCEE is a minimum of 0.1 ppb, corresponding to the requested and currently

obtainable PQL of 0.1 ppb. Again, this value is compared to the NJDEP's already promulgated health-based value of 0.03 ppb.

It cannot be determined what position NJDEP will take after review of this Petition, regardless, the final and agreed upon PQL value (and thus the GWQS) should be far more stringent than the current 7 ppb standard.

3. The reasons for the request

Presumably, through a series of mistakes and/or oversights, questionable science, lack of available expertise, (the reason remains unknown), NJDEP has set the current GWQS (N.J.A.C 7:9C) for BCEE at 7 ppb, believed based on 20+year old scientific information, even though NJDEP has also promulgated a health-based GWQS of 0.03 ppb (Exhibit 3, gwqsbb excerpt, Exhibit 4, NJDEP BCEE GWQS), again what was assumed based upon a generally accepted 1 in 1,000,000 cancer risk (e.g. $1x10^{-6}$). It is the opinion of the petitioner the difference in the two (2) values is that 20 years ago, no laboratory instrument (e.g. gas chromatography with various forms of detectors) could identify BCEE in water at essentially less than 7 ppb, so the GWQS was set then at 7 ppb, presumably representing the best technology at that time. BCEE is a rare contaminant in that the health-based GWQS was always far less than what technology could detect, thus a quandary always existed.

But in reality, in the last 20 years, laboratory-based detection methodology has improved substantially to where GC instrumentation was able to detect BCEE down to at least 0.4 ppb, even in 2005-2006 (Exhibit 5, SVOCs Decreasing MDLs, 2005-2013). The petitioner believes laboratories can presently obtain a MDL of BCEE down to about 0.02 ppb (Exhibit 6, Current BCEE 2014 Detection Limits). It is the understanding of the petitioner as technology improved, NJDEP was required every few years to reevaluate the ever changing MDLs/PQLs for hundreds of contaminants, including BCEE, and if the detection limits were found to be substantially lower, NJDEP was then required to "slide down" the GWQS to match the ever improving MDL/PQLs, through promulgation of new GWQS. For unexplained rationale, NJDEP did not fulfill its obligations for BCEE, probably because BCEE is an unusual and rare contaminant.

It should be noted, the petitioner believes sufficient evidence has been provided in Items 1-3 above and Items 5-6 below, as a "stand alone" document to justify approval of said petition. The "technical oversight" of the PQL/GWQS reevaluation every few years and the promulgation of standards to match ever improving methodology are the primary issues at hand. However (and although not required), in Item 4, the petitioner has provided an example of "real world" consequences caused by the 20-year oversight for which this issue remains presently unresolved, and for the foreseeable future.

4. The petitioners' interest in the request, including any relevant organization(s) affiliation or economic interest

In general, revision of the GWQS for BCEE to a more appropriate value, protective of human health and the environment (e.g. correcting a 20-year oversight), can only benefit all residences of the State of New Jersey. The number of contaminated sites in New Jersey where BCEE is present and the incorrect GWQS is being applied is currently unknown.

But to demonstrate how this type of oversight can have "real world", dire consequences, the compound BCEE is the primary contaminant in a deep, off-site groundwater plume at the Bridgeport Rental Oil Superfund (BROS) Site, in Logan Township, Gloucester County, New Jersey. The associated dissolved-phase plume for BCEE is now known to extend at least 8,000 feet in extent, (Exhibit 7, Figure 9, BCEE Isocontours). The BCEE plume resides in portions of the combined drinking water aquifer (known as the Upper PRM and the Upper Middle PRM), hundreds of residential and commercial properties downgradient rely on portions the aquifer through potable wells (e.g. domestic, agricultural, irrigation).

In the associated September 2006 Record of Decision (ROD) for the BROS Site, USEPA accepted a primary remediation goal (PRG) of 7 ppb for the compound BCEE (Exhibit 8, BCEE PRGs Bridgeport Rental), this value appears to be based upon the technically incorrect standard set by the NJDEP over 20 years ago. In the opinion of the petitioner, this value is in conflict with the CERCLA regarding applicable or relevant and appropriate requirements (ARARs) applied to most Superfund Sites, it appears to correspond to a roughly $2.3x10^{-4}$ cancer risk through groundwater ingestion. The value can also be compared to ATSDR's identification of the relevant 0.03 standard for the site in their 1995 assessment (Exhibit 9, brosha excerpt). To the knowledge of the petitioner, this value exceeds by approximately two (2) orders of magnitude any other PRG established by USEPA for any site with an uncontrolled groundwater contaminant plume within a drinking water aquifer under heavy use.

Thus, as the relevant conclusions and subsequent remedial action plans in the September 2006 ROD appear to have been based upon this critical oversight, the current plan to implement portions of the proposed remedial action as described in the 2006 ROD will not have the desired outcome. This is because the PRG for BCEE of 7 ppb **is not** protective of human health or the environment; it is woefully outdated, even as far back as 2005, thus well before the ROD was signed (Exhibit 5, SVOCs Decreasing MDLs). USEPA Region 2 did not properly evaluate the 7 ppb value (it appears they simply chose the outdated and technically incorrect NJDEP standard).

At another Superfund site (The Delaware Sand & Gravel Superfund Site, in USEPA Region 3), USEPA Region 3 is currently utilizing a 0.1 ppb value for BCEE as their PRG, corresponding to the level laboratories can presently and readily detect. This value was adopted as early as October 2011, MDLs/PQL can have only improved since then (Exhibit

10, PRGs Delaware Sand and Gravel). It should also be noted USEPA Region 3 was evaluating/using a 0.96 ppb action level as early as 2000 and a 0.096 ppb MCL as early as 2003 (Exhibit 11, Artesian November 2000 BCEE Incident, Exhibit 12, Artesian Llangollen 2003 PWSSWA). Thus it appears the 20 years of inaction by the NJDEP on the GWQS for BCEE has directly affected development of an appropriate PRG at the BROS Site.

As of the date of this letter USEPA has indicated to the petitioner it has no plans on modifying the 7 ppb PRG for the BROS Site, instead deferring to the NJDEP for any/all real or potential exposure scenarios through groundwater ingestion, as the NJDEP 1) set the technically incorrect standard which persists to the present, and 2) NJDEP did not fulfill its obligations in reviewing the ever improving PQL/MDL issue for the last 20 years.

The end result is with a current PRG of 7 ppb, roughly 70-200 times greater than what could be considered appropriate, groundwater contamination currently residing in hundreds of millions of gallons of drinking water will not be remediated in the foreseeable future and remain contaminated, essentially in perpetuity. In reality the amount of contaminated groundwater requiring treatment is in the billions of gallons due to limitations in current remediation technologies.

It is entirely possible if the BCEE plume is "remediated" to the 7 ppb standard and the site abandoned, said plume could eventually affect a receptor (e.g. potable well). The petitioner has been unable to locate information on the current level of contamination in any subject potable wells, and it is believed key portions the required well search remains outstanding, but this scenario may already be occurring. As some potable wells are believed to be currently contaminated, if USEPA continues to stand by its 7 ppb PRG for BCEE, USEPA, in theory, would not consider any potable well where BCEE concentrations are less than 7 ppb as unacceptably contaminated, thus no point of entry treatment (POET) or alternate drinking water supply would currently be necessary and said groundwater could be considered by USEPA "safe" to ingest. Thus, because of the current 7 ppb PRG and not a more appropriate PRG such as 0.1 ppb, it is the opinion of the petitioner unacceptable groundwater ingestion could presently be a reality.

It is possible the USEPA and the Responsible Party Group (RPG) will benefit significantly (said benefits are too numerous to mention in this petition) from the above technical error. It is believed an agreement exists between USEPA and the RPG resulting in USEPA potentially being responsible for a portion of costs above those agreed upon in the 2006 ROD, potentially saving each untold millions and decades of future obligations if they remediate to the technically incorrect and far less stringent 7 ppb standard, and then potentially walking away from any further obligations, all at the expense of New Jersey residences. No entity should be allowed to benefit in any manner from this "technical oversight", an obvious conflict of interest exists with both these entities, and as such their opinion regarding this issue should be carefully evaluated.

The people of New Jersey should not bear the burden of this environmental disaster because of the deficient remedial plan in the 2006 ROD, as said plan will not have the desired outcome of protecting human health and the environment.

5. The statutory authority under which the Department of Environmental Protection may take the requested action:

- N.J.S.A. 13:1B-1 and 13:1D-1 et seq.;
- The New Jersey Safe Drinking Water Act (N.J.S.A. 58:12A-1 et seq.);
- The Spill Compensation and Control Act (N.J.S.A. 58:10-23.11a et seq.);
- The Site Remediation Reform Act (N.J.S.A. 58:10C-l through 58:10C-29);
- The Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.); and
- The Brownfield and Contaminated Site Remediation Act (N.J.S.A. 58:10B-1 et seq.).

6. Existing Federal or State statutes and rules which the petitioners believe may be pertinent to the request:

- All previously cited rules above, incorporated herein.
- The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA);
- The Federal Clean Water Act (33 U.S.C. 1251 et seq.);
- The Safe Drinking Water Act (Title XIV of the Public Health Service Act, as amended);
- The Federal Water Quality Standards (CFR Title 40 Part 131);
- The National Environmental Policy Act (NEPA);
- The Emergency Planning and Community Right to Know Act (42 U.S.C. 11001 et seq. 1986);
- The Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq. 1976);
- The Toxic Substances Control Act (15 U.S.C. 2601 et seq. 1976);
- The Industrial Site Recovery Act (N.J.S.A. 13:1K-6 et seq.);
- The Technical Requirements for Site Remediation (N.J.A.C. 7:26E);
- The Priority of the Public Supplies of Potable Water Act (N.J.S.A. 58:11-9.1 through 58:11-11);
- The Water Quality Planning Act (N.J.S.A. 58:11A-1 through 58:11A-16);
- The Remediation of Contaminated Water Supplies & Establishing the Water Supply Replacement Trust Fund Act (N.J.S.A. 58:12A-22 through 58:12A-25); and
- The Environmental Rights Act, (N.J.S.A. 2A:35A-1 et seq.).

The petitioner awaits your timely response and thanks you in advance for your assistance.

Exhibit 1

Toxicity Information on BCEE

Exhibit 2

USEPA National Recommended Water Quality Criteria-2002

Tox Info on BCEE

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

BIS(2-CHLOROETHYL) ETHER

CAS # 111-44-4

This fact sheet answers the most frequently asked health questions (FAQs) about bis(2-chloroethyl) ether. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Bis(2-chloroethyl) ether is mainly used as a chemical intermediate to make pesticides, but some of it is used as a solvent and cleaner. It is irritating to the skin, eyes, nose, throat, and lungs. Bis(2-chloroethyl) ether has been found at 81 of the 1,518 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is bis(2-chloroethyl) ether?

(Pronounced bĭs′ 2 klôr′ō ĕth′əl ē′thər)

Bis(2-chloroethyl) ether is a colorless, nonflammable liquid with a strong unpleasant odor. It dissolves easily in water, and some of it will slowly evaporate to the air. It does not occur naturally.

Bis(2-chloroethyl) ether is made in factories, and most of it is used to make pesticides. Some of it is used as a solvent, cleaner, component of paint and varnish, rust inhibitor, or as a chemical intermediate to make other chemicals.

What happens to bis(2-chloroethyl) ether when it enters the environment?

- Bis(2-chloroethyl) ether released to air can be broken down by reactions with other chemicals and sunlight or can be removed by rain.
- In water, it can be broken down by bacteria.
- When released to soil, some will filter through the soil to groundwater, some will be broken down by bacteria, and some will evaporate to the air.
- Bis(2-chloroethyl) ether does not build up in the food chain.

How might I be exposed to bis(2-chloroethyl) ether?

- You are most likely to be exposed to bis(2-chloroethyl) ether if you work in a factory where it is made or used.
- People who live near a waste site or industrial facility containing bis(2-chloroethyl) ether may be exposed to it in the air they breathe or by touching contaminated soil.
- You could be exposed if you drank water that was contaminated with bis(2-chloroethyl) ether.

How can bis(2-chloroethyl) ether affect my health?

Bis(2-chloroethyl) ether causes irritation to the skin, eyes, throat, and lungs. In some cases, damage to the lungs can be severe enough to cause death. Breathing low concentrations will cause coughing and nose and throat irritation.

Animal studies show effects similar to those observed in people. These effects include irritation to the skin, nose, and lungs; lung damage; and a decrease in growth rate. Animals that survived the exposures recovered fully in 4 to 8 days.

Some animal studies indicate that bis(2-chloroethyl) ether can affect the nervous system resulting in sluggish and slow movement, staggering, unconsciousness, and death.

We do not know if bis(2-chloroethyl) ether causes reproductive effects or birth defects in people or animals.

How likely is bis(2-chloroethyl) ether to cause cancer?

The ability of bis(2-chloroethyl) ether to cause cancer in humans has not been established. There is some evidence that bis(2-chloroethyl) ether causes cancer in mice. The International Agency for Research on Cancer (IARC) has determined that bis(2-chloroethyl) ether is not classifiable as to its carcinogenicity in humans.

Is there a medical test to show whether I've been exposed to bis(2-chloroethyl) ether?

There are tests that can detect bis(2-chloroethyl) ether in some animal tissues and in environmental samples, but these tests have not been developed for measuring bis(2-chloroethyl) ether in people.

Has the federal government made recommendations to protect human health?

The EPA recommends that levels in lakes and streams should be limited to 0.03 parts per billion parts of water (0.03 ppb) to prevent possible health effects from drinking water or eating fish contaminated with bis(2-chloroethyl) ether. Any release to the environment greater than 10 pounds of bis(2-chloroethyl) ether must be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) has set a limit of 15 parts per million (15 ppm) over an 8-hour workday, 40-hour workweek.

The National Institute of Occupational Safety and Health (NIOSH) recommends that workplace air should not exceed 5 ppm bis(2-chloroethyl) ether averaged over a 10-hour workday or 40-hour workweek. Their recommended short-term exposure limit (up to 15 minutes) is 10 ppm averaged over an 8-hour period.

The federal recommendations have been updated as of July 1999.

Glossary

Carcinogenicity: Ability to cause cancer.

CAS: Chemical Abstracts Service.

Evaporate: To change into a vapor or a gas.

National Priorities List: A list of the nation's worst hazardous waste sites.

Pesticide: A substance that kills pests.

ppb: Parts per billion.

ppm: Parts per million.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1989. Toxicological profile for bis(2-chloroethyl) ether. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

Bis(chloroethyl)ether (BCEE) (CASRN 111-44-4)

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Search IRIS by Keyword GO
List of IRIS Substances
Full IRIS Summaries/Toxicological Reviews
Entire IRIS Website

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the Full IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Bis(chloroethyl)ether (BCEE)

File First On-Line: 03/31/1987
Last Significant Revision: 10/01/1991

Category	Status	Last Revised
Oral RfD Assessment	No data	
Inhalation RfC Assessment	Message	10/01/1991
Carcinogenicity Assessment	On-line	02/01/1994

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Not Assessed under the IRIS Program.

Reference Concentration for Chronic Inhalation Exposure (RfC)

Information reviewed but value not estimated. Refer to Full IRIS Summary.

Carcinogenicity Assessment for Lifetime Exposure

Weight of Evidence Characterization

Weight of Evidence (1986 US EPA Guidelines):
B2 (Probable human carcinogen - based on sufficient evidence of carcinogenicity in animals)

Weight of Evidence Narrative:
Positive carcinogenicity results in two strains of mice and evidence of mutagenicity

This may be a synopsis of the full weight-of-evidence narrative. See Full IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Oral Slope Factor(s)	Extrapolation Method
1.1 per mg/kg-day	Linearized multistage procedure, extra risk

Drinking Water Unit Risk(s):
$3.3x10^{-5}$ per ug/L

Drinking Water Concentrations at Specified Risk Levels

Risk Level	Concentration
E-4 (1 in 10,000)	3 ug/L
E-5 (1 in 100,000)	$3x10^{-1}$ ug/L
E-6 (1 in 1,000,000)	$3x10^{-2}$ ug/L

Dose-Response Data (Carcinogenicity, Oral Exposure)
Tumor Type: Hepatomas
Test Species: Mouse/(C57B1/6 x C3H/AnF)F1, male
Route: Oral, Gavage followed by diet
Reference: Innes et al., 1969

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Air Unit Risk(s)	Extrapolation Method
$3.3x10^{-4}$ per ug/m3	Linearized multistage procedure, extra risk

Air Concentrations at Specified Risk Levels

Risk Level	Concentration
E-4 (1 in 10,000)	$3x10^{-1}$ ug/m3
E-5 (1 in 100,000)	$3x10^{-2}$ ug/m3
E-6 (1 in 1,000,000)	$3x10^{-3}$ ug/m3

Dose-Response Data (Carcinogenicity, Inhalation Exposure)
Tumor Type: Hepatomas
Test Species: Mouse/(C57B1/6 x C3H/AnF)F1, male
Route: Oral, Gavage followed by diet
Reference: Innes et al., 1969

Revision History

Review Full IRIS Summary for complete Revision History.

Synonyms

111-44-4
BCEE
beta,beta'-Dichloroethyl ether
Bis(chloroethyl)ether
Bis(2-chloroethyl) ether
Bis(beta-chloroethyl) ether
Chlorex
1-Chloro-2-(beta-chloroethoxy)ethane
Chloroethyl ether
Clorex
DCEE

2,2'-Dichloorethylether
2,2'-Dichlor-diaethylaether
2,2'-Dichlorethyl ether
beta,beta-Dichlorodiethyl ether
Dichloroether
Dichloroethyl ether
Di(2-chloroethyl) ether
2,2'-Dichloroethyl ether
Di(beta-chloroethyl)ether
sym-Dichloroethyl ether
Dichloroethyl oxide
2,2'-Dicloroetiletere
Dwuchlorodwuetylowy eter
ENT 4,504
Ethane, 1,1'-oxybis(2-chloro-
Ether, bis(2-chloroethyl)
Ether dichlore
1,1'-Oxybis(2-chloro)ethane
Oxyde de chlorethyle
RCRA Waste Number u025
UN 1916
Bis(chloroethyl)ether (BCEE)

Last Updated on Tuesday, April 4, 2006

United States
Environmental Protection
Agency

Office of Water
Office of Science and Technology
(4304T)

EPA-822-R-02-047
November 2002

EPA

National Recommended Water Quality Criteria: 2002

(6)

	Priority Pollutant	CAS Number	Freshwater CMC (µg/L)	Freshwater CCC (µg/L)	Saltwater CMC (µg/L)	Saltwater CCC (µg/L)	Human Health for Consumption of: Water + Organism (µg/L)	Human Health for Consumption of: Organism Only (µg/L)	FR Cite/ Source
62	Benzo(b)Fluoranthene	205992					0.0038 B,C	0.018 B,C	65FR66443
63	Benzo(ghi)Perylene	191242							
64	Benzo(k)Fluoranthene	207089					0.0038 B,C	0.018 B,C	65FR66443
65	Bis(2-Chloroethoxy)Methane	111911							
66	Bis(2-Chloroethyl)Ether	111444					0.030 B,C	0.53 B,C	65FR66443
67	Bis(2-Chloroisopropyl)Ether	108601					1,400 B	65,000 B	65FR66443
68	Bis(2-Ethylhexyl)Phthalate[X]	117817					1.2 B,C	2.2 B,C	65FR66443
69	4-Bromophenyl Phenyl Ether	101553							
70	Butylbenzyl Phthalate[W]	85687					1,500 B	1,900 B	65FR66443
71	2-Chloronaphthalene	91587					1,000 B	1,600 B	65FR66443
72	4-Chlorophenyl Phenyl Ether	7005723							
73	Chrysene	218019					0.0038 B,C	0.018 B,C	65FR66443
74	Dibenzo(a,h)Anthracene	53703					0.0038 B,C	0.018 B,C	65FR66443
75	1,2-Dichlorobenzene	95501					2,700 B	17,000 B	65FR31682
76	1,3-Dichlorobenzene	541731					320	960	65FR66443
77	1,4-Dichlorobenzene	106467					400 Z	2,600	65FR31682
78	3,3'-Dichlorobenzidine	91941					0.021 B,C	0.028 B,C	65FR66443

Exhibit 3

Gwqsbb excerpt

Exhibit 4

NJDEP BCEE GWQS

GWQSBB

BASIS AND BACKGROUND FOR CRITERIA DERIVATION AND PRACTICAL QUANTITATION LEVELS

GROUND WATER QUALITY STANDARDS RULE RECODIFICATION AND READOPTION WITH AMENDMENTS N.J.A.C 7:9C

State of New Jersey
Department of Environmental Protection
September 2004

TABLE A - SPECIFIC GROUND WATER QUALITY CRITERIA - DERIVATION FACTORS FOR HUMAN HEALTH CONCERNS

Constituent	CASRN	Oral RfD[1] (mg/kg-day)	Oral Slope Factor[1] (mg/kg-day)$^{-1}$	Carcinogen Group[1]	RSC[2] (%)	Criterion[3] (ug/L)		Primary Basis for Proposed Revision
						Existing	Proposed	
Benzo(k)fluoranthene	207-08-9		0.073[e]	B2		NA	0.5	ISC
Benzoic Acid	65-85-0	4		D	20	-	30,000	ISC
Benzyl Alcohol	100-51-6	0.3[a]			20	2,000	No Change	
Beryllium (Total)	7440-41-7	0.002		C[b]	20	0.008	1	IRIS/NPDWR/See B&B Text
alpha-BHC (alpha-HCH)	319-84-6		6.3	B2		0.006	No Change	
beta-BHC (beta-HCH)	319-85-7		1.8	C		0.2	0.02	New Group C approach
gamma-BHC (gamma-HCH/Lindane)	58-89-9		1.3[a]	B2-C		0.2	0.03	HEAST/New Group C approach
1,1-Biphenyl (Diphenyl)	92-52-4	0.05		D	20	-	400	ISC
Bis(2-chloroethyl) Ether	111-44-4		1.1	B2		0.03	No Change	
Bis(2-chloroisopropyl) Ether	108-60-1	0.04			20	300	No Change	CASRN changed in IRIS from 39638-32-9 on 6/06/00
Bis(2-ethylhexyl) Phthalate (DEHP)	117-81-7		0.014	B2		3	2	Rounding
Bromodichloromethane (Dichlorobromomethane)	75-27-4		0.062	B2		0.3	0.6	IRIS
Bromoform	75-25-2		0.0079	B2		4	No Change	
n-Butanol (n-Butyl Alcohol)	71-36-3	0.1		D	20	-	700	ISC/RfD rounding
tertiary-Butyl Alcohol (TBA)	75-65-0	0.18[c]		C[c]	20	-	100	ISC/See B&B text
Butylbenzyl Phthalate	85-68-7	0.2		C	20	100	No Change	See B&B text
Cadmium (Total)	7440-43-9	0.0005			25	4	No Change	
Camphor	76-22-2	0.18[c]		D[c]	20	-	1,000	See B&B text
Carbofuran	1563-66-2	0.005			20	40	No Change	
Carbon Disulfide	75-15-0	0.1		D[c]	20	-	700	ISC/ RfD rounding
Carbon Tetrachloride[4]	56-23-5		0.091	B2		0.4	No Change	
Chlordane[4]	57-74-9		2.7	B2		0.01	No Change	
4-Chloroaniline (p-Chloroaniline)	106-47-8	0.004		D[c]	20	-	30	ISC

NJDEP BCEE [redacted] GWQS

This is a courtesy copy of this rule. All of the Department's rules are compiled in Title 7 of the New Jersey Administrative Code.

N.J.A.C. 7:9C

Ground Water Quality Standards

Statutory Authority: N.J.S.A. 58:10A-1 et seq. and 58:11A-1 et seq.

Date Last Amended: July 22, 2010 (see August 16, 2010 New Jersey Register)
Readopted without Change: March 4, 2014 (see April 7, 2014 New Jersey Register)
For regulatory history and effective dates, see the New Jersey Administrative Code.

Appendix Table 1 - Specific Ground Water Quality Criteria

Specific Ground Water Quality Criteria - Class IIA and Practical Quantitation Levels

Constituent	CASRN	Ground Water Quality Criterion*	Practical Quantitation Level (PQL)*	Higher of PQL and Ground Water Quality Criterion (µg/L)*
Acenaphthene	83-32-9	400	10	400
Acetone	67-64-1	6,000	10	6,000
Acetophenone	98-86-2	700	10	700
Acrolein	107-02-8	4	5	5
Acrylamide	79-06-1	0.008	0.2	0.2
Acrylonitrile	107-13-1	0.06	2	2
Adipates (Di(2-ethylhexyl)adipate) (DEHA)	103-23-1	30	3	30
Alachlor	15972-60-8	0.4	0.1	0.4
Aldicarb sulfone	1646-88-4	7	0.3	7
Aldrin	309-00-2	0.002	0.04	0.04
Aluminum	7429-90-5	200	30	200
Ammonia (Total)	7664-41-7	3,000	200	3,000
Aniline	62-53-3	6	2	6
Anthracene	120-12-7	2,000	10	2,000
Antimony (Total)	7440-36-0	6	3	6
Arsenic (Total)	7440-38-2	0.02	3	3
Asbestos	1332-21-4	$7X10^6$f/L>10um[a]	10^6f/L>10um[a]	$7X10^6$f/L>10um[a]
Atrazine	1912-24-9	3	0.1	3
Barium**	7440-39-3	6,000	200	6,000
Benz(a)anthracene	56-55-3	0.05	0.1	0.1
Benzene	71-43-2	0.2	1	1
Benzidine	92-87-5	0.0002	20	20
Benzo(a)pyrene (BaP)	50-32-8	0.005	0.1	0.1
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	0.05	0.2	0.2
Benzo(k)fluoranthene	207-08-9	0.5	0.3	0.5
Benzoic acid	65-85-0	30,000	50	30,000
Benzyl alcohol	100-51-6	2,000	20	2,000
Beryllium	7440-41-7	1	1	1
alpha-BHC- (alpha-HCH)	319-84-6	0.006	0.02	0.02
beta-BHC (beta-HCH)	319-85-7	0.02	0.04	0.04
gamma-BHC (gamma-HCH/Lindane)	58-89-9	0.03	0.02	0.03
1,1-Biphenyl	92-52-4	400	10	400
Bis(2-chloroethyl) ether	111-44-4	0.03	7	7
Bis(2-chloroisopropyl) ether	108-60-1	300	10	300
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	2	3	3
Bromodichloromethane (Dichlorobromomethane)	75-27-4	0.6	1	1
Bromoform	75-25-2	4	0.8	4
n-Butanol (n-Butyl alcohol)	71-36-3	700	20	700
tertiary-Butyl alcohol (TBA)	75-65-0	100	2	100
Butylbenzyl phthalate	85-68-7	100	1	100
Cadmium	7440-43-9	4	0.5	4
Camphor	76-22-2	1,000	0.5	1,000
Carbofuran	1563-66-2	40	0.5	40
Carbon disulfide	75-15-0	700	1	700
Carbon tetrachloride	56-23-5	0.4	1	1

(2)

Exhibit 5

SVOCs Decreasing MDLs, 2005-2013

SVOC Decreasing MDLs

Florisil Columns," *Journal of the Association of Official Analytical Chemists, 51*, 29 (1968).

8. Provost, L.P., and Elder, R.S. "Interpretation of Percent Recovery Data," *American Laboratory, 15*, 58–63 (1983). (The value 2.44 used in the equation in Section 8.3.3 is two times the value 1.22 derived in this report.)

9. ASTM Annual Book of Standards, Part 31, D3370–76. "Standard Practices for Sampling Water," American Society for Testing and Materials, Philadelphia.

10. "Methods 330.4 (Titrimetric, DPD–FAS) and 330.5 (Spectrophotometric, DPD) for Chlorine, Total Residual," Methods for Chemical Analysis of Water and Wastes, EPA–600/4–79–020, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268, March 1979.

11. Burke, J.A. "Gas Chromatography for Pesticide Residue Analysis; Some Practical Aspects," *Journal of the Association of Official Analytical Chemists, 48*, 1037 (1965).

12. "EPA Method Study 21, Method 611, Haloethers," EPA 600/4–84–062, National Technical Information Service, PB84–206939, Springfield, Virginia 22161, June 1984.

TABLE 1—CHROMATOGRAPHIC CONDITIONS AND METHODS DETECTION LIMITS

Parameters	Retention time (min)		Method detection limit (µ/L)
	Column 1	Column 2	
Bis(2-chloroisopropyl) ether	8.4	9.7	0.8
Bis(2-chloroethyl) ether	9.3	8.1	0.3
Bis(2-chloroethoxy) methane	13.1	10.0	0.5
4-Chlorophenyl ether	19.4	15.0	3.9
4-Bromophenyl phenyl ether	21.2	16.2	2.3

AColumn 1 conditions: Supelcoport (100/120 mesh) coated with 3% SP–1000 packed in a 1.8 m long x 2 mm ID glass column with helium carrier gas at 40 mL/min. flow rate. Column temperature held at 60 °C for 2 min. after injection then programmed at 8 °C/min. to 230 °C and held for 4 min. Under these conditions the retention time for Aldrin is 22.6 min.

AColumn 2 conditions: Tenax–GC (60/80 mesh) packed in a 1.8 m long x 2mm ID glass column with helium carrier gas at 40 mL/min. flow rate. Column temperature held at 150 °C for 4 min. after injection then programmed at 16 °C/min. to 310 °C. Under these conditions the retention time for Aldrin is 18.4 min.

TABLE 2—QC ACCEPTANCE CRITERIA—METHOD 611

Parameter	Test conc. (µg/L)	Limit for s (µg/L)	Range for $\bar{X}$ (µg/L)	Range for P, P_s, percent
Bis (2-chloroethyl)ether	100	28.3	28.3–136.8	11–152
Bis (2-chloroethoxy)methane	100	25.7	27.3–115.0	12–128
Bis (2-chloroisopropyl)ether	100	32.7	26.4–147.0	9–155
4-Bromophenyl phenyl ether	100	39.3	7.6 –167.5	D–189
4-Chlorophenyl phenyl ether	100	30.7	15.4–152.5	D–170

s=Standard deviation of four recovery measurements, in µg/L. (Section 8.2.4).
$\bar{X}$=Average recovery for four recovery measurements, in µg/L. (Section 8.2.4).
P, P_s=Percent recovery measured (Section 8.3.2, Section 8.4.2).
D=Detected; result must be greater than zero.

NOTE: These criteria are based directly upon the method performance data in Table 3. Where necessary, the limits for recovery have been broadened to assure applicability of the limits to concentrations below those used to develop Table 3.

TABLE 3—METHOD ACCURACY AND PRECISION AS FUNCTIONS OF CONCENTRATION—METHOD 611

Parameter	Accuracy, as recovery, X' (µg/L)	Single analyst precision, s_r' (µg/L)	Overall precision, S' (µg/L)
Bis(2-chloroethyl) ether	0.91C+0.54	$0.19\bar{X}$+0.28	$0.35\bar{X}$+0.36
Bis(2-chloroethoxy) methane	0.71C+0.13	$0.20\bar{X}$+0.15	$0.33\bar{X}$+0.11
Bis(2-chloroisopropyl) ether	0.65C+1.67	$0.20\bar{X}$+1.05	$0.36\bar{X}$+0.79
4-Bromophenyl phenyl ether	0.85C+2.65	$0.26\bar{X}$+0.21	$0.47\bar{X}$+0.37
4-Chlorophenyl phenyl ether	0.82C+1.97	$0.18\bar{X}$+2.13	$0.41\bar{X}$+0.55

X' = Expected recovery for one or more measurements of a sample containing a concentration of C, in µg/L.
s_r' = Expected single analyst standard deviation of measurements at an average concentration found of $\bar{X}$, in µg/L.
S' = Expected interlaboratory standard deviation of measurements at an average concentration found of X, in µg/L.
C =True value for the concentration, in µg/L.
$\bar{X}$ = Average recovery found for measurements of samples containing a concentration of C, in µg/L.

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Select Instrument	Select Method	Select Effective Date
GCMS_6	625	3/23/2005

Analyte	Slope	Intercept	Coefficient
1,2,4,5-Tetrachlorobenzene	0.61276		
1,2,4-Trichlorobenzene	0.36778		
1,2-Dichlorobenzene	0.44865		
1,2-Diphenylhydrazine	0.17959		
1,3-Dichlorobenzene	0.38962		
1,4-Dichlorobenzene	0.31127		
2,4,5-Trichlorophenol	1.35511		
2,4,6-Trichlorophenol	1.70254		
2,4-Dichlorophenol	1.22146		
2,4-Dimethylphenol	1.16983		
2,4-Dinitrophenol	0.98312		
2,4-Dinitrotoluene	0.50475		
2,6-Dinitrotoluene	0.33756		
2-Chloronaphthalene	0.42581		
2-Chlorophenol	0.67489		
2-Methylnaphthalene	1.02567		
2-Methylphenol	2.2303		
2-Nitroaniline	1.51577		
2-Nitrophenol	1.33002		
3&4-Methylphenol	2.72146		
3,3'-Dichlorobenzidine	4.21579		
3-Nitroaniline	2.70486		
4,6-Dinitro-2-methylphenol	1.23839		
4-Bromophenyl-phenylether	0.4874		
4-Chloro-3-methylphenol	1.98577		
4-Chloroaniline	7.01139		
4-Chlorophenyl-phenylether	0.38529		
4-Nitroaniline	2.43536		
4-Nitrophenol	1.14126		
Acenaphthene	0.35659		
Acenaphthylene	0.19948		
Aniline	8.8321		
Anthracene	0.2521		
Benzidine	0.58332		
Benzo[a]anthracene	0.41828		
Benzo[a]pyrene	0.44865		
Benzo[b]fluoranthene	0.50866		
Benzo[g,h,i]perylene	0.36492		
Benzo[k]fluoranthene	0.46404		
Benzoic Acid	4.30785		
Benzyl alcohol	1.72293		
bis(2-Chloroethoxy)methane	0.29276		
* bis(2-Chloroethyl)ether	0.38785		
bis(2-chloroisopropyl)ether	0.29502		
bis(2-Ethylhexyl)phthalate	0.27003		
Butylbenzylphthalate	0.40993		
Carbazole	0.35314		
Chrysene	0.18662		
Dibenzo[a,h]anthracene	0.50357		

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Dibenzofuran	1.73897		
Diethylphthalate	0.23881		
Dimethylphthalate	0.5042		
Di-n-butylphthalate	0.22438		
Di-n-octylphthalate	0.23616		
Diphenyl Ether	0.56546		
Fluoranthene	0.36373		
Fluorene	0.21281		
Hexachlorobenzene	0.56375		
Hexachlorobutadiene	0.34479		
Hexachlorocyclopentadiene	6.22466		
Hexachloroethane	0.51333		
Indeno[1,2,3-cd]pyrene	0.71935		
Isophorone	0.23022		
Methylnaphthalenes	1.02567		
Naphthalene	0.18998		
Nitrobenzene	0.83094		
N-Nitrosodimethylamine	6.40769		
N-Nitroso-di-n-propylamine	13.87282		
n-Nitrosodiphenylamine	0.37059		
Pentachlorophenol	0.95832		
Phenanthrene	0.23077		
Phenol	0.99544		
Pyrene	0.17119		
Pyridine	2.25581		

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(1B)

Compound List Report

Product: AB625PPL Semivolatiles, PPL
Matrix: AQ Aqueous

[redacted], 2005 10:12 am

Method List:	AB625 AQ	**Method Ref:** EPA 625	LJ16998
Report List:	ABPPL ALL	ABN PPL List	LJ347
RL/MDL Factor:	1		

Compound	CAS No.	RL	MDL	Units
2-chlorophenol	95-57-8	5.0	4.3	ug/l
4-Chloro-3-methylphenol	59-50-7	5.0	4.7	ug/l
2,4-Dichlorophenol	120-83-2	5.0	0.73	ug/l
2,4-Dimethylphenol	105-67-9	5.0	1.0	ug/l
4,6-Dinitro-2-methylphenol	51-28-5	20	1.1	ug/l
2,4-Dinitrophenol	534-52-1	10	0.65	ug/l
2-Nitrophenol	88-75-5	5.0	0.73	ug/l
4-Nitrophenol	100-02-7	20	2.3	ug/l
Pentachlorophenol	87-86-5	10	0.75	ug/l
Phenol	108-95-2	5.0	1.8	ug/l
2,4,6-Tribromophenol	88-06-2	5.0	0.80	ug/l
Acenaphthene	83-32-9	2.0	0.30	ug/l
Acenaphthylene	208-96-8	2.0	0.35	ug/l
Anthracene	120-12-7	2.0	0.22	ug/l
Benzidine	92-87-5	20	0.22	ug/l
Benzo(a)anthracene	56-55-3	2.0	0.27	ug/l
Benzo(a)pyrene	50-32-8	2.0	0.38	ug/l
Benzo(b)fluoranthene	205-99-2	2.0	0.37	ug/l
Benzo(ghi)perylene	191-24-2	2.0	0.50	ug/l
Benzo(k)fluoranthene	207-08-9	2.0	0.37	ug/l
4-Bromophenyl-phenylether	101-55-3	2.0	0.54	ug/l
Butylbenzyl phthalate	85-68-7	2.0	0.54	ug/l
2-Chloronaphthalene	91-58-7	2.0	0.38	ug/l
4-Chlorophenyl-phenylether	106-47-8	2.0	0.43	ug/l
Chrysene	218-01-9	2.0	0.26	ug/l
bis(2-Chloroethoxy)methane	111-91-1	2.0	0.34	ug/l
bis(2-Chloroethyl)ether	111-44-4	2.0	0.49	ug/l
bis(2-Chloroisopropyl)ether	108-60-1	2.0	0.44	ug/l
bis(2-Ethylhexyl)phthalate	7005-72-3	5.0	1.0	ug/l
1,2-Dichlorobenzene	95-50-1	2.0	0.24	ug/l
1,2-Diphenylhydrazine	122-66-7	5.0	0.52	ug/l
1,3-Dichlorobenzene	541-73-1	2.0	0.32	ug/l
1,4-Dichlorobenzene	106-46-7	2.0	0.25	ug/l
2,4-Dinitrotoluene	121-14-2	5.0	0.78	ug/l
2,6-Dinitrotoluene	606-20-2	5.0	0.62	ug/l
3,3'-Dichlorobenzidine	91-94-1	5.0	0.39	ug/l
Dibenzo(a,h)anthracene	53-70-3	2.0	0.58	ug/l
Diethyl phthalate	84-74-2	2.0	0.79	ug/l
Dimethyl phthalate	131-11-3	2.0	0.63	ug/l
Di-n-butyl phthalate	84-66-2	5.0	1.4	ug/l
Di-n-octyl phthalate	117-84-0	2.0	0.58	ug/l
Fluoranthene	206-44-0	2.0	0.63	ug/l
Fluorene	86-73-7	2.0	0.89	ug/l

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Compound List Report

Product: AB625PPL Semivolatiles, PPL
Matrix: AQ Aqueous

[redacted] 2005 10:12 am

Method List:	AB625 AQ	**Method Ref:** EPA 625	LJ16998
Report List:	ABPPL ALL	ABN PPL List	LJ347
RL/MDL Factor:	1		

Compound	CAS No.	RL	MDL	Units
[redacted]	118-74-1	[redacted]	1.2	ug/l
	87-68-3		0.41	ug/l
	77-47-4		0.45	ug/l
	67-72-1		0.67	ug/l
	193-39-5		1.5	ug/l
	78-59-1		0.54	ug/l
	91-20-3		1.0	ug/l
	98-95-3		0.61	ug/l
	62-75-9		0.89	ug/l
	621-64-7		0.50	ug/l
	86-30-6		0.80	ug/l
	85-01-8		0.23	ug/l
	129-00-0		0.58	ug/l
	120-82-1		0.32	ug/l

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58 compounds reported in list ABPPL

Lancaster Laboratories

Compounds	MDL	LOQ	Units
PPL by 624			
1,1,1-Trichloroethane	1.00000	5.00000	ug/l
1,1,2,2-Tetrachloroethane	1.00000	5.00000	ug/l
1,1,2-Trichloroethane	1.00000	5.00000	ug/l
1,1-Dichloroethane	1.00000	5.00000	ug/l
1,1-Dichloroethene	0.90000	5.00000	ug/l
1,2-Dichloroethane	1.00000	5.00000	ug/l
1,2-Dichloropropane	1.00000	5.00000	ug/l
2-Chloroethyl Vinyl Ether	2.00000	10.00000	ug/l
Acrolein	10.00000	50.00000	ug/l
Acrylonitrile	10.00000	50.00000	ug/l
Benzene	0.90000	5.00000	ug/l
Bromodichloromethane	0.70000	5.00000	ug/l
Bromoform	0.80000	5.00000	ug/l
Bromomethane	2.00000	5.00000	ug/l
Carbon Tetrachloride	1.00000	5.00000	ug/l
Chlorobenzene	0.80000	5.00000	ug/l
Chloroethane	2.00000	5.00000	ug/l
Chloroform	1.00000	5.00000	ug/l
Chloromethane	2.00000	5.00000	ug/l
Dibromochloromethane	1.00000	5.00000	ug/l
Ethylbenzene	0.80000	5.00000	ug/l
Methylene Chloride	2.00000	5.00000	ug/l
Tetrachloroethene	1.00000	5.00000	ug/l
Toluene	0.80000	5.00000	ug/l
Trichloroethene	1.00000	5.00000	ug/l
Trichlorofluoromethane	2.00000	5.00000	ug/l
Vinyl Chloride	2.00000	5.00000	ug/l
cis-1,2-Dichloroethene	1.00000	5.00000	ug/l
cis-1,3-Dichloropropene	1.00000	5.00000	ug/l
trans-1,2-Dichloroethene	1.00000	5.00000	ug/l
trans-1,3-Dichloropropene	0.60000	5.00000	ug/l
Acid Extractables			
2,4,5-Trichlorophenol	0.40000	10.00000	ug/l
2,4,6-Trichlorophenol	0.70000	10.00000	ug/l
2,4-Dichlorophenol	0.30000	10.00000	ug/l
2,4-Dimethylphenol	0.30000	10.00000	ug/l
2,4-Dinitrophenol	10.00000	60.00000	ug/l
2-Chlorophenol	0.30000	10.00000	ug/l
2-Methylphenol	0.30000	10.00000	ug/l
2-Nitrophenol	0.40000	10.00000	ug/l
4,6-Dinitro-2-methylphenol	4.00000	25.00000	ug/l
4-Chloro-3-methylphenol	0.30000	10.00000	ug/l
4-Methylphenol	0.30000	10.00000	ug/l
4-Nitrophenol	5.00000	25.00000	ug/l
Benzoic acid	15.00000	50.00000	ug/l
Pentachlorophenol	3.00000	25.00000	ug/l
Phenol	0.40000	10.00000	ug/l
Base Neutrals			
1,1'-Biphenyl	0.30000	10.00000	ug/l
1,2,4-Trichlorobenzene	0.30000	10.00000	ug/l

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Compound	MDL	LOQ	Unit
1,2-Dichlorobenzene	0.30000	10.00000	ug/l
1,2-Diphenylhydrazine	0.20000	10.00000	ug/l
1,3-Dichlorobenzene	0.30000	10.00000	ug/l
1,4-Dichlorobenzene	0.30000	10.00000	ug/l
1,4-Dioxane	0.90000	5.00000	ug/l
1-Methylphenanthrene	0.80000	10.00000	ug/l
2,3-Dichloroaniline	0.30000	10.00000	ug/l
2,3-Dinitrotoluene	1.00000	10.00000	ug/l
2,4-Dinitrotoluene	0.40000	10.00000	ug/l
2,6-Dinitrotoluene	0.30000	10.00000	ug/l
2-Chloronaphthalene	0.20000	10.00000	ug/l
2-Methylnaphthalene	0.30000	10.00000	ug/l
2-Nitroaniline	0.30000	10.00000	ug/l
3,3'-Dichlorobenzidine	0.80000	20.00000	ug/l
3-Nitroaniline	0.40000	10.00000	ug/l
4-Bromophenyl-phenylether	0.30000	10.00000	ug/l
4-Chloroaniline	0.30000	10.00000	ug/l
4-Chlorophenyl-phenylether	0.30000	10.00000	ug/l
4-Nitroaniline	0.40000	10.00000	ug/l
Acenaphthene	0.30000	10.00000	ug/l
Acenaphthylene	0.30000	10.00000	ug/l
Acetophenone	1.00000	10.00000	ug/l
Aniline	0.50000	10.00000	ug/l
Anthracene	0.20000	10.00000	ug/l
Benzidine	30.00000	100.00000	ug/l
Benzo(a)anthracene	0.20000	10.00000	ug/l
Benzo(a)pyrene	0.30000	10.00000	ug/l
Benzo(b)fluoranthene	0.30000	10.00000	ug/l
Benzo(g,h,i)perylene	0.20000	10.00000	ug/l
Benzo(k)fluoranthene	0.20000	10.00000	ug/l
Benzyl alcohol	0.70000	20.00000	ug/l
Butylbenzylphthalate	0.80000	10.00000	ug/l
Carbazole	0.20000	10.00000	ug/l
Chrysene	0.20000	10.00000	ug/l
Di-n-butylphthalate	0.50000	10.00000	ug/l
Di-n-octylphthalate	0.50000	10.00000	ug/l
Dibenz(a,h)anthracene	0.40000	10.00000	ug/l
Dibenzofuran	0.20000	10.00000	ug/l
Diethylphthalate	0.30000	10.00000	ug/l
Dimethylphthalate	1.00000	10.00000	ug/l
Diphenyl ether	0.50000	20.00000	ug/l
Fluoranthene	0.30000	10.00000	ug/l
Fluorene	0.30000	10.00000	ug/l
Hexachlorobenzene	1.00000	10.00000	ug/l
Hexachlorobutadiene	0.80000	10.00000	ug/l
Hexachlorocyclopentadiene	4.00000	15.00000	ug/l
Hexachloroethane	0.40000	10.00000	ug/l
Indeno(1,2,3-cd)pyrene	0.30000	10.00000	ug/l
Isophorone	0.30000	10.00000	ug/l
N-Nitroso-di-n-propylamine	0.40000	10.00000	ug/l
N-Nitrosodimethylamine	0.30000	10.00000	ug/l
N-Nitrosodiphenylamine	0.30000	10.00000	ug/l
Naphthalene	0.20000	10.00000	ug/l
Nitrobenzene	0.50000	10.00000	ug/l
Phenanthrene	0.20000	10.00000	ug/l
Pyrene	0.20000	10.00000	ug/l
Pyridine	0.40000	10.00000	ug/l
a-Terpineol	0.40000	10.00000	ug/l
bis(2-Chloroethoxy)methane	0.50000	10.00000	ug/l
bis(2-Chloroethyl)ether	0.40000	10.00000	ug/l

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2005

Compounds	MDL	LOQ	Units
bis(2-Chloroisopropyl)ether	0.30000	10.00000	ug/l
bis(2-Ethylhexyl)phthalate	1.00000	10.00000	ug/l
n-Decane	1.00000	10.00000	ug/l
n-Docosane	2.00000	10.00000	ug/l
n-Dodecane	2.00000	10.00000	ug/l
n-Eicosane	2.00000	10.00000	ug/l
n-Hexadecane	1.00000	10.00000	ug/l
n-Octadecane	1.00000	10.00000	ug/l
n-Tetradecane	2.00000	10.00000	ug/l
o-Toluidine	0.40000	10.00000	ug/l
Base Neutrals (cont)			
1,4-Dioxane	0.90000	5.00000	ug/l
1-Methylphenanthrene	0.80000	10.00000	ug/l
2,3-Dichloroaniline	0.30000	10.00000	ug/l
2,3-Dinitrotoluene	1.00000	10.00000	ug/l
3,3'-Dichlorobenzidine	0.80000	20.00000	ug/l
Acetophenone	1.00000	10.00000	ug/l
Anthracene	0.20000	10.00000	ug/l
Benzidine	30.00000	100.00000	ug/l
Benzo(a)anthracene	0.20000	10.00000	ug/l
Benzo(a)pyrene	0.30000	10.00000	ug/l
Benzo(b)fluoranthene	0.30000	10.00000	ug/l
Benzo(g,h,i)perylene	0.20000	10.00000	ug/l
Benzo(k)fluoranthene	0.20000	10.00000	ug/l
Butylbenzylphthalate	0.80000	10.00000	ug/l
Carbazole	0.20000	10.00000	ug/l
Chrysene	0.20000	10.00000	ug/l
Di-n-butylphthalate	0.50000	10.00000	ug/l
Di-n-octylphthalate	0.50000	10.00000	ug/l
Dibenz(a,h)anthracene	0.40000	10.00000	ug/l
Fluoranthene	0.30000	10.00000	ug/l
Indeno(1,2,3-cd)pyrene	0.30000	10.00000	ug/l
Pyrene	0.20000	10.00000	ug/l
Pyridine	0.40000	10.00000	ug/l
a-Terpineol	0.40000	10.00000	ug/l
bis(2-Ethylhexyl)phthalate	1.00000	10.00000	ug/l
n-Decane	1.00000	10.00000	ug/l
n-Docosane	2.00000	10.00000	ug/l
n-Dodecane	2.00000	10.00000	ug/l
n-Eicosane	2.00000	10.00000	ug/l
n-Hexadecane	1.00000	10.00000	ug/l
n-Octadecane	1.00000	10.00000	ug/l
n-Tetradecane	2.00000	10.00000	ug/l
EPA Method 524.2			
1,1,1,2-Tetrachloroethane	0.10000	0.50000	ug/l
1,1,1-Trichloroethane	0.10000	0.50000	ug/l
1,1,2,2-Tetrachloroethane	0.10000	0.50000	ug/l
1,1,2-Trichloroethane	0.10000	0.50000	ug/l
1,1-Dichloroethane	0.10000	0.50000	ug/l
1,1-Dichloroethene	0.10000	0.50000	ug/l
1,1-Dichloropropene	0.10000	0.50000	ug/l
1,2,3-Trichlorobenzene	0.20000	0.50000	ug/l
1,2,3-Trichloropropane	0.20000	0.50000	ug/l
1,2,4-Trichlorobenzene	0.20000	0.50000	ug/l
1,2,4-Trimethylbenzene	0.10000	0.50000	ug/l
1,2-Dibromo-3-chloropropane	0.40000	1.00000	ug/l
1,2-Dibromoethane	0.10000	0.50000	ug/l
1,2-Dichlorobenzene	0.10000	0.50000	ug/l
1,2-Dichloroethane	0.10000	0.50000	ug/l

625

2005

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AQUA PRO-TECH LABORATORIES
EPA Method 625/8270C Analytical Report

Client Sample [redacted]

Client: [redacted]

Project: [redacted]

2006

Matrix: Water

Lab Sample ID: [redacted]

Sample wt/vol: 1000.0 (g/ml) ml

Lab File ID: [redacted]

Level: (low/med) LOW

Date Collected: 03/14/06

% Moisture: 100

Date Extracted: [redacted]

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 3/17/2006 [redacted]

Injection Volume: 1.0 (uL)

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION ug/L	Q	MDL	PQL
110-86-1	Pyridine		U	6.37	50
62-75-9	n-Nitroso-dimethylamine		U	1.57	10
62-53-3	Aniline		U	0.15	10
108-95-2	Phenol		U	0.14	10
111-44-4	bis(2-Chloroethyl)ether		U	0.4	10
95-57-8	2-Chlorophenol		U	0.44	10
541-73-1	1,3-Dichlorobenzene		U	0.15	10
106-46-7	1,4-Dichlorobenzene		U	0.29	10
100-51-6	Benzyl Alcohol		U	0.86	20
95-50-1	1,2-Dichlorobenzene		U	0.24	10
95-48-7	2-Methylphenol		U	0.16	10
108-60-1	bis(2-Chloroisopropyl)ether		U	0.38	10
106-44-5	3+4-Methylphenol		U	0.36	10
621-64-7	n-Nitroso-di-n-propylamine		U	0.36	10
67-72-1	Hexachloroethane		U	0.4	10
98-95-3	Nitrobenzene		U	0.35	10
78-59-1	Isophorone		U	0.24	10
88-75-5	2-Nitrophenol		U	0.16	10
105-67-9	2,4-Dimethylphenol		U	0.3	10
111-91-1	bis(2-Chloroethoxy)methane		U	0.25	10
120-83-2	2,4-Dichlorophenol		U	0.32	10
65-85-0	Benzoic Acid		U	8.2	20
120-82-1	1,2,4-Trichlorobenzene		U	0.25	10
91-20-3	Naphthalene		U	0.26	10
87-65-0	2,6-Dichlorophenol		U	0.22	10
106-47-8	4-Chloroaniline		U	0.26	10
87-68-3	Hexachlorobutadiene		U	0.23	20
59-50-7	4-Chloro-3-methylphenol		U	0.27	10
91-57-6	2-Methylnaphthalene		U	0.16	10
77-47-4	Hexachlorocyclopentadiene		U	0.16	20
88-06-2	2,4,6-Trichlorophenol		U	0.35	10
95-95-4	2,4,5-Trichlorophenol		U	0.28	10
91-58-7	2-Chloronaphthalene		U	0.31	10

Qualifiers: U- Undetected, J- Estimated Concentration, D- Diluted, B- Detected in Blank, E- Exceeds Calibration Range

2006

Raw Data: [redacted]

Method Blank Summary

Job Number: [redacted]
Account: [redacted]
Project: [redacted]

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
[redacted]	[redacted]	1	10/21/10	NAP	10/21/10	[redacted]	EF4333

The QC reported here applies to the following samples: Method: SW846 8270C

[redacted]

7.1.1 7

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	20	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	0.74	ug/l	
95-48-7	2-Methylphenol	ND	2.0	1.1	ug/l	
	3&4-Methylphenol	ND	2.0	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.2	ug/l	
100-02-7	4-Nitrophenol	ND	10	0.83	ug/l	
87-86-5	Pentachlorophenol	ND	10	0.80	ug/l	
108-95-2	Phenol	ND	2.0	0.58	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	0.81	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.2	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.37	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.27	ug/l	
98-86-2	Acetophenone	ND	2.0	0.40	ug/l	
62-53-3	Aniline	ND	2.0	0.23	ug/l	
120-12-7 a	Anthracene	ND	1.0	0.16	ug/l	
1912-24-9	Atrazine	ND	5.0	0.39	ug/l	
92-87-5	Benzidine	ND	20	4.5	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.12	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.095	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.12	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.25	ug/l	
100-51-6	Benzyl Alcohol	ND	2.0	0.31	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.42	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.25	ug/l	
86-74-8	Carbazole	ND	1.0	0.17	ug/l	
218-01-9	Chrysene	ND	1.0	0.11	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.31	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.35	ug/l	

2010

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2.1 2

Report of Analysis

Client Sample ID:	[redacted]		
Lab Sample ID:	[redacted]	**Date Sampled:**	04/04/11
Matrix:	AQ - Water	**Date Received:**	04/05/11
Method:	SW846 8270C SW846 3520C	**Percent Solids:**	n/a
Project:	[redacted]		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	[redacted]	1	04/12/11	TMB	04/10/11	OP3459	E1G402
Run #2 [a]	[redacted]	1	04/19/11	TMB	04/18/11	OP3491	E1G406

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2	1060 ml	1.0 ml

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	4.7	3.9	ug/l	
95-57-8	2-Chlorophenol	ND	1.9	1.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.7	2.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.6	ug/l	
105-67-9	2,4-Dimethylphenol	ND	0.95	0.95	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.7	1.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	1.9	0.95	ug/l	
95-48-7	2-Methylphenol	ND	4.7	2.4	ug/l	
106-44-5	4-Methylphenol	ND	1.9	1.7	ug/l	
88-75-5	2-Nitrophenol	ND	4.7	1.9	ug/l	
100-02-7	4-Nitrophenol	ND	1.9	1.0	ug/l	
87-86-5	Pentachlorophenol	ND	4.7	1.2	ug/l	
108-95-2	Phenol	ND	4.7	2.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.9	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	1.9	1.6	ug/l	
83-32-9	Acenaphthene	ND	0.95	0.95	ug/l	
208-96-8	Acenaphthylene	ND	0.95	0.95	ug/l	
120-12-7	Anthracene	ND	1.9	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.95	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.95	0.85	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.9	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.9	0.95	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.7	1.4	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	1.0	ug/l	
100-51-6	Benzyl Alcohol	ND	4.7	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.7	1.7	ug/l	
106-47-8	4-Chloroaniline	ND	0.95	0.95	ug/l	
218-01-9	Chrysene	ND	0.95	0.95	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.7	2.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.95	0.95	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.7	2.4	ug/l	

2011

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: [redacted]
Matrix: Water
Analysis Batch: [redacted]

Client Sample ID: Matrix Spike
Prep Type: Total/NA

2013

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	98		70 - 118
Dibromofluoromethane (Surr)	90		70 - 128

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: [redacted]
Matrix: Water
Analysis Batch: [redacted]

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: [redacted]

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.20	U	0.20	0.014	ug/L		04/16/13 08:00	04/25/13 07:55	1
Acenaphthylene	0.20	U	0.20	0.015	ug/L		04/16/13 08:00	04/25/13 07:55	1
Acetophenone	1.0	U	1.0	0.080	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Acetylaminofluorene	1.0	U	1.0	0.081	ug/L		04/16/13 08:00	04/25/13 07:55	1
4-Aminobiphenyl	1.0	U	1.0	0.057	ug/L		04/16/13 08:00	04/25/13 07:55	1
Anthracene	0.20	U	0.20	0.015	ug/L		04/16/13 08:00	04/25/13 07:55	1
Benzo[a]anthracene	0.20	U	0.20	0.015	ug/L		04/16/13 08:00	04/25/13 07:55	1
Benzo[b]fluoranthene	0.20	U	0.20	0.016	ug/L		04/16/13 08:00	04/25/13 07:55	1
Benzo[k]fluoranthene	0.20	U	0.20	0.055	ug/L		04/16/13 08:00	04/25/13 07:55	1
Benzo[g,h,i]perylene	0.20	U	0.20	0.015	ug/L		04/16/13 08:00	04/25/13 07:55	1
Benzo[a]pyrene	0.20	U	0.20	0.013	ug/L		04/16/13 08:00	04/25/13 07:55	1
Benzyl alcohol	1.0	U	1.0	0.21	ug/L		04/16/13 08:00	04/25/13 07:55	1
Bis(2-chloroethoxy)methane	1.0	U	1.0	0.056	ug/L		04/16/13 08:00	04/25/13 07:55	1
Bis(2-chloroethyl)ether	0.20	U	0.20	0.025	ug/L		04/16/13 08:00	04/25/13 07:55	1
2,2'-oxybis[1-chloropropane]	0.20	U	0.20	0.020	ug/L		04/16/13 08:00	04/25/13 07:55	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	1.3	ug/L		04/16/13 08:00	04/25/13 07:55	1
4-Bromophenyl phenyl ether	1.0	U	1.0	0.064	ug/L		04/16/13 08:00	04/25/13 07:55	1
Butyl benzyl phthalate	1.0	U	1.0	0.14	ug/L		04/16/13 08:00	04/25/13 07:55	1
4-Chloroaniline	1.0	U	1.0	0.089	ug/L		04/16/13 08:00	04/25/13 07:55	1
Chlorobenzilate	1.0	U	1.0	0.11	ug/L		04/16/13 08:00	04/25/13 07:55	1
4-Chloro-3-methylphenol	1.0	U	1.0	0.075	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Chloronaphthalene	0.20	U	0.20	0.015	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Chlorophenol	1.0	U	1.0	0.17	ug/L		04/16/13 08:00	04/25/13 07:55	1
4-Chlorophenyl phenyl ether	1.0	U	1.0	0.050	ug/L		04/16/13 08:00	04/25/13 07:55	1
Chrysene	0.20	U	0.20	0.014	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Methylphenol	1.0	U	1.0	0.086	ug/L		04/16/13 08:00	04/25/13 07:55	1
Diallate	1.0	U	1.0	0.13	ug/L		04/16/13 08:00	04/25/13 07:55	1
Dibenz(a,h)anthracene	0.20	U	0.20	0.016	ug/L		04/16/13 08:00	04/25/13 07:55	1
Dibenzofuran	1.0	U	1.0	0.062	ug/L		04/16/13 08:00	04/25/13 07:55	1
Di-n-butyl phthalate	1.0	U	1.0	0.12	ug/L		04/16/13 08:00	04/25/13 07:55	1
3,3'-Dichlorobenzidine	1.0	U	1.0	0.11	ug/L		04/16/13 08:00	04/25/13 07:55	1
2,6-Dichlorophenol	1.0	U	1.0	0.20	ug/L		04/16/13 08:00	04/25/13 07:55	1
2,4-Dichlorophenol	0.20	U	0.20	0.033	ug/L		04/16/13 08:00	04/25/13 07:55	1
Diethyl phthalate	1.0	U	1.0	0.15	ug/L		04/16/13 08:00	04/25/13 07:55	1
Dimethoate	1.0	U	1.0	0.10	ug/L		04/16/13 08:00	04/25/13 07:55	1
p-Dimethylamino azobenzene	1.0	U	1.0	0.097	ug/L		04/16/13 08:00	04/25/13 07:55	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: [redacted]
Matrix: Water
Analysis Batch: [redacted]

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: [redacted]

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0	0.091	ug/L		04/16/13 08:00	04/25/13 07:55	1
3,3'-Dimethylbenzidine	5.0	U	5.0	0.36	ug/L		04/16/13 08:00	04/25/13 07:55	1
2,4-Dimethylphenol	1.0	U	1.0	0.085	ug/L		04/16/13 08:00	04/25/13 07:55	1
Dimethyl phthalate	1.0	U	1.0	0.077	ug/L		04/16/13 08:00	04/25/13 07:55	1
1,3-Dinitrobenzene	1.0	U	1.0	0.070	ug/L		04/16/13 08:00	04/25/13 07:55	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0	0.22	ug/L		04/16/13 08:00	04/25/13 07:55	1
2,4-Dinitrophenol	5.0	U	5.0	0.61	ug/L		04/16/13 08:00	04/25/13 07:55	1
2,4-Dinitrotoluene	1.0	U	1.0	0.054	ug/L		04/16/13 08:00	04/25/13 07:55	1
2,6-Dinitrotoluene	1.0	U	1.0	0.080	ug/L		04/16/13 08:00	04/25/13 07:55	1
Dinoseb	1.0	U	1.0	0.052	ug/L		04/16/13 08:00	04/25/13 07:55	1
Di-n-octyl phthalate	1.0	U	1.0	0.21	ug/L		04/16/13 08:00	04/25/13 07:55	1
Disulfoton	1.0	U	1.0	0.094	ug/L		04/16/13 08:00	04/25/13 07:55	1
Ethyl methanesulfonate	1.0	U	1.0	0.11	ug/L		04/16/13 08:00	04/25/13 07:55	1
Famphur	10	U	10	1.9	ug/L		04/16/13 08:00	04/25/13 07:55	1
Fluoranthene	0.20	U	0.20	0.016	ug/L		04/16/13 08:00	04/25/13 07:55	1
Fluorene	0.20	U	0.20	0.022	ug/L		04/16/13 08:00	04/25/13 07:55	1
Hexachlorobenzene	0.20	U	0.20	0.018	ug/L		04/16/13 08:00	04/25/13 07:55	1
Hexachlorobutadiene	0.20	U	0.20	0.017	ug/L		04/16/13 08:00	04/25/13 07:55	1
Hexachlorocyclopentadiene	1.0	U	1.0	0.092	ug/L		04/16/13 08:00	04/25/13 07:55	1
Hexachloroethane	1.0	U	1.0	0.063	ug/L		04/16/13 08:00	04/25/13 07:55	1
Hexachloropropene	1.0	U	1.0	0.055	ug/L		04/16/13 08:00	04/25/13 07:55	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.020	ug/L		04/16/13 08:00	04/25/13 07:55	1
Isodrin	1.0	U	1.0	0.12	ug/L		04/16/13 08:00	04/25/13 07:55	1
Isophorone	1.0	U	1.0	0.064	ug/L		04/16/13 08:00	04/25/13 07:55	1
Isosafrole	1.0	U	1.0	0.11	ug/L		04/16/13 08:00	04/25/13 07:55	1
Kepone	4.0	U	4.0	0.97	ug/L		04/16/13 08:00	04/25/13 07:55	1
Methapyrilene	1.0	U	1.0	0.076	ug/L		04/16/13 08:00	04/25/13 07:55	1
3-Methylcholanthrene	1.0	U	1.0	0.075	ug/L		04/16/13 08:00	04/25/13 07:55	1
Methyl methanesulfonate	1.0	U	1.0	0.052	ug/L		04/16/13 08:00	04/25/13 07:55	1
Methyl parathion	1.0	U	1.0	0.090	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Methylnaphthalene	0.20	U	0.20	0.012	ug/L		04/16/13 08:00	04/25/13 07:55	1
1,4-Naphthoquinone	1.0	U	1.0	0.058	ug/L		04/16/13 08:00	04/25/13 07:55	1
1-Naphthylamine	1.0	U	1.0	0.031	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Naphthylamine	1.0	U	1.0	0.15	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Nitroaniline	5.0	U	5.0	0.35	ug/L		04/16/13 08:00	04/25/13 07:55	1
3-Nitroaniline	5.0	U	5.0	0.32	ug/L		04/16/13 08:00	04/25/13 07:55	1
4-Nitroaniline	5.0	U	5.0	0.17	ug/L		04/16/13 08:00	04/25/13 07:55	1
2-Nitrophenol	1.0	U	1.0	0.17	ug/L		04/16/13 08:00	04/25/13 07:55	1
Nitrobenzene	2.0	U	2.0	0.084	ug/L		04/16/13 08:00	04/25/13 07:55	1
4-Nitrophenol	5.0	U	5.0	0.65	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosodi-n-butylamine	1.0	U	1.0	0.13	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosodiethylamine	1.0	U	1.0	0.10	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosodimethylamine	1.0	U	1.0	0.074	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosodiphenylamine	1.0	U	1.0	0.085	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosodi-n-propylamine	0.20	U	0.20	0.031	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosomethylethylamine	1.0	U	1.0	0.087	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosopiperidine	1.0	U	1.0	0.14	ug/L		04/16/13 08:00	04/25/13 07:55	1
N-Nitrosopyrrolidine	1.0	U	1.0	0.091	ug/L		04/16/13 08:00	04/25/13 07:55	1