

**Report Prepared for:**

Jose Ferrer  
Agranco Corp  
824 Coral Way  
Coral Gables FL 33134

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Information:**

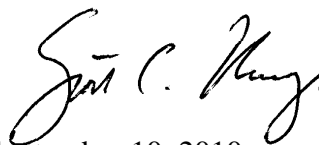
**Pace Project #: 10136081**  
**Sample Receipt Date: 08/19/2010**  
**Client Project #: Agrabond/Agrabond ZEA**  
**Client Sub PO #: N/A**  
**State Cert #: E87605**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Scott Unze, your Pace Project Manager.

**This report has been reviewed by:**



September 10, 2010

Scott Unze, Project Manager  
(612) 607-6383  
(612) 607-6444 (fax)  
scott.unze@pacelabs.com

**Report Prepared Date:**

September 10, 2010



**Report of Laboratory Analysis**

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The results relate only to the samples included in this report.

## **DISCUSSION**

This report presents the results from the analyses performed on one sample submitted by a representative of Agranco. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 1613B. Reporting limits were based on signal-to-noise measurements. The samples were received above the recommended temperature range of 0-6 degrees Celsius.

The isotopically-labeled PCDD/PCDF internal standards in the sample extract were recovered at 29-72%. All of the labeled standard recoveries obtained for this project were within the Method 1613B target ranges. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

In some cases, interfering substances impacted the determinations of PCDD or PCDF congeners. The affected values were flagged "I" where incorrect isotope ratios were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to contain trace levels of selected congeners. These were below the calibration range of the method. Sample levels similar to the corresponding blank levels were flagged "B" on the results table and may be, at least partially, attributed to the background. It should be noted that levels less than ten times the background are not generally considered to be statistically different from the background.

A laboratory spike sample was also prepared using clean sand that had been fortified with native standard materials. Recoveries of the native compounds ranged from 109-131%. These results were all within the target ranges specified in the method. Matrix spikes were prepared with the sample batch using sample material from a separate project; results from these analyses will be provided upon request.

## **REPORT OF LABORATORY ANALYSIS**

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## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Montana	92
Alaska	MN00064	Nebraska	
Arizona	AZ0014	Nevada	MN000642010A
Arkansas	88-0680	New Jersey (NE)	MN002
California	01155CA	New Mexico	MN00064
Colorado	MN00064	New York (NEL)	11647
Connecticut	PH-0256	North Carolina	27700
EPA Region 5	WD-15J	North Dakota	R-036
EPA Region 8	8TMS-Q	Ohio	4150
Florida (NELAP)	E87605	Ohio VAP	CL101
Georgia (DNR)	959	Oklahoma	D9922
Guam	09-019r	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL)	MN200001-005
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennessee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	LA0900016	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q
Mississippi	MN00064		

## REPORT OF LABORATORY ANALYSIS

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# **Appendix A**

## Sample Management



10136001

Miami, Fl Aug.18,2010

To: Pace Analytical Services, Inc.  
From Agranco Corp. USA

Attn: Sample Recveiving

Re. Request for DIOXIN Trial on our product AGRABOND. 001

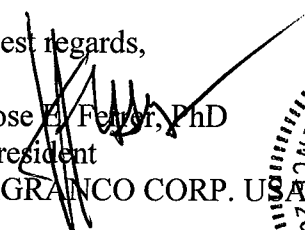
Attached, please find a 1 kg samples of AGRABOND to perform a DIOXIN bench test.  
Also included, please find a US\$700.00 check to cover the bench trial.

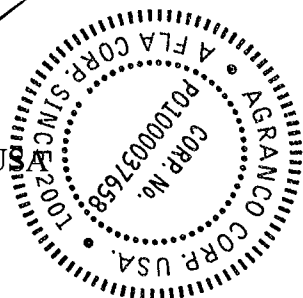
Please issue a signed and sealed certificate in ORIGINAL with today's date, sample number etc and mail to:

AGRANCO CORP. USA- 2014 S.W. 24 Terrasce, Miami, Fl 33145  
Tel (305) 856 3782 Fax (305) 856 3734

Please confirm when yopu receive sample.

Best regards,

  
Jose El Ferrer, PhD  
President  
AGRANCO CORP. USA





Florida Department of Agriculture and Consumer Services  
 CHARLES H. BRONSON, Commissioner  
 The Capitol • Tallahassee, FL 32399-0800  
 www.doacs.state.fl.us

Please Respond to:

TO: **WHOM IT MAY CONCERN**

FROM: The Florida Department of Agriculture and Consumer Services

DATE: April 5, 2010

SUBJECT: **CERTIFICATE OF ORIGIN (Place of Manufacture) and FREE SALE**

RE: **AGRANCO CORP. (USA)**  
 2014 S.W. 24 Terrace  
 Miami, Florida .33145  
 Contact: Jose E. Ferrer, PhD

The State of Florida Department of Agriculture and Consumer Services reports that AGRANCO CORP. (USA), located at 2014 S.W. 24 Terrace, Miami, Fl 33145, is an established manufacturer and export company supplying overseas customers with feed additives. These include: AGRABOND, (NON GMO) NON-GENETICALLY MODIFIED, type of calcium sodium alumino silicate approved by FDA under 21CFR.582.2729 and/or G.R.A.S. for animal feeds, AS A FEED ADDITIVE.

Chemical Composition:	Percentages:
SIO2	72.8 %
AL2O2	26.4 %
Fe2O3	0.1 %
MgO	0.1 %
CaO	0.2 %
Na2O	0.1 %
K2O	0.3 %
Total:	100.0 %

Maximum Dioxin Levels: 0.11 nanograms / kg- (Under 0.5 nanograms / kg maximum levels as established by the World Health Organization, per PACE ANALYTICAL SERVICES, INC. Heavy Metals : Within NELAC (National Environmental Laboratory Council) standards, as per PACE ANALYTICAL SERVICES, INC. No animal material, certified by CONGEN Biotechnology GmbH, Berlin, Germany and Trilogy Analytical Laboratory Services, USA.

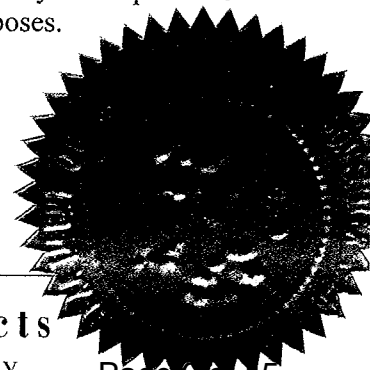
The manufacturer of these products is subject to the regulations applicable to the Pure Food Laws of the State of Florida, which regulations are enforced by the Food Safety Division of the Florida Department of Agriculture and Consumer Services, and the manufacturer is subject to the jurisdiction of said government agency.

This certificate should not be interpreted as a guarantee, explicit nor implied, for any of the products of the manufacturer, neither should it be used for propaganda, advertising or similar purposes.

Sincerely,  
*Elizabeth Gablehouse*  
 Elizabeth Gablehouse  
 Florida Department of Agriculture  
 and Consumer Services



Fresh  
 Florida®



Florida Agriculture and Forest Products

Report No.....10136081\_1613 Over \$100 Billion for Florida's Economy



Florida Department of Agriculture and Consumer Services  
 CHARLES H. BRONSON, Commissioner  
 The Capitol • Tallahassee, FL 32399-0800  
 www.doacs.state.fl.us

Please Respond to:

TO: **WHOM IT MAY CONCERN**

FROM: The Florida Department of Agriculture and Consumer Services

DATE: January 29, 2008

SUBJECT: **CERTIFICATE OF ORIGIN (Place of Manufacture) , AND FREE SALE**

RE: **AGRANCO CORP. (USA)**  
 2014 S.W. 24 Terrace, Miami, Fl. 33145  
 Contact: Jose E. Ferrer, Ph:D.

The State of Florida Department of Agriculture and Consumer Services certifies that AGRANCO CORP. (USA), located at 824 Coral Way , Coral Gables, Florida 33134, is an established manufacturer and export company supplying overseas customers with feed additives. These include, AGRABOND ZEA , (NON GMO) NON-GENETICALLY MODIFIED, a type of calcium sodium alumino silicate approved by FDA under 21CFR.582.2729 and/or G.R.A.S. for animal feeds.

Chemical Composition:	Percentages:
SIO2	72.8 %
AL2O2	26.4 %
Fe2O3	0.1 %
MgO	0.1 %
CaO	0.2 %
Na2O	0.1 %
K2O	0.3 %
Total:	100.0 %

Maximum Dioxin Levels: 0.11 nanograms / kg- (Under 0.5 nanograms / kg maximum levels as established by the World Health Organization , per PACE ANALYTICAL SERVICES, INC. Heavy Metals : Within NELAC ( National Environmental Laboratory Council) standards, as per PACE ANALYTICAL SRVICES, INC. No animal material Certified CONGEN Biotechnology GmbH, Berlin , Germany and Trilogy Analytical Laboratory Services, USA.

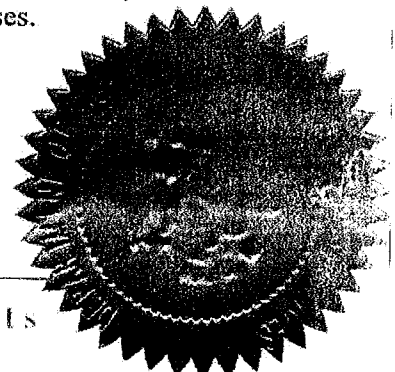
The manufacturer of these products is subject to the regulations applicable to the Pure Food Laws of the State of Florida, which regulations are enforced by the Food Safety Division of The Florida Department of Agriculture and Consumer Services, and the manufacturer is subject to the jurisdiction of said government agency.

This certificate should no be interpreted as a guarantee, explicit no implied, for any of the products of the manufacturer, neither should it be used for propaganda, advertising or similar purposes.

Sincerely,  
  
 Elizabeth Gablehouse  
 Florida Department of Agriculture  
 and Consumer Services



Florida Agriculture and Forest Products  
 \$97 Billion for Florida's Economy





Sample Condition Upon Receipt

Client Name: Agranco

Project # 10136081

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 1Z43E19V1344863505

Optional:  
Proj. Due Date  
Proj. Name

Custody Seal on Cooler/Box Present:  yes  no Seals Intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_ Temp Blank: Yes \_\_\_\_\_ No

Thermometer Used 80344042 or 179425 Type of Ice: Wet Blue  None  Samples on ice, cooling process has begun

Cooler Temperature 22.0°C

Biological Tissue Is Frozen: Yes No

Date and Initials of person examining contents: JK 8/19/10

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

No temp req-

Project Manager Review: [Signature]

Date: 08/19/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR, Inc. F-L213Rev.00, 05Aug2009 1700 Elm Street SE, Suite 200, Minneapolis, MN 55414



## Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

### REPORT OF LABORATORY ANALYSIS

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## **Appendix B**

### Sample Analysis Summary



### Method 1613B Sample Analysis Results

Client - Agranco Corp

Client's Sample ID	AGRABOND/AGRABOND ZEA		
Lab Sample ID	10136081001-R		
Filename	P100909C_04		
Injected By	BAL		
Total Amount Extracted	20.3 g	Matrix	Solid
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	NA
ICAL ID	P100312	Received	08/19/2010 09:10
CCal Filename(s)	P100909B_15	Extracted	09/07/2010 16:30
Method Blank ID	BLANK-26291	Analyzed	09/10/2010 00:29

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.044	2,3,7,8-TCDF-13C	2.00	38
Total TCDF	ND	----	0.044	2,3,7,8-TCDD-13C	2.00	56
				1,2,3,7,8-PeCDF-13C	2.00	55
2,3,7,8-TCDD	ND	----	0.062	2,3,4,7,8-PeCDF-13C	2.00	56
Total TCDD	ND	----	0.062	1,2,3,7,8-PeCDD-13C	2.00	56
				1,2,3,4,7,8-HxCDF-13C	2.00	72
1,2,3,7,8-PeCDF	----	0.039	0.029 I	1,2,3,6,7,8-HxCDF-13C	2.00	71
2,3,4,7,8-PeCDF	0.053	----	0.022 BJ	2,3,4,6,7,8-HxCDF-13C	2.00	69
Total PeCDF	0.150	----	0.025 BJ	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	ND	----	0.041	1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	ND	----	0.041	1,2,3,4,6,7,8-HpCDF-13C	2.00	56
				1,2,3,4,7,8,9-HpCDF-13C	2.00	53
1,2,3,4,7,8-HxCDF	0.048	----	0.017 BJ	1,2,3,4,6,7,8-HpCDD-13C	2.00	49
1,2,3,6,7,8-HxCDF	----	0.055	0.021 I	OCDD-13C	4.00	29
2,3,4,6,7,8-HxCDF	----	0.053	0.018 I			
1,2,3,7,8,9-HxCDF	0.066	----	0.019 BJ	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.048	----	0.019 BJ	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	----	0.060	0.027 I	2,3,7,8-TCDD-37Cl4	0.20	56
1,2,3,6,7,8-HxCDD	----	0.084	0.034 I			
1,2,3,7,8,9-HxCDD	----	0.069	0.027 I			
Total HxCDD	0.110	----	0.029 BJ			
1,2,3,4,6,7,8-HpCDF	0.150	----	0.029 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	----	0.080	0.041 I	Equivalence: 0.18 ng/Kg		
Total HpCDF	0.150	----	0.035 BJ	(Using 2005 WHO Factors - Using PRL where ND)		
1,2,3,4,6,7,8-HpCDD	2.300	----	0.099 J			
Total HpCDD	4.500	----	0.099			
OCDF	0.720	----	0.150 BJ			
OCDD	18.000	----	0.290			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit.

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

Results reported on a total weight basis and are valid to no more than 2 significant figures.

J = Estimated value  
B = Less than 10x higher than method blank level  
I = Interference present  
Collection date not provided, holding time could not be verified

## REPORT OF LABORATORY ANALYSIS

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## 2,3,7,8-TCDD Toxic Equivalency (TEQ) Calculations

Agranco Corp

Client's Sample ID	AGRABOND/AGRABOND ZEA		
Lab Sample ID	10136081001-R		
Filename	P100909C_04		
Injected By	BAL		
Total Amount Extracted	20.3 g	Matrix	Solid
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	NA
ICAL ID	P100312	Received	08/19/2010 09:10
CCal Filename(s)	P100909B_15	Extracted	09/07/2010 16:30
Method Blank ID	BLANK-26291	Analyzed	09/10/2010 00:29

Parameter	Conc ng/Kg	RL ng/Kg	WHO2005	LB	MB	UB
2,3,7,8-TCDF	ND	0.044	0.10000	0.0000	0.0022	0.0044
Total TCDF	ND	0.044	0.00000	0.0000	0.0000	0.0000
2,3,7,8-TCDD	ND	0.062	1.00000	0.0000	0.0309	0.0617
Total TCDD	ND	0.062	0.00000	0.0000	0.0000	0.0000
1,2,3,7,8-PeCDF	ND	0.029	0.03000	0.0000	0.0004	0.0009
2,3,4,7,8-PeCDF	0.053	0.022	0.30000	0.0159	0.0159	0.0159
Total PeCDF	0.150	0.025	0.00000	0.0000	0.0000	0.0000
1,2,3,7,8-PeCDD	ND	0.041	1.00000	0.0000	0.0206	0.0412
Total PeCDD	ND	0.041	0.00000	0.0000	0.0000	0.0000
1,2,3,4,7,8-HxCDF	0.048	0.017	0.10000	0.0048	0.0048	0.0048
1,2,3,6,7,8-HxCDF	ND	0.021	0.10000	0.0000	0.0011	0.0021
2,3,4,6,7,8-HxCDF	ND	0.018	0.10000	0.0000	0.0009	0.0018
1,2,3,7,8,9-HxCDF	0.066	0.019	0.10000	0.0066	0.0066	0.0066
Total HxCDF	0.048	0.019	0.00000	0.0000	0.0000	0.0000
1,2,3,4,7,8-HxCDD	ND	0.027	0.10000	0.0000	0.0013	0.0027
1,2,3,6,7,8-HxCDD	ND	0.034	0.10000	0.0000	0.0017	0.0034
1,2,3,7,8,9-HxCDD	ND	0.027	0.10000	0.0000	0.0013	0.0027
Total HxCDD	0.110	0.029	0.00000	0.0000	0.0000	0.0000
1,2,3,4,6,7,8-HpCDF	0.150	0.029	0.01000	0.0015	0.0015	0.0015
1,2,3,4,7,8,9-HpCDF	ND	0.041	0.01000	0.0000	0.0002	0.0004
Total HpCDF	0.150	0.035	0.00000	0.0000	0.0000	0.0000
1,2,3,4,6,7,8-HpCDD	2.300	0.099	0.01000	0.0225	0.0225	0.0225
Total HpCDD	4.500	0.099	0.00000	0.0000	0.0000	0.0000
OCDF	0.720	0.15	0.00030	0.0002	0.0002	0.0002
OCDD	18.000	0.29	0.00030	0.0055	0.0055	0.0055

**0.057 ng/Kg      0.12 ng/Kg      0.18 ng/Kg**

Final values are valid to only 2 significant figures  
 TEQs for Totals classes include contributions from non 2,3,7,8 isomers only  
 LB = Lower Bound, Where "ND", TEQ Conc = 0  
 MB = Medium Bound, Where "ND", TEQ Conc = (LOD/2) \* (TEF Factor)  
 UB = Upper Bound, Where "ND", TEQ Conc = LOD \* (TEF Factor)  
 RL = Reporting Limit

## REPORT OF LABORATORY ANALYSIS

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**Method 1613B Blank Analysis Results**

Lab Sample ID	BLANK-26291	Matrix	Solid
Filename	P100909C_03	Dilution	NA
Total Amount Extracted	20.3 g	Extracted	09/07/2010 16:30
ICAL ID	P100312	Analyzed	09/09/2010 23:42
CCal Filename(s)	P100909B_15	Injected By	BAL

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	----	0.029	0.024 I	2,3,7,8-TCDF-13C	2.00	88
Total TCDF	ND	----	0.024	2,3,7,8-TCDD-13C	2.00	98
				1,2,3,7,8-PeCDF-13C	2.00	79
2,3,7,8-TCDD	ND	----	0.028	2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	ND	----	0.028	1,2,3,7,8-PeCDD-13C	2.00	91
				1,2,3,4,7,8-HxCDF-13C	2.00	93
1,2,3,7,8-PeCDF	0.026	----	0.020 J	1,2,3,6,7,8-HxCDF-13C	2.00	91
2,3,4,7,8-PeCDF	0.029	----	0.014 J	2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	0.055	----	0.017 J	1,2,3,7,8,9-HxCDF-13C	2.00	90
				1,2,3,4,7,8-HxCDD-13C	2.00	94
1,2,3,7,8-PeCDD	ND	----	0.029	1,2,3,6,7,8-HxCDD-13C	2.00	98
Total PeCDD	ND	----	0.029	1,2,3,4,6,7,8-HpCDF-13C	2.00	88
				1,2,3,4,7,8,9-HpCDF-13C	2.00	85
1,2,3,4,7,8-HxCDF	0.020	----	0.017 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	97
1,2,3,6,7,8-HxCDF	----	0.021	0.018 I	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	0.033	----	0.015 J			
1,2,3,7,8,9-HxCDF	0.036	----	0.015 J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.110	----	0.016 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	----	0.027	0.019 I	2,3,7,8-TCDD-37Cl4	0.20	100
1,2,3,6,7,8-HxCDD	0.036	----	0.020 J			
1,2,3,7,8,9-HxCDD	----	0.034	0.023 I			
Total HxCDD	0.036	----	0.021 J			
1,2,3,4,6,7,8-HpCDF	----	0.044	0.015 I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	----	0.055	0.020 I	Equivalence: 0.089 ng/Kg		
Total HpCDF	0.019	----	0.017 J	(Using 2005 WHO Factors - Using PRL where ND)		
1,2,3,4,6,7,8-HpCDD	0.130	----	0.030 J			
Total HpCDD	0.280	----	0.030 J			
OCDF	0.190	----	0.024 J			
OCDD	0.610	----	0.040 J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
RL = Reporting Limit

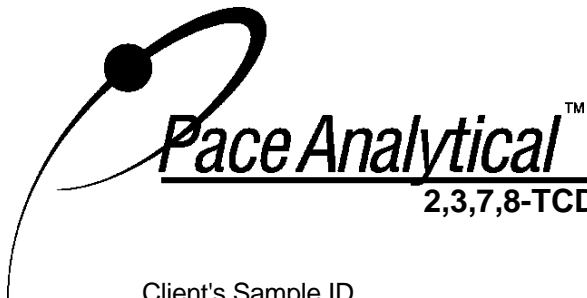
Results reported on a total weight basis and are valid to no more than 2 significant figures.

J = Estimated value

I = Interference present

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## 2,3,7,8-TCDD Toxic Equivalency (TEQ) Calculations

Agranco Corp

Client's Sample ID				
Lab Sample ID	BLANK-26291			
Filename	P100909C_03			
Injected By	BAL			
Total Amount Extracted	20.3 g	Matrix	Solid	
% Moisture	0.0	Dilution	NA	
Dry Weight Extracted	20.3 g	Collected	09/07/2010 08:33	
ICAL ID	P100312	Received	09/07/2010 08:33	
CCal Filename(s)	P100909B_15	Extracted	09/07/2010 16:30	
Method Blank ID		Analyzed	09/09/2010 23:42	

Parameter	Conc ng/Kg	RL ng/Kg	WHO2005	LB	MB	UB
2,3,7,8-TCDF	ND	0.024	0.10000	0.0000	0.0012	0.0024
Total TCDF	ND	0.024	0.00000	0.0000	0.0000	0.0000
2,3,7,8-TCDD	ND	0.028	1.00000	0.0000	0.0141	0.0281
Total TCDD	ND	0.028	0.00000	0.0000	0.0000	0.0000
1,2,3,7,8-PeCDF	0.026	0.020	0.03000	0.0008	0.0008	0.0008
2,3,4,7,8-PeCDF	0.029	0.014	0.30000	0.0086	0.0086	0.0086
Total PeCDF	0.055	0.017	0.00000	0.0000	0.0000	0.0000
1,2,3,7,8-PeCDD	ND	0.029	1.00000	0.0000	0.0143	0.0285
Total PeCDD	ND	0.029	0.00000	0.0000	0.0000	0.0000
1,2,3,4,7,8-HxCDF	0.020	0.017	0.10000	0.0020	0.0020	0.0020
1,2,3,6,7,8-HxCDF	ND	0.018	0.10000	0.0000	0.0009	0.0018
2,3,4,6,7,8-HxCDF	0.033	0.015	0.10000	0.0033	0.0033	0.0033
1,2,3,7,8,9-HxCDF	0.036	0.015	0.10000	0.0036	0.0036	0.0036
Total HxCDF	0.110	0.016	0.00000	0.0000	0.0000	0.0000
1,2,3,4,7,8-HxCDD	ND	0.019	0.10000	0.0000	0.0010	0.0019
1,2,3,6,7,8-HxCDD	0.036	0.020	0.10000	0.0036	0.0036	0.0036
1,2,3,7,8,9-HxCDD	ND	0.023	0.10000	0.0000	0.0011	0.0023
Total HxCDD	0.036	0.021	0.00000	0.0000	0.0000	0.0000
1,2,3,4,6,7,8-HpCDF	ND	0.015	0.01000	0.0000	0.0001	0.0001
1,2,3,4,7,8,9-HpCDF	ND	0.020	0.01000	0.0000	0.0001	0.0002
Total HpCDF	0.019	0.017	0.00000	0.0000	0.0000	0.0000
1,2,3,4,6,7,8-HpCDD	0.130	0.030	0.01000	0.0013	0.0013	0.0013
Total HpCDD	0.280	0.030	0.00000	0.0000	0.0000	0.0000
OCDF	0.190	0.024	0.00030	0.0001	0.0001	0.0001
OCDD	0.610	0.040	0.00030	0.0002	0.0002	0.0002

**0.023 ng/Kg    0.056 ng/Kg    0.089 ng/Kg**

Final values are valid to only 2 significant figures  
 TEQs for Totals classes include contributions from non 2,3,7,8 isomers only  
 LB = Lower Bound, Where "ND", TEQ Conc = 0  
 MB = Medium Bound, Where "ND", TEQ Conc = (LOD/2) \* (TEF Factor)  
 UB = Upper Bound, Where "ND", TEQ Conc = LOD \* (TEF Factor)  
 RL = Reporting Limit

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### Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-26292	Matrix	Solid
Filename	P100909C_09	Dilution	NA
Total Amount Extracted	20.8 g	Extracted	09/07/2010 16:30
ICAL ID	P100312	Analyzed	09/10/2010 04:25
CCal Filename	P100909B_15	Injected By	BAL
Method Blank ID	BLANK-26291		

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	13	7.5	15.8	131
2,3,7,8-TCDD	10	12	6.7	15.8	119
1,2,3,7,8-PeCDF	50	63	40.0	67.0	126
2,3,4,7,8-PeCDF	50	60	34.0	80.0	120
1,2,3,7,8-PeCDD	50	55	35.0	71.0	109
1,2,3,4,7,8-HxCDF	50	62	36.0	67.0	123
1,2,3,6,7,8-HxCDF	50	61	42.0	65.0	121
2,3,4,6,7,8-HxCDF	50	62	35.0	78.0	124
1,2,3,7,8,9-HxCDF	50	61	39.0	65.0	123
1,2,3,4,7,8-HxCDD	50	59	35.0	82.0	117
1,2,3,6,7,8-HxCDD	50	61	38.0	67.0	122
1,2,3,7,8,9-HxCDD	50	60	32.0	81.0	120
1,2,3,4,6,7,8-HpCDF	50	60	41.0	61.0	120
1,2,3,4,7,8,9-HpCDF	50	58	39.0	69.0	116
1,2,3,4,6,7,8-HpCDD	50	60	35.0	70.0	120
OCDF	100	110	63.0	170.0	113
OCDD	100	130	78.0	144.0	127
2,3,7,8-TCDD-37Cl4	10	8.3	3.1	19.1	83
2,3,7,8-TCDF-13C	100	71	22.0	152.0	71
2,3,7,8-TCDD-13C	100	80	20.0	175.0	80
1,2,3,7,8-PeCDF-13C	100	62	21.0	192.0	62
2,3,4,7,8-PeCDF-13C	100	65	13.0	328.0	65
1,2,3,7,8-PeCDD-13C	100	74	21.0	227.0	74
1,2,3,4,7,8-HxCDF-13C	100	75	19.0	202.0	75
1,2,3,6,7,8-HxCDF-13C	100	73	21.0	159.0	73
2,3,4,6,7,8-HxCDF-13C	100	69	22.0	176.0	69
1,2,3,7,8,9-HxCDF-13C	100	71	17.0	205.0	71
1,2,3,4,7,8-HxCDD-13C	100	79	21.0	193.0	79
1,2,3,6,7,8-HxCDD-13C	100	82	25.0	163.0	82
1,2,3,4,6,7,8-HpCDF-13C	100	76	21.0	158.0	76
1,2,3,4,7,8,9-HpCDF-13C	100	67	20.0	186.0	67
1,2,3,4,6,7,8-HpCDD-13C	100	86	26.0	166.0	86
OCDD-13C	200	94	26.0	397.0	47

Cs = Concentration Spiked (ng/mL)  
 Cr = Concentration Recovered (ng/mL)  
 Rec. = Recovery (Expressed as Percent)  
 Control Limit Reference: Method 1613, Table 6, 10/94 Revision  
 R = Recovery outside of control limits  
 Nn = Value obtained from additional analysis  
 \* = See Discussion

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