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February 15, 2010
Nobis File No. 80013

Ms. Christine Clark
Regional Sample Control Coordinator
U.S. Environmental Protection Agency
Region I
11 Technology Drive
No. Chelmsford, MA 01863

Re: Contract No.: EP-S1-06-03
Task Order No. 80013-RI-CO-01BQ
Case No. 39067; Sample Delivery Group (SDG) No. A31J2
DataChem Laboratories, Inc., Salt Lake City, UT
Chlor-Alkali Facility (Former) Superfund Site
Berlin, New Hampshire
CERCLIS No.: NHN000103313
Tier II Organic Data Validation

Semivolatiles: 18/Water/A31J2, A31J4, A31J6, A31J8; A31K0, A31K2, A31K4, A31K6, A31L3, A31L5, A31L7, A31L9, A31M1, A31M4, A31M6, A31M8, A31N1, A31N3
1/Aqueous Equipment Blank/A31N5
Field Duplicates: A31J6/A31J8
1/Aqueous PE Sample/A31K9 (SV0663)

Dear Ms. Clark:

Weston Solutions, Inc. performed a Tier II data validation in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996 Criteria, on the organic analytical data for 18 water samples, one equipment blank, and one Performance Evaluation (PE) sample collected by Nobis Engineering, Inc. at the Chlor-Alkali Facility (Former) Superfund Site in Berlin, New Hampshire. These samples, blank, and PE were analyzed for semivolatile organic compounds (SVOCs) under the Contract Laboratory Program (CLP) Routine Analytical Services (RAS) program using the CLP SOM01.2 Statement of Work.

The data were evaluated based on the following parameters:

* • Overall Evaluation of Data and Potential Usability Issues
* • Data Completeness
• Preservation and Technical Holding Times
* • Gas chromatography/mass spectroscopy (GC/MS) Instrument Performance Check (Tuning)
• Initial and Continuing Calibrations

	•	Blanks
	•	Deuterated Monitoring Compounds (DMC)/Surrogate Compounds
*	•	Internal Standards
	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD)
*	•	Field Duplicates
NA	•	Sensitivity Check
*	•	Performance Evaluation (PE) Samples/Accuracy Check
*	•	Target Compound Identification
*	•	Compound Quantitation and Reported Quantitation Limits
	•	Tentatively Identified Compounds
NA	•	Pesticide/Polychlorinated biphenyl (PCB) Cleanup
*	•	System Performance

* All criteria were met for this parameter.

Note: Worksheets, except for Worksheet XIII – Sample Quantitation, are not included for parameters that have met criteria or for criteria that are not applicable (NA) to the method.

The following information was used to generate the Data Validation Memorandum attachments:

Table I: Recommendation Summary Table - Summarizes validation recommendations

Table II: Overall Evaluation of Data - Summarizes site DQOs and potential usability issues

Table III: Tentatively Identified Compounds - summarizes the SVOC tentatively identified by GC/MS

Data Summary Table: Summarizes accepted, qualified, and rejected data

Overall Evaluation of Data and Potential Usability Issues

Following is a summary of the site DQOs:

- Accurate identification of environmental bioaccumulation risks from site contamination.
- Determination of where and what magnitude of risk applies for:
  - Humans, likely from incidental ingestion and dermal contact with sediments and surface waters, as well as consumption of fish;
  - Ecological assessment endpoints
  - Filling of existing data gaps throughout the study area.

The data required qualifications resulting from cooler temperature exceeding 6 degrees Celsius, non-compliant calibration, blank contamination, and surrogate recoveries below QC criteria.

Sample A31K0 required dilution (3-fold) due to concentrations of phenol and 4-methylphenol above the calibration range of the instrument. Sample A31M4 required dilution (2-fold) due to the concentration of N-nitrosodiphpenylamine above the calibration range of the instrument.

Preservation and Technical Holding Times

SVOC samples A31J2, A31K0, A31K2, A31K6, A31L3, A31L5, A31L7, A31L9, A31M4, A31M6 and A31M8 were estimated (J, UJ) due to the cooler exceeding temperature limits.

Initial and Continuing Calibration

The percent difference (%D) for pentachlorophenol did not meet QC criteria of <25% in one of the continuing calibrations. The positive and non-detected pentachlorophenol results were estimated (J, UJ) in samples A31J2, A31K0, A31K2, A31L3, A31L5, A31L7, A31L9, and A31M1. Results may be biased low. The %D for n-nitroso-di-n-propylamine, 2-nitrophenol, and bis(2-chloroethoxy)methane in another continuing calibration did not meet criteria; however, no qualification was necessary since these compounds were not reported for the diluted sample analyzed.

Blanks

The following table summarizes the level of blank contamination detected in the field and laboratory blank associated with these samples.

Compound	Type of Blank	Maximum Concentration (µg/L)	Action Level (µg/L)	CRQL (µg/L)	Action
Benzo(a)pyrene	Method Blank (SBLK40)	0.19	0.95	5	None, samples ND.
Acetophenone	Equipment blank	0.79	3.95	5	Qualified as undetected (U) in samples A31J2, A31K2, A31L5, A31M4, A31M6, & A31M8.
Benzaldehyde		0.66	3.3	5	Qualified as undetected (U) in samples A31J2, A31K0, A31K2, A31L5, A31M4, A31M6, & A31M8.
Caprolactam		0.29	1.45	5	Qualified as undetected (U) in samples A31J6, A31K4, A31K6, A31L7, A31M1, A31N1, & A31N3.
Diethylphthalate		0.2	2.0	5	Qualified as undetected (U) in samples A31K4, A31L3, A31L5, A31L7, A31M4, & A31M6.
Di-n-butylphthalate		1.5	15	5	Qualified as undetected (U) in samples A31K4, A31K6, & A31N1.
Isophorone		0.27	1.35	5	None, samples ND.
Phenol		0.33	1.65	5	Qualified as undetected (U) in samples A31J4, A31L5, A31M1, & A31M4.

The following actions apply for blank contamination:

- Accept values > Action Level.
- Report as (U) values > CRQL and < Action Level.
- Report CRQL (U) values < CRQL and < Action Level.

Deuterated Monitoring Compounds

The following table summarizes the surrogate recoveries that failed the QC limits:

Sample Number	Surrogate Compound	Percent Recovery	QC Limits (%)	Action
A31J2	4-Chloroaniline-d_4 (4-CA)	0.9	1-145	ND – R
A31K2	4-Chloroaniline-d_4 (4-CA)	0.1	1-145	ND – R
A31L5	4-Chloroaniline-d_4 (4-CA)	0.2	1-145	ND – R
A31K0	Phenol-d5 (PHL)	116	39-106	(+) - J
A31K2	Phenol-d5 (PHL)	117	39-106	(+) - J
Affected Analyte:	4-CA = 4-chloroaniline, hexachlorocyclopentadiene, and 3,3'-dichlorobenzidine PHL = benzaldehyde and phenol			

The non-detected 4-chloroaniline, hexachlorocyclopentadiene, and 3,3'-dichlorobenzidine results were rejected (R) in samples A31J2, AS31K2, and A31L5 since the associated surrogate was recovered at less than 1%. The positive phenol results were estimated (J) in samples A31K0 and A31K2 since the associated surrogate recovery was above acceptance criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The MSD recovery for pentachlorophenol in sample A31J4 was above acceptance criteria. No qualification was necessary since pentachlorophenol was not detected in the sample.

Performance Evaluation Results

The PE sample A31K9 (SV0663) was provided by EPA. Its results were evaluated and found acceptable.

Please contact Gail DeRuzzo at (978) 703-6021 should you have any questions or comments regarding this information.

Very truly yours,

NOBIS ENGINEERING, INC.

Gail DeRuzzo
Lead Chemist

Gloria J. Switalski, Senior Project Scientist
Subcontractor Data Validator
WESTON SOLUTIONS, INC.

Tables:
- Table I: Recommendation Summary Table
- Table II: Overall Evaluation of Data
- Table III: TIC Summary Tables
- Data Summary Tables

Enclosures:
- Data Validation Worksheets
- CCS Reports
- PE Score Reports
- Region Electronic Correspondence
- Field Sampling Notes
- CSF Audit (DC-2 Form)
- DQO Summary

cc: Darryl Luce, EPA Site Manager (w/o Enclosures)
Don Goodrich USEPA Region VIII (w/ Enclosures)

TABLE I
Recommendation Summary Table for Semivolatilies
Chlor-Alkali Facility (Former) Superfund Site
Case 39067; SDG A31J2

TABLE I: RECOMMENDATION SUMMARY TABLE		
Sample Number	**Matrix**	**Qualifiers**
A31J2	Water	UJ^1/J^1, UJ^2/J^2, $U^{1,2}$, R^1
A31J4	Water	U^6
A31J6	Water	U^3
A31J8	Water	A
A21K0	Water	UJ^1/J^1, UJ^2/J^2, U^2, J^2
A31K2	Water	UJ^1/J^1, UJ^2/J^2, $U^{1,2}$, J^2, R^1
A31K4	Water	$U^{3,4,5}$
A31K6	Water	UJ^1/J^1, $U^{3,5}$
A31L3	Water	UJ^1/J^1, UJ^2/J^2, U^4
A31L5	Water	UJ^1/J^1, UJ^2/J^2, $U^{1,2,4,6}$, R^1
A31L7	Water	UJ^1/J^1, UJ^2/J^2, $U^{3,4}$
A31L9	Water	UJ^1/J^1, UJ^2/J^2
A31M1	Water	UJ^2/J^2, $U^{3,6}$
A31M4	Water	UJ^1/J^1, $U^{1,2,4,6}$
A31M6	Water	UJ^1/J^1, $U^{1,2,4}$
A31M8	Water	UJ^1/J^1, $U^{1,2}$
A31N1	Water	$U^{3,5}$
A31N3	Water	U^3
A31N5	Water	A

UJ^1/J^1- Estimate all positive (J) and non-detected (UJ) results since cooler temperature exceeded 6 degrees Celsius (potential low bias).

UJ^2/J^2- Estimate positive (J) and non-detected (UJ) pentachlorophenol results due to non-compliant calibration results (potential low bias).

U^1- Qualify the positive result for acetophenone as undetected (U) since it was detected in the equipment blank.

U^2- Qualify the positive result for benzaldehyde as undetected (U) since it was detected in the equipment blank.

U^3- Qualify the positive result for caprolactam as undetected (U) since it was detected in the equipment blank.

U^4- Qualify the positive result for diethylphthalate as undetected (U) since it was detected in the equipment blank.

U^5- Qualify the positive result for di-n-butylphthalate as undetected (U) since it was detected in the equipment blank.

U^6- Qualify the positive result for phenol as undetected (U) since it was detected in the equipment blank.

J^2 - Estimate the positive phenol results due to surrogate recovery above QC limits (potential high bias).

R^1 - Reject the non-detected 4-chloroaniline, hexachlorocyclopentadiene, and 3,3'-dichlorobenzidine results due to very low (<1%) surrogate recovery (potential for false negative).

TABLE II
Overall Evaluation of Semivolatile Data
Chlor-Alkali Facility (Former) Superfund Site
Case 39067; SDG A31J2

SEMIVOLATILE ORGANICS					
DQO (list all DQOs)	**Sampling and/or Analytical Method Appropriate Yes or No**	**Measurement Error**		**Sampling Variability****	**Potential Usability Issues**
		Analytical Error	**Sampling Error***		
Accurate identification of environmental bioaccumulation risks from site contamination. Determination of where and what magnitude of risk applies for: -Humans, likely from incidental ingestion and dermal contact with sediments and surface waters, as well as consumption of fish; -Ecological assessment endpoints -Filling of existing data gaps throughout the study area.	Yes, analytical method CLP SOW SOMO2.1 and sampling procedures according to the requirements of the *QAPP* are appropriate for all samples.	Refer to qualifications In R/S key: UJ^1/J^1, UJ^2, U^{1-6}, J^2, R^1	Refer to qualifications in R/S key: None		UJ^1/J^1 - Estimate the positive and non-detected results since cooler temperature exceeded 6 degrees Celsius (potential low bias). UJ^2/J^2 - Estimate positive (J) and non-detected (UJ) pentachlorophenol results due to non-compliant calibration results (potential low bias). U^{1-6} - Qualify the positive results for acetophenone, benzaldehyde, caprolactam, diethylphthalate, di-n-butylphthalate, and/or phenol as undetected (U) since they were detected in the equipment blank. J^2 - Estimate the positive phenol results due to surrogate recovery above QC limits (potential high bias). R^1 - Reject the non-detected 4-chloroaniline, hexachlorocyclopentadiene, and 3,3'-dichlorobenzidine results due to very low (<1%) surrogate recovery (potential for false negative).

* The evaluation of "sampling error" cannot be completely assessed in data validation
** Sampling variability is not assessed in data validation.

TABLE III
SEMIVOLATILE TENTATIVELY IDENTIFIED COMPOUND SUMMARY
Chlor-Alkali Facility (Former) Superfund Site
Case 39067; SDG A31J2

See attached table for tentatively identified compounds found in the semivolatile analyses.

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31J2		A31J4		A31J6	
Sample Location:		MW-24B2		MW-17		MW-13A	
Lab Sample ID:		9283022001		9283022002		9283022005	
Station ID:		MW-24B2-1008-0920		MW-17-1008-0950		MW-13A-1008-1055	
Dilution Factor:		1		1		1	
Sample Date:		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
1,1'-Biphenyl	5	5	UJ	5	U	0.17	J
1,2,4,5-Tetrachlorobenzene	5	5	UJ	5	U	5	U
2,2'-Oxybis(1-chloropropane)	5	5	UJ	5	U	5	U
2,3,4,6-Tetrachlorophenol	5	5	UJ	5	U	5	U
2,4,5-Trichlorophenol	5	5	UJ	5	U	5	U
2,4,6-Trichlorophenol	5	0.23	J	5	U	5	U
2,4-Dichlorophenol	5	5	UJ	5	U	5	U
2,4-Dimethylphenol	5	5	UJ	5	U	5	U
2,4-Dinitrophenol	10	10	UJ	10	U	10	U
2,4-Dinitrotoluene	5	5	UJ	5	U	5	U
2,6-Dinitrotoluene	5	5	UJ	5	U	5	U
2-Chloronaphthalene	5	5	UJ	5	U	0.25	J
2-Chlorophenol	5	0.29	J	0.48	J	5	U
2-Methylnaphthalene	5	0.19	J	5	U	5	U
2-Methylphenol	5	5	UJ	5	U	5	U
2-Nitroaniline	10	10	UJ	10	U	10	U
2-Nitrophenol	5	5	UJ	5	U	5	U
3,3'-Dichlorobenzidine	5		R	5	U	5	U
3-Nitroaniline	10	10	UJ	10	U	10	U
4,6-Dinitro-2-methylphenol	10	10	UJ	10	U	10	U
4-Bromophenyl-phenylether	5	5	UJ	5	U	5	U
4-Chloro-3-methylphenol	5	5	UJ	0.34	J	5	U
4-Chloroaniline	5		R	5	U	5	U
4-Chlorophenyl-phenylether	5	5	UJ	5	U	5	U
4-Methylphenol	5	12	J	5	U	5	U
4-Nitroaniline	10	10	UJ	10	U	10	U
4-Nitrophenol	10	10	UJ	10	U	10	U
Acenaphthene	5	0.19	J	0.38	J	0.52	J
Acenaphthylene	5	5	UJ	5	U	0.2	J
Acetophenone	5	5	UJ	5	U	5	U
Anthracene	5	5	UJ	5	U	0.56	J
Atrazine	5	5	UJ	5	U	5	U
Benzaldehyde	5	5	UJ	5	U	5	U
Benzo(a)anthracene	5	5	UJ	5	U	0.18	J
Benzo(a)pyrene	5	5	UJ	5	U	5	U
Benzo(b)fluoranthene	5	5	UJ	5	U	5	U
Benzo(g,h,i)perylene	5	5	UJ	5	U	5	U
Benzo(k)fluoranthene	5	5	UJ	5	U	5	U
Bis(2-chloroethoxy)methane	5	5	UJ	5	U	5	U
Bis(2-chloroethyl)ether	5	5	UJ	5	U	5	U
Bis(2-ethylhexyl)phthalate	5	0.24	J	5	U	5	U
Butylbenzylphthalate	5	5	UJ	5	U	5	U
Caprolactam	5	5	UJ	5	U	5	U
Carbazole	5	0.22	J	5	U	0.79	J
Chrysene	5	5	UJ	5	U	5	U
Dibenzo(a,h)anthracene	5	5	UJ	5	U	5	U
Dibenzofuran	5	0.16	J	5	U	0.24	J
Diethylphthalate	5	5	UJ	5	U	5	U

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31J2		A31J4		A31J6	
Sample Location:		MW-24B2		MW-17		MW-13A	
Lab Sample ID:		9283022001		9283022002		9283022005	
Station ID:		MW-24B2-1008-0920		MW-17-1008-0950		MW-13A-1008-1055	
Dilution Factor:		1		1		1	
Sample Date:		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
Dimethylphthalate	5	5	UJ	5	U	5	U
Di-n-butylphthalate	5	5	UJ	5	U	5	U
Di-n-octylphthalate	5	5	UJ	5	U	5	U
Fluoranthene	5	5	UJ	5	U	2.5	J
Fluorene	5	5	UJ	5	U	3.2	J
Hexachlorobenzene	5	5	UJ	5	U	5	U
Hexachlorobutadiene	5	5	UJ	5	U	5	U
Hexachlorocyclopentadiene	5		R	5	U	5	U
Hexachloroethane	5	5	UJ	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	5	UJ	5	U	5	U
Isophorone	5	5	UJ	5	U	5	U
Naphthalene	5	0.42	J	5	U	0.38	J
Nitrobenzene	5	5	UJ	5	U	5	U
N-Nitroso-di-n-propylamine	5	5	UJ	5	U	5	U
N-Nitrosodiphenylamine	5	7.6	J	5	U	5	U
Pentachlorophenol	10	10	UJ	10	U	10	U
Phenanthrene	5	0.51	J	5	U	1.3	J
Phenol	5	3.4	J	5	U	5	U
Pyrene	5	5	UJ	5	U	1.2	J

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31J8		A31K0		A31K2	
Sample Location:		MW-13A		MW-7		MW-24B2	
Lab Sample ID:		9283022006		9283022007		9283022008	
Station ID:		DUP-02-1008-1055A		MW-7-1008-1205		MW-24B2-1008-1450	
Dilution Factor:		1		1/3*		1	
Sample Date:		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
1,1'-Biphenyl	5	0.25	J	5	UJ	5	UJ
1,2,4,5-Tetrachlorobenzene	5	5	U	5	UJ	5	UJ
2,2'-Oxybis(1-chloropropane)	5	5	U	5	UJ	5	UJ
2,3,4,6-Tetrachlorophenol	5	5	U	5	UJ	0.18	J
2,4,5-Trichlorophenol	5	5	U	5	UJ	5	UJ
2,4,6-Trichlorophenol	5	5	U	5	UJ	0.93	J
2,4-Dichlorophenol	5	5	U	5	UJ	5	UJ
2,4-Dimethylphenol	5	5	U	5	UJ	5	UJ
2,4-Dinitrophenol	10	10	U	10	UJ	10	UJ
2,4-Dinitrotoluene	5	5	U	5	UJ	5	UJ
2,6-Dinitrotoluene	5	5	U	5	UJ	5	UJ
2-Chloronaphthalene	5	0.37	J	5	UJ	5	UJ
2-Chlorophenol	5	5	U	0.66	J	0.97	J
2-Methylnaphthalene	5	5	U	0.26	J	0.23	J
2-Methylphenol	5	5	U	5	UJ	0.37	J
2-Nitroaniline	10	10	U	10	UJ	10	UJ
2-Nitrophenol	5	5	U	5	UJ	5	UJ
3,3'-Dichlorobenzidine	5	5	U	5	UJ		R
3-Nitroaniline	10	10	U	10	UJ	10	UJ
4,6-Dinitro-2-methylphenol	10	10	U	10	UJ	10	UJ
4-Bromophenyl-phenylether	5	5	U	5	UJ	5	UJ
4-Chloro-3-methylphenol	5	5	U	5	UJ	0.79	J
4-Chloroaniline	5	5	U	5	UJ		R
4-Chlorophenyl-phenylether	5	5	U	5	UJ	5	UJ
4-Methylphenol	5	5	U	240	DJ	35	J
4-Nitroaniline	10	10	U	10	UJ	10	UJ
4-Nitrophenol	10	10	U	10	UJ	10	UJ
Acenaphthene	5	0.63	J	0.61	J	0.22	J
Acenaphthylene	5	0.23	J	5	UJ	5	UJ
Acetophenone	5	5	U	5	UJ	5	UJ
Anthracene	5	0.68	J	0.16	J	5	UJ
Atrazine	5	5	U	5	UJ	5	UJ
Benzaldehyde	5	5	U	5	UJ	5	UJ
Benzo(a)anthracene	5	0.3	J	5	UJ	5	UJ
Benzo(a)pyrene	5	5	U	5	UJ	5	UJ
Benzo(b)fluoranthene	5	5	U	5	UJ	5	UJ
Benzo(g,h,i)perylene	5	5	U	5	UJ	5	UJ
Benzo(k)fluoranthene	5	5	U	5	UJ	5	UJ
Bis(2-chloroethoxy)methane	5	5	U	5	UJ	5	UJ
Bis(2-chloroethyl)ether	5	5	U	5	UJ	5	UJ
Bis(2-ethylhexyl)phthalate	5	5	U	5	UJ	5	UJ
Butylbenzylphthalate	5	5	U	5	UJ	5	UJ
Caprolactam	5	5	U	5	UJ	5	UJ
Carbazole	5	1.1	J	0.44	J	0.28	J
Chrysene	5	0.27	J	5	UJ	5	UJ
Dibenzo(a,h)anthracene	5	5	U	5	UJ	5	UJ
Dibenzofuran	5	0.38	J	0.4	J	0.2	J
Diethylphthalate	5	5	U	5	UJ	5	UJ

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31J8		A31K0		A31K2	
Sample Location:		MW-13A		MW-7		MW-24B2	
Lab Sample ID:		9283022006		9283022007		9283022008	
Station ID:		DUP-02-1008-1055A		MW-7-1008-1205		MW-24B2-1008-1450	
Dilution Factor:		1		1/3*		1	
Sample Date:		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
Dimethylphthalate	5	5	U	5	UJ	5	UJ
Di-n-butylphthalate	5	5	U	5	UJ	5	UJ
Di-n-octylphthalate	5	5	U	5	UJ	5	UJ
Fluoranthene	5	2.8	J	0.57	J	5	UJ
Fluorene	5	4.1	J	0.37	J	5	UJ
Hexachlorobenzene	5	5	U	5	UJ	5	UJ
Hexachlorobutadiene	5	5	U	5	UJ	5	UJ
Hexachlorocyclopentadiene	5	5	U	5	UJ		R
Hexachloroethane	5	5	U	5	UJ	5	UJ
Indeno(1,2,3-cd)pyrene	5	5	U	5	UJ	5	UJ
Isophorone	5	5	U	5	UJ	5	UJ
Naphthalene	5	0.63	J	1.1	J	0.98	J
Nitrobenzene	5	5	U	5	UJ	5	UJ
N-Nitroso-di-n-propylamine	5	5	U	5	UJ	5	UJ
N-Nitrosodiphenylamine	5	5	U	5	UJ	0.31	J
Pentachlorophenol	10	10	U	0.3	UJ	0.19	J
Phenanthrene	5	1.7	J	2.2	UJ	0.77	J
Phenol	5	5	U	120	DJ	12	J
Pyrene	5	1.5	J	0.3	J	5	UJ

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31K4		A31K6		A31L3	
Sample Location:		MW-13B		MW-18A		MW-2	
Lab Sample ID:		9283022009		9283022010		9283022012	
Station ID:		MW-13B-1008-1515		MW-18A-1008-1535		MW-2-1008-1445	
Dilution Factor:		1		1		1	
Sample Date:		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
1,1'-Biphenyl	5	5	U	5	UJ	0.27	J
1,2,4,5-Tetrachlorobenzene	5	5	U	5	UJ	5	UJ
2,2'-Oxybis(1-chloropropane)	5	5	U	5	UJ	5	UJ
2,3,4,6-Tetrachlorophenol	5	5	U	5	UJ	5	UJ
2,4,5-Trichlorophenol	5	5	U	5	UJ	5	UJ
2,4,6-Trichlorophenol	5	5	U	5	UJ	5	UJ
2,4-Dichlorophenol	5	5	U	5	UJ	5	UJ
2,4-Dimethylphenol	5	5	U	5	UJ	5	UJ
2,4-Dinitrophenol	10	10	U	10	UJ	10	UJ
2,4-Dinitrotoluene	5	5	U	5	UJ	5	UJ
2,6-Dinitrotoluene	5	5	U	5	UJ	5	UJ
2-Chloronaphthalene	5	5	U	5	UJ	0.41	J
2-Chlorophenol	5	5	U	5	UJ	5	UJ
2-Methylnaphthalene	5	5	U	5	UJ	0.68	J
2-Methylphenol	5	5	U	5	UJ	5	UJ
2-Nitroaniline	10	10	U	10	UJ	10	UJ
2-Nitrophenol	5	5	U	5	UJ	5	UJ
3,3'-Dichlorobenzidine	5	5	U	5	UJ	5	UJ
3-Nitroaniline	10	10	U	10	UJ	10	UJ
4,6-Dinitro-2-methylphenol	10	10	U	10	UJ	10	UJ
4-Bromophenyl-phenylether	5	5	U	5	UJ	5	UJ
4-Chloro-3-methylphenol	5	5	U	5	UJ	5	UJ
4-Chloroaniline	5	5	U	5	UJ	5	UJ
4-Chlorophenyl-phenylether	5	5	U	5	UJ	5	UJ
4-Methylphenol	5	5	U	5	UJ	8.2	J
4-Nitroaniline	10	10	U	10	UJ	10	UJ
4-Nitrophenol	10	10	U	10	UJ	10	UJ
Acenaphthene	5	5	U	5	UJ	0.37	J
Acenaphthylene	5	5	U	5	UJ	5	UJ
Acetophenone	5	5	U	5	UJ	5	UJ
Anthracene	5	5	U	5	UJ	0.52	J
Atrazine	5	5	U	5	UJ	5	UJ
Benzaldehyde	5	5	U	5	UJ	5	UJ
Benzo(a)anthracene	5	5	U	5	UJ	5	UJ
Benzo(a)pyrene	5	5	U	5	UJ	0.16	J
Benzo(b)fluoranthene	5	5	U	5	UJ	5	UJ
Benzo(g,h,i)perylene	5	5	U	5	UJ	5	UJ
Benzo(k)fluoranthene	5	5	U	5	UJ	0.22	J
Bis(2-chloroethoxy)methane	5	5	U	5	UJ	5	UJ
Bis(2-chloroethyl)ether	5	5	U	5	UJ	5	UJ
Bis(2-ethylhexyl)phthalate	5	0.41	J	5	UJ	0.27	J
Butylbenzylphthalate	5	5	U	5	UJ	5	UJ
Caprolactam	5	5	U	5	UJ	5	UJ
Carbazole	5	5	U	5	UJ	1.2	J
Chrysene	5	5	U	5	UJ	0.16	J
Dibenzo(a,h)anthracene	5	5	U	5	UJ	5	UJ
Dibenzofuran	5	5	U	5	UJ	1	J
Diethylphthalate	5	5	U	5	UJ	5	UJ

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31K4		A31K6		A31L3	
Sample Location:		MW-13B		MW-18A		MW-2	
Lab Sample ID:		9283022009		9283022010		9283022012	
Station ID:		MW-13B-1008-1515		MW-18A-1008-1535		MW-2-1008-1445	
Dilution Factor:		1		1		1	
Sample Date:		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
Dimethylphthalate	5	5	U	5	UJ	5	UJ
Di-n-butylphthalate	5	5	U	5	UJ	5	UJ
Di-n-octylphthalate	5	5	U	5	UJ	5	UJ
Fluoranthene	5	5	U	5	UJ	2.8	J
Fluorene	5	5	U	5	UJ	1.2	J
Hexachlorobenzene	5	5	U	5	UJ	5	UJ
Hexachlorobutadiene	5	5	U	5	UJ	5	UJ
Hexachlorocyclopentadiene	5	5	U	5	UJ	5	UJ
Hexachloroethane	5	5	U	5	UJ	5	UJ
Indeno(1,2,3-cd)pyrene	5	5	U	5	UJ	5	UJ
Isophorone	5	5	U	5	UJ	5	UJ
Naphthalene	5	5	U	5	UJ	2.6	J
Nitrobenzene	5	5	U	5	UJ	5	UJ
N-Nitroso-di-n-propylamine	5	5	U	5	UJ	5	UJ
N-Nitrosodiphenylamine	5	1.4	J	5	UJ	5	UJ
Pentachlorophenol	10	10	U	10	UJ	10	UJ
Phenanthrene	5	5	U	5	UJ	3.3	J
Phenol	5	5	U	5	UJ	5.3	J
Pyrene	5	5	U	5	UJ	1.1	J

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31L5		A31L7		A31L9	
Sample Location:		MW-26B1		MW-24O1		MW-18B	
Lab Sample ID:		9283022013		9283022014		9283022015	
Station ID:		MW-26B1-1009-0830		MW-24O1-1009-0840		MW-18B-1009-0905	
Dilution Factor:		1		1		1	
Sample Date:		09 Oct 09		09 Oct 09		09 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
1,1'-Biphenyl	5	5	UJ	0.19	J	5	U
1,2,4,5-Tetrachlorobenzene	5	5	UJ	5	UJ	5	U
2,2'-Oxybis(1-chloropropane)	5	5	UJ	5	UJ	5	U
2,3,4,6-Tetrachlorophenol	5	5	UJ	5	UJ	5	U
2,4,5-Trichlorophenol	5	5	UJ	5	UJ	5	U
2,4,6-Trichlorophenol	5	0.16	J	5	UJ	5	U
2,4-Dichlorophenol	5	5	UJ	5	UJ	5	U
2,4-Dimethylphenol	5	5	UJ	5	UJ	5	U
2,4-Dinitrophenol	10	10	UJ	10	UJ	10	U
2,4-Dinitrotoluene	5	5	UJ	5	UJ	5	U
2,6-Dinitrotoluene	5	5	UJ	5	UJ	5	U
2-Chloronaphthalene	5	5	UJ	5	UJ	5	U
2-Chlorophenol	5	5	UJ	5	UJ	5	U
2-Methylnaphthalene	5	0.56	J	5	UJ	5	U
2-Methylphenol	5	5	UJ	5	UJ	5	U
2-Nitroaniline	10	10	UJ	10	UJ	10	U
2-Nitrophenol	5	5	UJ	5	UJ	5	U
3,3'-Dichlorobenzidine	5		R	5	UJ	5	U
3-Nitroaniline	10	10	UJ	10	UJ	10	U
4,6-Dinitro-2-methylphenol	10	10	UJ	10	UJ	10	U
4-Bromophenyl-phenylether	5	5	UJ	5	UJ	5	U
4-Chloro-3-methylphenol	5	5	UJ	5	UJ	5	U
4-Chloroaniline	5		R	5	UJ	5	U
4-Chlorophenyl-phenylether	5	5	UJ	5	UJ	5	U
4-Methylphenol	5	2.2	J	0.35	J	2.1	J
4-Nitroaniline	10	10	UJ	10	UJ	10	U
4-Nitrophenol	10	10	UJ	10	UJ	10	U
Acenaphthene	5	0.18	J	0.73	J	5	U
Acenaphthylene	5	5	UJ	5	UJ	5	U
Acetophenone	5	5	UJ	5	UJ	5	U
Anthracene	5	5	UJ	0.43	J	5	U
Atrazine	5	5	UJ	5	UJ	5	U
Benzaldehyde	5	5	UJ	5	UJ	5	U
Benzo(a)anthracene	5	5	UJ	5	UJ	5	U
Benzo(a)pyrene	5	5	UJ	5	UJ	5	U
Benzo(b)fluoranthene	5	5	UJ	5	UJ	5	U
Benzo(g,h,i)perylene	5	5	UJ	5	UJ	5	U
Benzo(k)fluoranthene	5	5	UJ	5	UJ	5	U
Bis(2-chloroethoxy)methane	5	5	UJ	5	UJ	5	U
Bis(2-chloroethyl)ether	5	5	UJ	5	UJ	5	U
Bis(2-ethylhexyl)phthalate	5	0.26	J	5	UJ	0.21	J
Butylbenzylphthalate	5	5	UJ	5	UJ	5	U
Caprolactam	5	5	UJ	5	UJ	5	U
Carbazole	5	0.35	J	0.59	J	5	U
Chrysene	5	5	UJ	5	UJ	5	U
Dibenzo(a,h)anthracene	5	5	UJ	5	UJ	5	U
Dibenzofuran	5	0.5	J	0.29	J	5	U
Diethylphthalate	5	5	UJ	5	UJ	5	U

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31L5		A31L7		A31L9	
Sample Location:		MW-26B1		MW-24O1		MW-18B	
Lab Sample ID:		9283022013		9283022014		9283022015	
Station ID:		MW-26B1-1009-0830		MW-24O1-1009-0840		MW-18B-1009-0905	
Dilution Factor:		1		1		1	
Sample Date:		09 Oct 09		09 Oct 09		09 Oct 09	
Date Analyzed:		19 Oct 09		19 Oct 09		19 Oct 09	
Chemical	CRQL						
Dimethylphthalate	5	5	UJ	5	UJ	5	U
Di-n-butylphthalate	5	5	UJ	5	UJ	5	U
Di-n-octylphthalate	5	5	UJ	5	UJ	5	U
Fluoranthene	5	0.44	J	1.8	J	5	U
Fluorene	5	0.36	J	0.76	J	5	U
Hexachlorobenzene	5	5	UJ	5	UJ	5	U
Hexachlorobutadiene	5	3.7	J	5	UJ	5	U
Hexachlorocyclopentadiene	5		R	5	UJ	5	U
Hexachloroethane	5	5	UJ	5	UJ	5	U
Indeno(1,2,3-cd)pyrene	5	5	UJ	5	UJ	5	U
Isophorone	5	5	UJ	5	UJ	5	U
Naphthalene	5	1.7	J	5	UJ	5	U
Nitrobenzene	5	5	UJ	5	UJ	5	U
N-Nitroso-di-n-propylamine	5	5	UJ	5	UJ	5	U
N-Nitrosodiphenylamine	5	8.8	J	5	UJ	0.23	J
Pentachlorophenol	10	1.3	J	10	UJ	10	UJ
Phenanthrene	5	2	J	0.62	J	5	U
Phenol	5	5	UJ	5	UJ	3.6	J
Pyrene	5	0.25	J	0.86	J	5	U

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31M1		A31M4		A31M6	
Sample Location:		MW-1		MW-26B1		MW-25B1	
Lab Sample ID:		9283022016		9287043001		9287043002	
Station ID:		MW-1-1009-1010		MW-26B1-1012-1130		MW-25B1-1012-1705	
Dilution Factor:		1		1/2*		1	
Sample Date:		09 Oct 09		12 Oct 09		12 Oct 09	
Date Analyzed:		19 Oct 09		21 Oct 09		21 Oct 09	
Chemical	CRQL						
1,1'-Biphenyl	5	5	U	5	UJ	5	UJ
1,2,4,5-Tetrachlorobenzene	5	5	U	5	UJ	5	UJ
2,2'-Oxybis(1-chloropropane)	5	5	U	5	UJ	5	UJ
2,3,4,6-Tetrachlorophenol	5	5	U	5	UJ	5	UJ
2,4,5-Trichlorophenol	5	5	U	5	UJ	5	UJ
2,4,6-Trichlorophenol	5	5	U	5	UJ	5	UJ
2,4-Dichlorophenol	5	5	U	5	UJ	5	UJ
2,4-Dimethylphenol	5	5	U	5	UJ	5	UJ
2,4-Dinitrophenol	10	10	U	10	UJ	10	UJ
2,4-Dinitrotoluene	5	5	U	5	UJ	5	UJ
2,6-Dinitrotoluene	5	5	U	5	UJ	5	UJ
2-Chloronaphthalene	5	5	U	5	UJ	5	UJ
2-Chlorophenol	5	5	U	5	UJ	0.19	J
2-Methylnaphthalene	5	5	U	0.23	J	0.25	J
2-Methylphenol	5	5	U	5	UJ	5	UJ
2-Nitroaniline	10	10	U	10	UJ	10	UJ
2-Nitrophenol	5	5	U	5	UJ	5	UJ
3,3'-Dichlorobenzidine	5	5	U	5	UJ	5	UJ
3-Nitroaniline	10	10	U	10	UJ	10	UJ
4,6-Dinitro-2-methylphenol	10	10	U	10	UJ	10	UJ
4-Bromophenyl-phenylether	5	5	U	5	UJ	5	UJ
4-Chloro-3-methylphenol	5	5	U	5	UJ	5	UJ
4-Chloroaniline	5	5	U	5	UJ	5	UJ
4-Chlorophenyl-phenylether	5	5	U	5	UJ	5	UJ
4-Methylphenol	5	0.77	J	1	J	6.4	J
4-Nitroaniline	10	10	U	10	UJ	10	UJ
4-Nitrophenol	10	10	U	10	UJ	10	UJ
Acenaphthene	5	5	U	5	UJ	0.2	J
Acenaphthylene	5	5	U	5	UJ	5	UJ
Acetophenone	5	5	U	5	UJ	5	UJ
Anthracene	5	5	U	5	UJ	5	UJ
Atrazine	5	5	U	5	UJ	5	UJ
Benzaldehyde	5	5	U	5	UJ	5	UJ
Benzo(a)anthracene	5	5	U	5	UJ	5	UJ
Benzo(a)pyrene	5	5	U	5	UJ	5	UJ
Benzo(b)fluoranthene	5	5	U	5	UJ	5	UJ
Benzo(g,h,i)perylene	5	5	U	5	UJ	5	UJ
Benzo(k)fluoranthene	5	5	U	5	UJ	5	UJ
Bis(2-chloroethoxy)methane	5	5	U	5	UJ	5	UJ
Bis(2-chloroethyl)ether	5	5	U	5	UJ	5	UJ
Bis(2-ethylhexyl)phthalate	5	0.15	J	0.33	J	0.22	J
Butylbenzylphthalate	5	5	U	5	UJ	5	UJ
Caprolactam	5	5	U	5	UJ	5	UJ
Carbazole	5	5	U	0.4	J	0.41	J
Chrysene	5	5	U	5	UJ	5	UJ
Dibenzo(a,h)anthracene	5	5	U	5	UJ	5	UJ
Dibenzofuran	5	5	U	0.24	J	0.27	J
Diethylphthalate	5	5	U	5	UJ	5	UJ

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31M1		A31M4		A31M6	
Sample Location:		MW-1		MW-26B1		MW-25B1	
Lab Sample ID:		9283022016		9287043001		9287043002	
Station ID:		MW-1-1009-1010		MW-26B1-1012-1130		MW-25B1-1012-1705	
Dilution Factor:		1		1/2*		1	
Sample Date:		09 Oct 09		12 Oct 09		12 Oct 09	
Date Analyzed:		19 Oct 09		21 Oct 09		21 Oct 09	
Chemical	CRQL						
Dimethylphthalate	5	5	U	5	UJ	5	UJ
Di-n-butylphthalate	5	5	U	5	UJ	5	UJ
Di-n-octylphthalate	5	5	U	5	UJ	5	UJ
Fluoranthene	5	5	U	5	UJ	0.17	J
Fluorene	5	5	U	5	UJ	0.17	J
Hexachlorobenzene	5	5	U	5	UJ	5	UJ
Hexachlorobutadiene	5	5	U	0.6	J	1.2	J
Hexachlorocyclopentadiene	5	5	U	5	UJ	5	UJ
Hexachloroethane	5	5	U	5	UJ	5	UJ
Indeno(1,2,3-cd)pyrene	5	5	U	5	UJ	5	UJ
Isophorone	5	5	U	5	UJ	5	UJ
Naphthalene	5	5	U	0.8	J	1.7	J
Nitrobenzene	5	5	U	5	UJ	5	UJ
N-Nitroso-di-n-propylamine	5	5	U	5	UJ	5	UJ
N-Nitrosodiphenylamine	5	5	U	90	DJ	2.2	J
Pentachlorophenol	10	10	UJ	0.5	J	10	UJ
Phenanthrene	5	5	U	0.49	J	0.73	J
Phenol	5	5	U	5	UJ	2.4	J
Pyrene	5	5	U	5	UJ	5	UJ

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31M8		A31N1		A31N3	
Sample Location:		MW-25B1		MW-24OB		MW-31O1	
Lab Sample ID:		9287043003		9288025001		9288025002	
Station ID:		MW-25B1-1013-0930		MW-24OB-1013-1125		MW-31O1-1013-1600	
Dilution Factor:		1		1		1	
Sample Date:		13 Oct 09		13 Oct 09		13 Oct 09	
Date Analyzed:		21 Oct 09		22 Oct 09		22 Oct 09	
Chemical	CRQL						
1,1'-Biphenyl	5	5	UJ	5	U	5	U
1,2,4,5-Tetrachlorobenzene	5	5	UJ	5	U	5	U
2,2'-Oxybis(1-chloropropane)	5	5	UJ	5	U	5	U
2,3,4,6-Tetrachlorophenol	5	5	UJ	5	U	5	U
2,4,5-Trichlorophenol	5	5	UJ	5	U	5	U
2,4,6-Trichlorophenol	5	0.21	J	5	U	5	U
2,4-Dichlorophenol	5	5	UJ	5	U	5	U
2,4-Dimethylphenol	5	5	UJ	5	U	5	U
2,4-Dinitrophenol	10	10	UJ	10	U	10	U
2,4-Dinitrotoluene	5	5	UJ	5	U	5	U
2,6-Dinitrotoluene	5	5	UJ	5	U	5	U
2-Chloronaphthalene	5	5	UJ	5	U	5	U
2-Chlorophenol	5	0.27	J	5	U	5	U
2-Methylnaphthalene	5	0.19	J	5	U	5	U
2-Methylphenol	5	5	UJ	5	U	5	U
2-Nitroaniline	10	10	UJ	10	U	10	U
2-Nitrophenol	5	5	UJ	5	U	5	U
3,3'-Dichlorobenzidine	5	5	UJ	5	U	5	U
3-Nitroaniline	10	10	UJ	10	U	10	U
4,6-Dinitro-2-methylphenol	10	10	UJ	10	U	10	U
4-Bromophenyl-phenylether	5	5	UJ	5	U	5	U
4-Chloro-3-methylphenol	5	5	UJ	5	U	5	U
4-Chloroaniline	5	5	UJ	5	U	5	U
4-Chlorophenyl-phenylether	5	5	UJ	5	U	5	U
4-Methylphenol	5	11	J	5	U	5	U
4-Nitroaniline	10	10	UJ	10	U	10	U
4-Nitrophenol	10	10	UJ	10	U	10	U
Acenaphthene	5	0.24	J	0.15	J	5	U
Acenaphthylene	5	5	UJ	5	U	5	U
Acetophenone	5	5	UJ	5	U	5	U
Anthracene	5	5	UJ	5	U	5	U
Atrazine	5	5	UJ	5	U	5	U
Benzaldehyde	5	5	UJ	5	U	5	U
Benzo(a)anthracene	5	5	UJ	5	U	5	U
Benzo(a)pyrene	5	5	UJ	5	U	5	U
Benzo(b)fluoranthene	5	5	UJ	5	U	5	U
Benzo(g,h,i)perylene	5	5	UJ	5	U	5	U
Benzo(k)fluoranthene	5	5	UJ	5	U	5	U
Bis(2-chloroethoxy)methane	5	5	UJ	5	U	5	U
Bis(2-chloroethyl)ether	5	5	UJ	5	U	5	U
Bis(2-ethylhexyl)phthalate	5	0.23	J	0.26	J	5	U
Butylbenzylphthalate	5	5	UJ	5	U	5	U
Caprolactam	5	5	UJ	5	U	5	U
Carbazole	5	0.25	J	0.16	J	5	U
Chrysene	5	5	UJ	5	U	5	U
Dibenzo(a,h)anthracene	5	5	UJ	5	U	5	U
Dibenzofuran	5	0.22	J	0.17	J	5	U
Diethylphthalate	5	5	UJ	5	U	5	U

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31M8		A31N1		A31N3	
Sample Location:		MW-25B1		MW-24OB		MW-31O1	
Lab Sample ID:		9287043003		9288025001		9288025002	
Station ID:		MW-25B1-1013-0930		MW-24OB-1013-1125		MW-31O1-1013-1600	
Dilution Factor:		1		1		1	
Sample Date:		13 Oct 09		13 Oct 09		13 Oct 09	
Date Analyzed:		21 Oct 09		22 Oct 09		22 Oct 09	
Chemical	CRQL						
Dimethylphthalate	5	5	UJ	5	U	5	U
Di-n-butylphthalate	5	5	UJ	5	U	5	U
Di-n-octylphthalate	5	5	UJ	5	U	5	U
Fluoranthene	5	5	UJ	0.32	J	5	U
Fluorene	5	0.16	J	0.23	J	5	U
Hexachlorobenzene	5	5	UJ	5	U	5	U
Hexachlorobutadiene	5	2.2	J	0.21	J	5	U
Hexachlorocyclopentadiene	5	5	UJ	5	U	5	U
Hexachloroethane	5	5	UJ	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	5	UJ	5	U	5	U
Isophorone	5	5	UJ	5	U	5	U
Naphthalene	5	0.76	J	0.21	J	5	U
Nitrobenzene	5	5	UJ	5	U	5	U
N-Nitroso-di-n-propylamine	5	5	UJ	5	U	5	U
N-Nitrosodiphenylamine	5	4.8	J	5	U	5	U
Pentachlorophenol	10	10	UJ	10	U	10	U
Phenanthrene	5	0.53	J	1.2	J	5	U
Phenol	5	3.2	J	5	U	5	U
Pyrene	5	5	J	0.26	J	5	U

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

	Sample Name:	A31N5	
	Sample Location:		
	Lab Sample ID:	9288025003	
	Station ID:	EB-02-1014-0800	
	Dilution Factor:	1	
	Sample Date:	14 Oct 09	
	Date Analyzed:	22 Oct 09	
Chemical	CRQL		
1,1'-Biphenyl	5	5	U
1,2,4,5-Tetrachlorobenzene	5	5	U
2,2'-Oxybis(1-chloropropane)	5	5	U
2,3,4,6-Tetrachlorophenol	5	5	U
2,4,5-Trichlorophenol	5	5	U
2,4,6-Trichlorophenol	5	5	U
2,4-Dichlorophenol	5	5	U
2,4-Dimethylphenol	5	5	U
2,4-Dinitrophenol	10	10	U
2,4-Dinitrotoluene	5	5	U
2,6-Dinitrotoluene	5	5	U
2-Chloronaphthalene	5	5	U
2-Chlorophenol	5	5	U
2-Methylnaphthalene	5	5	U
2-Methylphenol	5	5	U
2-Nitroaniline	10	10	U
2-Nitrophenol	5	5	U
3,3'-Dichlorobenzidine	5	5	U
3-Nitroaniline	10	10	U
4,6-Dinitro-2-methylphenol	10	10	U
4-Bromophenyl-phenylether	5	5	U
4-Chloro-3-methylphenol	5	5	U
4-Chloroaniline	5	5	U
4-Chlorophenyl-phenylether	5	5	U
4-Methylphenol	5	5	U
4-Nitroaniline	10	10	U
4-Nitrophenol	10	10	U
Acenaphthene	5	5	U
Acenaphthylene	5	5	U
Acetophenone	5	0.79	J
Anthracene	5	5	U
Atrazine	5	5	U
Benzaldehyde	5	0.66	J
Benzo(a)anthracene	5	5	U
Benzo(a)pyrene	5	5	U
Benzo(b)fluoranthene	5	5	U
Benzo(g,h,i)perylene	5	5	U
Benzo(k)fluoranthene	5	5	U
Bis(2-chloroethoxy)methane	5	5	U
Bis(2-chloroethyl)ether	5	5	U
Bis(2-ethylhexyl)phthalate	5	5	U
Butylbenzylphthalate	5	5	U
Caprolactam	5	5	U
Carbazole	5	5	U
Chrysene	5	5	U
Dibenzo(a,h)anthracene	5	5	U
Dibenzofuran	5	5	U
Diethylphthalate	5	0.2	J

DATA SUMMARY TABLE
Tier II Validated Data
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:		A31N5	
Sample Location:			
Lab Sample ID:		9288025003	
Station ID:		EB-02-1014-0800	
Dilution Factor:		1	
Sample Date:		14 Oct 09	
Date Analyzed:		22 Oct 09	
Chemical	CRQL		
Dimethylphthalate	5	5	U
Di-n-butylphthalate	5	1.5	J
Di-n-octylphthalate	5	5	U
Fluoranthene	5	5	U
Fluorene	5	5	U
Hexachlorobenzene	5	5	U
Hexachlorobutadiene	5	5	U
Hexachlorocyclopentadiene	5	5	U
Hexachloroethane	5	5	U
Indeno(1,2,3-cd)pyrene	5	5	U
Isophorone	5	0.27	J
Naphthalene	5	5	U
Nitrobenzene	5	5	U
N-Nitroso-di-n-propylamine	5	5	U
N-Nitrosodiphenylamine	5	5	U
Pentachlorophenol	10	10	U
Phenanthrene	5	5	U
Phenol	5	0.33	J
Pyrene	5	5	U

TABLE III: TENTATIVELY IDENTIFIED COMPOUNDS
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:	A31J2		A31J4		A31J6		A31J8		A31K0		A31K0DL		A31K2	
Sample Location:	MW-24B2		MW-17		MW-13A		MW-13A		MW-7		MW-7		MW-24B2	
Lab Sample ID:	9283022001		9283022002		9283022005		9283022006		9283022007		9283022007DL		9283022008	
Station ID:	MW-24B2-1008-0920		MW-17-1008-0950		MW-13A-1008-1055		DUP-02-1008-1055A		MW-7-1008-1205		MW-7-1008-1205		MW-24B2-1008-1450	
Dilution Factor:	1		1		1		1		1		3		1	
Sample Date:	08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:	19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		20 Oct 09		19 Oct 09	
Chemical														
1,2-Benzenedicarboxylic acid, butyl octyl ester														
1,3-Cyclooctadiene														
1,4-Naphthalenedione, 3-acetyl-2,5,7-trihydroxy-							4.2	JN						
1-Cyclohexene-4-carboxylic acid, 2-(2-methyl-2-p					2.7	JN								
1-Naphthalenemethyl indole-2-carboxylate														
1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,9,10,1														
2-Piperidinone									44	JN				
2-Pyrrolidinone, 1-methyl-					2.7	JN								
3-Butanone, 1,1-bis(4-chlorophenyl)-2,2-dimethyl														
3-Hydroxy-4-methoxybenzoic acid													26	JN
5-(Hydroxymethyl)-2-(dimethoxymethyl)furan														
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-														
7H-Furo[3',2':4,5]furo[2,3-c]xanthen-7-one, 3a,1							3.6	JN						
9,10-Anthracenedione							2.8	JN						
9-Octadecenoic acid, (E)-									55	JN				
Azelaic Acid													22	JN
Benzamide, N-propyl-														
Benzene, 1,4-dichloro-2,5-dimethyl-														
Benzene, 1-ethoxy-3-fluoro-														
Benzene, 1-methyl-3-(1-methylethyl)-														
Benzeneacetic acid	27	JN							220	JN	210	JND	59	JN
Benzenepropanoic acid	15	JN									22	JND	26	JN
Benzoic Acid											12	JND		
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-	26	JN												
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, cis-														
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, tran														
Isopropyl Palmitate														
Isoquinoline, 6,7-dimethoxy-1-methyl-4-(3,4-dime							3.3	JN						
Naphthalene, 1,2-dichloro-					2.2	JN								
Naphthalene, 2,7-dichloro-														
n-Hexadecanoic acid									70	JN	64	JND		
Nonanoic acid	25	JN												

TABLE III: TENTATIVELY IDENTIFIED COMPOUNDS
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:	A31J2		A31J4		A31J6		A31J8		A31K0		A31K0DL		A31K2	
Sample Location:	MW-24B2		MW-17		MW-13A		MW-13A		MW-7		MW-7		MW-24B2	
Lab Sample ID:	9283022001		9283022002		9283022005		9283022006		9283022007		9283022007DL		9283022008	
Station ID:	MW-24B2-1008-0920		MW-17-1008-0950		MW-13A-1008-1055		DUP-02-1008-1055A		MW-7-1008-1205		MW-7-1008-1205		MW-24B2-1008-1450	
Dilution Factor:	1		1		1		1		1		3		1	
Sample Date:	08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09		08 Oct 09	
Date Analyzed:	19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		20 Oct 09		19 Oct 09	
Chemical														
n-Propyl benzoate														
Octanoic Acid														
Pentanoic acid									92	JN				
Phenanthro[3,4-c]furan-1,3-dione														
Phenol, 2-methoxy-														
Phenol, 4,4'-butylidenebis[2-(1,1-dimethylethyl)					2.3	JN								
Piperidine, 1,2,6-trimethyl-							3.5	JN						
Piperidine, 1,2,6-trimethyl-, cis-														
Undecanoic acid														
Vanillin	30	JN											50	JN
Vanillin lactoside											18	JND		

TABLE III: TENTATIVELY IDENTIFIED COMPOUNDS
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:	A31K4		A31L3		A31L5		A31L7		A31L9		A31M4		A31M4DL	
Sample Location:	MW-13B		MW-2		MW-26B1		MW-24O1		MW-18B		MW-26B1		MW-26B1	
Lab Sample ID:	9283022009		9283022012		9283022013		9283022014		9283022015		9287043001		9287043001DL	
Station ID:	MW-13B-1008-1515		MW-2-1008-1445		MW-26B1-1009-0830		MW-24O1-1009-0840		MW-18B-1009-0905		MW-26B1-1012-1130		MW-26B1-1012-1130	
Dilution Factor:	1		1		1		1		1		1		2	
Sample Date:	08 Oct 09		08 Oct 09		09 Oct 09		09 Oct 09		09 Oct 09		12 Oct 09		12 Oct 09	
Date Analyzed:	19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		21 Oct 09		21 Oct 09	
Chemical														
1,2-Benzenedicarboxylic acid, butyl octyl ester														
1,3-Cyclooctadiene											6.4	JN		
1,4-Naphthalenedione, 3-acetyl-2,5,7-trihydroxy-														
1-Cyclohexene-4-carboxylic acid, 2-(2-methyl-2-p														
1-Naphthalenemethyl indole-2-carboxylate									12	JN				
1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,9,10,1											9.3	JN	8	JND
2-Piperidinone														
2-Pyrrolidinone, 1-methyl-														
3-Butanone, 1,1-bis(4-chlorophenyl)-2,2-dimethyl											5.2	JN		
3-Hydroxy-4-methoxybenzoic acid														
5-(Hydroxymethyl)-2-(dimethoxymethyl)furan									12	JN				
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-														
7H-Furo[3',2':4,5]furo[2,3-c]xanthen-7-one, 3a,1														
9,10-Anthracenedione														
9-Octadecenoic acid, (E)-														
Azelaic Acid														
Benzamide, N-propyl-														
Benzene, 1,4-dichloro-2,5-dimethyl-					23	JN								
Benzene, 1-ethoxy-3-fluoro-											45	JN	56	JND
Benzene, 1-methyl-3-(1-methylethyl)-														
Benzeneacetic acid			15	JN	6.6	JN			7.8	JN				
Benzenepropanoic acid														
Benzoic Acid									4.7	JN				
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-														
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, cis-									3.5	JN				
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, tran							3	JN						
Isopropyl Palmitate			6.7	JN										
Isoquinoline, 6,7-dimethoxy-1-methyl-4-(3,4-dime														
Naphthalene, 1,2-dichloro-														
Naphthalene, 2,7-dichloro-			3.3	JN										
n-Hexadecanoic acid			2.6	JN	8.7	JN								
Nonanoic acid													4.6	JND

TABLE III: TENTATIVELY IDENTIFIED COMPOUNDS
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:	A31K4		A31L3		A31L5		A31L7		A31L9		A31M4		A31M4DL	
Sample Location:	MW-13B		MW-2		MW-26B1		MW-24O1		MW-18B		MW-26B1		MW-26B1	
Lab Sample ID:	9283022009		9283022012		9283022013		9283022014		9283022015		9287043001		9287043001DL	
Station ID:	MW-13B-1008-1515		MW-2-1008-1445		MW-26B1-1009-0830		MW-24O1-1009-0840		MW-18B-1009-0905		MW-26B1-1012-1130		MW-26B1-1012-1130	
Dilution Factor:	1		1		1		1		1		1		2	
Sample Date:	08 Oct 09		08 Oct 09		09 Oct 09		09 Oct 09		09 Oct 09		12 Oct 09		12 Oct 09	
Date Analyzed:	19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		19 Oct 09		21 Oct 09		21 Oct 09	
Chemical														
n-Propyl benzoate														
Octanoic Acid											6.3	JN		
Pentanoic acid														
Phenanthro[3,4-c]furan-1,3-dione			2.8	JN										
Phenol, 2-methoxy-														
Phenol, 4,4'-butylidenebis[2-(1,1-dimethylethyl)														
Piperidine, 1,2,6-trimethyl-														
Piperidine, 1,2,6-trimethyl-, cis-	5.9	JN												
Undecanoic acid					5.1	JN								
Vanillin														
Vanillin lactoside					6.6	JN							6.2	JND

TABLE III: TENTATIVELY IDENTIFIED COMPOUNDS
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:	A31M6		A31M8		A31N5	
Sample Location:	MW-25B1		MW-25B1			
Lab Sample ID:	9287043002		9287043003		9288025003	
Station ID:	MW-25B1-1012-1705		MW-25B1-1013-0930		EB-02-1014-0800	
Dilution Factor:	1		1		1	
Sample Date:	12 Oct 09		13 Oct 09		14 Oct 09	
Date Analyzed:	21 Oct 09		21 Oct 09		22 Oct 09	
Chemical						
1,2-Benzenedicarboxylic acid, butyl octyl ester					2.6	JN
1,3-Cyclooctadiene						
1,4-Naphthalenedione, 3-acetyl-2,5,7-trihydroxy-						
1-Cyclohexene-4-carboxylic acid, 2-(2-methyl-2-p						
1-Naphthalenemethyl indole-2-carboxylate						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,9,10,1	11	JN	11	JN		
2-Piperidinone						
2-Pyrrolidinone, 1-methyl-						
3-Butanone, 1,1-bis(4-chlorophenyl)-2,2-dimethyl						
3-Hydroxy-4-methoxybenzoic acid						
5-(Hydroxymethyl)-2-(dimethoxymethyl)furan						
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-					4.6	JN
7H-Furo[3',2':4,5]furo[2,3-c]xanthen-7-one, 3a,1						
9,10-Anthracenedione						
9-Octadecenoic acid, (E)-						
Azelaic Acid						
Benzamide, N-propyl-					5.1	JN
Benzene, 1,4-dichloro-2,5-dimethyl-						
Benzene, 1-ethoxy-3-fluoro-						
Benzene, 1-methyl-3-(1-methylethyl)-						
Benzeneacetic acid	20	JN	24	JN		
Benzenepropanoic acid	7.4	JN	11	JN		
Benzoic Acid	11	JN				
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-						
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, cis-						
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, tran						
Isopropyl Palmitate						
Isoquinoline, 6,7-dimethoxy-1-methyl-4-(3,4-dime						
Naphthalene, 1,2-dichloro-						
Naphthalene, 2,7-dichloro-						
n-Hexadecanoic acid						
Nonanoic acid						

TABLE III: TENTATIVELY IDENTIFIED COMPOUNDS
Semivolatile Organics Analysis
Aqueous - ug/L

SITE: Chlor-Alkali Facility (Former) - Berlin, NH
CASE NO.: 39067 SDG NO.: A31J2

Sample Name:	A31M6		A31M8		A31N5	
Sample Location:	MW-25B1		MW-25B1			
Lab Sample ID:	9287043002		9287043003		9288025003	
Station ID:	MW-25B1-1012-1705		MW-25B1-1013-0930		EB-02-1014-0800	
Dilution Factor:	1		1		1	
Sample Date:	12 Oct 09		13 Oct 09		14 Oct 09	
Date Analyzed:	21 Oct 09		21 Oct 09		22 Oct 09	
Chemical						
n-Propyl benzoate					2.3	JN
Octanoic Acid			12	JN		
Pentanoic acid						
Phenanthro[3,4-c]furan-1,3-dione						
Phenol, 2-methoxy-					4.2	JN
Phenol, 4,4'-butylidenebis[2-(1,1-dimethylethyl)						
Piperidine, 1,2,6-trimethyl-						
Piperidine, 1,2,6-trimethyl-, cis-						
Undecanoic acid						
Vanillin	20	JN				
Vanillin lactoside			35	JN		

REGION I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT (ORDA)*

CASE #: 39067 SITE NAME: CHLOR-ALKALI

LAB NAME: ALS DATACHEM # OF SAMPLES/MATRIX: 18 WATER / 1-FB / 1-PE

SDG #: A31J2 VALIDATION CONTRACTOR: WESTON

SOW #/CONTRACT #: SOM01.2 / EPW-05-26 VALIDATOR'S NAME: CSwedalski

EPA-NE DV TIER LEVEL: II DATE DP REC'D BY EPA-NE: 11/4/9

TPO/PO: **ACTION ____ FYI ✓ DV COMPLETION DATE: 2/6/10

ANALYTICAL DATA QUALITY SUMMARY

	VOA	SV	Pest/PCB
1. Preservation and Contractual Holding Times	NA	O'	NA
2. GC/MS / GC/ECD Instrument Performance Check		O	
3. Initial Calibration		O'	
4. Continuing Calibration		O'	
5. Blanks		O'	
6. Surrogate Compounds		O'	
7. Internal Standards		O	
8. Matrix Spike/Matrix Spike Duplicate		NA	
9. Sensitivity Check		O	
10. PE Samples-Accuracy Check		O	
11. Target Compound Identification		O	
12. Compound Quantitation and Reported QLs		O	
13. Tentatively Identified Compounds		O	
14. Semivolatile Cleanup/Pesticide/PCB Cleanup		NA	
15. Data Completeness		O	
16. Overall Evaluation of Data	O	O'	O

o = Data had no problems or were qualified due to minor contractual problems.
m = Data were qualified due to major contractual problems.
z = Data were rejected as unusable due major contractual problems.

ACTION ITEMS: (z items)

AREAS OF CONCERN: (m items)

COMMENTS: O' - data was qualified due to blank system, cooler temp outside QC criteria, non-compliant calibration and surrogate recoveries

*This form assesses the analytical data quality in terms of contractual compliance only. It does not assess sampling errors and/or non-contractual analytical issues that affect data quality.

**Check "ACTION" only if contractual defects resulted in reduced payment/data rejection recommendations.

Validator: _____ Date: 2/5/10

INSTRUCTIONS ON REVERSE SIDE 2/15/2010