



600 South Wagner Road  
Ann Arbor, MI 48103-6019  
Phone: 734-913-6130  
Fax: 734-913-6103

# Sample Analysis Report

November, 2006

Analyst Initials *MS*  
Date 12/13/06

Sample Name - Date Sampled - Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
<b>EXTRACTION WELLS</b>							
AE-3-11-09-06-12:24	77	1.0		5.0		10.0	
HZ-S-11-09-06-13:41	1417	1.0		5.0		10.0	
LB-1-11-09-06-12:20	597	1.0		5.0		10.0	
LB-3-11-09-06-12:22	617	1.0		5.0		10.0	
PW-1-11-09-06-13:15	1132	1.0		5.0		10.0	
DOLPH-11-09-06-13:09	100	1.0		5.0		10.0	
TW-5-11-09-06-12:57	1088	1.0		5.0		10.0	
TW-6-11-09-06-13:17	236	1.0		5.0		10.0	
TW-8-11-21-06-14:17	683	1.0		5.0		10.0	
TW-9-11-09-06-13:36	1676	1.0		5.0		10.0	
TW-10-11-09-06-13:32	2142	1.0		5.0		10.0	
TW-11-11-09-06-12:59	465	1.0		5.0		10.0	
TW-12-11-09-06-13:07	54	1.0		5.0		10.0	
TW-13-11-21-06-14:05	451	1.0		5.0		10.0	
TW-14-11-09-06-13:47	192	1.0		5.0		10.0	
TW-17-11-09-06-13:49	213	1.0		5.0		10.0	
TW-18-11-09-06-13:19	1076	1.0		5.0		10.0	
TW-19-11-06-06-09:05	816	1.0	nd	5.0		10.0	
TW-19-11-13-06-08:35	810	1.0	nd	5.0		10.0	
TW-19-11-20-06-08:15	838	1.0	nd	5.0		10.0	
TW-19-11-27-06-09:39	806	1.0	nd	5.0		10.0	
TW-20-11-09-06-13:27	5640	1.0		5.0		10.0	

Sample Name - Date Sampled - Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
<b>TEMPORARY EXTRACTION WELLS</b>							
MW-50-11-21-06-14:20	370	1.0		5.0		10.0	
SW-COMB-11-10-06-07:55	650	1.0		5.0		10.0	
<b>RED POND</b>							
Red Pond-11-13-06-07:35	996	1.0		5.0	113	10.0	
Red Pond-11-20-06-07:35	1053	1.0		5.0	111	10.0	
Red Pond-11-27-06-07:45	946	1.0		5.0	122	10.0	
<b>OUTFALL001</b>							
OUTFALL-11-01-06-	5	1.0	6	5.0		10.0	
OUTFALL-11-02-06-	5	1.0	nd	5.0		10.0	
OUTFALL-11-08-06-	5	1.0	6	5.0		10.0	
OUTFALL-11-08-06-13:45	7	1.0	5	5.0		10.0	
OUTFALL-11-09-06-	5	1.0	5	5.0		10.0	
OUTFALL-11-12-06-	5	1.0	6	5.0		10.0	
OUTFALL-11-13-06-	5	1.0	5	5.0		10.0	
OUTFALL-11-14-06-	5	1.0	7	5.0		10.0	
OUTFALL-11-15-06-	5	1.0	6	5.0		10.0	
OUTFALL-11-16-06-	4	1.0	6	5.0		10.0	
OUTFALL-11-19-06-	5	1.0	nd	5.0		10.0	
OUTFALL-11-20-06-	5	1.0	5	5.0		10.0	
OUTFALL-11-21-06-	5	1.0	5	5.0		10.0	
OUTFALL-11-23-06-	4	1.0	6	5.0		10.0	
OUTFALL-11-26-06-	4	1.0	nd	5.0		10.0	
OUTFALL-11-27-06-	4	1.0	5	5.0		10.0	
OUTFALL-11-28-06-	4	1.0	6	5.0		10.0	
OUTFALL-11-29-06-	5	1.0	5	5.0		10.0	
OUTFALL-11-30-06-	5	1.0	nd	5.0		10.0	
<b>C3</b>							
MW-1-11-01-06-07:40	303	1.0		5.0		10.0	

Sample Name - Date Sampled - Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
<b>C3</b>							
333 Jackson Plaza-11-13-06-07:35	28	1.0		5.0		10.0	
<b>D0</b>							
MW-53i-11-14-06-12:35	51	1.0		5.0		10.0	
MW-93-11-10-06-09:25	23	1.0		5.0		10.0	
5005 Jackson Rd-11-16-06-11:00	44	1.0		5.0		10.0	
A2 Cleaning Supply-11-14-06-12:00	117	1.0		5.0		10.0	
<b>D2</b>							
MW-30i-11-17-06-10:45	nd	1.0		5.0		10.0	
MW-54s-11-02-06-09:25	nd	1.0		5.0		10.0	
MW-54d-11-02-06-09:10	32	1.0		5.0		10.0	
MW-92-11-15-06-08:20	21	1.0		5.0		10.0	
MW-KZ-1-11-10-06-10:50	nd	1.0		5.0		10.0	
545 Allison-11-15-06-08:35	6	1.0		5.0		10.0	
476 Barber-11-09-06-17:45	2	1.0		5.0		10.0	
2805 Dexter Rd-11-09-06-10:55	1385	1.0		5.0		10.0	
2819 Dexter Rd-11-09-06-10:40	1001	1.0		5.0		10.0	
465 Dupont-11-14-06-10:35	556	1.0		5.0		10.0	
175 Jackson Plaza-11-02-06-08:15	454	1.0		5.0		10.0	
373 Pinewood Shallow-11-14-06-09:30	1759	1.0		5.0		10.0	
<b>E</b>							
MW-30d-11-17-06-09:25	1044	1.0		5.0		10.0	
MW-65s-11-14-06-11:45	39	1.0		5.0		10.0	
MW-65i-11-13-06-14:05	15	1.0		5.0		10.0	
MW-65d-11-13-06-13:25	44	1.0		5.0		10.0	
MW-79s-11-15-06-12:30	474	1.0		5.0		10.0	
MW-81-11-15-06-11:10	419	1.0		5.0		10.0	
MW-85-11-15-06-09:50	1772	1.0		5.0		10.0	
MW-88-11-15-06-09:10	48	1.0		5.0		10.0	

Sample Name - Date Sampled - Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
<b>E</b>							
MW-89-11-16-06-08:35	nd	1.0		5.0		10.0	
MW-90-11-15-06-10:30	19	1.0		5.0		10.0	
MW-91-11-15-06-13:10	2	1.0		5.0		10.0	
MW-107-11-09-06-13:30	52	1.0		5.0		10.0	
MW-108s-11-09-06-16:30	2946	1.0		5.0		10.0	
MW-108d-11-09-06-15:45	4054	1.0		5.0		10.0	
TW-15-11-16-06-13:30	108	1.0		5.0		10.0	
373 Pinewood Deep-11-10-06-14:30	nd	1.0		5.0		10.0	
<b>SW</b>							
MW-45s-11-01-06-08:05	29	1.0		5.0		10.0	
MW-45d-11-01-06-08:30	993	1.0		5.0		10.0	
MW-57-11-14-06-08:15	nd	1.0		5.0		10.0	
<b>Not Determined</b>							
MW-97s-11-13-06-09:55	nd	1.0		5.0		10.0	
MW-97d-11-13-06-10:35	nd	1.0		5.0		10.0	
MW-100-11-17-06-12:15	11	1.0		5.0		10.0	
MW-101-11-10-06-10:20	391	1.0		5.0		10.0	
MW-104-11-16-06-09:25	nd	1.0		5.0		10.0	
441 Parkwood-11-13-06-09:10	18	1.0		5.0		10.0	
<b>None</b>							
Maple-Inj-11-01-06-08:25	10	1.0	nd	5.0		10.0	
Maple-Inj-11-02-06-08:15	11	1.0	6	5.0		10.0	
Maple-Inj-11-03-06-08:25	11	1.0	6	5.0		10.0	
Maple-Inj-11-06-06-09:00	12	1.0	6	5.0		10.0	
Maple-Inj-11-07-06-08:40	12	1.0	5	5.0		10.0	
Maple-Inj-11-08-06-09:15	12	1.0	6	5.0		10.0	
Maple-Inj-11-09-06-08:55	12	1.0	6	5.0		10.0	
Maple-Inj-11-10-06-15:10	11	1.0	6	5.0		10.0	

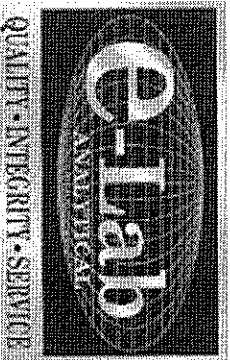
Sample Name - Date Sampled - Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
<b>None</b>							
Maple-Inj-11-13-06-08:35	13	1.0	5	5.0		10.0	
Maple-Inj-11-14-06-08:25	12	1.0	6	5.0		10.0	
Maple-Inj-11-15-06-08:00	12	1.0	6	5.0		10.0	
Maple-Inj-11-16-06-10:50	13	1.0	nd	5.0		10.0	
Maple-Inj-11-17-06-09:50	12	1.0	6	5.0		10.0	
Maple-Inj-11-20-06-08:15	11	1.0	5	5.0		10.0	
Maple-Inj-11-21-06-08:15	12	1.0	5	5.0		10.0	
Maple-Inj-11-22-06-08:10	11	1.0	5	5.0		10.0	
Maple-Inj-11-24-06-12:00	12	1.0	6	5.0		10.0	
Maple-Inj-11-27-06-09:35	14	1.0	nd	5.0		10.0	
Maple-Inj-11-28-06-08:05	12	1.0	5	5.0		10.0	
Maple-Inj-11-29-06-09:35	8	1.0	6	5.0		10.0	
Maple-Inj-11-30-06-09:55	10	1.0	5	5.0		10.0	

nd=Not detected at or above the Reporting Limit (R.L.)

# 1,4-Dioxane Precision and Accuracy Control Charting

Analysis Date	Method Blank	CVS True Value	CVS Result	CVS % Recovery	LFB True Value:	LFB Result:	LFB % Recovery:	Sample Result:	MS/MSD True Value:	MS Result:	MSD Result:	MS % Recovery:	MSD % Recovery:	MS/MSD Mean:	MS/MSD RSD:	MS/MSD RPD:
11/1/2006	0	10.00	10.10	101.0%	10.00	10.15	101.5	5.47	10.00	15.95	15.58	104.8	101.1	15.77	1.66	2.35%
11/2/2006	0	10.00	9.88	98.8%	10.00	9.72	97.2	4.93	10.00	14.74	14.35	98.1	94.2	14.55	1.90	2.68%
11/3/2006	0	10.00	9.59	95.9%	10.00	10.02	100.2	4.85	10.00	14.91	14.63	100.6	97.8	14.77	1.34	1.90%
11/6/2006	0	10.00	9.41	94.1%	10.00	9.63	96.3	11.93	10.00	22.89	22.75	109.6	108.2	22.82	0.43	0.61%
11/7/2006	0	10.00	9.63	96.3%	10.00	9.99	99.9	12.40	10.00	22.26	22.15	98.6	97.5	22.21	0.35	0.50%
11/8/2006	0	10.00	9.62	96.2%	10.00	10.02	100.2	12.03	10.00	22.92	23.13	108.9	111	23.03	0.64	0.91%
11/9/2006	0	10.00	9.53	95.3%	10.00	9.51	95.1	12.48	10.00	22.03	23.93	95.6	114.6	22.98	5.85	8.27%
11/10/2006	0	10.00	9.43	94.3%	10.00	9.57	95.7	10.76	10.00	21.41	20.85	106.5	100.9	21.13	1.87	2.65%
11/13/2006	0	10.00	9.53	95.3%	10.00	9.88	98.8	13.48	10.00	23.76	24.33	102.8	108.5	24.05	1.68	2.37%
11/14/2006	0	10.00	9.68	96.8%	10.00	9.63	96.3	4.61	10.00	13.83	14.65	92.2	100.4	14.24	4.07	5.76%
11/15/2006	0	10.00	9.77	97.7%	10.00	9.64	96.4	4.58	10.00	13.76	13.97	91.8	93.9	13.87	1.07	1.51%
	0	10.00			10.00	9.87	98.7		10.00							
	0	10.00			10.00	10.52	105.2		10.00							
11/16/2006	0	10.00	9.82	98.2%	10.00	9.80	98	4.94	10.00							
11/17/2006	0	10.00	9.90	99.0%	10.00	9.62	96.2	4.44	10.00	13.98	13.70	95.4	92.6	13.84	1.43	2.02%
11/20/2006	0	10.00	9.85	98.5%	10.00	10.01	100.1	4.95	10.00	15.55	15.89	106	109.4	15.72	1.53	2.16%
11/21/2006	0	10.00	9.29	92.9%	10.00	10.14	101.4	4.69	10.00	14.22	14.28	95.3	95.9	14.25	0.30	0.42%
11/22/2006	0	10.00	9.51	95.1%	10.00	9.67	96.7	4.60	10.00	13.45	12.87	88.5	82.7	13.16	3.12	4.41%
11/24/2006	0	10.00	9.50	95.0%	10.00	9.66	96.6	4.22	10.00	13.43	14.10	92.1	98.8	13.77	3.44	4.87%
11/27/2006	0	10.00	9.42	94.2%	10.00	9.75	97.5	4.49	10.00							
11/28/2006	0	10.00	8.99	89.9%	10.00	9.09	90.9	4.30	10.00							
11/29/2006	0	10.00	8.82	88.2%	10.00	9.34	93.4	4.40	10.00							
11/30/2006	0	10.00	8.85	88.5%	10.00	8.91	89.1	4.63	10.00	14.18	13.72	95.5	90.9	13.95	2.33	3.30%

CVS Mean: 9.53    CVS Standard Dev: 0.33    3 Standard Dev.: 1.00    Lower Control Limit: 8.53    Upper Control Limit: 10.53



**e-Lab Analytical, Inc**

3352 128th Avenue Holland, Michigan 49424-9263 (616) 399-6070 Fax (616) 399-6185

November 28, 2006

Wendy Schultz  
Pall Life Sciences  
600 South Wagner Road  
Ann Arbor, MI 48103-9019

Tel: (734) 913-6598  
Fax: (734) 913-6427

Re: Oxalic Acid Analysis

Work Order : **0611310**

Dear Wendy,

e-Lab Analytical, Inc received 1 sample on 11/15/2006 9:30:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, Inc. and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from e-Lab Analytical, Inc. The total number of pages in this report is 6.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Electronically approved by: Bill Carey

Bill Carey  
Project Manager



**CLIENT:** Pall Life Sciences

**Project:** Oxalic Acid Analysis

**Work Order:** 0611310

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0611310-01	Outfall001-11-13-06-0745	Water		11/13/2006 07:45	11/15/2006 09:30	<input type="checkbox"/>



**e-Lab Analytical, Inc**

Date: November 28, 2006

**CLIENT:** Pall Life Sciences

**Work Order:** 0611310

**Project:** Oxalic Acid Analysis

**Lab ID:** 0611310-01A

**Collection Date:** 11/13/2006 7:45:00 AM

**Client Sample ID:** Outfall001-11-13-06-0745

**Matrix:** WATER

Analyses	Result	Report		Dilution	Date Analyzed
		Limit	Qual		
<b>ORGANIC ACIDS BY HPLC</b>					
Oxalic acid	ND	150	HPLC	1	Analyst: RM 11/22/2006

µg/L

**Qualifiers:** ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

P - Dual Column results RPD > 40%

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Maximum Contaminant Level

H - Analyzed outside of Hold Time

CLIENT: Pall Life Sciences

QC BATCH REPORT

Work Order: 0611310

Project: Oxalic Acid Analysis

Batch ID: R44263 Instrument ID: HPLC1 Method: HPLC

MBLK	Sample ID: MB-R44263	Run ID: HPLC1_061122A	SeqNo: 692969	Units: mg/L	Prep Date:	Analysis Date: 11/22/06 0:00	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oxalic acid	ND	0.15								

LCS	Sample ID: LCS-R44263	Run ID: HPLC1_061122A	SeqNo: 692970	Units: mg/L	Prep Date:	Analysis Date: 11/22/06 0:00	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oxalic acid	546.2	0.15	500		0	109 80-120		0		

LCSD	Sample ID: LCSD-R44263	Run ID: HPLC1_061122A	SeqNo: 692974	Units: mg/L	Prep Date:	Analysis Date: 11/22/06 0:00	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oxalic acid	545	0.15	500		0	109 80-120	546.2	0.217	20	

MSD	Sample ID: 0611310-01A MS	Run ID: HPLC1_061122A	SeqNo: 692972	Units: mg/L	Prep Date:	Analysis Date: 11/22/06 0:00	DF: 2			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oxalic acid	975.3	0.30	1000		0	97.5 45-85		0		S

The following samples were analyzed in this batch:

0611310-01A

ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank  
 U - Analyzed for but not detected  
 E - Value above quantitation range

2.2°C

un

RECEIVED BY: <i>Medica Rood</i>	DATE: 11/13/06	TIME: 07:55	RECEIVED BY: <i>[Signature]</i>	DATE: 11/15/06	TIME: 09:30
RECEIVED BY: <i>Medica Rood</i>	DATE: 11/13/06	TIME: 07:55	RECEIVED BY: <i>Medica Rood</i>	DATE: 11/14/06	TIME: 07:00
RELEASED BY:	DATE:	TIME:	RELEASED BY:	DATE:	TIME:

#	Sample ID-Date Collected-Time Collected	Grab or Composite	1,4-Dioxane	Bromate	Other	Number of Containers	Static Time	Static Result	Comments
1	0611001-11-13-06-0745	G							oxalic acid
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

Sample Receipt Checklist

Client Name PALL

Date/Time Received: 11/15/2006 9:30:00 AM

Work Order Number 0611310

Received by: ALJ

Checklist completed by

  
Signature

11/15/06  
Date

Reviewed by

ALJ  
Initials  
11/15/06  
Date

Matrix:

Carrier name UPS

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No
- Temperature(s)/Thermometer(s): 22C  No  No VOA vias submitted
- Water - VOA vias have zero headspace? Yes  No  No VOA vias submitted
- Water - pH acceptable upon receipt? Yes  No  N/A

Adjusted? \_\_\_\_\_

Checked b \_\_\_\_\_

Login Notes:

Client contacted \_\_\_\_\_

Date contacted: \_\_\_\_\_

Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_

Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_