Pall Corporation
600 Wagner Road
Ann Arbor, MI 48103-9019 US
Phone: 734.665.0651
Web: www.pall.com

Sample Analysis Report

July, 2011

Analyst Initials: F.F.
Date: 8/18/11

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
Extraction Wells							
C3							
DOLPH-07-11-11-08:34-1	220	1.0					
TW-10-07-11-11-13:49-1	500	1.0					
TW-20-07-11-11-13:42-2	750	1.0					
D2							
LB-1-07-11-11-11:15-1	430	1.0					
LB-3-07-11-11-11:12-1	440	1.0					
TW-21-07-11-11-11:45-1	190	1.0					
TW-5-07-11-11-13:20-1	760	1.0					
TW-9-07-11-11-13:55-1	530	1.0					
E							
TW-11-07-11-11-13:23-1	98	1.0					
TW-18-07-11-11-08:36-1	270	1.0					
Marshy							
PW-1-07-11-11-08:38-1	800	1.0					
Not Applicable							
SW-COMB-07-11-11-08:32-1	340	1.0					
SW							
TW-22-07-11-11-10:45-1	470	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
TW-8-07-11-11-14:20-1	360	1.0					
Monitoring Wells							
C2							
MW-26-07-13-11-14:15-1	4	1.0					
C3							
MW-27-07-13-11-09:15-1	7	1.0					
SW							
MW-46-07-13-11-09:50-1	36	1.0					
MW-49-07-13-11-08:30-1	2	1.0					
MW-52d-07-13-11-13:15-1	nd	1.0					
MW-52i-07-13-11-13:40-1	nd	1.0					
MW-58d-07-13-11-10:30-1	11	1.0					
Surface Water							
Not Applicable							
HC/HR-07-01-11-08:25-1			nd	2.0			
HC/HR-07-05-11-08:30-1			nd	2.0			
HC/HR-07-06-11-09:45-1			nd	2.0			
HC/HR-07-07-11-10:00-1			nd	2.0			
HC/HR-07-08-11-09:00-1			nd	2.0			
HC/HR-07-11-11-09:35-1			nd	2.0			
HC/HR-07-12-11-08:25-1			nd	2.0			
HC/HR-07-13-11-07:35-1			nd	2.0			
HC/HR-07-14-11-08:25-1			nd	2.0			
HC/HR-07-15-11-08:35-1			nd	2.0			
HC/HR-07-18-11-08:25-1			nd	2.0			

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
HC/HR-07-19-11-08:10-1			nd	2.0			
HC/HR-07-20-11-08:15-1			nd	2.0			
HC/HR-07-21-11-08:25-1			nd	2.0			
HC/HR-07-22-11-08:10-1			nd	2.0			
HC/HR-07-25-11-09:35-1			nd	2.0			
HC/HR-07-26-11-08:10-1			nd	2.0			
HC/HR-07-27-11-08:40-1			nd	2.0			
HC/HR-07-28-11-08:25-1			nd	2.0			
HC/HR-07-29-11-07:50-1			nd	2.0			
Treatment System							
OUTFALL-07-03-11-1	7	1.0					
OUTFALL-07-03-11-			5	5.0			
OUTFALL-07-04-11-1	5	1.0					
OUTFALL-07-04-11-			5	5.0			
OUTFALL-07-05-11-1	6	1.0					
OUTFALL-07-05-11-			nd	5.0			
OUTFALL-07-06-11-1	6	1.0					
OUTFALL-07-06-11-			nd	5.0			
OUTFALL-07-07-11-1	6	1.0					
OUTFALL-07-07-11-			nd	5.0			
OUTFALL-07-10-11-1	5	1.0					
OUTFALL-07-10-11-			nd	5.0			
OUTFALL-07-11-11-1			nd	5.0			
OUTFALL-07-11-11-	6	1.0					
OUTFALL-07-12-11-1	5	1.0					
OUTFALL-07-12-11-			nd	5.0			
OUTFALL-07-13-11-1	4	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
OUTFALL-07-13-11-			nd	5.0			
OUTFALL-07-14-11-1	5	1.0					
OUTFALL-07-14-11-			nd	5.0			
OUTFALL-07-17-11-1	5	1.0					
OUTFALL-07-17-11-			nd	5.0			
OUTFALL-07-18-11-1	5	1.0					
OUTFALL-07-18-11-3			nd	5.0			
OUTFALL-07-19-11-1	4	1.0					
OUTFALL-07-19-11-			nd	5.0			
OUTFALL-07-20-11-1	5	1.0					
OUTFALL-07-20-11-			nd	5.0			
OUTFALL-07-21-11-1			nd	5.0			
OUTFALL-07-21-11-	6	1.0					
OUTFALL-07-24-11-1	5	1.0					
OUTFALL-07-24-11-			5	5.0			
OUTFALL-07-25-11-1	6	1.0					
OUTFALL-07-25-11-			nd	5.0			
OUTFALL-07-26-11-1	6	1.0					
OUTFALL-07-26-11-			nd	5.0			
OUTFALL-07-27-11-1	5	1.0					
OUTFALL-07-27-11-			nd	5.0			
OUTFALL-07-28-11-1	7	1.0					
OUTFALL-07-28-11-			nd	5.0			
OUTFALL-07-31-11-1	5	1.0					
OUTFALL-07-31-11-			5	5.0			
Red Pond-07-05-11-09:30-1	500	1.0					
Red Pond-07-11-11-08:30-1	450	1.0					

Sample Name - Date/Time Sampled	1;4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
Red Pond-07-18-11-08:30-1	310	1.0					
Red Pond-07-25-11-08:10-1	240	1.0					

Laboratory Report

Client: Pall Life Sciences

Attn: John Campbell
600 South Wagner Road
Ann Arbor, MI 48103

Report: 265862
Priority: Standard Written
Status: Amended
PWS ID: Not Supplied

Copies to: Laurel Beyer

Sample Information

UL ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
2488841	HC/HR-7-22-11-0810	317.0	07/22/11 08:10	Client	07/29/11 10:00
2488842	HC/HR-7-25-11-09:35	317.0	07/25/11 09:35	Client	07/29/11 10:00
2488843	HC/HR-7-26-11-0810	317.0	07/26/11 08:10	Client	07/29/11 10:00
2488844	HC/HR-7-27-11-0840	317.0	07/27/11 08:40	Client	07/29/11 10:00
2488845	HC/HR-7-28-11-0825	317.0	07/28/11 08:25	Client	07/29/11 10:00
2488846	Outfall 001-7-21-11	317.0	07/21/11 00:00	Client	07/29/11 10:00
2488847	Outfall 001-7-24-11	317.0	07/24/11 00:00	Client	07/29/11 10:00
2488848	Outfall 001-7-25-11	317.0	07/25/11 00:00	Client	07/29/11 10:00
2488849	Outfall 001-7-26-11	317.0	07/26/11 00:00	Client	07/29/11 10:00
2488850	Outfall 001-7-27-11	317.0	07/27/11 00:00	Client	07/29/11 10:00
2488851	Outfall 001-7-28-11	317.0	07/28/11 00:00	Client	07/29/11 10:00

Report Summary

Note: Sample containers were provided by the client.

Note: This report was amended on 08/16/11 to correct the bromate results for sample sites Outfall 001-7-27-11 and Outfall 001-7-28-11 due to a laboratory error.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Traci Chlebowski at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from Underwriters Laboratories (UL).

Traci Chlebowski — Authorized Signature

Project Manager — Title

08-16-2011 — Date

Client Name: Pall Life Sciences
Report #: 265862

Underwriters Laboratories Inc.
110 S. Hill Street, South Bend, IN 46617-2702 USA
T: 800.332.4345 / F: 574.233.8207 / W: ul.com

Client Name: Pall Life Sciences

Report #: 265862

Sampling Point: HC/HR-7-22-11-0810

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	08/03/11 12:57	2488841

Sampling Point: HC/HR-7-25-11-09:35

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	08/03/11 13:52	2488842

Sampling Point: HC/HR-7-26-11-0810

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	08/03/11 14:11	2488843

Sampling Point: HC/HR-7-27-11-0840

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	08/03/11 14:29	2488844

Sampling Point: HC/HR-7-28-11-0825

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	08/03/11 14:48	2488845

Client Name: Pall Life Sciences Report #: 265862

Sampling Point: Outfall 001-7-21-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.3	ug/L	---	08/03/11 15:06	2488846

Sampling Point: Outfall 001-7-24-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	5.1	ug/L	---	08/03/11 15:25	2488847

Sampling Point: Outfall 001-7-25-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.8	ug/L	---	08/03/11 16:45	2488848

Sampling Point: Outfall 001-7-26-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.6	ug/L	---	08/03/11 17:03	2488849

Sampling Point: Outfall 001-7-27-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.9	ug/L	---	08/03/11 18:12	2488850

Client Name: Pall Life Sciences

Report #: 265862

Sampling Point: Outfall 001-7-28-11

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.9	ug/L	---	08/03/11 18:32	2488851

† UL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The LTB container follows the collection bottles to and from the collection site, but the LTB is not opened at any time during the trip. LTB is not exposed to site conditions or pumping and collection equipment. The LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Matrix Duplicate (LFD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix.

Matrix Spike Sample (MS) / Laboratory Fortified Matrix (LFM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

the standard in safety

Underwriters Laboratories

Laboratory Report

Client: Pall Life Sciences

Attn: John Campbell
600 South Wagner Road
Ann Arbor, MI 48103

Report: 266039
Priority: Rush Written
Status: Amended
PWS ID: Not Supplied

Copies to: Laurel Beyer

Sample Information

UL ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
2490459	Outfall 001-7-31-11	317.0	07/31/11 00:00	Client	08/02/11 09:45
2490460	HC/HR-7-29-11-0750	317.0	07/29/11 07:50	Client	08/02/11 09:45
2490461	HC/HR-8-1-11-0835	317.0	08/01/11 08:35	Client	08/02/11 09:45

Report Summary

Note: Sample containers were provided by the client.

Note: The samples submitted for analysis were received unpreserved. The samples were preserved by laboratory personnel prior to analysis.

Note: This report was amended on 08/16/11 to correct the bromate results for the sample site Outfall 001-7-31-11 due to a laboratory error.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Traci Chlebowski at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from Underwriters Laboratories (UL).

Traci Chlebowski — Authorized Signature

PM — Title

08-16-2011 — Date

Client Name: Pall Life Sciences
Report #: 266039

Underwriters Laboratories Inc.
110 S. Hill Street, South Bend, IN 46617-2702 USA
T: 800.332.4345 F: 574.233.8207 / W: ul.com

Client Name: Pall Life Sciences

Report #: 266039

Sampling Point: Outfall 001-7-31-11

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	5.2	ug/L	---	08/03/11 20:32	2490459

Sampling Point: HC/HR-7-29-11-0750

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	08/03/11 20:52	2490460

Sampling Point: HC/HR-8-1-11-0835

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	08/03/11 21:12	2490461

† UL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis.

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Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Matrix Duplicate (LFD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix.

Matrix Spike Sample (MS) / Laboratory Fortified Matrix (LFM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

Brighton Analytical L.L.C.™
2105 Pless Drive · Brighton, Michigan 48114 · Phone (810) 229-7575 · Fax (810) 229-8650 · E-mail bai-brighton@sbcglobal.net

August 05, 2011

Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Subject:

Dear Mr. Campbell :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Enclosed are the results for the samples submitted on 08/01/2011 for the above mentioned project. Duplicate copies can be supplied at your request for a fee of $20.00 per copy.

The invoice for this project will be mailed with copy of report. If you have any questions concerning the invoice or the data, please don't hesitate to contact our office. Please reference Brighton Analytical, L.L.C. project ID 15593 when calling with any questions regarding this project.

Sincerely,
Brighton Analytical, L.L.C.

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/24/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15593**
BA Sample ID: **BV05666**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**5**	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 8/5/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/25/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15593**
BA Sample ID: **BV05667**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	6	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 8/5/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/26/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15593**
BA Sample ID: **BV05668**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**6**	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 8/5/11

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2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/27/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15593**
BA Sample ID: **BV05669**

Project Name:
Project Number:
Sample ID: ***Outfall 001***

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**5**	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:
Date: 8/5/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/28/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15593**
BA Sample ID: **BV05670**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	7	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 8/5/11

Brighton Analytical L.L.C.™
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2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/31/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15593**
BA Sample ID: **BV05671**

Project Name:
Project Number:
Sample ID: ***Outfall 001***

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**5**	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 8/5/11

Brighton Analytical L.L.C.™

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2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/25/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15593**
BA Sample ID: **BV05672**

Project Name:
Project Number:
Sample ID: **RP**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**240**	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 8/5/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 8/1/2011
Submit Date: 8/1/2011
Report Date: 8/5/2011

BA Report Number: **15593**
BA Sample ID: **BV05673**

Project Name:
Project Number:
Sample ID: **RP**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**430**	ug/L	1	SW846 8260B	CW	8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 8/5/11

Brighton Analytical, L.L.C.™
email: bai-brighton@sbcglobal.net
2105 Pless Drive Phone: 810-229-7575
Brighton, MI 48114 FAX: 810-229-8650

BA PROJECT #: 15593

PROJECT NAME: Pall Corp

PROJECT #:

PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)

Sample Collected By:

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H_2O
O = Oil
P = Wipes
A = Air (Tedlar Bag)
F = Filter
T = Tube M = Misc.

REQUESTED TURNAROUND: (circle one)
Rush: 1 -3 business days (verify with lab & specify date needed)
1 Day =2.5X Cost 2 Day= 2X Cost 3 Day = 1.5X Cost
Standard: 5 business days

If RUSH, approved by: _____

Brighton ID #	Sample Description	Sample Coll. Date	Sample Coll. Time	Container/Quantity: VOA'S (PRES Y N N/A)	HDPE UNPRESERVED	HDPE HNO_3	HDPE H_2SO_4	HDPE NAOH	AMBER Preserved?	GLASS, NOPRESERVATIVE	STERILIZED BACTERIA	MEOH Preserved Y N	Sample Matrix	1-4 Dioxane	Analysis Requested/Method
1)	5666 OUTFall001	7-24-11	—										L	2	
2)	67 OUTFall001	7-25-11	—											2	
3)	68 OUTFall001	7-26-11	—											2	
4)	69 OUTFall001	7-27-11	—											2	
5)	70 OUTFall001	7-28-11	—											2	
6)	71 OUTFall001	7-31-11	—											2	
7)	72 RP	7-25-11	0810											2	
8)	73 RP	8-1-11	0800											2	
9)															
10)															

PAGE 1 OF 1

COMPANY/MAILING ADDRESS:
Pall Corp
600 S Wagner
Ann Arbor

ATTN: John Campbell
PHONE: 734-368-3090
FAX OR EMAIL:

Samples received within hold time? yes no
Temperature of samples °C:
pHs verified in login? yes no
Headspace/bubbles in VOA's? yes no n/a
Sample containers and COC match? yes no

BILLING ADDRESS (IF REQUIRED):
John_Campbell@Pall.com
Laurel_Beyer@Pall.com

Drinking H2O: FAX TO LCHD yes no
Chlorinated Water Supply? yes no AMT.: _____
MCL failure: yes no
Client notified (date/time/initials):

Special Instructions:

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	John Campbell		8-1-11	2:00pm	3				
2					4				

Brighton Analytical L.L.C.

BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

GC/MS
VOLATILE METHOD 8260B-SIM

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: August 1, 2011 Spike Std. ID: 1769 Inst./Detec: VOL 5-GC/MS

Laboratory ID: BV05673 Matrix: Water Analyst: CW

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			LCS- percent recovery	
	SPK 1	STD	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank
COMPOUNDS								
1,4 Dioxane	8.2	10.0	19.8	10ug/L	82%	70-130	103%	<1

* Matrix spike precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments: _____

Brighton Analytical L.L.C.
2105 Pless Drive · Brighton, Michigan 48114 · Phone (810) 229-7575 · Fax (810) 229-8650 · E-mail bai-brighton@sbcglobal.net

July 28, 2011

Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Subject:

Dear Mr. Campbell :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Enclosed are the results for the samples submitted on 07/22/2011 for the above mentioned project. Duplicate copies can be supplied at your request for a fee of $20.00 per copy.

The invoice for this project will be mailed with copy of report. If you have any questions concerning the invoice or the data, please don't hesitate to contact our office. Please reference Brighton Analytical, L.L.C. project ID 15470 when calling with any questions regarding this project.

Sincerely,
Brighton Analytical, L.L.C.

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05320**

Project Name:
Project Number:
Sample ID: **MW58d**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	11	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

BA Report Number: **15470**
BA Sample ID: **BV05321**

Project Name:
Project Number:
Sample ID: **MW26**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	4	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05322**

Project Name:
Project Number:
Sample ID: **MW52i**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**Not detected**	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05323**

Project Name:
Project Number:
Sample ID: **MW52d**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**Not detected**	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:
Date: 7/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05324**

Project Name:
Project Number:
Sample ID: **MW46**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	36	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

BA Report Number: **15470**
BA Sample ID: **BV05325**

Project Name:
Project Number:
Sample ID: **MW27**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	7	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05326**

Project Name:
Project Number:
Sample ID: **MW49**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**2**	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/13/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05327**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	4	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/14/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05328**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	5	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/17/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05329**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	5	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/18/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05330**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**5**	*ug/L*	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/19/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05331**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	4	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by: [signature]
Date: 7/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/20/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05332**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**5**	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/21/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

BA Report Number: **15470**
BA Sample ID: **BV05333**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	6	ug/L	1	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/18/2011
Submit Date: 7/22/2011
Report Date: 7/28/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15470**
BA Sample ID: **BV05334**

Project Name:
Project Number:
Sample ID: **RP**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**310**	ug/L	20	SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/28/11

Elevated volatile dl due to sample matrix.

Brighton Analytical L.L.C.

BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

GC/MS
VOLATILE METHOD 8260B-SIM

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: July 24, 2011 Spike Std. ID: 1769 Inst./Detec: VOL 5-GC/MS

Laboratory ID: BV05334 Matrix: Water Analyst: CW

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			LCS- percent recovery	
	SPK 1	STD	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank
COMPOUNDS								
1,4 Dioxane	9.0	8.0	11.8	10ug/L	85%	70-130	80%	<1

* Matrix spike precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments: _____

Brighton Analytical, L.L.C.™
email: bai-brighton@sbcglobal.net
2105 Pless Drive Phone: 810-229-7575
Brighton, MI 48114 FAX: 810-229-8650

BA PROJECT #: 15470

PAGE 1 OF 2

COMPANY/MAILING ADDRESS: Pall Corp Bldg 4, 600 S Wagner, Ann Arbor MI 48103

ATTN: John Campbell

PHONE: 734-368-3090

FAX OR EMAIL:

PROJECT NAME: PALL Corp

PROJECT #:

PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)

Sample Collected By:

ABBREVIATIONS FOR MATRIX: S = Solid; L = Liquid; DW = Drinking H_2O; O = Oil; P = Wipes; A = Air (Tedlar Bag); F = Filter; T = Tube; M = Misc.

REQUESTED TURNAROUND: (circle one)
Rush: 1 -3 business days (verify with lab & specify date needed)
1 Day =2.5X Cost 2 Day= 2X Cost 3 Day = 1.5X Cost
Standard: 5 business days

If RUSH, approved by: _____

Analysis Requested/Method: Sample Matrix; 1,4, Dioxane

Container/Quantity: VOA'S (PRESERVED Y N N/A); HDPE UNPRESERVED; HDPE HNO_3; HDPE H_2SO_4; HDPE NAOH; AMBER Preserved?; GLASS, NO PRESERVATIVE; STERILIZED BACTERIA; MEOH Preserved Y N

Brighton ID #	Sample Description	Sample Coll. Date	Sample Coll. Time	VOA'S	Matrix	1,4, Dioxane
BV05220	MW58d	7-13-11	1030	2	L	X
2) 21	MW26	7-13-11	1415	2		
3) 22	MW52i	7-13-11	1340	2		
4) 23	MW52d	7-13-11	1315	2		
5) 24	MW46	7-13-11	0950	2		
6) 25	MW27	7-13-11	0915	2		
7) 26	MW49	7-13-11	0830	2		
8) 27	OUTFALL001	7-13-11	—	2		
9) 28	OUTFALL001	7-14-11	—	2		
10) 29	OUTFALL001	7-17-11	—	2	↓	↓

Temperature of samples °C: 4

Samples received within hold time? (yes) no

pHs verified in login? yes (no)

Headspace/bubbles in VOA's? yes (no) n/a

Sample containers and COC match? (yes) no

BILLING ADDRESS (IF REQUIRED):
John.Campbell@Pall.Com
Laurel.Beyer@Pall.Com

Drinking H2O: FAX TO LCHD yes no

Chlorinated Water Supply? yes no AMT.: _____

MCL failure: yes no

Client notified (date/time/initials):

Special Instructions:

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	[signature]	[signature]	7-22-11	1430	3				
2					4				

Brighton Analytical, L.L.C.™
email: bai-brighton@sbcglobal.net
2105 Pless Drive Phone: 810-229-7575
Brighton, MI 48114 FAX: 810-229-8650

BA PROJECT #: 15470

PROJECT NAME:

PROJECT #:

PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)

Sample Collected By:

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H_2O
O = Oil
P = Wipes
A = Air (Tedlar Bag)
F = Filter
T = Tube M = Misc.

REQUESTED TURNAROUND: (circle one)
Rush: 1 -3 business days (verify with lab & specify date needed)
1 Day =2.5X Cost 2 Day= 2X Cost 3 Day = 1.5X Cost
Standard: 5 business days

If RUSH, approved by: _____

Brighton ID #	Sample Description	Sample Coll. Date	Sample Coll. Time	Container/Quantity: VOA'S (PRES Y N/A)	HDPE UNPRESERVED	HDPE HNO_3	HDPE H_2SO_4	HDPE NAOH	AMBER Preserved?	GLASS, NO PRESERVATIVE	STERILIZED BACTERIA	MEOH Preserved Y N	Sample Matrix	Analysis Requested/Method: 1,4-D scan
1) 5230	outFall001	7-8-11	—	2									L	X
2) 31	outFall001	7-9-11	—	2									L		
3) 32	outFall001	7-20-11	—	2									L		
4) 33	outFall001	7-21-11	—	2									L		
5) 34	RP	7-13-11	0830	2									L		
6)														
7)														
8)														
9)														
10)														

COMPANY/MAILING ADDRESS:

ATTN:

PHONE:

FAX OR EMAIL:

Samples received within hold time? yes no

Temperature of samples °C:

pHs verified in login ? yes no

Headspace/bubbles in VOA's? yes no n/a

Sample containers and COC match? yes no

BILLING ADDRESS (IF REQUIRED):

Drinking H2O: FAX TO LCHD yes no

Chlorinated Water Supply ? yes no AMT.: _____

MCL failure: yes no

Client notified (date/time/initials):

Special Instructions:

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1			7-22-11	1430	3				
2					4				

the standard in safety

Underwriters Laboratories

LABORATORY REPORT

This report contains 12 pages.
(including the cover page)

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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Underwriters Laboratories Inc
110 S. Hill Street, South Bend, IN 46617 2702 USA
T 800 332.4345 / F 574.233.8207 / W : ul.com

Laboratory Report

Client: Pall Life Sciences

Attn: John Campbell
600 South Wagner Road
Ann Arbor, MI 48103

Report: 265499
Priority: Standard Written
Status: Final
PWS ID: Not Supplied

Copies to: Laurel Beyer

Sample Information

UL ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
2485144	Outfall 001-7-12-11	317.0	07/12/11 00:00	Client	07/22/11 09:30
2485145	Outfall 001-7-13-11	317.0	07/13/11 00:00	Client	07/22/11 09:30
2485146	Outfall 001-7-14-11	317.0	07/14/11 00:00	Client	07/22/11 09:30
2485147	Outfall 001-7-17-11	317.0	07/17/11 00:00	Client	07/22/11 09:30
2485148	Outfall 001-7-18-11	317.0	07/18/11 00:00	Client	07/22/11 09:30
2485149	Outfall 001-7-19-11	317.0	07/19/11 00:00	Client	07/22/11 09:30
2485150	Outfall 001-7-20-11	317.0	07/20/11 00:00	Client	07/22/11 09:30
2485151	HC/HR-7-13-0735	317.0	07/13/11 07:35	Client	07/22/11 09:30
2485152	HC/HR-7-14-0825	317.0	07/14/11 08:25	Client	07/22/11 09:30
2485153	HC/HR-7-15-0835	317.0	07/15/11 08:35	Client	07/22/11 09:30
2485154	HC/HR-7-18-0825	317.0	07/18/11 08:25	Client	07/22/11 09:30
2485155	HC/HR-7-19-0810	317.0	07/19/11 08:10	Client	07/22/11 09:30
2485156	HC/HR-7-20-0815	317.0	07/20/11 08:15	Client	07/22/11 09:30
2485157	HC/HR-7-21-0825	317.0	07/21/11 08:25	Client	07/22/11 09:30

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Traci Chlebowski at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from Underwriters Laboratories (UL).

Traci Chlebowski — Authorized Signature
Proj Manager — Title
7/28/2011 — Date

Client Name: Pall Life Sciences
Report #: 265499

Underwriters Laboratories Inc.
110 S. Hill Street, South Bend, IN 46617-2702 USA
T: 800.332.4345 / F: 574.233.8207 / W: ul.com

Client Name: Pall Life Sciences Report #: 265499

Sampling Point: Outfall 001-7-12-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.0	ug/L	---	07/26/11 14:23	2485144

Sampling Point: Outfall 001-7-13-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.4	ug/L	---	07/26/11 15:18	2485145

Sampling Point: Outfall 001-7-14-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.7	ug/L	---	07/26/11 15:37	2485146

Sampling Point: Outfall 001-7-17-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.5	ug/L	---	07/26/11 15:55	2485147

Sampling Point: Outfall 001-7-18-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.4	ug/L	---	07/26/11 16:14	2485148

Client Name: Pall Life Sciences Report #: 265499

Sampling Point: Outfall 001-7-19-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	4.2	ug/L	---	07/26/11 16:32	2485149

Sampling Point: Outfall 001-7-20-11 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	3.8	ug/L	---	07/26/11 16:51	2485150

Sampling Point: HC/HR-7-13-0735 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	07/26/11 17:09	2485151

Sampling Point: HC/HR-7-14-0825 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	07/27/11 10:59	2485152

Sampling Point: HC/HR-7-15-0835 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	07/27/11 11:17	2485153

Client Name: Pall Life Sciences Report #: 265499

Sampling Point: HC/HR-7-18-0825 PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	07/27/11 11:36	2485154

Sampling Point: HC/HR-7-19-0810 PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	07/27/11 11:54	2485155

Sampling Point: HC/HR-7-20-0815 PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	07/27/11 12:13	2485156

Sampling Point: HC/HR-7-21-0825 PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	---	07/27/11 12:31	2485157

UL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - *is a standard containing one or more of the target* analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method *analytes or other background contamination have been introduced during the preparation or analytical procedure.* The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The LTB container follows the collection bottles to and from the collection site, but the LTB is not opened at any time during the trip. LTB is not exposed to site conditions or pumping and collection equipment. The LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Matrix Duplicate (LFD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix.

Matrix Spike Sample (MS) / Laboratory Fortified Matrix (LFM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

UL Drinking Water Laboratory
Extended Result Record Sheet

Run Number: 158740 | Instrument: IC BK | Method(s): 317.0
PC File Name: 072611A | Analyst: S. Lovick | Submitted By: S. Lovick
Order Number: 210512 | Receipt Batch: 265499 | Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell | Generated By: A. Chlebowski

Sample ID: 2481889 | Type: Initial Calibration Blank
Extracted: N/A | Analyzed: 07/18/2011 10:30 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0000	< 1.0	ug/L

Sample ID: 2481895 | Type: Laboratory Reagent Blank
Extracted: N/A | Analyzed: 07/26/2011 12:46 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0000	< 1.0	ug/L

Sample ID: 2481896 | Type: Laboratory Fortified Blank
Extracted: N/A | Analyzed: 07/26/2011 13:05 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	% Rec	Limits	P/F
15541-45-4	Bromate	5.0	4.6260	93	85-115	Pass

Sample ID: 2481897 | Type: Instrument Performance Check
Extracted: N/A | Analyzed: 07/26/2011 13:23 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	% Rec	Limits	P/F
15541-45-4	Bromate	1.0	1.0010	100	75-125	Pass

Sample ID: 2485144 | Type: Field Sample | Site: Outfall 001-7-12-11
Extracted: N/A | Analyzed: 07/26/2011 14:23 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	3.9900	4.0	ug/L

Sample ID: 2486760 | Type: Matrix Spike of 2485144 | Site: Outfall 001-7-12-11
Extracted: N/A | Analyzed: 07/26/2011 14:41 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	Parent Amt	%Rec	Limits	P/F
15541-45-4	Bromate	5.0	9.0000	3.9900	100	75-125	Pass

Sample ID: 2486761 | Type: Matrix Spike Duplicate of 2485144 | Site: Outfall 001-7-12-11
Extracted: N/A | Analyzed: 07/26/2011 15:00 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	Parent Amt	%Rec	Limits	P/F
15541-45-4	Bromate	5.0	8.9370	3.9900	99	75-125	Pass

Sample ID: 2485145 | Type: Field Sample | Site: Outfall 001-7-13-11
Extracted: N/A | Analyzed: 07/26/2011 15:18 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	4.4300	4.4	ug/L

Sample ID: 2485146 | Type: Field Sample | Site: Outfall 001-7-14-11
Extracted: N/A | Analyzed: 07/26/2011 15:37 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	4.6590	4.7	ug/L

NOTE: The dilution factor is included
in the percent recovery calculation.

Version 2.7.0.0

UL Drinking Water Laboratory
Extended Result Record Sheet

Run Number: 158740 | Instrument: IC BK | Method(s): 317.0
PC File Name: 072611A | Analyst: S. Lovick | Submitted By: S. Lovick
Order Number: 210512 | Receipt Batch: 265499 | Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell | Generated By: A. Chlebowski

Sample ID: 2485147 | Type: Field Sample | Site: Outfall 001-7-17-11
Extracted: N/A | Analyzed: 07/26/2011 15:55 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	4.4710	4.5	ug/L

Sample ID: 2485148 | Type: Field Sample | Site: Outfall 001-7-18-11
Extracted: N/A | Analyzed: 07/26/2011 16:14 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	4.4060	4.4	ug/L

Sample ID: 2485149 | Type: Field Sample | Site: Outfall 001-7-19-11
Extracted: N/A | Analyzed: 07/26/2011 16:32 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	4.2040	4.2	ug/L

Sample ID: 2485150 | Type: Field Sample | Site: Outfall 001-7-20-11
Extracted: N/A | Analyzed: 07/26/2011 16:51 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	3.7630	3.8	ug/L

Sample ID: 2485151 | Type: Field Sample | Site: HC/HR-7-13-0735
Extracted: N/A | Analyzed: 07/26/2011 17:09 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.1430	< 1.0	ug/L

Sample ID: 2481901 | Type: Continuing Calibration Check
Extracted: N/A | Analyzed: 07/26/2011 17:50 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	% Rec	Limits	P/F
15541-45-4	Bromate	10.0	9.6870	97	85-115	Pass

NOTE: The dilution factor is included
in the percent recovery calculation.

Version 2.7.0.0

UL Drinking Water Laboratory
Extended Result Record Sheet

Run Number: 158776 | Instrument: IC BK | Method(s): 317.0
PC File Name: 072711A | Analyst: S. Lovick | Submitted By: S. Lovick
Order Number: 210512 | Receipt Batch: 265499 | Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell | Generated By: A. Chlebowski

Sample ID: 2482585 | Type: Initial Calibration Blank
Extracted: N/A | Analyzed: 07/18/2011 10:30 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0000	< 1.0	ug/L

Sample ID: 2482591 | Type: Laboratory Reagent Blank
Extracted: N/A | Analyzed: 07/27/2011 10:03 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0000	< 1.0	ug/L

Sample ID: 2482592 | Type: Laboratory Fortified Blank
Extracted: N/A | Analyzed: 07/27/2011 10:22 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	% Rec	Limits	P/F
15541-45-4	Bromate	5.0	4.5740	91	85-115	Pass

Sample ID: 2482593 | Type: Instrument Performance Check
Extracted: N/A | Analyzed: 07/27/2011 10:40 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	% Rec	Limits	P/F
15541-45-4	Bromate	1.0	0.9120	91	75-125	Pass

Sample ID: 2485152 | Type: Field Sample | Site: HC/HR-7-14-0825
Extracted: N/A | Analyzed: 07/27/2011 10:59 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0990	< 1.0	ug/L

Sample ID: 2485153 | Type: Field Sample | Site: HC/HR-7-15-0835
Extracted: N/A | Analyzed: 07/27/2011 11:17 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0500	< 1.0	ug/L

Sample ID: 2485154 | Type: Field Sample | Site: HC/HR-7-18-0825
Extracted: N/A | Analyzed: 07/27/2011 11:36 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.1020	< 1.0	ug/L

Sample ID: 2485155 | Type: Field Sample | Site: HC/HR-7-19-0810
Extracted: N/A | Analyzed: 07/27/2011 11:54 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0860	< 1.0	ug/L

Sample ID: 2485156 | Type: Field Sample | Site: HC/HR-7-20-0815
Extracted: N/A | Analyzed: 07/27/2011 12:13 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0750	< 1.0	ug/L

NOTE: The dilution factor is included in the percent recovery calculation.

UL Drinking Water Laboratory
Extended Result Record Sheet

Run Number: 158776 | Instrument: IC BK | Method(s): 317.0
PC File Name: 072711A | Analyst: S. Lovick | Submitted By: S. Lovick
Order Number: 210512 | Receipt Batch: 265499 | Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell | Generated By: A. Chlebowski

Sample ID: 2485157 | Type: Field Sample | Site: HC/HR-7-21-0825
Extracted: N/A | Analyzed: 07/27/2011 12:31 | Dil Factor: 1.000

CAS Number	Parameter	MRL	Amount	Report	Units
15541-45-4	Bromate	1.0	0.0000	< 1.0	ug/L

Sample ID: 2482596 | Type: Continuing Calibration Check
Extracted: N/A | Analyzed: 07/27/2011 14:41 | Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	% Rec	Limits	P/F
15541-45-4	Bromate	10.0	9.7310	97	85-115	Pass

NOTE: The dilution factor is included in the percent recovery calculation.

Version 2.7.0.0

210512

PALL Pall Corporation

Environmental Laboratory Services
600 South Wagner Rd. Ann Arbor, MI 48103-9019
Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

265499

Page 1 of 2

Company PALL Corp
Name John Campbell
Street 600 S Wagner
City Ann Arbor State MI Zip 48103
Phone 734-368-3090 Fax 734-913-6103
Email John_Campbell@Pall.Com
Laurel_Beyer@Pall.Com

Requested Turnaround: (Standard) 4 business days * 3 business days
48 hours * 24 hours * ASAP / Same day
Project Name / Number: Bromate
Print Sampler Name: John Campbell / Cristian Duma
Invoice To: Attn Laurel Beyer

CLIENT PROVIDED SAMPLE CONTAINER

	Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Water Matrix: Drinking	Ground	Waste	Other Surface	Number of Containers	Requested Testing 317	Preservation: None	4 °C	HCl	HNO_3	H_2SO_4	Other	Lab ID
1	OUTFall001-7-12-11	7/12/11	—		1				Bromate	X						248514
2	OUTFall001-7-13-11	7/13/11	—		1					X						145
3	OUTFall001-7-14-11	7/14/11	—		1					X						146
4	OUTFall001-7-17-11	7/17/11	—		1					X						147
5	OUTFall001-7-18-11	7/18/11	—		1					X						148
6	OUTFall001-7-19-11	7/19/11	—		1					X						149
7	OUTFall001-7-20-11	7/20/11	—		1					X						150
8	HC/HR-7-13-11-0735	7/13/11	07:35				1			X						151
9	HC/HR-7-14-11-0825	7/14/11	08:25				1			X						152
10	HC/HR-7-15-11-0835	7/15/11	08:35				1			X						153

Released by Sampler:	Date: / /	Time: :	Received by: Reece Reprue	Date: 7/22/11	Time: 09:30
Released by:	Date: / /	Time: :	Received by:	Date: / /	Time: :

Within holding times Y N	Containers are intact Y N	Labels and COC agree Y N	Correct volume and container Y N	Ice remaining (Y) N	Temperature on receipt 5 °C

PINK Copy – Sampler

WHITE copy and YELLOW copy – Forward to laboratory with samples.

21052

PALL Pall Corporation

Environmental Laboratory Services
600 South Wagner Rd. Ann Arbor, MI 48103-9019
Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

Page 2 of 2

Company PALL Corp
Name John Campbell
Street 600 S. Wagner
City Ann Arbor State MI Zip 48103
Phone 734-368-3090 Fax 734-913-6114
Email John_Campbell@pall.com
Laurel_Beyer@pall.com

CLIENT PROVIDED SAMPLE CONTAINER

Requested Turnaround: Standard * 4 business days * 3 business days
48 hours * 24 hours * ASAP / Same day

Project Name / Number: Bromate
Print Sampler Name: J. Campbell / C. Duma
Invoice To: Allen Laurel Beyer

	Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Water Matrix: Drinking	Ground	Waste	Other Surface	Number of Containers	Requested Testing 317	Preservation: None	4 °C	HCl	HNO_3	H_2SO_4	Other	Lab ID
1	HC/HR-7-18-11-0825	7/18/11	08:25				1		Bromate	X						249554
2	HC/HR-7-19-11-0810	7/19/11	08:10				1		↓	X						155
3	HC/HR-7-20-11-0815	7/20/11	08:15				1			X						156
4	HC/HR-7-21-11-0825	7/21/11	08:25				1			X						157
5		/ /	:													
6		/ /	:													
7		/ /	:													
8		/ /	:													
9		/ /	:													
10		/ /	:													

Released by Sampler: John Campbell — Date: 7/21/11 — Time: 10:30 — Received by: Leslie Depue — Date: 7/22/11 — Time: 09:30
Released by: — Date: / / — Time: : — Received by: — Date: / / — Time: :

Within holding times Y N	Containers are intact Y N	Labels and COC agree Y N	Correct volume and container Y N	Ice remaining (Y) N	Temperature on receipt 5 °C

PINK Copy – Sampler

WHITE copy and YELLOW copy – Forward to laboratory with samples.

Brighton Analytical L.L.C.™
2105 Pless Drive · Brighton, Michigan 48114 · Phone (810) 229-7575 · Fax (810) 229-8650 · E-mail bai-brighton@sbcglobal.net

July 26, 2011

Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Subject:

Dear Mr. Campbell :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Enclosed are the results for the samples submitted on 07/13/2011 for the above mentioned project. Duplicate copies can be supplied at your request for a fee of $20.00 per copy.

The invoice for this project will be mailed with copy of report. If you have any questions concerning the invoice or the data, please don't hesitate to contact our office. Please reference Brighton Analytical, L.L.C. project ID 15313 when calling with any questions regarding this project.

Sincerely,
Brighton Analytical, L.L.C.

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

BA Report Number: **15313**
BA Sample ID: **BV04801**

Project Name:
Project Number:
Sample ID: **TW20**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**750**	ug/L	100	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04802**

Project Name:
Project Number:
Sample ID: **TW11**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	98	ug/L	10	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

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e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

BA Report Number: **15313**
BA Sample ID: **BV04803**

Project Name:
Project Number:
Sample ID: **TW10**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**500**	ug/L	50	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Elevated dl due to sample matrix.

Released by:

Date: 7/26/11

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Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04804**

Project Name:
Project Number:
Sample ID: TW9

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**530**	ug/L	50	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:
Date: 7/26/11

Elevated dl due to sample matrix.

Brighton Analytical L.L.C.™

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e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04805**

Project Name:
Project Number:
Sample ID: **LB-3**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**440**	ug/L	50	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

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Phone: (810) 229-7575 FAX: (810) 229-8650
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To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

BA Report Number: **15313**
BA Sample ID: **BV04806**

Project Name:
Project Number:
Sample ID: **LB-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**430**	ug/L	50	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
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Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04807**

Project Name:
Project Number:
Sample ID: **TW-21**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**190**	ug/L	50	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

Brighton Analytical L.L.C.™

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To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

BA Report Number: **15313**
BA Sample ID: **BV04808**

Project Name:
Project Number:
Sample ID: **TW-5**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**760**	ug/L	100	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

Brighton Analytical L.L.C.™

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Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04809**

Project Name:
Project Number:
Sample ID: **TW-8**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**360**	ug/L	10	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

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Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04810**

Project Name:
Project Number:
Sample ID: **TW22**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	470	ug/L	100	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Elevated dl due to sample matrix.

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2105 Pless Drive
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Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/10/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04811**

Project Name:
Project Number:
Sample ID: ***Outfall 001***

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**5.9**	ug/L	1	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

Sample Date: 7/11/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

BA Report Number: **15313**
BA Sample ID: **BV04812**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**6.4**	ug/L	1	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:

Brighton Analytical L.L.C.™

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 7/6/2011
Submit Date: 7/13/2011
Report Date: 7/26/2011

To: Pall Corp.
600 S. Wagner
Bldg. 4
Ann Arbor, MI 48103

BA Report Number: **15313**
BA Sample ID: **BV04813**

Project Name:
Project Number:
Sample ID: **Outfall 001**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	**6.7**	ug/L	1	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date: 7/26/11

Brighton Analytical L.L.C.

BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

GC/MS
VOLATILE METHOD 8260B-SIM

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: July 21, 2011 Spike Std. ID: 1769 Inst./Detec: VOL 5-GC/MS

Laboratory ID: BV04803 Matrix: Water Analyst: RG

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			LCS- percent recovery	
	SPK 1	STD	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank
COMPOUNDS								
1,4 Dioxane	11.1	10.2	8.3	10ug/L	108%	70-130	106%	<1

* Matrix spike precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments: _____

GC/MS
VOLATILE METHOD 8260B-SIM

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: July 13, 2011 Spike Std. ID: 1769 Inst./Detec: VOL 3-GC/MS

Laboratory ID: BV04819 Matrix: Water Analyst: CW

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			LCS- percent recovery	
	SPK 1	STD	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank
COMPOUNDS								
1,4 Dioxane	7.3	8.2	11.6	10ug/L	78%	70-130	105%	<1

* Matrix spike precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments: _____