Adam Ayers

GE
319 Great Oaks Blvd.
Albany, NY 12203

T 518 862-2722
F 518 862-2731
Adam.Ayers@ge.com

Via Federal Express

August 5, 2013

Gary Klawinski
Project Manager, Hudson River Field Office
U.S. Environmental Protection Agency, Region 2
421 Lower Main Street
Hudson Falls, NY 12839
(Two paper copies (one unbound) and one CD-ROM)

Re: Hudson River PCBs Superfund Site
Remedial Action Consent Decree (Civil Action No.1:05 CV-1270)
Response to Comments on Fish Monitoring Program including RAMP Database

Dear Mr. Klawinski:

On May 2, 2013, the General Electric Company (GE) received comments from the United States Environmental Protection Agency (EPA) on GE's fish monitoring program and the Remedial Action Monitoring Program (RAMP) fish database for this Site. GE and EPA subsequently discussed those comments. Enclosed is a matrix presenting GE's responses to EPA's comments, along with associated tables and an attachment.

Please contact me if there are any questions

Sincerely,

Adam Ayers

Enclosure

cc:

Doug Garbarini, Chief
Special Projects Branch
Emergency and Remedial Response Division
United States Environmental Protection Agency, Region 2
290 Broadway, 18th Floor
New York, NY 10007-1866
(One paper copy and one CD-ROM)

Chief, New York/Caribbean Superfund Branch
Office of Regional Counsel
United States Environmental Protection Agency, Region 2
290 Broadway, 17th Floor
New York, NY 10007-1866
Attn: Hudson River PCBs Superfund Site Attorney
(One CD-ROM)

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, DC 20044-7611
Re: DJ # 90-11-2-529
(Cover letter only)

Director, Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7011
Attn: Hudson River PCBs Superfund Site
(One paper copy and one CD-ROM)

Alyce Fritz, Chief
NE/Mid-Atlantic Branch
NOAA
NOS OR&R Assessment and Restoration Division
7600 Sand Point Way, NE
Building 4 (N/ORR2)
Seattle, WA 98115
(One paper copy and one CD-ROM)

Lisa Rosman
Coastal Resource Coordinator
NOAA
290 Broadway, 18th Floor
New York, NY 10007-1866
(One paper copy and one CD-ROM)

Kathryn Jahn
DOI Manager,
Hudson River NRDA Case
U.S. Fish & Wildlife Service
3817 Luker Road
Cortland, NY 13045
(One paper copy unbound and one CD-ROM)

Director, Bureau of Environmental Exposure Investigation
New York State Department of Health
Empire State Plaza, Corning Tower, Room 1787
Albany, NY 12238
Attn: Hudson River PCBs Superfund Site
(One paper copy and one CD-ROM)

August 5, 2013

General Electric Company – Hudson River PCBs Superfund Site – Fish Monitoring Program including RAMP Fish Database

Responses to EPA Comments (May 2, 2013) on the Fish Monitoring Program including RAMP Fish Database

Comment #	EPA's Comment (May 2, 2013)	GE's Response (August 2013)
1	A summary table describing the method of fish filleting and processing each year since 2004 (i.e., since the year GE assumed the program and under the Baseline Monitoring Program (BMP)Quality Assurance Project Plan (QAPP).	The methods of fish filleting and processing have been consistent since 2004 with the exception of one minor change in the equipment used to homogenize the samples starting in 2008. In 2004-2008, a hand-operated meat grinder was used to homogenize the samples. Starting in 2008, either an industrial food processor or a blender was used to grind the sample until there were no chunks of tissue. The fish filleting and processing methods used are described in the Standard Operating Procedures (SOPs) provided in the Quality Assurance Project Plans (QAPPs) listed in the attached Table 1, with the exception of one provision in Appendix 21 in the 2004 Baseline Monitoring Program (BMP) QAPP. That appendix, a QEA SOP, stated that the ribcage would be included with the fillet. In fact, however, the ribcage was not included with the fillet in either the BMP or the RAMP. Communication with Bob Wagner, the former Laboratory Director of NEA/Pace until his recent retirement in April 2013, confirmed that, even during the BMP, as agreed upon with Ron Sloan, formerly of NYSDEC, the ribcage was not included with the fillets to avoid puncturing organs and potentially contaminating the tissue. The procedures that NEA/Pace has followed since 2004 are those described in the NEA/Pace SOPs included in the RAM QAPPs issued in 2009, 2011, and 2012. These SOPs specify that any bones attached to the fillet are to be removed from the fillet. During a conversation between GE and EPA on July 17, 2013, it was agreed that this issue would be discussed further.

Comment #	EPA's Comment (May 2, 2013)	GE's Response (August 2013)
2	A summary table outlining any changes/deviations from the BMP QAPP, including changes to Standard Operating Procedures (SOPs) each year, since 2004.	In general, the annual Data Summary Reports (DSRs) submitted to EPA describe changes to, or deviations from, the applicable QAPPs. The above-described deviation in the fish filet method from the BMP QAPP SOP (i.e., the removal of the ribcage from the fillets) was not specified in the BMP DSRs. However, as explained in the response to Comment 1, that procedure was agreed upon with NYSDEC and has been followed consistently since 2004.
3	Copies of any audits related to the fish program including fish processing, lipid determinations and analytical testing.	The audits that have been performed for the fish monitoring program are listed in the attached Table 2. The corresponding audit reports are included in the annual DSRs that have been provided to EPA and the Consent Decree (CD) distribution in the DSR appendices listed in Table 2.

Comment #	EPA's Comment (May 2, 2013)	GE's Response (August 2013)
4	Corrective Action Memoranda for each of the items discussed with EPA regarding fish processing and lipids fraction determination. These items should include: o Fillet and processing procedures, o Potential impacts on the project database including related to the 22 suspect lipid values from 2009, o Revisions to the database issued in late 2008 and early 2009, o The use of the J-qualifier in the context of its dual roles in the database.	As provided in the approved Phase 2 RAM QAPP (pp. 41-42 & 229), Corrective Action Memoranda (CAMs) are used to document changes to the QAPP and significant changes to the database structure or contents. The issues listed in this EPA comment do not involve changes to the current RAM QAPP or significant changes to the database structure or contents. As a result, CAMs are not appropriate to address those issues. Rather, the issues have been or can be addressed through another means, as described for each issue below. Fillet and processing procedures – As described in the response to Comment 1, the fillet and processing methods described in the NEA/Pace SOPs included in the current Phase 2 RAM QAPP are the procedures that NEA/Pace has followed since 2004 and continues to follow. GE can provide the explanation set forth in the response to Comment 1 in a letter format if EPA feels that a more formal clarification of the issue is needed. 2009 lipid values - The "suspect lipid values from 2009" were discussed in detail in a letter dated March 25, 2011 from GE to EPA. That letter is attached to this matrix. As described in the letter, the 22 suspect lipid results that were within five times the associated method blanks were restored in the database to the value originally reported, but were flagged as estimated values (J-qualified). As stated in the letter and in the 2009 DSR, PCB results were not affected by the lipid values.

Comment #	EPA's Comment (May 2, 2013)	GE's Response (August 2013)
		Revisions to the 2008/2009 database - In the EPA/GE conversation on July 17, 2013, EPA indicated that it would clarify this comment. Note that the fish data generated from the RAMP have been and will continue to be added to the fish BMP database structure. That is, a new database structure was not created for RAMP fish data. The use of the J-qualifier in the context of its dual roles in the database - The J-qualifier is defined in the Phase 2 RAM QAPP and is applied according to EPA's standard analytical convention (results that fall between the Method Detection Limit (MDL) and Reporting Limit (RL) are qualified "J") or as an outcome of the data verification/validation process. The application of the J-qualifier to the 2009 lipid values is described in GE's March 25, 2011 letter which is attached to this matrix.
5	When the database is updated or revised, that version of the database needs to be submitted as part of a Monthly Progress Report and the report needs to contain a summary of any changes made to the database.	Updated databases (where applicable) are provided in the Monthly Progress Reports. Going forward, a summary of changes made to the database in a given month (if any) will be provided in the Monthly Progress Report for that month.
6	Transect coordinates for years not reflected in the EVENTS table of the database (2009-2012) need to be added to the database and reflected for each location in future years.	Transect coordinates will be provided in the database.

Comment #	EPA's Comment (May 2, 2013)	GE's Response (August 2013)
7	The sex of spring fish species will be determined annually in the lab whether a determination was made in the field or not, and this information will be recorded in the database in future years.	The sexes of spring fish are and will continue to be determined in the laboratory regardless of whether a field determination was made. The sexes of the spring fish have been and will continue to be provided in the database. Note that if the sex of a specific fish cannot be identified, it is coded as "undetermined" in the database.
8	Updated shocking times for all locations through Fall 2012 need to be added to the database and reflected for each location in future years.	Shocking times will be provided where available.
9	Scales will continue to be collected and used to age spring and fall fish (pumpkinseed) annually. These data will be added to the database in future years.	Scales of spring and fall fish will continue to be collected and archived. On May 13, 2013, EPA clarified that the aging refers to fall pumpkinseed only. During the July 17, 2013 EPA/GE discussion, it was agreed that a one-time aging event of fall pumpkinseeds would be conducted by GE prior to the next Hudson River PCBs Superfund Site five-year remedy review, currently scheduled for April 23, 2017.

Table 1
Summary of Location of Fish Filleting and Processing Procedures

Quality Assurance Project Plan	Applicable Text	Applicable Table	Applicable SOPs
"Quality Assurance Project Plan for the Baseline Monitoring Program" (May 28, 2004)	Sections B2.2 and B4	NA	Appendices 21 and 22
"Phase 1 Remedial Action Monitoring Program Quality Assurance Project Plan" (May 2009)	Sections 3.5 and 3.8	Table 3-3	Appendices 4 and 48
"2011 Remedial Action Monitoring Quality Assurance Project Plan" (May 2011 – Revision 1)	Sections 3.5 and 3.8	Table 3.5-1	Appendices 3.5-1 and 3.8-4
"Phase 2 Remedial Action Monitoring Quality Assurance Project Plan" (May 2012)	Sections 3.5, 3.8 and A3	Table 3.5-1	Appendices 3.5-1 and A3-4

Table 2
Summary of Field and Laboratory Audits Performed for Fish Collection and Analysis

Year	Field Audit Performed	Laboratory Audit Performed	Data Summary Report Appendix
2004	Yes (Spring)	Yes	"Baseline Monitoring Report, Data Summary Report for 2004" (April 1, 2005), Appendix C
2005	Yes (Spring)	Yes	"Baseline Monitoring Report, Data Summary Report for 2005" (March 31, 2006), Appendix B
2006	Yes (Fall)	No	"Baseline Monitoring Report, Data Summary Report for 2006" (March 30, 2007), Appendix B
2007	Yes (Fall)	Yes	"Baseline Monitoring Report, Data Summary Report for 2007" (March 31, 2008), Appendix B
2008	No	No	NA
2009	Yes (Spring)	Yes	"2009 Data Summary Report, Hudson River Water and Fish" (May 2010), Appendix A
2010	No	No	NA
2011	Yes (Fall)	Yes	"2011 Data Summary Report, Hudson River Water and Fish" (April 2012), Appendix C
2012	Yes (Spring)	Yes	"2012 Data Summary Report" (March 2013), Appendix B

John G. Haggard
Manager,
Site Evaluation and Remediation Program

GE
319 Great Oaks Blvd.
Albany, NY 12203

T 518 862 2739
F 518 862 2731
John.Haggard@ge.com

March 25, 2011

Doug Garbarini, Chief
Special Projects Branch
Emergency and Remedial Response Division
United States Environmental Protection Agency, Region 2
290 Broadway, 18th Floor
New York, New York 10007-1866

Re: Request for Hudson River 2008 Fish Tissue Archives

Dear Mr. Garbarini:

This letter responds to your March 11, 2011 letter (received March 14) in which USEPA requested specific 2008 Hudson River fish tissue archive samples and raised several issues concerning the 2008 and 2009 spring fish data.

In your letter, USEPA requested 61 primary fish tissue archive samples and 26 substitute samples if the primary samples were not available. On March 17, USEPA requested fish tissue sample volumes of 25 grams per sample. Based on USEPA's request and sample volumes available, 46 requested primary samples are available and 17 substitute samples are available (see Table 1). These samples are available to be retrieved by USEPA from the contract laboratory, NEA/Pace Analytical (NEA), in Schenectady NY, at USEPA's convenience. Please alert me as to when you would like to retrieve the samples and we can inform the contract laboratory. We expect that, as provided in Paragraph 30 of the Remedial Action Consent Decree between GE and USEPA (Civil Action No. 1:05-CV-1270), copies of the results of the analysis of the split samples will be provided to GE after the results have undergone QA/QC analysis. We also request that you provide, prior to sample analysis, the Quality Assurance Project Plan (QAPP) developed for your project.

Also in your letter, USEPA expressed a concern that the lipid and/or PCB data from the spring 2008 and 2009 black bass, yellow perch, and ictalurids may have been underestimated. USEPA also expressed a concern that there may have been calculation errors associated with the lipid concentrations. In part, USEPA based this on the fact that there were a number of J-qualified lipid results in the fish database as well as a number of non-detect (ND) results for PCBs. These issues have been discussed informally with USEPA since December 2009.

Regarding the concern that there may be a calculation error associated with the lipid concentrations, we have previously discussed with USEPA that there is not a calculation error (refer to July 21 email from Adam Ayers to Benny Conetta). We understand when USEPA reviewed the analytical procedures used by NEA for the fish PCB and lipid analyses, that two different formulas were found to be presented in two versions of the NEA SOPs for the lipid analyses (with a

transposition of the whole sample volume and extracted volume in the SOP included in the Phase 1 RAM QAPP). As has been previously communicated to USEPA, upon GE's investigation, it was found that this error was limited to a typographical error in the SOP and that NEA was performing the calculation correctly. The raw data packages for the fish lipids analysis contained in the Data Summary Reports received by USEPA verify that the correct lipids calculations have been used.

USEPA has requested that GE provide additional clarification regarding the lipids contamination issue that was identified in the 2009 Data Summary Report, Hudson River Water and Fish, Hudson River PCBs Superfund Site (Anchor QEA, May 2010) and that a more detailed explanation be provided of what happened with the 22 fish from the spring of 2009 with J-flagged lipid values. USEPA further requested that the explanation include relevant quality assurance logs, how the analytical laboratory detected and responded to the problem, and how the laboratory determined that the problem was limited to the 22 fish. GE presents this information below.

The GE project team discovered the lipids issued through the method blanks evaluation performed as part of the automated electronic data verification (EDV) process. The term "verification" is used to designate the criteria-based checking of the laboratory reported quality control (QC) results against the limits defined in the USEPA approved BMP QAPP and RAM QAPP. The automated EDV process was performed on 100% of the analytical results received using the batch QC results provided by the laboratories in the electronic data deliverables (EDDs). The specific measures evaluated during the automated EDV process and the associated criteria are discussed in the USEPA approved BMP QAPP and the RAM QAPP and included: holding times, accuracy (by evaluating LCS and MS/MSD recoveries), precision (by evaluating LD results), field duplicate sample precision, blank contamination (laboratory method blanks and field generated blanks), and surrogate compound recoveries. The "relevant quality assurance logs" were essentially reviewed through the automated EDV process by the use of unique preparation and analysis batch identifications which link the field samples to the relevant batch QC results.

Trace-level positive lipids results were reported in some of the lipids method blanks associated with the spring 2009 fish data. A review of the database in 2009 revealed that positive lipids method blanks had not been observed in previous years. As such, the laboratory was contacted regarding the positive lipids method blanks. According to laboratory personnel, they had already investigated and addressed the issue and believed that the main issues resulting in the positive lipids method blanks results associated with the spring 2009 fish were lapses in keeping equipment (in this case, the desiccator) in good condition and observing that particles were getting into the sample weighing pans or clinging to the sample weighing pans. Laboratory personnel reviewed all processes that could have led to the positive method blanks and found that the inside of the desiccator, where the lipids pans were kept to reach a constant weight, was rather dirty with drying agent on the shelves and also noted that the gasket making the seal around the door of the desiccator was disintegrating and fine particles were falling off the gasket. Laboratory personnel surmised that these issues may have resulted in non-lipid particles being added to the inside or clinging to the outside of the lipid pans. These particles would influence the lipids values since lipids are determined by weight measurements (gravimetric determination). This non-lipids particle contamination was more likely to affect low mass samples and have the greatest impact on QC samples such as method blanks, which have no mass. When this issue was discovered, the desiccator was removed from use and replaced with a new desiccator that did not have gasket problems and was made of stainless steel and glass which could be more easily maintained and kept clean.

As stated in the 2009 Data Summary Report, Section 5.2.3.3, select lipids results for the spring 2009 fish collection and analysis were affected by the presence of laboratory-derived foreign particles in the samples. Consistent with the USEPA Region II SOPs for the Validation of Organic and Inorganic Data Acquired Using SW-846 Methods for blank assessment, the EDV process qualified any lipids results within five times the associated method blanks as "U*" to signify that the lipids should be considered "not detected." However, since fish samples are expected to have some lipids, these blank qualification rules, typically used for chemical analyses such as PCBs, should not have been applied to the lipids. Accordingly, these 22 select lipids results that were within five times the associated method blanks value were restored in the database to the values originally reported by the laboratory, but were considered estimated (flagged "J") to signify that there may have been some contribution from particle contamination that influenced the results with a high bias. Through the use of the automated EDV process which linked the field samples to the relevant method blanks results by the use of unique preparation and analysis batch identifications, qualification was limited to the 22 sample results associated with positive method blanks and that were within five times the associated method blanks. Lipids results that were not qualified due to this issue were greater than five times the associated method blanks and/or the associated method blanks was ND.

As stated in the 2009 Data Summary Report, PCB results were not affected by these lipid values. Based on the laboratory's investigation that the non-lipid particles were likely being added to the inside or clinging to the outside of the lipid pans in the desiccator and the fact that the positive method blanks were not observed after the corrective action (replacement of the desiccator), it was determined that the issue was limited to the lipids analysis. Specifically, the extract used for PCB analysis is an entirely separate aliquot split from that used for lipids so there is no impact to the PCB results.

USEPA also requested in their March 11, 2011 letter that GE confirm that the complete data package for each sample delivery group for the fish analysis conducted in each of the years 2006-2009 is included in their respective Data Summary Reports. We have confirmed this information has already been provided to you in the data packages contained in the Data Summary Reports as listed below:

"Hudson River PCBs Site Baseline Monitoring Report Data Summary Report for 2006" (March 30, 2007), Appendix D (Subfolder "Fish")

"Hudson River PCBs Site Baseline Monitoring Report Data Summary Report for 2007" (March 31, 2008), Appendix D (Subfolder "Fish")

"Hudson River PCBs Site Baseline Monitoring Program Data Summary Report for 2008" (March 2009), Appendix C (Subfolder "Fish")

"2009 Data Summary Report Hudson River Water and Fish Hudson River PCBs Superfund Site" (May 2010), Appendix H (Part 1, Subfolder "Fish" of Subfolder "NEA (Fish and Special Studies)").

To summarize, we have addressed the questions you raised concerning the data quality and that the data satisfied the project objectives. We do not believe additional analysis of fish tissue is necessary; however, we recognize it is your decision to do so.

Since a QAPP is required prior to conducting this type of work, we again request that USEPA provide us a copy of your QAPP prior to your analysis of the fish tissues.

Please call me to arrange for pick of these samples. They will be available after March 25. We will require that a chain-of-custody form be signed to relinquish the samples.

Please contact me if you have any questions.

Sincerely,

John G. Haggard
Manager, Site Evaluation and Remediation Program

JGH/bg

Attachment

cc:

Benny Conetta, USEPA
Amelia Jackson, USEPA, Edison
Bob Gibson, GE
Adam Ayers, GE

Table 1

R_Section	Station	Species	Date	Age	Sex	TAGNO	Field_Sample-ID	Lab_ID	25 grams available
0	FD1	BB	20080619	5	M	FD108061801BB15	FD1-080618-01-BB-15	AL10069	X
0	FD1	BB	20080619	5	F	FD108061801BB12	FD1-080618-01-BB-12	AL10071	X
0	FD1	LMB	20080618	12	F	FD108061801LMB03	FD1-080618-01-LMB-03	AL10084	X
0	FD1	SMB	20080619	7	M	FD108061801SMB05	FD1-080618-01-SMB-05	AL10065	X
0	FD1	YP	20080618	4	U	FD108061801YP08	FD1-080618-01-YP-08	AL10042	X
0	FD1	YP	20080618	6	U	FD108061801YP02	FD1-080618-01-YP-02	AL10078	X
1	TD5	BB	20080617	6	M	TD508061701BB02	TD5-080617-01-BB-02	AL09910	X
1	TD5	BB	20080617	5	F	TD508061701BB04	TD5-080617-01-BB-04	AL09892	X
1	TD5	BB	20080617	5	F	TD508061701BB01	TD5-080617-01-BB-01	AL09911	X
1	TD5	BB	20080617	5	M	TD508061701BB03	TD5-080617-01-BB-03	AL09893	X
1	TD5	BB	20080617	8	F	TD508061701BB06	TD5-080617-01-BB-06	AL09891	X
1	TD5	LMB	20080617	5	F	TD508061701LMB08	TD5-080617-01-LMB-08	AL09884	X
1	TD5	LMB	20080617	5	M	TD508061701LMB02	TD5-080617-01-LMB-02	AL09908	X
1	TD5	LMB	20080617	5	F	TD508061701LMB09	TD5-080617-01-LMB-09	AL09883	X
1	TD5	LMB	20080617	5	F	TD508061701LMB01	TD5-080617-01-LMB-01	AL09890	X
1	TD5	LMB	20080617	11	M	TD508061701LMB03	TD5-080617-01-LMB-03	AL09889	X
1	TD5	YP	20080617	4	U	TD508061701YP04	TD5-080617-01-YP-04	AL09904	
1	TD5	YP	20080617	3	U	TD508061701YP07	TD5-080617-01-YP-07	AL09901	
1	TD5	YP	20080617	7	U	TD508061701YP02	TD5-080617-01-YP-02	AL09906	X
1	TD5	YP	20080617	4	U	TD508061701YP09	TD5-080617-01-YP-09	AL09899	
1	TD5	YP	20080617	3	U	TD508061701YP06	TD5-080617-01-YP-06	AL09902	
2	ND5	BB	20080619	5	F	ND508061901BB02	ND5-080619-01-BB-02	AL10161	X
2	ND5	BB	20080619	10	M	ND508061901BB04	ND5-080619-01-BB-04	AL10159	X
2	ND5	BB	20080619	4	M	ND508061901BB06	ND5-080619-01-BB-06	AL10187RR1	X
2	ND5	BB	20080621	4	F	ND508062101BB10	ND5-080621-01-BB-10	AL10457	X
2	ND5	BB	20080619	3	F	ND508061901BB08	ND5-080619-01-BB-08	AL10185	X
2	ND5	LMB	20080619	3	F	ND508061901LMB02	ND5-080619-01-LMB-02	AL10203	X
2	ND5	LMB	20080619	10	F	ND508061901LMB03	ND5-080619-01-LMB-03	AL10202	X
2	ND5	LMB	20080619	6	M	ND508061901LMB01	ND5-080619-01-LMB-01	AL10183	X
2	ND5	SMB	20080619	5	M	ND508061901SMB02	ND5-080619-01-SMB-02	AL10181	X
2	ND5	SMB	20080619	6	F	ND508061901SMB04	ND5-080619-01-SMB-04	AL10179	X
2	ND5	YP	20080619	7	U	ND508061901YP04	ND5-080619-01-YP-04	AL10157	X
2	ND5	YP	20080619	7	U	ND508061901YP06	ND5-080619-01-YP-06	AL10155	X
2	ND5	YP	20080619	9	U	ND508061901YP09	ND5-080619-01-YP-09	AL10175	X
2	ND5	YP	20080619	4	U	ND508061901YP10	ND5-080619-01-YP-10	AL10174	X
2	ND5	YP	20080619	5	U	ND508061901YP02	ND5-080619-01-YP-02	AL10178	X
3	SW3	BB	20080620	11	U	SW308062001BB04	SW3-080620-01-BB-04	AL10414	X
3	SW3	BB	20080620	6	U	SW308062001BB02	SW3-080620-01-BB-02	AL10416	X
3	SW3	BB	20080620	-9	M	SW308062001BB06	SW3-080620-01-BB-06	AL10412	X
3	SW3	BB	20080620	6	F	SW308062001BB07	SW3-080620-01-BB-07	AL10411	X
3	SW3	BB	20080620	9	F	SW308062001BB05	SW3-080620-01-BB-05	AL10413	
3	SW3	LMB	20080620	9	F	SW308062001LMB05	SW3-080620-01-LMB-05	AL10392	
3	SW3	LMB	20080620	5	M	SW308062001LMB07	SW3-080620-01-LMB-07	AL10390	X
3	SW3	LMB	20080620	5	M	SW308062001LMB06	SW3-080620-01-LMB-06	AL10391	X
3	SW3	LMB	20080620	4	F	SW308062001LMB10	SW3-080620-01-LMB-10	AL10387	X
3	SW3	LMB	20080620	13	M	SW308062001LMB02	SW3-080620-01-LMB-02	AL10408	X
3	SW3	YP	20080620	4	U	SW308062001YP04	SW3-080620-01-YP-04	AL10405	
3	SW3	YP	20080620	4	U	SW308062001YP07	SW3-080620-01-YP-07	AL10402	

R_Section	Station	Species	Date	Age	Sex	TAGNO	Field_Sample-ID	Lab_ID	25 grams available
3	SW3	YP	20080620	3	U	SW308062001YP09	SW3-080620-01-YP-09	AL10383	
3	SW3	YP	20080620	4	U	SW308062001YP02	SW3-080620-01-YP-02	AL10385	
3	SW3	YP	20080620	4	U	SW308062001YP03	SW3-080620-01-YP-03	AL10406	
4	AT1	SMB	20080623	7	F	AT108062301SMB03	AT1-080623-01-SMB-03	AL10529	X
4	AT1	SMB	20080623	7	M	AT108062301SMB05	AT1-080623-01-SMB-05	AL10528	X
4	AT1	SMB	20080623	10	M	AT108062301SMB06	AT1-080623-01-SMB-06	AL10506	X
4	AT1	SMB	20080623	4	M	AT108062301SMB20	AT1-080623-01-SMB-20	AL10525	X
4	AT1	SMB	20080623	5	M	AT108062301SMB10	AT1-080623-01-SMB-10	AL10502	X
4	AT1	YP	20080623	4	U	AT108062301YP01	AT1-080623-01-YP-01	AL10532	
4	AT1	YP	20080623	3	U	AT108062301YP03	AT1-080623-01-YP-03	AL10530	
4	AT1	YP	20080623	3	M	AT108062301YP02	AT1-080623-01-YP-02	AL10531	
4	AT1	WC	20080623	-9	M	AT108062301WHC18	AT1-080623-01-WHC-18	AL10544	X
4	AT1	WC	20080623	-9	F	AT108062301WHC12	AT1-080623-01-WHC-12	AL10545	
Substitute Samples if requested Samples Are Not Available									
1	TD2	BB	20080617	5	F	TD208061701BB03	TD2-080617-01-BB-03	AL09751	
1	TD3	BB	20080618	5	F	TD308061801BB03	TD3-080618-01-BB-03	AL09941	X
1	TD5	LMB	20080617	7	M	TD508061701LMB07	TD5-080617-01-LMB-07	AL09885	X
1	TD5	LMB	20080617	4	M	TD508061701LMB10	TD5-080617-01-LMB-10	AL09882	X
1	TD2	LMB	20080617	4	F	TD208061701LMB02	TD2-080617-01-LMB-02	AL09761	X
1	TD1	SMB	20080616	6	M	TD108061601SMB02	TD1-080616-01-SMB-02	AL09773	X
1	TD2	YP	20080617	5	U	TD208061701YP03	TD2-080617-01-YP-03	AL09746	X
1	TD4	YP	20080618	4	U	TD408061801YP01	TD4-080618-01-YP-01	AL09927	X
2	ND3	BB	20080619	10	F	ND308061901BB09	ND3-080619-01-BB-09	AL10172	X
2	ND3	LMB	20080620	6	F	ND308061901LMB02	ND3-080619-01-LMB-02	AL10212	X
2	ND3	SMB	20080619	7	M	ND308061901SMB09	ND3-080619-01-SMB-09	AL10192	X
2	ND3	YP	20080619	7	U	ND308061901YP05	ND3-080619-01-YP-05	AL10163	X
3	SW1	BB	20080620	7	M	SW108062001BB01	SW1-080620-01-BB-01	AL10201	X
3	SW4	BB	20080621	10	F	SW408062101BB04	SW4-080621-01-BB-04	AL10433	X
3	SW2	LMB	20080620	9	F	SW208062001LMB04	SW2-080620-01-LMB-04	AL10396	X
3	SW5	SMB	20080621	7	M	SW508062101SMB04	SW5-080621-01-SMB-04	AL10423	X
3	SW1	YB	20080620	-9	F	SW108062001YB01	SW1-080620-01-YB-01	AL10217	
3	SW3	YB	20080620	6	F	SW308062001YB01	SW3-080620-01-YB-01	AL10407	
3	SW2	YP	20080620	4	U	SW208062001YP01	SW2-080620-01-YP-01	AL10418	X
3	SW4	YP	20080621	4	U	SW408062101YP02	SW4-080621-01-YP-02	AL10450	
3	SW5	YP	20080622	2	U	SW508062101YP03	SW5-080621-01-YP-03	AL10443	
4	ATI	CHC	20080623	-9	F	AT108062301CHC01	AT1-080623-01-CHC-01	AL10509	X
4	ATI	WC	20080623	-9	F	AT108062301WHC05	AT1-080623-01-WHC-05	AL10546	
4	ATI	WC	20080623	-9	F	AT108062301WHC08	AT1-080623-01-WHC-08	AL10521	
4	ATI	WP	20080623	-9	U	AT108062301WP03	AT1-080623-01-WP-03	AL10513	
4	ATI	WP	20080623	-9	M	AT108062301WP05	AT1-080623-01-WP-05	AL10511	