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FILE NO: 65216.3

July 29, 2010

Via UPS

Renee Searfoss
Coastal Science Team Leader
Office of Monitoring and Assessment (3EA50)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103

Re: Responses to Request Nos. 7 and 8 of EPA's Request for Information Pursuant to Section 308 of the Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1318, Regarding the Omega Protein, Inc. Facility in Reedville, Virginia and Associated Vessels, dated April 23, 2010

Dear Ms. Searfoss:

This letter, including attachments, serves as a response to Information Request Nos. 7 and 8 of the U.S. Environmental Protection Agency ("EPA") Request for Information to Omega Protein, Inc. ("Omega") regarding Omega's facility located at 610 Menhaden Road, Reedville, Virginia and associated vessels dated April 23, 2010, as extended and modified by EPA's letter dated May 21, 2010 ("Request"). Omega previously submitted responses to the other Information Requests contained therein by letter, including attachments and exhibits, of June 29, 2010.

For convenience, we have included below Information Request Nos. 7 and 8 in bold font followed by the relevant response. Where EPA's original April 23, 2010 request was modified by its May 21, 2010 letter, the modified language is in bold and underlined. Where a response references documents, it does so by numbered attachment.

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Omega Protein, Inc.
Reedville, Virginia

RESPONSES TO INFORMATION REQUESTS

INSTRUCTIONS

2. **Identify each person responding to any question contained in this Information Request on behalf of Respondent, as well as each person consulted in the preparation of a response.**

Response:

The following people provided responses or were consulted in preparation of a response:
William E. Purcell
Ted Schultz
Peter F. De Lisle (on behalf of Coastal Bioanalysts, Inc.)
Geoff Hinshelwood (on behalf of Universal Laboratories)

3. **For each question, identify each document consulted, examined, or referred to in the preparation of the response or that contains information responsive to the question, and provide a true and correct copy of each such document if not provided in response to another specific question.**

Response:

True and correct copies of the responsive documents referenced below are provided as Attachments 1 and 2.

INFORMATION REQUEST

7. **Collect a representative sample of refrigeration water and a representative sample of bail water or bailing water from two of the eight Omega Protein vessels that are WWII-vintage freighters (166 feet long that were converted to fishing vessels), the gulf-style boat that is used as a fishing vessel, the purpose-built fishing vessel (200 feet long), and the Gulf Island vessel and provide an analysis of these representative samples for the following parameters:**

   a. **Priority pollutant scan;**

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b. Physical properties per the Standard Methods book including pH, temperature, specific gravity, and conductivity;
c. Total Nitrogen;
d. Total Phosphorus;
e. BOD (5 day);
f. BOD (30 day);
g. Enterococci and E. Coli;
h. Oil and grease;
i. Ammonia;
j. Chlorine and detergent; and -- EPA rescinded its request for chlorine and detergent sampling by May 21, 2010 letter.
k. Whole effluent toxicity.

Response:

The Gulf Island vessel is the only Omega vessel that discharges bail water. The Gulf Island vessel does not discharge refrigeration water. The other Omega vessels, including Reedville, Smugglers Point, Kimberly, and Tidelands, discharge refrigeration water but not bail water. Thus, we have provided representative sample results of bail water from the Gulf Island vessel, as well as representative sample results of refrigeration water from two of the eight Omega vessels that are WWII-vintage freighters (Reedville and Smugglers Point), the gulf-style boat that is used as a fishing vessel (Kimberly), and the purpose-built fishing vessel (Tidelands) (collectively, "Representative Samples").

Analysis of the Representative Samples for the following parameters is provided as Attachment 1:

a. Priority pollutant scan;
b. Physical properties per the Standard Methods book including specific gravity and conductivity (see Attachment 2 for sample pH and temperature data);
c. Total Nitrogen;
d. Total Phosphorus;
e. BOD (5 day);
f. BOD (30 day);
g. Enterococci and E. Coli;
h. Oil and grease; and
i. Ammonia.

EPA rescinded its request for chlorine and detergent sampling by letter dated May 21, 2010, thus no further response to Request 7.j is provided.

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Analysis of the Representative Samples for whole effluent toxicity in accordance with Request 7.k and for pH and temperature in accordance with Request 7.b is provided as Attachment 2.

Also included in Attachment 1 and 2 are analyses completed for pre-discharge samples from the Chesapeake Bay and Atlantic Ocean. Attachment 1 also contains analysis of additional "Trip Blank" samples, which contained no added substance to be analyzed and were provided by the lab to demonstrate, among other things, that samples were not contaminated in transit.

8. Provide the following information for the samples collected pursuant to No. 7 above:

Response:

Unless otherwise specified, the following information pertains to all samples collected pursuant to No. 7 above, including the Representative Samples, pre-discharge samples from the Chesapeake Bay and Atlantic Ocean, and "Trip Blank" samples.

a. The date and time the sample was collected;

Response:

The samples were collected on June 24, 2010 between 1:25 p.m. and 2:40 p.m., except the ocean pre-discharge sample and the ocean post-discharge sample from the Gulf Island vessel, which were collected on June 25, 2010 at 2:40 p.m. and 2:45 p.m, respectively, and the "Trip Blank" samples, which were prepared by Universal Laboratories on June 23, 2010 at 12:30 p.m.

b. Whether the sample was taken during disposal or release and, if so, the total volume disposed or released during the sampling event;

Response:

The Representative Samples were taken during the discharge from the vessels.

The total volume of the bail water discharged during the Gulf Island vessel sampling event was approximately 120,000 gallons.

The total volume of refrigeration water discharged during the sampling events is unknown because the volume of refrigeration water released varies depending on

the volume of fish present. The Reedville and Smugglers Point vessels have capacity to hold approximately 144,000 gallons of refrigeration water, the Kimberly has capacity to hold approximately 132,000 gallons of refrigeration water, and the Tidelands has capacity to hold approximately 264,000 gallons of refrigeration water. During the sampling events, each of the vessels was using less than 25% of its capacity to hold refrigeration water. All refrigeration water that could be pumped from each vessel was discharged during the sampling events.

The pre-discharge samples from the Chesapeake Bay and Atlantic Ocean, and the "Trip Blank" samples were not taken during discharge events.

c. The name of the vessel and the captain during the sampling event;

Response:

During the sampling events, Alton Dudley captained the Reedville, Alan Hinson captained the Smugglers Point, William Blackwell captained the Kimberly, Jeffrey Haydon captained the Tidelands, and Henry Saunders captained the Gulf Island.

d. The location the sample was collected including the latitude and longitude, where the sample was collected with respect to the boat and plume (port side, etc.), the depth in which the sample was collected, and any standard operating procedures regarding the collection of the sample; and

Response:

Omega collected the Reedville, Smugglers Point, Kimberly, and Tidelands vessel samples and bay pre-discharge sample from the Chesapeake Bay at 37° 46' 46.91" N, 76° 10' 44.97" W. Omega collected the Gulf Island vessel sample and ocean pre-discharge sample from the Atlantic Ocean at 37° 00' 50.48" N, 75° 53' 14.11" W.

The Representative Samples were collected from a sampling boat following 25 to 50 yards behind the fishing vessel as refrigeration water or bail water was discharged. The Representative Samples were pumped, using a 12 volt powered diaphragm pump, from approximately 6 feet below the surface in the middle of the visible discharge plume.

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The pre-discharge samples of the Chesapeake Bay and Atlantic Ocean were taken from a sampling boat immediately prior to refrigeration or bail water discharge. The pre-discharge samples also were pumped, using a 12 volt powered diaphragm pump, from approximately 6 feet below the water surface. The "Trip Blank" samples were prepared at Universal Laboratories and contained no collected substance to be analyzed.

Omega collected the Representative Samples and pre-discharge samples in accordance with its standard sampling procedures, which are further detailed in Omega's June 29th response to Request 5.d.

e. The weather conditions at the time of sampling (temperature, sea state, sunny or cloudy day, etc.).

Response:

The weather conditions when collecting the Representative Samples and pre-discharge samples were hot (approximately 90 to 95 degrees Fahrenheit) and sunny, and the sea was rough. The winds were 10-15 knots from the southeast when the Reedville, Smugglers Point, Kimberly, and Tidelands vessel samples and bay pre-discharge sample were collected from the Chesapeake Bay. The winds were 20-25 knots from the northeast when the Gulf Island vessel sample and ocean pre-discharge sample were collected from the Atlantic Ocean.

Omega's certification of the responses provided is enclosed as Attachment 3. Omega's submission of the enclosed responses and documents is made without waiver of any objections or other rights and should not be construed as an admission of any kind. In making this submission, Omega incorporates by reference the claims and reservations set forth at the end of its June 29, 2010 letter.

If you have any questions or require any additional information, please do not hesitate to contact me at (804) 787-8086.

Very truly yours,

Brooks M. Smith

Attachment 1 -- Universal Laboratories Analytical Results
Attachment 2 -- Coastal Bioanalysts, Inc. Analytical Results
Attachment 3 -- Certification

Attachment 3

Certification

I certify under penalty of law that this submission and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Plant Manager

28 Jul 2010
Date

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Attachment 1

Universal Laboratories Analytical Results

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666
1-800-695-2162
(757) 865-0880
Fax: (757) 865-8014
E-mail: info@universallaboratories.net

Date:	Monday, July 26, 2010
Pages:	Page 1 of 9
To:	Ted Schultz Omega Protein, Inc.
Fax#:	(804) 453-4123
Email:	
From:	☐ Dan Thornton ☐ Mike Jennings
Subject:	Results for Project N/A designated as UL Order Id 1006550 and received on Thursday, June 24, 2010

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006550-001

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006550**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

Project ID: N/A
Project # N/A
Site: Vessel Reedville
Matrix: Wastewater
Comments for Order:

UL Sample Number: **1006550-001**
Sample ID: Vessel Reedville
Grab Date/Time: 6/24/2010 14:40
Composite Start: N/A
Composite Stop: N/A
Collected By: client

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Specific Gravity Hydrometer	ASTM D1298-99	**1.0107** Temp 21.4°C	SG	0.001	6/25/2010 12:23:00	SS
Enterococci	Enterolert 96 well	**138**	col/100 ml	1	6/24/2010 18:35:00	BZ
OIL and Grease (HEM)	EPA 1664	<	mg/L	5	7/1/2010 08:52:00	AB
Antimony (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Arsenic (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Beryllium (Total)	EPA 200.7	<	mg/L	0.001	6/28/2010 11:13:00	LS
Cadmium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Chromium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Copper (Total)	EPA 200.7	**0.001**	mg/L	0.001	6/28/2010 11:13:00	LS
Lead (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Nickel (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Selenium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Silver (Total)	EPA 200.7	<	mg/L	0.005	6/30/2010 10:24:00	LS
Thallium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Zinc (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Ammonia	EPA 350.1	<	mg/L	0.2	6/28/2010 16:29:00	LS
Total Kjeldahl Nitrogen (TKN)	EPA 351.2/353.2	**0.4**	mg/L	0.2	6/30/2010 12:40:00	LS
Nitrate-Nitrite	EPA 351.2/353.2	<	mg/L	0.1	6/30/2010 12:40:00	LS

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006550-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Total Nitrogen	EPA 351.2/353.2	0.4	mg/L	0.2	6/30/2010 12:40:00	LS
Total Phosphorus	EPA 365.1	0.07	mg/L	0.02	6/28/2010 11:53:00	LS
4,4'-DDD	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
4,4'-DDE	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
4,4'-DDT	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Aldrin	EPA 608	<	ug/L	0.05	7/1/2010 22:15:00	BD
Alpha-BHC	EPA 608	<	ug/L	0.05	7/1/2010 22:15:00	BD
Beta-BHC	EPA 608	<	ug/L	0.05	7/1/2010 22:15:00	BD
Chlordane	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
Delta-BHC	EPA 608	<	ug/L	0.05	7/1/2010 22:15:00	BD
Dieldrin	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Endosulfan I	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Endosulfan II	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Endosulfan Sulfate	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Endrin	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Endrin Aldehyde	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Endrin Ketone	EPA 608	<	ug/L	0.1	7/1/2010 22:15:00	BD
Heptachlor	EPA 608	<	ug/L	0.05	7/1/2010 22:15:00	BD
Heptachlor Epoxide	EPA 608	<	ug/L	0.05	7/1/2010 22:15:00	BD
Lindane	EPA 608	<	ug/L	0.05	7/1/2010 22:15:00	BD
Methoxychlor	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
PCB-1016	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
PCB-1221	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
PCB-1232	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
PCB-1242	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
PCB-1248	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
PCB-1254	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
PCB-1260	EPA 608	<	ug/L	0.5	7/1/2010 22:15:00	BD
Toxaphene	EPA 608	<	ug/L	1	7/1/2010 22:15:00	BD

Acrolein	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 17:24:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Methylene Chloride	EPA 624	2 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 17:24:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES

Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 17:24:00	ES
1,2-Diphenylhydrazine (azoben	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Hexachloroethane	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Bis(2-chloroethyl)ether	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
1,2-Dichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Bis(2-chloroisopropyl) Ether	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
N-Nitroso-di-n-propylamine	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Nitrobenzene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Hexachlorobutadiene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
1,2,4-Trichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Isophorone	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
Naphthalene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
Bis(2-chloroethoxy)methane	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Hexachlorocyclopentadiene	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
2-Chloronaphthalene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Acenaphthene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Dimethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
2,6-Dinitrotoluene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Fluorene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
4-Chlorophenyl Phenyl Ether	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
2,4-Dinitrotoluene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
Diethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
N-Nitrosodiphenylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
Hexachlorobenzene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD

4-Bromophenyl-phenylether	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Phenanthrene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Anthracence	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Di-n-butyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Fluoranthene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Pyrene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Benzidine	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Butyl Benzyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Bis(2-ethylhexyl) Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Chrysene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Benzo(a)anthracene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
3,3'-Dichlorobenzidine	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Di-n-octyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Benzo(b)fluoranthene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Benzo [a]pyrene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Indeno(1,2,3-cd)pyrene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Dibenzo(a,h)anthracene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Benzo(ghi)perylene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
N-Nitrosodimethylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
Phenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
2,4,6-Trichlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
2,4-Dimethylphenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
2,4-Dichlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
2,4-Dinitrophenol	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
2-Chlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
2-Methyl-4,6-dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:08:00	BD
Benzo[k]fluoranthene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Pentachlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
Acenaphthylene	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD

2-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
4-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
4-Chloro-3-methylphenol	EPA 625	<	ug/L	5	6/30/2010 22:08:00	BD
E-Coli	IDEXX-Colilert	**1120**	mpn/100ml	1	6/24/2010 18:44:00	BZ
Specific Conductivity	SM-2510 B	**29165.4** Salinity 19.5 ppt	umhos/cm	0.1	6/25/2010 12:25:00	SS
Mercury (Total)	SM-3112 B	<	mg/L	0.0002	6/25/2010 09:10:00	LS
Field Residual Chlorine	SM-4500 CL/G	<	mg/L	0.1	6/24/2010 14:40:00	C
BOD5	SM-5210	**3**	mg/L	2	6/25/2010 14:49:00	BZ
Ultimate BOD	SM-5210 C 19th Ed	<	MG/L	5	6/25/2010 19:37:00	BZ
Surfactants-MBAS	SM-5540 C	< H Holding Time was Exceeded	mg/L	0.2	6/28/2010 09:15:00	CK

Comments for Sample I 1006550-001

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006550**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

Project ID: N/A
Project # N/A
Site: Trip Blank
Matrix: Wastewater
Comments for Order:

UL Sample Number: **1006550-003**
Sample ID: Trip Blank
Grab Date/Time: 6/23/2010 12:30
Composite Start: N/A
Composite Stop: N/A
Collected By: thodan

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Acrolein	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006550-003
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 17:55:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Methylene Chloride	EPA 624	6 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 17:55:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 17:55:00	ES

Comments for Sample I 1006550-003

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666
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(757) 865-0880
Fax: (757) 865-8014
E-mail: info@universallaboratories.net

Date:	Monday, July 26, 2010
Pages:	Page 1 of 9
To:	Ted Schultz Omega Protein, Inc.
Fax#:	(804) 453-4123
Email:	
From:	☐ Dan Thornton ☐ Mike Jennings
Subject:	Results for Project N/A designated as UL Order Id 1006553 and received on Thursday, June 24, 2010

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006553-001

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006553**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

UL Sample Number: **1006553-001**
Sample ID: Vessel Smugglers Point
Grab Date/Time: 6/24/2010 13:25
Composite Start: N/A
Composite Stop: N/A
Collected By: client

Project ID: N/A
Project # N/A
Site: Vessel Smugglers Point
Matrix: Wastewater
Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Specific Gravity Hydrometer	ASTM D1298-99	**1.0067** Temp 21.8°C	SG	0.001	6/25/2010 12:23:00	SS
Enterococci	Enterolert 96 well	**691**	col/100 ml	1	6/24/2010 18:35:00	BZ
OIL and Grease (HEM)	EPA 1664	<	mg/L	5	7/1/2010 08:52:00	AB
Antimony (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Arsenic (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Beryllium (Total)	EPA 200.7	<	mg/L	0.001	6/28/2010 11:13:00	LS
Cadmium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Chromium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Copper (Total)	EPA 200.7	**0.003**	mg/L	0.001	6/28/2010 11:13:00	LS
Lead (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Nickel (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Selenium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Silver (Total)	EPA 200.7	<	mg/L	0.005	6/30/2010 10:24:00	LS
Thallium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Zinc (Total)	EPA 200.7	**0.007**	mg/L	0.005	6/28/2010 11:13:00	LS
Ammonia	EPA 350.1	<	mg/L	0.2	6/30/2010 16:44:00	LS
Total Kjeldahl Nitrogen (TKN)	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Nitrate-Nitrite	EPA 351.2/353.2	<	mg/L	0.1	6/30/2010 12:40:00	LS

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006553-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Total Nitrogen	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Total Phosphorus	EPA 365.1	**0.06**	mg/L	0.02	6/28/2010 11:53:00	LS
4,4'-DDD	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
4,4'-DDE	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
4,4'-DDT	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Aldrin	EPA 608	<	ug/L	0.05	7/2/2010 00:13:00	BD
Alpha-BHC	EPA 608	<	ug/L	0.05	7/2/2010 00:13:00	BD
Beta-BHC	EPA 608	<	ug/L	0.05	7/2/2010 00:13:00	BD
Chlordane	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
Delta-BHC	EPA 608	<	ug/L	0.05	7/2/2010 00:13:00	BD
Dieldrin	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Endosulfan I	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Endosulfan II	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Endosulfan Sulfate	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Endrin	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Endrin Aldehyde	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Endrin Ketone	EPA 608	<	ug/L	0.1	7/2/2010 00:13:00	BD
Heptachlor	EPA 608	<	ug/L	0.05	7/2/2010 00:13:00	BD
Heptachlor Epoxide	EPA 608	<	ug/L	0.05	7/2/2010 00:13:00	BD
Lindane	EPA 608	<	ug/L	0.05	7/2/2010 00:13:00	BD
Methoxychlor	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
PCB-1016	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
PCB-1221	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
PCB-1232	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
PCB-1242	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
PCB-1248	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
PCB-1254	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
PCB-1260	EPA 608	<	ug/L	0.5	7/2/2010 00:13:00	BD
Toxaphene	EPA 608	<	ug/L	1	7/2/2010 00:13:00	BD

Acrolein	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 20:30:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Methylene Chloride	EPA 624	2 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 20:30:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES

Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 20:30:00	ES
1,2-Diphenylhydrazine (azoben	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Hexachloroethane	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Bis(2-chloroethyl)ether	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
1,2-Dichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Bis(2-chloroisopropyl) Ether	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
N-Nitroso-di-n-propylamine	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Nitrobenzene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Hexachlorobutadiene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
1,2,4-Trichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Isophorone	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
Naphthalene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
Bis(2-chloroethoxy)methane	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Hexachlorocyclopentadiene	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
2-Chloronaphthalene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Acenaphthene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Dimethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
2,6-Dinitrotoluene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Fluorene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
4-Chlorophenyl Phenyl Ether	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
2,4-Dinitrotoluene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
Diethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
N-Nitrosodiphenylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
Hexachlorobenzene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD

4-Bromophenyl-phenylether	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Phenanthrene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Anthracence	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Di-n-butyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Fluoranthene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Pyrene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Benzidine	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Butyl Benzyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Bis(2-ethylhexyl) Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Chrysene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Benzo(a)anthracene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
3,3'-Dichlorobenzidine	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Di-n-octyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Benzo(b)fluoranthene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Benzo [a]pyrene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Indeno(1,2,3-cd)pyrene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Dibenzo(a,h)anthracene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Benzo(ghi)perylene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
N-Nitrosodimethylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
Phenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
2,4,6-Trichlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
2,4-Dimethylphenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
2,4-Dichlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
2,4-Dinitrophenol	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
2-Chlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
2-Methyl-4,6-dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:54:00	BD
Benzo[k]fluoranthene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Pentachlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
Acenaphthylene	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD

2-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
4-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
4-Chloro-3-methylphenol	EPA 625	<	ug/L	5	6/30/2010 23:54:00	BD
E-Coli	IDEXX-Colilert	>2420	mpn/100ml	1	6/24/2010 18:44:00	BZ
Specific Conductivity	SM-2510 B	31125.6 Salinity 20.8 ppt	umhos/cm	0.1	6/25/2010 12:25:00	SS
Mercury (Total)	SM-3112 B	<	mg/L	0.0002	6/25/2010 09:10:00	LS
Field Residual Chlorine	SM-4500 CL/G	<	mg/L	0.1	6/24/2010 13:25:00	C
BOD5	SM-5210	3	mg/L	2	6/25/2010 14:49:00	BZ
Ultimate BOD	SM-5210 C 19th Ed	<	MG/L	5	6/25/2010 19:37:00	BZ
Surfactants-MBAS	SM-5540 C	< H Holding Time was Exceeded	mg/L	0.2	6/28/2010 09:15:00	CK

Comments for Sample I 1006553-001

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006553**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

UL Sample Number: 1006553-003
Sample ID: Trip Blank
Grab Date/Time: 6/23/2010 12:30
Composite Start: N/A
Composite Stop: N/A
Collected By: thodan

Project ID: N/A
Project # N/A
Site: Trip Blank
Matrix: Wastewater
Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Acrolein	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006553-003
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 21:01:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Methylene Chloride	EPA 624	4 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 21:01:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 21:01:00	ES

Comments for Sample I 1006553-003

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666
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(757) 865-0880
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Date:	Monday, July 26, 2010
Pages:	Page 1 of 9
To:	Ted Schultz Omega Protein, Inc.
Fax#:	(804) 453-4123
Email:	
From:	☐ Dan Thornton ☐ Mike Jennings
Subject:	Results for Project N/A designated as UL Order Id 1006554 and received on Thursday, June 24, 2010

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006554-001

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006554**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

Project ID: N/A
Project # N/A
Site: Vessel Kimberly
Matrix: Wastewater

UL Sample Number: **1006554-001**
Sample ID: Vessel Kimberly
Grab Date/Time: 6/24/2010 13:50
Composite Start: N/A
Composite Stop: N/A
Collected By: client

Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Specific Gravity Hydrometer	ASTM D1298-99	**1.0067** Temp 21.9°C	SG	0.001	6/25/2010 12:23:00	SS
Enterococci	Enterolert 96 well	**>2420**	col/100 ml	1	6/24/2010 18:35:00	BZ
OIL and Grease (HEM)	EPA 1664	<	mg/L	5	7/1/2010 08:52:00	AB
Antimony (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Arsenic (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Beryllium (Total)	EPA 200.7	<	mg/L	0.001	6/28/2010 11:13:00	LS
Cadmium (Total)	EPA 200.7	**0.008**	mg/L	0.005	6/28/2010 11:13:00	LS
Chromium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Copper (Total)	EPA 200.7	**0.048**	mg/L	0.001	6/28/2010 11:13:00	LS
Lead (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Nickel (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Selenium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Silver (Total)	EPA 200.7	<	mg/L	0.005	6/30/2010 10:24:00	LS
Thallium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Zinc (Total)	EPA 200.7	**0.359**	mg/L	0.005	6/28/2010 11:13:00	LS
Ammonia	EPA 350.1	<	mg/L	0.2	6/30/2010 16:44:00	LS
Total Kjeldahl Nitrogen (TKN)	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Nitrate-Nitrite	EPA 351.2/353.2	<	mg/L	0.1	6/30/2010 12:40:00	LS

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006554-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Total Nitrogen	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Total Phosphorus	EPA 365.1	**0.06**	mg/L	0.02	6/28/2010 11:53:00	LS
4,4'-DDD	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
4,4'-DDE	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
4,4'-DDT	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Aldrin	EPA 608	<	ug/L	0.05	7/2/2010 00:52:00	BD
Alpha-BHC	EPA 608	<	ug/L	0.05	7/2/2010 00:52:00	BD
Beta-BHC	EPA 608	<	ug/L	0.05	7/2/2010 00:52:00	BD
Chlordane	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
Delta-BHC	EPA 608	<	ug/L	0.05	7/2/2010 00:52:00	BD
Dieldrin	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Endosulfan I	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Endosulfan II	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Endosulfan Sulfate	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Endrin	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Endrin Aldehyde	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Endrin Ketone	EPA 608	<	ug/L	0.1	7/2/2010 00:52:00	BD
Heptachlor	EPA 608	<	ug/L	0.05	7/2/2010 00:52:00	BD
Heptachlor Epoxide	EPA 608	<	ug/L	0.05	7/2/2010 00:52:00	BD
Lindane	EPA 608	<	ug/L	0.05	7/2/2010 00:52:00	BD
Methoxychlor	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
PCB-1016	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
PCB-1221	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
PCB-1232	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
PCB-1242	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
PCB-1248	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
PCB-1254	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
PCB-1260	EPA 608	<	ug/L	0.5	7/2/2010 00:52:00	BD
Toxaphene	EPA 608	<	ug/L	1	7/2/2010 00:52:00	BD

Acrolein	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 21:32:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Methylene Chloride	EPA 624	2 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 21:32:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006554-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 21:32:00	ES
1,2-Diphenylhydrazine (azoben	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Hexachloroethane	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Bis(2-chloroethyl)ether	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
1,2-Dichlorobenzene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Bis(2-chloroisopropyl) Ether	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
N-Nitroso-di-n-propylamine	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Nitrobenzene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Hexachlorobutadiene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
1,2,4-Trichlorobenzene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Isophorone	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
Naphthalene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
Bis(2-chloroethoxy)methane	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Hexachlorocyclopentadiene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
2-Chloronaphthalene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Acenaphthene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Dimethyl Phthalate	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
2,6-Dinitrotoluene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Fluorene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
4-Chlorophenyl Phenyl Ether	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
2,4-Dinitrotoluene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
Diethyl Phthalate	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
N-Nitrosodiphenylamine	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
Hexachlorobenzene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD

4-Bromophenyl-phenylether	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Phenanthrene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Anthracence	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Di-n-butyl Phthalate	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Fluoranthene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Pyrene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Benzidine	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Butyl Benzyl Phthalate	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Bis(2-ethylhexyl) Phthalate	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Chrysene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Benzo(a)anthracene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
3,3'-Dichlorobenzidine	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Di-n-octyl Phthalate	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Benzo(b)fluoranthene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Benzo [a]pyrene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Indeno(1,2,3-cd)pyrene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Dibenzo(a,h)anthracene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Benzo(ghi)perylene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
N-Nitrosodimethylamine	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
Phenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
2,4,6-Trichlorophenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
2,4-Dimethylphenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
2,4-Dichlorophenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
2,4-Dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
2-Chlorophenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
2-Methyl-4,6-dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	7/1/2010 01:18:00	BD
Benzo[k]fluoranthene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Pentachlorophenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
Acenaphthylene	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD

2-Nitrophenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
4-Nitrophenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
4-Chloro-3-methylphenol	EPA 625	<	ug/L	5	7/1/2010 01:18:00	BD
E-Coli	IDEXX-Colilert	**>2420**	mpn/100ml	1	6/24/2010 18:44:00	BZ
Specific Conductivity	SM-2510 B	**29957.4** Salinity 19.9ppt	umhos/cm	0.1	6/25/2010 12:25:00	SS
Mercury (Total)	SM-3112 B	<	mg/L	0.0002	6/25/2010 09:10:00	LS
Field Residual Chlorine	SM-4500 CL/G	<	mg/L	0.1	6/24/2010 13:50:00	C
BOD5	SM-5210	**4**	mg/L	2	6/25/2010 14:49:00	BZ
Ultimate BOD	SM-5210 C 19th Ed	<	MG/L	5	6/25/2010 19:37:00	BZ
Surfactants-MBAS	SM-5540 C	**< H** Holding Time was Exceeded	mg/L	0.2	6/28/2010 09:15:00	CK

Comments for Sample I 1006554-001

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

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TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006554**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

UL Sample Number: **1006554-003**
Sample ID: Trip Blank
Grab Date/Time: 6/23/2010 12:30
Composite Start: N/A
Composite Stop: N/A
Collected By: thodan

Project ID: N/A
Project # N/A
Site: Trip Blank
Matrix: Wastewater
Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Acrolein	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006554-003

Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 22:03:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Methylene Chloride	EPA 624	5 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 22:03:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 22:03:00	ES

Comments for Sample I 1006554-003

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

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Date:	Monday, July 26, 2010
Pages:	Page 1 of 9
To:	Ted Schultz Omega Protein, Inc.
Fax#:	(804) 453-4123
Email:	
From:	☐ Dan Thornton ☐ Mike Jennings
Subject:	Results for Project N/A designated as UL Order Id 1006552 and received on Thursday, June 24, 2010

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006552-001

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006552**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

Project ID: N/A
Project # N/A
Site: Vessel Tideland
Matrix: Wastewater
Comments for Order:

UL Sample Number: **1006552-001**
Sample ID: Vessel Tideland
Grab Date/Time: 6/24/2010 13:40
Composite Start: N/A
Composite Stop: N/A
Collected By: client

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Specific Gravity Hydrometer	ASTM D1298-99	**1.0067** Temp 21.6°C	SG	0.001	6/25/2010 12:23:00	SS
Enterococci	Enterolert 96 well	**20**	col/100 ml	1	6/24/2010 18:35:00	BZ
OIL and Grease (HEM)	EPA 1664	<	mg/L	5	7/1/2010 08:52:00	AB
Antimony (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Arsenic (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Beryllium (Total)	EPA 200.7	<	mg/L	0.001	6/28/2010 11:13:00	LS
Cadmium (Total)	EPA 200.7	**0.008**	mg/L	0.005	6/28/2010 11:13:00	LS
Chromium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Copper (Total)	EPA 200.7	**0.003**	mg/L	0.001	6/28/2010 11:13:00	LS
Lead (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Nickel (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Selenium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Silver (Total)	EPA 200.7	<	mg/L	0.005	6/30/2010 10:24:00	LS
Thallium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Zinc (Total)	EPA 200.7	**0.006**	mg/L	0.005	6/28/2010 11:13:00	LS
Ammonia	EPA 350.1	<	mg/L	0.2	6/28/2010 16:29:00	LS
Total Kjeldahl Nitrogen (TKN)	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Nitrate-Nitrite	EPA 351.2/353.2	<	mg/L	0.1	6/30/2010 12:40:00	LS

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006552-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Total Nitrogen	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Total Phosphorus	EPA 365.1	**0.05**	mg/L	0.02	6/28/2010 11:53:00	LS
4,4'-DDD	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
4,4'-DDE	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
4,4'-DDT	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Aldrin	EPA 608	<	ug/L	0.05	7/1/2010 23:34:00	BD
Alpha-BHC	EPA 608	<	ug/L	0.05	7/1/2010 23:34:00	BD
Beta-BHC	EPA 608	<	ug/L	0.05	7/1/2010 23:34:00	BD
Chlordane	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
Delta-BHC	EPA 608	<	ug/L	0.05	7/1/2010 23:34:00	BD
Dieldrin	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Endosulfan I	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Endosulfan II	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Endosulfan Sulfate	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Endrin	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Endrin Aldehyde	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Endrin Ketone	EPA 608	<	ug/L	0.1	7/1/2010 23:34:00	BD
Heptachlor	EPA 608	<	ug/L	0.05	7/1/2010 23:34:00	BD
Heptachlor Epoxide	EPA 608	<	ug/L	0.05	7/1/2010 23:34:00	BD
Lindane	EPA 608	<	ug/L	0.05	7/1/2010 23:34:00	BD
Methoxychlor	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
PCB-1016	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
PCB-1221	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
PCB-1232	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
PCB-1242	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
PCB-1248	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
PCB-1254	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
PCB-1260	EPA 608	<	ug/L	0.5	7/1/2010 23:34:00	BD
Toxaphene	EPA 608	<	ug/L	1	7/1/2010 23:34:00	BD

Acrolein	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 19:28:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Methylene Chloride	EPA 624	**2 B**	ug/L	1	6/29/2010 19:28:00	ES
		B = Analyte was found in the method blank.				
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES

Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 19:28:00	ES
1,2-Diphenylhydrazine (azoben	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Hexachloroethane	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Bis(2-chloroethyl)ether	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
1,2-Dichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Bis(2-chloroisopropyl) Ether	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
N-Nitroso-di-n-propylamine	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Nitrobenzene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Hexachlorobutadiene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
1,2,4-Trichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Isophorone	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
Naphthalene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
Bis(2-chloroethoxy)methane	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Hexachlorocyclopentadiene	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
2-Chloronaphthalene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Acenaphthene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Dimethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
2,6-Dinitrotoluene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Fluorene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
4-Chlorophenyl Phenyl Ether	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
2,4-Dinitrotoluene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
Diethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
N-Nitrosodiphenylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
Hexachlorobenzene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD

4-Bromophenyl-phenylether	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Phenanthrene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Anthracence	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Di-n-butyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Fluoranthene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Pyrene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Benzidine	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Butyl Benzyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Bis(2-ethylhexyl) Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Chrysene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Benzo(a)anthracene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
3,3'-Dichlorobenzidine	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Di-n-octyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Benzo(b)fluoranthene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Benzo [a]pyrene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Indeno(1,2,3-cd)pyrene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Dibenzo(a,h)anthracene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Benzo(ghi)perylene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
N-Nitrosodimethylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
Phenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
2,4,6-Trichlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
2,4-Dimethylphenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
2,4-Dichlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
2,4-Dinitrophenol	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
2-Chlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
2-Methyl-4,6-dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 23:19:00	BD
Benzo[k]fluoranthene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Pentachlorophenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
Acenaphthylene	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD

2-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
4-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
4-Chloro-3-methylphenol	EPA 625	<	ug/L	5	6/30/2010 23:19:00	BD
E-Coli	IDEXX-Colilert	**>2420**	mpn/100ml	1	6/24/2010 18:44:00	BZ
Specific Conductivity	SM-2510 B	**30046.5** Salinity 20.1 ppt	umhos/cm	0.1	6/25/2010 12:25:00	SS
Mercury (Total)	SM-3112 B	<	mg/L	0.0002	6/25/2010 09:10:00	LS
Field Residual Chlorine	SM-4500 CL/G	<	mg/L	0.1	6/24/2010 13:40:00	C
BOD5	SM-5210	**3**	mg/L	2	6/25/2010 14:49:00	BZ
Ultimate BOD	SM-5210 C 19th Ed	<	MG/L	5	6/25/2010 19:37:00	BZ
Surfactants-MBAS	SM-5540 C	**< H** Holding Time was Exceeded	mg/L	0.2	6/28/2010 09:15:00	CK

Comments for Sample I 1006552-001

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
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FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006552**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

UL Sample Number: 1006552-003
Sample ID: Trip Blank
Grab Date/Time: 6/23/2010 12:30
Composite Start: N/A
Composite Stop: N/A
Collected By: thodan

Project ID: N/A
Project # N/A
Site: Trip Blank
Matrix: Wastewater
Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Acrolein	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006552-003
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 19:59:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Methylene Chloride	EPA 624	4 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 19:59:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 19:59:00	ES

Comments for Sample I 1006552-003

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666
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Fax: (757) 865-8014
E-mail: info@universallaboratories.net

Date:	Monday, July 26, 2010
Pages:	Page 1 of 9
To:	Ted Schultz Omega Protein, Inc.
Fax#:	(804) 453-4123
Email:	
From:	☐ Dan Thornton ☐ Mike Jennings
Subject:	Results for Project N/A designated as UL Order Id 1006551 and received on Thursday, June 24, 2010

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006551-001

UNIVERSAL LABORATORIES

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REPORT OF ANALYSIS

Order ID: **1006551**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

UL Sample Number: **1006551-001**
Sample ID: Bay Water Blank
Grab Date/Time: 6/24/2010 14:20
Composite Start: N/A
Composite Stop: N/A
Collected By: client

Project ID: N/A
Project # N/A
Site: Bay Water Blank
Matrix: Wastewater
Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Specific Gravity Hydrometer	ASTM D1298-99	**1.0047** Temp 20.8°C	SG	0.001	6/25/2010 12:23:00	SS
Enterococci	Enterolert 96 well	**43**	col/100 ml	1	6/24/2010 18:35:00	BZ
OIL and Grease (HEM)	EPA 1664	<	mg/L	5	7/1/2010 08:52:00	AB
Antimony (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Arsenic (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Beryllium (Total)	EPA 200.7	<	mg/L	0.001	6/28/2010 11:13:00	LS
Cadmium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Chromium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Copper (Total)	EPA 200.7	**0.001**	mg/L	0.001	6/28/2010 11:13:00	LS
Lead (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Nickel (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Selenium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Silver (Total)	EPA 200.7	<	mg/L	0.005	6/30/2010 10:24:00	LS
Thallium (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Zinc (Total)	EPA 200.7	<	mg/L	0.005	6/28/2010 11:13:00	LS
Ammonia	EPA 350.1	<	mg/L	0.2	6/28/2010 16:29:00	LS
Total Kjeldahl Nitrogen (TKN)	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Nitrate-Nitrite	EPA 351.2/353.2	<	mg/L	0.1	6/30/2010 12:40:00	LS

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006551-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Total Nitrogen	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Total Phosphorus	EPA 365.1	**0.05**	mg/L	0.02	6/28/2010 11:53:00	LS
4,4'-DDD	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
4,4'-DDE	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
4,4'-DDT	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Aldrin	EPA 608	<	ug/L	0.05	7/1/2010 22:54:00	BD
Alpha-BHC	EPA 608	<	ug/L	0.05	7/1/2010 22:54:00	BD
Beta-BHC	EPA 608	<	ug/L	0.05	7/1/2010 22:54:00	BD
Chlordane	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
Delta-BHC	EPA 608	<	ug/L	0.05	7/1/2010 22:54:00	BD
Dieldrin	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Endosulfan I	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Endosulfan II	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Endosulfan Sulfate	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Endrin	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Endrin Aldehyde	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Endrin Ketone	EPA 608	<	ug/L	0.1	7/1/2010 22:54:00	BD
Heptachlor	EPA 608	<	ug/L	0.05	7/1/2010 22:54:00	BD
Heptachlor Epoxide	EPA 608	<	ug/L	0.05	7/1/2010 22:54:00	BD
Lindane	EPA 608	<	ug/L	0.05	7/1/2010 22:54:00	BD
Methoxychlor	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
PCB-1016	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
PCB-1221	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
PCB-1232	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
PCB-1242	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
PCB-1248	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
PCB-1254	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
PCB-1260	EPA 608	<	ug/L	0.5	7/1/2010 22:54:00	BD
Toxaphene	EPA 608	<	ug/L	1	7/1/2010 22:54:00	BD

Acrolein	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 18:26:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Methylene Chloride	EPA 624	2 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 18:26:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES

Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 18:26:00	ES
1,2-Diphenylhydrazine (azoben	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Hexachloroethane	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Bis(2-chloroethyl)ether	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
1,2-Dichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Bis(2-chloroisopropyl) Ether	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
N-Nitroso-di-n-propylamine	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Nitrobenzene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Hexachlorobutadiene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
1,2,4-Trichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Isophorone	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
Naphthalene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
Bis(2-chloroethoxy)methane	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Hexachlorocyclopentadiene	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
2-Chloronaphthalene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Acenaphthene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Dimethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
2,6-Dinitrotoluene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Fluorene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
4-Chlorophenyl Phenyl Ether	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
2,4-Dinitrotoluene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
Diethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
N-Nitrosodiphenylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
Hexachlorobenzene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD

4-Bromophenyl-phenylether	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Phenanthrene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Anthracence	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Di-n-butyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Fluoranthene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Pyrene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Benzidine	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Butyl Benzyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Bis(2-ethylhexyl) Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Chrysene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Benzo(a)anthracene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
3,3'-Dichlorobenzidine	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Di-n-octyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Benzo(b)fluoranthene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Benzo [a]pyrene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Indeno(1,2,3-cd)pyrene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Dibenzo(a,h)anthracene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Benzo(ghi)perylene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
N-Nitrosodimethylamine	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
Phenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
2,4,6-Trichlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
2,4-Dimethylphenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
2,4-Dichlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
2,4-Dinitrophenol	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
2-Chlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
2-Methyl-4,6-dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 22:44:00	BD
Benzo[k]fluoranthene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Pentachlorophenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
Acenaphthylene	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD

2-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
4-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
4-Chloro-3-methylphenol	EPA 625	<	ug/L	5	6/30/2010 22:44:00	BD
E-Coli	IDEXX-Colilert	**238**	mpn/100ml	1	6/24/2010 18:44:00	BZ
Specific Conductivity	SM-2510 B	**28086.3** Salinity 19.0 ppt	umhos/cm	0.1	6/25/2010 12:25:00	SS
Mercury (Total)	SM-3112 B	<	mg/L	0.0002	6/25/2010 09:10:00	LS
Field Residual Chlorine	SM-4500 CL/G	<	mg/L	0.1	6/24/2010 14:20:00	C
BOD5	SM-5210	**4**	mg/L	2	6/25/2010 14:49:00	BZ
Ultimate BOD	SM-5210 C 19th Ed	<	MG/L	5	6/25/2010 19:37:00	BZ
Surfactants-MBAS	SM-5540 C	< H Holding time was Exceeded	mg/L	0.2	6/28/2010 09:15:00	CK

Comments for Sample I 1006551-001

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

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REPORT OF ANALYSIS

Order ID: **1006551**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Ted Schultz

UL Sample Number: **1006551-003**
Sample ID: Trip Blank
Grab Date/Time: 6/23/2010 12:30
Composite Start: N/A
Composite Stop: N/A
Collected By: thodan

Project ID: N/A
Project # N/A
Site: Trip Blank
Matrix: Wastewater
Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Acrolein	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006551-003
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 18:57:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Methylene Chloride	EPA 624	4 B B = Analyte was found in the method blank.	ug/L	1	6/29/2010 18:57:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 18:57:00	ES

Comments for Sample I 1006551-003

No comments

Respectfully Submitted,

UNIVERSAL LABORATORIES

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Date:	Monday, July 26, 2010
Pages:	Page 1 of 7
To:	Bill Purcell Omega Protein, Inc.
Fax#:	(804) 453-4123
Email:	
From:	☐ Dan Thornton ☐ Mike Jennings
Subject:	Results for Project N/A designated as UL Order Id 1006530 and received on Friday, June 25, 2010

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006530-001

UNIVERSAL LABORATORIES

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TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2152
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006530**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Bill Purcell

UL Sample Number: **1006530-001**
Sample ID: Vessel Gulf Island
Grab Date/Time: 6/25/2010 14:45
Composite Start: N/A
Composite Stop: N/A
Collected By: client

Project ID: N/A
Project # N/A
Site: Vessel Gulf Island
Matrix: Wastewater
Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Specific Gravity Hydrometer	ASTM D1298-99	**1.018**	SG	0.001	6/25/2010 18:31:00	SS
Enterococci	Enterolert 96 well	< Insufficient sample volume.	col/100 ml	1	6/25/2010 18:41:00	SS
OIL and Grease (HEM)	EPA 1664	<	mg/L	5	7/1/2010 07:59:00	AB
Antimony (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Arsenic (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Beryllium (Total)	EPA 200.7	<	mg/L	0.001	7/1/2010 09:07:00	LS
Cadmium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Chromium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Copper (Total)	EPA 200.7	<	mg/L	0.001	7/1/2010 09:07:00	LS
Lead (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Nickel (Total)	EPA 200.7	**0.008**	mg/L	0.005	7/1/2010 09:07:00	LS
Selenium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Silver (Total)	EPA 200.7	<	mg/L	0.005	6/30/2010 10:24:00	LS
Thallium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Zinc (Total)	EPA 200.7	**0.032**	mg/L	0.005	7/1/2010 09:07:00	LS
Ammonia	EPA 350.1	<	mg/L	0.2	6/28/2010 16:29:00	LS
Total Kjeldahl Nitrogen (TKN)	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Nitrate-Nitrite	EPA 351.2/353.2	<	mg/L	0.1	6/30/2010 12:40:00	LS

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006530-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Total Nitrogen	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Total Phosphorus	EPA 365.1	0.02	mg/L	0.02	7/2/2010 15:29:00	LS
4,4'-DDD	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
4,4'-DDE	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
4,4'-DDT	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Aldrin	EPA 608	<	ug/L	0.05	7/6/2010 20:35:00	BD
Alpha-BHC	EPA 608	<	ug/L	0.05	7/6/2010 20:35:00	BD
Beta-BHC	EPA 608	<	ug/L	0.05	7/6/2010 20:35:00	BD
Chlordane	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
Delta-BHC	EPA 608	<	ug/L	0.05	7/6/2010 20:35:00	BD
Dieldrin	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Endosulfan I	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Endosulfan II	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Endosulfan Sulfate	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Endrin	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Endrin Aldehyde	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Endrin Ketone	EPA 608	<	ug/L	0.1	7/6/2010 20:35:00	BD
Heptachlor	EPA 608	<	ug/L	0.05	7/6/2010 20:35:00	BD
Heptachlor Epoxide	EPA 608	<	ug/L	0.05	7/6/2010 20:35:00	BD
Lindane	EPA 608	<	ug/L	0.05	7/6/2010 20:35:00	BD
Methoxychlor	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
PCB-1016	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
PCB-1221	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
PCB-1232	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
PCB-1242	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
PCB-1248	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
PCB-1254	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
PCB-1260	EPA 608	<	ug/L	0.5	7/6/2010 20:35:00	BD
Toxaphene	EPA 608	<	ug/L	1	7/6/2010 20:35:00	BD

Acrolein	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 16:53:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Methylene Chloride	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES

Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 16:53:00	ES
1,2-Diphenylhydrazine (azoben	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Hexachloroethane	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Bis(2-chloroethyl)ether	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
1,2-Dichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Bis(2-chloroisopropyl) Ether	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
N-Nitroso-di-n-propylamine	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Nitrobenzene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Hexachlorobutadiene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
1,2,4-Trichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Isophorone	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
Naphthalene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
Bis(2-chloroethoxy)methane	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Hexachlorocyclopentadiene	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
2-Chloronaphthalene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Acenaphthene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Dimethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
2,6-Dinitrotoluene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Fluorene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
4-Chlorophenyl Phenyl Ether	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
2,4-Dinitrotoluene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
Diethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
N-Nitrosodiphenylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
Hexachlorobenzene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD

4-Bromophenyl-phenylether	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Phenanthrene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Anthracence	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Di-n-butyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Fluoranthene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Pyrene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Benzidine	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Butyl Benzyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Bis(2-ethylhexyl) Phthalate	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Chrysene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Benzo(a)anthracene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
3,3'-Dichlorobenzidine	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Di-n-octyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Benzo(b)fluoranthene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Benzo [a]pyrene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Indeno(1,2,3-cd)pyrene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Dibenzo(a,h)anthracene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Benzo(ghi)perylene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
N-Nitrosodimethylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
Phenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
2,4,6-Trichlorophenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
2,4-Dimethylphenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
2,4-Dichlorophenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
2,4-Dinitrophenol	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
2-Chlorophenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
2-Methyl-4,6-dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 21:33:00	BD
Benzo[k]fluoranthene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Pentachlorophenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
Acenaphthylene	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD

2-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
4-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
4-Chloro-3-methylphenol	EPA 625	<	ug/L	5	6/30/2010 21:33:00	BD
E-Coli	IDEXX-Colilert	**452** Insufficient sample volume.	mpn/100ml	1	6/25/2010 18:40:00	SS
Specific Conductivity	SM-2510 B	**73458.0** Salinity 52.0 ppt	umhos/cm	0.1	6/25/2010 18:30:00	SS
Mercury (Total)	SM-3112 B	**< MS** Matrix spike recovery outside acceptable limits.	mg/L	0.0002	7/1/2010 10:56:00	LS
Field Residual Chlorine	SM-4500 CL/G	<	mg/L	0.1	6/25/2010 14:25:00	C
BOD5	SM-5210	<	mg/L	2	6/26/2010 10:58:00	LS
Ultimate BOD	SM-5210 C 19th Ed	<	MG/L	5	6/25/2010 19:37:00	BZ
Surfactants-MBAS	SM-5540 C	**< H** Holding Time was Exceeded	mg/L	0.2	6/28/2010 09:15:00	CK

Comments for Sample I 1006530-001

No comments

Respectfully Submitted,

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)

North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543

EPA LAB CODE VA00912
VDEQ Lab #000003

1006530-001

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666
1-800-695-2162
(757) 865-0880
Fax: (757) 865-8014
E-mail: info@universallaboratories.net

Date:	Monday, July 26, 2010
Pages:	Page 1 of 7
To:	Bill Purcell Omega Protein, Inc.
Fax#:	(804) 453-4123
Email:	
From:	☐ Dan Thornton ☐ Mike Jennings
Subject:	Results for Project N/A designated as UL Order Id 1006529 and received on Friday, June 25, 2010

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006529-001

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 695-2162
FAX: (757) 865-8014

REPORT OF ANALYSIS

Order ID: **1006529**

(REPORT DATE)
26-Jul-10

TO: **Omega Protein, Inc.**
P.O. Box 175
Reedville VA 22539
ATTN: Bill Purcell

Project ID: N/A
Project # N/A
Site: Atlantic Blank
Matrix: Wastewater
Comments for Order:

UL Sample Number: **1006529-001**
Sample ID: Atlantic Blank
Grab Date/Time: 6/25/2010 14:40
Composite Start: N/A
Composite Stop: N/A
Collected By: client

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
Specific Gravity Hydrometer	ASTM D1298-99	**1.018**	SG	0.001	6/25/2010 18:31:00	SS
Enterococci	Enterolert 96 well	**1**	col/100 ml	1	6/25/2010 18:41:00	SS
OIL and Grease (HEM)	EPA 1664	<	mg/L	5	7/1/2010 07:59:00	AB
Antimony (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Arsenic (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Beryllium (Total)	EPA 200.7	<	mg/L	0.001	7/1/2010 09:07:00	LS
Cadmium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Chromium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Copper (Total)	EPA 200.7	<	mg/L	0.001	7/1/2010 09:07:00	LS
Lead (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Nickel (Total)	EPA 200.7	**0.007**	mg/L	0.005	7/1/2010 09:07:00	LS
Selenium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Silver (Total)	EPA 200.7	<	mg/L	0.005	6/30/2010 10:24:00	LS
Thallium (Total)	EPA 200.7	<	mg/L	0.005	7/1/2010 09:07:00	LS
Zinc (Total)	EPA 200.7	**0.024**	mg/L	0.005	7/1/2010 09:07:00	LS
Ammonia	EPA 350.1	<	mg/L	0.2	6/28/2010 16:29:00	LS
Total Kjeldahl Nitrogen (TKN)	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Nitrate-Nitrite	EPA 351.2/353.2	<	mg/L	0.1	6/30/2010 12:40:00	LS

VDEH Lab# 00030 (Hampton)
VDEH Lab# 00065 (Fredricksburg)
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
VDEQ Lab #000003
1006529-001

Total Nitrogen	EPA 351.2/353.2	<	mg/L	0.2	6/30/2010 12:40:00	LS
Total Phosphorus	EPA 365.1	<	mg/L	0.02	7/2/2010 15:29:00	LS
4,4'-DDD	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
4,4'-DDE	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
4,4'-DDT	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Aldrin	EPA 608	<	ug/L	0.05	7/6/2010 19:55:00	BD
Alpha-BHC	EPA 608	<	ug/L	0.05	7/6/2010 19:55:00	BD
Beta-BHC	EPA 608	<	ug/L	0.05	7/6/2010 19:55:00	BD
Chlordane	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
Delta-BHC	EPA 608	<	ug/L	0.05	7/6/2010 19:55:00	BD
Dieldrin	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Endosulfan I	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Endosulfan II	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Endosulfan Sulfate	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Endrin	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Endrin Aldehyde	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Endrin Ketone	EPA 608	<	ug/L	0.1	7/6/2010 19:55:00	BD
Heptachlor	EPA 608	<	ug/L	0.05	7/6/2010 19:55:00	BD
Heptachlor Epoxide	EPA 608	<	ug/L	0.05	7/6/2010 19:55:00	BD
Lindane	EPA 608	<	ug/L	0.05	7/6/2010 19:55:00	BD
Methoxychlor	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
PCB-1016	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
PCB-1221	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
PCB-1232	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
PCB-1242	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
PCB-1248	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
PCB-1254	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
PCB-1260	EPA 608	<	ug/L	0.5	7/6/2010 19:55:00	BD
Toxaphene	EPA 608	<	ug/L	1	7/6/2010 19:55:00	BD

VDEH Lab# 00030 (Hampton) North Carolina Drinking Water Lab # 51706 EPA LAB CODE VA00912 1006529-001
VDEH Lab# 00065 (Fredricksburg) North Carolina Wastewater/Groundwater Lab # 543 VDEQ Lab #000003

Acrolein	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Acrylonitrile	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,2-Dichloropropane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Bromomethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Bromoform	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Bromodichloromethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Benzene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
2-Chloroethyl Vinyl Ether	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,1,1-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,3-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Chloroethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,2-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,2-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,1-Dichloroethene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,1-Dichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,1,2-Trichloroethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,1,2,2-Tetrachloroethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,4-Dichlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Methyl ethyl ketone	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Trichlorofluoromethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Trichloroethene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Trans-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Trans-1,2-dichloroethene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Total Xylenes	EPA 624	<	ug/L	2	6/29/2010 16:22:00	ES
Toluene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Carbon Tetrachloride	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Methylene Chloride	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Chlorobenzene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Ethyl Benzene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES

Dibromochloromethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Cis-1,3-dichloropropene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Chloromethane	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Chloroform	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Vinyl Chloride	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
Tetrachloroethylene	EPA 624	<	ug/L	1	6/29/2010 16:22:00	ES
1,2-Diphenylhydrazine (azoben	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Hexachloroethane	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Bis(2-chloroethyl)ether	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
1,2-Dichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Bis(2-chloroisopropyl) Ether	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
N-Nitroso-di-n-propylamine	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Nitrobenzene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Hexachlorobutadiene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
1,2,4-Trichlorobenzene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Isophorone	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
Naphthalene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
Bis(2-chloroethoxy)methane	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Hexachlorocyclopentadiene	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
2-Chloronaphthalene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Acenaphthene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Dimethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
2,6-Dinitrotoluene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Fluorene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
4-Chlorophenyl Phenyl Ether	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
2,4-Dinitrotoluene	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
Diethyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
N-Nitrosodiphenylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
Hexachlorobenzene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD

4-Bromophenyl-phenylether	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Phenanthrene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Anthracence	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Di-n-butyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Fluoranthene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Pyrene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Benzidine	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Butyl Benzyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Bis(2-ethylhexyl) Phthalate	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Chrysene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Benzo(a)anthracene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
3,3'-Dichlorobenzidine	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Di-n-octyl Phthalate	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Benzo(b)fluoranthene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Benzo [a]pyrene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Indeno(1,2,3-cd)pyrene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Dibenzo(a,h)anthracene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Benzo(ghi)perylene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
N-Nitrosodimethylamine	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
Phenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
2,4,6-Trichlorophenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
2,4-Dimethylphenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
2,4-Dichlorophenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
2,4-Dinitrophenol	EPA 625	<V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
2-Chlorophenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
2-Methyl-4,6-dinitrophenol	EPA 625	< V ICV/FCV outside acceptable limits.	ug/L	5	6/30/2010 20:57:00	BD
Benzo[k]fluoranthene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Pentachlorophenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
Acenaphthylene	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD

2-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
4-Nitrophenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
4-Chloro-3-methylphenol	EPA 625	<	ug/L	5	6/30/2010 20:57:00	BD
E-Coli	IDEXX-Colilert	**224**	mpn/100ml	1	6/25/2010 18:40:00	SS
Specific Conductivity	SM-2510 B	**59796.0** Salinity 41.4 ppt	umhos/cm	0.1	6/25/2010 18:30:00	SS
Mercury (Total)	SM-3112 B	<	mg/L	0.0002	7/1/2010 10:56:00	LS
Field Residual Chlorine	SM-4500 CL/G	<	mg/L	0.1	6/25/2010 14:40:00	C
BOD5	SM-5210	<	mg/L	2	6/26/2010 10:58:00	LS
Ultimate BOD	SM-5210 C 19th Ed	<	MG/L	5	6/25/2010 19:37:00	BZ
Surfactants-MBAS	SM-5540 C	**< H** Holding Time was Exceeded	mg/L	0.2	6/28/2010 09:15:00	CK

Comments for Sample I 1006529-001

No comments

Respectfully Submitted,

HUNTON & WILLIAMS

Attachment 2

Coastal Bioanalysts, Inc. Analytical Results

Client: Omega Protein
Project ID: OMEG1006
Client Sample ID: Vessel Reedville
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Acute Test Biological Summary Data		**Sample Concentration (%)**					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	95	100	95
C. variegatus EPA 2004.0	Survival (%):	100	100	100	100	100	100

Test Information **Species-Method**	**Start Date/Time** **End Date/Time**	**Organism Source**	**Hatch/Harvest Date/Time**	**Acclimation Temp.**	**Acclimation Water**	**Test Aerated?**
M. bahia EPA 2007.0	6/25/10 1155 6/27/10 1220	CBI Stock	6/21/10 1530 6/22/10 1035	25° C	HWM ASW 20 g/kg sal.	No
C. variegatus EPA 2004.0	6/25/10 1200 6/27/10 1225	CBI Stock	6/12/10 1600 6/13/10 1200	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	**Acute Test**	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	2	N/A
Use Temperature (°C)	25	25
Arrival Salinity (g/kg)	14	N/A
Use Salinity (g/kg)	20	20
pH (S.U.)	8.10	7.87
Dissolved Oxygen (mg/l)	7.3	7.3
Total Hardness (mg/l as $CaCO_3$)	2420	N/A
Alkalinity (mg/l as $CaCO_3$)	80	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	<1.0	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1006
Client Sample ID: Vessel Reedville
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	Collection Date/Time	Date(s)/Time(s) 1st Used in Tests	Date(s)/Time(s) Used in Renewals	Sample Adjustments
OMEG1006-A	6/24/10 1440	6/25/10 1155, 1200	N/A	Aerated 1 min, salt added

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	Cont.	6.25	12.5	25.0	50.0	100	Cont.	6.25	12.5	25.0	50.0	100
Temp. (°C)	26 0.6	26 0.6	26 0.6	26 0.6	26 0	26 0	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6
D.O. (mg/l)	6.3 0.9	6.3 0.8	6.4 0.8	6.3 0.7	6.3 0.7	6.1 0.7	6.3 0.9	6.3 0.9	6.4 0.8	6.3 0.7	6.3 0.6	6.2 0.6
pH (S.U.)	7.68 0.13	7.73 0.11	7.71 0.13	7.81 0.10	7.81 0.19	7.93 0.25	7.66 0.14	7.70 0.11	7.75 0.10	7.78 0.14	7.84 0.16	7.98 0.20

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0 (6/20/10-6/22/10)	RTT	100	588	490-700	Yes
	CC	100	570	475-664	
C. variegatus 2004.0 (6/20/10-6/22/10)	RTT	100	1084	976-1203	Yes
	CC	99	1095	916-1274	

Note: RTT = Reference Toxicant Test, CC = Control Chart

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAC.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

6/29/10
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1006
Client Sample ID: Vessel Reedville
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	95
	3-B	10	10	9	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	9	95
	5-B	10	10	10	
Initials:		PB	GB	AG	
Count Time:		1155	1100	1220	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	26	26	26
	5	26	26	26
pH (S.U.)	C	7.82	7.64	7.57
	1	7.83	7.74	7.61
	2	7.86	7.62	7.61
	3	7.92	7.77	7.73
	4	8.02	7.75	7.66
	5	8.20	7.90	7.70
D.O. (mg/l)	C	7.3	5.8	5.8
	1	7.3	5.8	5.9
	2	7.3	5.8	6.0
	3	7.1	5.8	6.1
	4	7.0	5.7	6.1
	5	6.9	5.7	5.6
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	GB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 6/21/10 1530

Date /time end: 6/22/10 1035

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ 400 ml ___ 250 ml

Solution volume: ✓ 200 ml _____ ml

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1105

Time mysids added: 1155

Set up by (initials): PB

NOTES:

Peer Rev. by: GB / PB Date: 6/28/10 TEST I.D. OMEG1006 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV) FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	CB	AG	
Count Time:		1200	1105	1225	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	25	26	26
	5	25	26	26
pH (S.U.)	C	7.82	7.60	7.56
	1	7.83	7.63	7.65
	2	7.86	7.71	7.67
	3	7.92	7.76	7.65
	4	8.02	7.78	7.71
	5	8.20	7.97	7.82
D.O. (mg/l)	C	7.3	5.7	5.8
	1	7.3	5.7	5.9
	2	7.3	5.8	6.0
	3	7.1	5.8	6.0
	4	7.0	5.8	6.0
	5	6.9	5.7	6.0
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	CB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other:

Hatch: Date/time start: 6/12/10 1600

Date /time end: 6/13/10 1200

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** _____ **ml**

Solution volume: ✓ **400 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1105

Time fish added: 1200

Set up by (initials): PB

NOTES:

Peer Rev. by: CB / PB Date: 6/28/10 TEST I.D. OMEG1006 -ACV

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS
FORM ETF2032E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 1/14/10

INITIAL SAMPLE CHARACTERIZATION[1]					
Sample Bottle[2]	A-1				NOTES:
Tot. Res. Chlorine (mg/l)	<Q.L.				① fish odor
Hardness (mg/l $CaCO_3$)	2420				
Alkalinity (mg/l $CaCO_3$)	80				
NH_3-N (mg/l)	<1.0				
Color/Appearance[3]	C				
Obvious Odor?	yes①				
Date/Time	6/24/10				
Initials	PB				____ TRC corrected for potential positive interference by Mn or Cr with KI & NaAsO2

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	25							
Initial Salinity (g/kg)	14							
Adjusted Salinity (g/kg)	20							
DO (mg/l) After Warm/Sal	7.8							
Aeration Time (min)	1.0							
Adjusted D.O.	7.3							
Final pH (S.U.)	8.10							
Tot. Res. Chlorine (mg/l)[4]	n.a.							
Sample Filtered (60 um)?	no							
Date/Time	6/25 10:10							
Initials	PB							

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	D							
Temperature (°C)	25							
Salinity (g/kg)	20							
D.O. (mg/l)	7.3							
pH (S.U.)	7.87							
Date/Time	6/25 09:00							
Initials	PB							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by BB Date 6/28/10 PROJECT I.D. OMEG 1006
(First 8 characters of Laboratory Sample ID)

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Omega Protein, Inc.
Street/Box	
City/State	
Phone	Fax
Contact:	
Job No.	/ P.O. No.

Analysis Required

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Preservative Toxicity	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Log Number
Vessel Smugglers Point	6/24/10 1325	C	SW	C G	OMEG1002	2	@ 1 °C							
Vessel Tideland	1340	C	SW	C G	OMEG1003	1	@ 6 °C							
Vessel Kimberly	1350	C	SW	C G	OMEG1004	1	@ 2 °C							
Bay Water Blank	1420	C	SW	C G	OMEG1005	1	@ 2 °C							
Vessel Reedville	1440	C	SW	C G	OMEG1006	1	@ 2 °C							
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments:

Cooler Temp at LI _____ Pres √ _____

Possible Hazards: Disposal: Lab ☐ Client ☐ Charge ☐

Due Date: _____

Express Service _____

Express Service Approval _____

Relinquished By	Signature	Company	Date/Time
Received By	Signature [signature]	Company UL	Date/Time 6/24/10 1577
Relinquished By	Signature [signature]	Company UL	Date/Time 6/24/10 1710
Received By	Signature [signature]	Company CPI	Date/Time 6/24 1710
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No.	
Delivery Order	
Trans ☐ P.U. ☐ Grab ☐ Comp ☐	
Shipping/Delivery Charges	
Composite Start	Composite Stop

Client: Omega Protein
Project ID: OMEG1002
Client Sample ID: Vessel Smugglers Point
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	Prepared By:
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Acute Test Biological Summary Data		Sample Concentration (%)					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	100
C. variegatus EPA 2004.0	Survival (%):	100	100	100	100	100	95

Test Information Species-Method	Start Date/Time End Date/Time	Organism Source	Hatch/Harvest Date/Time	Acclimation Temp.	Acclimation Water	Test Aerated?
M. bahia EPA 2007.0	6/25/10 1110 6/27/10 1130	CBI Stock	6/21/10 1530 6/22/10 1035	25° C	HWM ASW 20 g/kg sal.	No
C. variegatus EPA 2004.0	6/25/10 1115 6/27/10 1135	CBI Stock	6/12/10 1600 6/13/10 1200	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	Acute Test	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	1	N/A
Use Temperature (°C)	25	25
Arrival Salinity (g/kg)	15	N/A
Use Salinity (g/kg)	20	20
pH (S.U.)	8.20	7.76
Dissolved Oxygen (mg/l)	7.4	7.3
Total Hardness (mg/l as $CaCO_3$)	2420	N/A
Alkalinity (mg/l as $CaCO_3$)	79	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	<1.0	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1002
Client Sample ID: Vessel Smugglers Point
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	Collection Date/Time	Date(s)/Time(s) 1st Used in Tests	Date(s)/Time(s) Used in Renewals	Sample Adjustments
OMEG1002-A	6/24/10 1325	6/25/10 1110, 1115	N/A	Aerated 2 min, salt added

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	Cont.	6.25	12.5	25.0	50.0	100	Cont.	6.25	12.5	25.0	50.0	100
Temp.	26	26	26	26	26	26	26	26	26	26	26	26
(°C)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
D.O.	6.1	6.3	6.4	6.2	6.2	6.0	6.1	6.3	6.2	6.3	6.3	6.1
(mg/l)	1.2	1.0	0.8	1.0	0.9	1.3	1.0	0.9	1.0	0.9	0.9	1.1
pH	7.55	7.64	7.68	7.71	7.82	7.88	7.57	7.62	7.66	7.72	7.78	7.91
(S.U.)	0.18	0.11	0.09	0.16	0.18	0.32	0.15	0.13	0.10	0.13	0.19	0.31

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0	RTT	100	588	490-700	Yes
(6/20/10-6/22/10)	CC	100	570	475-664	
C. variegatus 2004.0	RTT	100	1084	976-1203	Yes
(6/20/10-6/22/10)	CC	99	1095	916-1274	

Note: RTT = Reference Toxicant Test, CC = Control Chart

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAC.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

6/29/10
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1002
Client Sample ID: Vessel Smugglers Point
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	CB	AG	
Count Time:		1110	1120	1130	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	25	26	26
	5	25	26	26
pH (S.U.)	C	7.73	7.56	7.37
	1	7.76	7.60	7.56
	2	7.78	7.64	7.62
	3	7.86	7.72	7.54
	4	7.99	7.83	7.63
	5	8.23	7.83	7.59
D.O. (mg/l)	C	7.3	6.1	4.9
	1	7.3	6.1	5.4
	2	7.3	6.0	5.9
	3	7.3	5.9	5.3
	4	7.3	5.9	5.5
	5	7.3	5.8	4.8
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	CB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 6/21/10 1530

Date /time end: 6/22/10 1035

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** ___ **250 ml**

Solution volume: ✓ **200 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1040

Time mysids added: 1110

Set up by (initials): PB

NOTES:

Peer Rev. by: CB / PB Date: 6/28/10 TEST I.D. OMEG1002 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV) FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	9	9	95
	5-B	10	10	10	
Initials:		PB	CB	AG	
Count Time:		1115	1125	1135	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	25	26	26
	5	25	26	26
pH (S.U.)	C	7.73	7.56	7.43
	1	7.76	7.51	7.58
	2	7.78	7.62	7.58
	3	7.86	7.63	7.66
	4	7.99	7.70	7.64
	5	8.23	7.87	7.62
D.O. (mg/l)	C	7.3	5.7	5.4
	1	7.3	5.7	5.8
	2	7.3	5.7	5.6
	3	7.3	5.8	5.8
	4	7.3	5.8	5.8
	5	7.3	5.8	5.1
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	CB	AG
TRC (mg/l) in highest conc. at end of test:				NT

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other: _____

Hatch: Date/time start: 6/12/10 1600

Date /time end: 6/13/10 1200

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** _____ **ml**

Solution volume: ✓ **400 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1040

Time fish added: 1115

Set up by (initials): PB

NOTES:

Peer Rev. by: CB / PB Date: 6/28/10 TEST I:D. OMEG1002 -ACV

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 1/14/10

INITIAL SAMPLE CHARACTERIZATION[1]					
Sample Bottle[2]	A-1				NOTES: ① fish odor
Tot. Res. Chlorine (mg/l)	<Q.L.				
Hardness (mg/l $CaCO_3$)	2420				
Alkalinity (mg/l $CaCO_3$)	79				
NH_3-N (mg/l)	<1.0				
Color/Appearance[3]	C				
Obvious Odor?	yes ①				
Date/Time	6/24 1720				
Initials	PB				____ TRC corrected for potential positive interference by Mn or Cr with KI & NaAsO2

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	25							
Initial Salinity (g/kg)	15							
Adjusted Salinity (g/kg)	20							
DO (mg/l) After Warm/Sal	8.0							
Aeration Time (min)	2.0							
Adjusted D.O.	7.4							
Final pH (S.U.)	8.20							
Tot. Res. Chlorine (mg/l)[4]	N.D.							
Sample Filtered (60 um)?	no							
Date/Time	6/25 0930							
Initials	PB							

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	B							
Temperature (°C)	25							
Salinity (g/kg)	20							
D.O. (mg/l)	7.3							
pH (S.U.)	7.76							
Date/Time	6/25 0900							
Initials	PB							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by CB Date 6/28/10 PROJECT I.D. OMEG1002
(First 8 characters of Laboratory Sample ID)

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Omega Protein, Inc.
Street/Box	
City/State	
Phone	Fax
Contact:	
Job No.	P.O. No.

Analysis Required

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Preservative (Toxicity)	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Log Number
Vessel Smugglers Point	6/24/10 1325	C	SW	C G	OMEG1002	2	@ 1°C							
Vessel Tideland	1340	C	SW	C G	OMEG1003	1	@ 2°C							
Vessel Kimberly	1350	C	SW	C G	OMEG1004	1	@ 2°C							
Bay Water Blank	1420	C	SW	C G	OMEG1005	1	@ 2°C							
Vessel Reedville	1440	C	SW	C G	OMEG1006	1	@ 2°C							
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments:

Cooler Temp at LI _____ Pres √ _____

Possible Hazards: Disposal: Lab ☐ Client ☐ Charge ☐

Due Date: _____

Express Service _____

Express Service Approval _____

Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company UL	Date/Time 6/24/10 1517
Relinquished By	Signature	Company UL	Date/Time 6/24/10 1710
Received By	Signature	Company CPI	Date/Time 6/24 1710
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No.

Delivery Order

Trans☐ P.U.☐ Grab☐ Comp☐

Shipping/Delivery Charges

Composite Start / Composite Stop

Client: Omega Protein
Project ID: OMEG1004
Client Sample ID: Vessel Kimberly
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Acute Test Biological Summary Data		**Sample Concentration (%)**					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	100
C. variegatus EPA 2004.0	Survival (%):	100	100	100	100	100	100

Test Information **Species-Method**	**Start Date/Time** **End Date/Time**	**Organism Source**	**Hatch/Harvest Date/Time**	**Acclimation Temp.**	**Acclimation Water**	**Test Aerated?**
M. bahia EPA 2007.0	6/25/10 1135 6/27/10 1200	CBI Stock	6/21/10 1530 6/22/10 1035	25° C	HWM ASW 20 g/kg sal.	No
C. variegatus EPA 2004.0	6/25/10 1140 6/27/10 1200	CBI Stock	6/12/10 1600 6/13/10 1200	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	**Acute Test**	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	2	N/A
Use Temperature (°C)	25	25
Arrival Salinity (g/kg)	15	N/A
Use Salinity (g/kg)	20	20
pH (S.U.)	8.36	7.87
Dissolved Oxygen (mg/l)	7.3	7.3
Total Hardness (mg/l as $CaCO_3$)	2540	N/A
Alkalinity (mg/l as $CaCO_3$)	80	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	<1.0	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

nelac
VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1004
Client Sample ID: Vessel Kimberly
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	**Collection Date/Time**	**Date(s)/Time(s) 1st Used in Tests**	**Date(s)/Time(s) Used in Renewals**	**Sample Adjustments**
OMEG1004-A	6/24/10 1350	6/25/10 1135, 1140	N/A	Salt added

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	**Cont.**	**6.25**	**12.5**	**25.0**	**50.0**	**100**	**Cont.**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
Temp.	26	26	26	26	26	26	26	26	26	26	26	26
(°C)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
D.O.	6.4	6.4	6.1	6.4	6.3	6.0	6.4	6.4	6.3	6.3	6.2	6.1
(mg/l)	0.9	0.9	1.2	0.8	0.8	1.1	0.8	0.8	0.9	0.9	0.9	1.0
pH	7.64	7.69	7.68	7.77	7.89	7.99	7.65	7.71	7.70	7.74	7.86	8.06
(S.U.)	0.14	0.14	0.20	0.15	0.19	0.40	0.10	0.10	0.14	0.18	0.21	0.33

Acute Test QA/QC	Reference Toxicant: KCl Units: mg/l			Test Organism Source: CBI Stock Cultures	
Species-Method (Ref. Test Date)	**Data Source**	**% Control Survival**	**48-h LC50**	**95% C.L./A.L. for LC50**	**RTT in Control?**
M. bahia 2007.0	RTT	100	588	490-700	Yes
(6/20/10-6/22/10)	CC	100	570	475-664	
C. variegatus 2004.0	RTT	100	1084	976-1203	Yes
(6/20/10-6/22/10)	CC	99	1095	916-1274	

Note: RTT = Reference Toxicant Test, CC = Control Chart

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APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

6/29/10
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

GLOSSARY OF TERMS AND ABBREVIATIONS

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C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1004
Client Sample ID: Vessel Kimberly
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	
	C-B	10	10	10	100
6.25	1-A	10	10	10	
	1-B	10	10	10	100
12.5	2-A	10	10	10	
	2-B	10	10	10	100
25.0	3-A	10	10	10	
	3-B	10	10	10	100
50.0	4-A	10	10	10	
	4-B	10	10	10	100
100	5-A	10	10	10	
	5-B	10	10	10	100
Initials:		PB	CB	AG	
Count Time:		1135	1110	1200	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	25	26	26
	5	25	26	26
pH (S.U.)	C	7.76	7.67	7.48
	1	7.82	7.71	7.54
	2	7.86	7.73	7.46
	3	7.94	7.73	7.65
	4	8.09	7.88	7.71
	5	8.42	7.92	7.64
D.O. (mg/l)	C	7.3	6.4	5.5
	1	7.3	6.3	5.5
	2	7.3	6.1	5.0
	3	7.3	6.0	5.8
	4	7.3	5.9	5.8
	5	7.2	5.7	5.0
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		AG	CB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 10/21/10 1530

Date /time end: 10/22/10 1035

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** ____ **250 ml**

Solution volume: ✓ **200 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 10/25/10

Time water added: 1050

Time mysids added: 1135

Set up by (initials): PB

NOTES:

Peer Rev. by: CB / PB Date: 10/28/10 TEST I.D. OMEG1004 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV)

FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	CB	AG	
Count Time:		1140	1115	1200	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	25	26	26
	5	25	26	26
pH (S.U.)	C	7.76	7.60	7.58
	1	7.82	7.64	7.66
	2	7.86	7.66	7.59
	3	7.94	7.66	7.61
	4	8.09	7.80	7.67
	5	8.42	8.01	7.76
D.O. (mg/l)	C	7.3	5.9	6.0
	1	7.3	5.8	6.1
	2	7.3	5.8	5.8
	3	7.3	5.8	5.8
	4	7.3	5.7	5.7
	5	7.2	5.6	5.4
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	CB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other:

Hatch: Date/time start: 6/12/10 1600

Date /time end: 6/13/10 1200

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** _____ **ml**

Solution volume: ✓ **400 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1050

Time fish added: 1140

Set up by (initials): PB

NOTES:

Peer Rev. by: AB / PB Date: 4/28/10 TEST I.D. OMEG1004 -ACV

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 1/14/10

INITIAL SAMPLE CHARACTERIZATION[1]					
Sample Bottle[2]	A-1				NOTES:
Tot. Res. Chlorine (mg/l)	<0.2				① fishy odor
Hardness (mg/l $CaCO_3$)	2540				
Alkalinity (mg/l $CaCO_3$)	80				
NH_3-N (mg/l)	<1.0				
Color/Appearance[3]	C				
Obvious Odor?	yes ①				
Date/Time	6/24 1720				
Initials	PB				____ TRC corrected for potential positive interference by Mn or Cr with KI & NaAsO2

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	25							
Initial Salinity (g/kg)	15							
Adjusted Salinity (g/kg)	20							
DO (mg/l) After Warm/Sal	7.3							
Aeration Time (min)	—							
Adjusted D.O.	—							
Final pH (S.U.)	8.36							
Tot. Res. Chlorine (mg/l)[4]	N.D							
Sample Filtered (60 um)?	no							
Date/Time	6/25 0950							
Initials	PB							

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	D							
Temperature (°C)	25							
Salinity (g/kg)	20							
D.O. (mg/l)	7.3							
pH (S.U.)	7.87							
Date/Time	6/25 0900							
Initials	PB							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by CB Date 6/26/10 PROJECT I.D. OMEG1004
(First 8 characters of Laboratory Sample ID)

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Omega Protein, Inc.
Street/Box	
City/State	
Phone	Fax
Contact:	
Job No.	P.O. No.

Analysis Required

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Preservative Total Cl	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Log Number
Vessel Smugglers Point	6/24/10 1325	C	SW	C G	OMEG1002	2	@ 1°C							
Vessel Tidelands	1340	C	SW	C G	OMEG1003	1	@ 2°C							
Vessel Kimberly	1350	C	SW	C G	OMEG1004	1	@ 2°C							
Bay Water Blank	1420	C	SW	C G	OMEG1005	1	@ 2°C							
Vessel Reedville	1440	C	SW	C G	OMEG1006	1	@ 2°C							
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments:

Cooler Temp at LI _____ Pres √ _____

Possible Hazards:

Disposal: Lab ☐ Client ☐ Charge ☐

Due Date: _____

Express Service _____

Express Service Approval _____

Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company UL	Date/Time 6/24/10 1517
Relinquished By	Signature	Company UL	Date/Time 6/24/10 1710
Received By	Signature	Company CPI	Date/Time 6/24 [illegible]
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No.	
Delivery Order	
Trans ☐ P.U. ☐	Grab ☐ Comp ☐
Shipping/Delivery Charges	
Composite Start	Composite Stop

Client: Omega Protein
Project ID: OMEG1003
Client Sample ID: Vessel Tideland
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Acute Test Biological Summary Data		**Sample Concentration (%)**					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	95	100
C. variegatus EPA 2004.0	Survival (%):	100	100	100	100	95	95

Test Information **Species-Method**	**Start Date/Time** **End Date/Time**	**Organism Source**	**Hatch/Harvest Date/Time**	**Acclimation Temp.**	**Acclimation Water**	**Test Aerated?**
M. bahia EPA 2007.0	6/25/10 1125 6/27/10 1145	CBI Stock	6/21/10 1530 6/22/10 1035	25° C	HWM ASW 20 g/kg sal.	No
C. variegatus EPA 2004.0	6/25/10 1130 6/27/10 1150	CBI Stock	6/12/10 1600 6/13/10 1200	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	**Acute Test**	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	6	N/A
Use Temperature (°C)	25	25
Arrival Salinity (g/kg)	15	N/A
Use Salinity (g/kg)	20	20
pH (S.U.)	8.28	7.76
Dissolved Oxygen (mg/l)	7.2	7.3
Total Hardness (mg/l as $CaCO_3$)	2720	N/A
Alkalinity (mg/l as $CaCO_3$)	94	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	<1.0	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1003
Client Sample ID: Vessel Tideland
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	Collection Date/Time	Date(s)/Time(s) 1st Used in Tests	Date(s)/Time(s) Used in Renewals	Sample Adjustments
OMEG1003-A	6/24/10 1340	6/25/10 1125, 1130	N/A	Salt added

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	Cont.	6.25	12.5	25.0	50.0	100	Cont.	6.25	12.5	25.0	50.0	100
Temp. (°C)	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6
D.O. (mg/l)	6.3 1.3	6.4 1.1	6.4 0.9	6.5 0.8	6.1 1.2	6.1 1.1	6.3 0.9	6.3 0.9	6.3 0.9	6.2 1.0	6.3 0.8	6.1 0.9
pH (S.U.)	7.62 0.21	7.65 0.19	7.65 0.14	7.72 0.13	7.74 0.23	7.91 0.20	7.64 0.11	7.66 0.12	7.68 0.11	7.70 0.13	7.82 0.09	7.90 0.15

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0 (6/20/10-6/22/10)	RTT	100	588	490-700	Yes
	CC	100	570	475-664	
C. variegatus 2004.0 (6/20/10-6/22/10)	RTT	100	1084	976-1203	Yes
	CC	99	1095	916-1274	

Note: RTT = Reference Toxicant Test, CC = Control Chart

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAC.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

6/29/10
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1003
Client Sample ID: Vessel Tideland
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	9	95
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	CB	AG	
Count Time:		1125	1135	1145	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	25	26	26
	5	25	26	26
pH (S.U.)	C	7.70	7.72	7.37
	1	7.79	7.72	7.44
	2	7.81	7.61	7.53
	3	7.83	7.76	7.58
	4	7.91	7.82	7.48
	5	8.05	8.00	7.69
D.O. (mg/l)	C	7.3	6.8	4.9
	1	7.3	6.2	5.1
	2	7.3	6.5	5.5
	3	7.3	6.5	5.7
	4	7.2	6.2	4.8
	5	7.1	6.1	5.0
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	CB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 6/21/10 1530

Date /time end: 6/22/10 1035

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** ___ **250 ml**

Solution volume: ✓ **200 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1045

Time mysids added: 1125

Set up by (initials): PB

NOTES:

Peer Rev. by: CB/PB Date: 6/28/10 TEST I.D. OMEG1003 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV) FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	9	9	95
	4-B	10	10	10	
100	5-A	10	10	10	95
	5-B	10	9	9	
Initials:		PB	LB	AG	
Count Time:		1130	1140	1150	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	24	26
	1	25	24	26
	2	25	24	26
	3	25	24	26
	4	25	24	26
	5	25	24	26
pH (S.U.)	C	7.76	2.56	7.60
	1	7.79	2.54	7.62
	2	7.81	2.63	7.60
	3	7.83	2.69	7.58
	4	7.91	2.81	7.73
	5	8.05	2.91	7.75
D.O. (mg/l)	C	7.3	5.7	5.9
	1	7.3	5.7	5.9
	2	7.3	5.7	5.9
	3	7.3	5.2	5.5
	4	7.2	5.8	5.9
	5	7.1	5.8	5.4
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	LB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Cyprinodon variegatus*

Source: CBI stock cultures —

Other:

Hatch: Date/time start: 6/12/10 1600

Date /time end: 6/13/10 1200

Acclimation: Water: ASW, 20 g/kg salinity —

Other

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m^2/s

Test chamber size: — 400 ml _____ ml

Solution volume: — 400 ml _____ ml

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1045

Time fish added: 1130

Set up by (initials): PB

NOTES:

Peer Rev. by: LB / PP Date: 4/28/11 TEST I.D. OMEG1003 -ACV

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 1/14/10

INITIAL SAMPLE CHARACTERIZATION[1]					
Sample Bottle[2]	A-1				NOTES:
Tot. Res. Chlorine (mg/l)	<Q.L.				Odor
Hardness (mg/l $CaCO_3$)	2720				
Alkalinity (mg/l $CaCO_3$)	94				
NH_3-N (mg/l)	<1.0				
Color/Appearance[3]	C				
Obvious Odor?	Yes				
Date/Time	6/24 1720				
Initials	PB				____ TRC corrected for potential positive interference by Mn or Cr with KI & NaAsO2

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	25							
Initial Salinity (g/kg)	15							
Adjusted Salinity (g/kg)	20							
DO (mg/l) After Warm/Sal	7.2							
Aeration Time (min)	—							
Adjusted D.O.	—							
Final pH (S.U.)	8.28							
Tot. Res. Chlorine (mg/l)[4]	N.D.							
Sample Filtered (60 um)?	ND							
Date/Time	6/25 0940							
Initials	PB							
DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	B							
Temperature (°C)	25							
Salinity (g/kg)	20							
D.O. (mg/l)	7.3							
pH (S.U.)	7.76							
Date/Time	6/25 0900							
Initials	PB							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by GB Date 6/28/10 PROJECT I.D. OMEG1003
(First 8 characters of Laboratory Sample ID)

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Omega Protein, Inc.
Street/Box	
City/State	
Phone	Fax
Contact:	
Job No.	P.O. No.

Analysis Required

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Log Number
Vessel Smugglers Point	6/24/10 1325	C	SW	C G	OMEG1002	2	@ 1 °C							
Vessel Tidelands	1340	C	SW	C G	OMEG1003	1	@ 2 °C							
Vessel Kimberly	1350	C	SW	C G	OMEG1004	1	@ 2 °C							
Bay Water Blank	1420	C	SW	C G	OMEG1005	1	@ 2 °C							
Vessel Reedville	1440	C	SW	C G	OMEG1006	1	@ 2 °C							
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments:

Cooler Temp at LI _____ Pres √ _____

Possible Hazards:

Disposal: Lab ☐ Client ☐ Charge ☐

Due Date: _____

Express Service _____

Express Service Approval _____

Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company UL	Date/Time 6/24/10 1517
Relinquished By	Signature	Company UL	Date/Time 6/24/10 1710
Received By	Signature	Company CPI	Date/Time 6/24 PM
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No.	
Delivery Order	
Trans☐ P.U.☐ Grab☐ Comp☐	
Shipping/Delivery Charges	
Composite Start	Composite Stop

Client: Omega Protein
Project ID: OMEG1005
Client Sample ID: Bay Water Blank
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Acute Test Biological Summary Data		**Sample Concentration (%)**					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	100
C. variegatus EPA 2004.0	Survival (%):	100	95	100	100	90	80

Test Information **Species-Method**	**Start Date/Time** **End Date/Time**	**Organism Source**	**Hatch/Harvest Date/Time**	**Acclimation Temp.**	**Acclimation Water**	**Test Aerated?**
M. bahia EPA 2007.0	6/25/10 1145 6/27/10 1210	CBI Stock	6/21/10 1530 6/22/10 1035	25° C	HWM ASW 20 g/kg sal.	No
C. variegatus EPA 2004.0	6/25/10 1150 6/27/10 1215	CBI Stock	6/12/10 1600 6/13/10 1200	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	**Acute Test**	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	2	N/A
Use Temperature (°C)	25	25
Arrival Salinity (g/kg)	14	N/A
Use Salinity (g/kg)	20	20
pH (S.U.)	8.26	7.87
Dissolved Oxygen (mg/l)	7.3	7.3
Total Hardness (mg/l as $CaCO_3$)	2400	N/A
Alkalinity (mg/l as $CaCO_3$)	78	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	<1.0	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1005
Client Sample ID: Bay Water Blank
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	Collection Date/Time	Date(s)/Time(s) 1st Used in Tests	Date(s)/Time(s) Used in Renewals	Sample Adjustments
OMEG1005-A	6/24/10 1420	6/25/10 1145, 1150	N/A	Salt added

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	Cont.	6.25	12.5	25.0	50.0	100	Cont.	6.25	12.5	25.0	50.0	100
Temp. (°C)	26 0.6	26 0.6	26 0.6	26 0.6	26 0	26 0	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6	26 0.6
D.O. (mg/l)	6.4 0.8	6.3 0.8	6.3 0.9	6.2 0.9	6.2 0.8	5.7 1.2	6.5 0.7	6.5 0.7	6.3 0.8	6.3 0.8	6.1 0.9	5.8 1.0
pH (S.U.)	7.66 0.15	7.72 0.13	7.71 0.15	7.79 0.16	7.89 0.21	7.94 0.38	7.72 0.10	7.73 0.09	7.71 0.14	7.80 0.12	7.86 0.24	7.98 0.34

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0	RTT	100	588	490-700	Yes
(6/20/10-6/22/10)	CC	100	570	475-664	
C. variegatus 2004.0	RTT	100	1084	976-1203	Yes
(6/20/10-6/22/10)	CC	99	1095	916-1274	

Note: RTT = Reference Toxicant Test, CC = Control Chart

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAC.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

6/29/10
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1005
Client Sample ID: Bay Water Blank
Permit No: VA0003867
Sample Period: 6/24/10

Coastal Bioanalysts, Inc.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	CB	AG	
Count Time:		1145	1450	1210	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	26	26	26
	5	26	26	26
pH (S.U.)	C	7.82	7.69	7.53
	1	7.84	7.73	7.58
	2	7.88	7.67	7.58
	3	7.94	7.80	7.63
	4	8.12	7.82	7.72
	5	8.35	7.87	7.61
D.O. (mg/l)	C	7.3	6.0	5.8
	1	7.3	5.9	5.8
	2	7.3	5.7	5.9
	3	7.2	5.6	5.8
	4	7.1	5.5	6.0
	5	7.0	5.2	4.8
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	CB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 6/21/10 1530

Date /time end: 6/22/10 1035

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** ____ **250 ml**

Solution volume: ✓ **200 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1100

Time mysids added: 1145

Set up by (initials): PB

NOTES:

Peer Rev. by: CB / PB Date: 6/28/10 TEST I.D. OMEG1005 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV) FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	9	95
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	90
	4-B	10	10	8	
100	5-A	10	10	6	80
	5-B	10	10	10	
Initials:		PB	CB	AG	
Count Time:		1150	1055	1215	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	26	26
	1	25	26	26
	2	25	26	26
	3	25	26	26
	4	25	26	26
	5	25	26	26
pH (S.U.)	C	7.82	7.73	7.62
	1	7.84	7.68	7.68
	2	7.88	7.62	7.64
	3	7.94	7.73	7.73
	4	8.12	7.79	7.66
	5	8.35	7.91	7.68
D.O. (mg/l)	C	7.3	6.1	6.0
	1	7.3	6.0	6.1
	2	7.3	5.8	5.9
	3	7.2	5.6	6.1
	4	7.1	5.5	5.6
	5	7.0	5.4	5.1
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PB	CB	AG
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other: _____

Hatch: Date/time start: 6/12/10 1600

Date /time end: 6/13/10 1200

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ 400 ml _____ ml

Solution volume: ✓ 400 ml _____ ml

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 6/25/10

Time water added: 1100

Time fish added: 1150

Set up by (initials): RB

NOTES:

Peer Rev. by: CB / PB Date: 6/28/10 TEST I.D. OMEG1005 -ACV

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 1/14/10

INITIAL SAMPLE CHARACTERIZATION[1]					
Sample Bottle[2]	A-1				NOTES:
Tot. Res. Chlorine (mg/l)	<Q.L.				① fish odor
Hardness (mg/l $CaCO_3$)	2400				
Alkalinity (mg/l $CaCO_3$)	78				
NH_3-N (mg/l)	<1.0				
Color/Appearance[3]	C				
Obvious Odor?	yes①				
Date/Time	6/24 1720				
Initials	AB				____ TRC corrected for potential positive interference by Mn or Cr with KI & NaAsO2

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	25							
Initial Salinity (g/kg)	14							
Adjusted Salinity (g/kg)	20							
DO (mg/l) After Warm/Sal	7.3							
Aeration Time (min)	—							
Adjusted D.O.	—							
Final pH (S.U.)	8.26							
Tot. Res. Chlorine (mg/l)[4]	N.A.							
Sample Filtered (60 um)?	no							
Date/Time	6/25 1100							
Initials	PO							

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	D							
Temperature (°C)	25							
Salinity (g/kg)	20							
D.O. (mg/l)	7.3							
pH (S.U.)	7.87							
Date/Time	6/25 0900							
Initials	PO							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by GB Date 6/28/10 PROJECT I.D. OMEG 100 5
(First 8 characters of Laboratory Sample ID)

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Omega Protein, Inc.
Street/Box	
City/State	
Phone	Fax
Contact:	
Job No.	P.O. No.

Analysis Required

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Preservative Toxicity	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Log Number
Vessel Smoogles Point	6/24/10 1325	C	SW	C G	OMEG1002	2	@ 1 °C							
Vessel Tideland	1340	C	SW	C G	OMEG1003	1	@ 2 °C							
Vessel Kimberly	1350	C	SW	C G	OMEG1004	1	@ 2 °C							
Bay Water Blank	1420	C	SW	C G	OMEG1005	1	@ 2 °C							
Vessel Reedville	1440	C	SW	C G	OMEG1006	1	@ 2 °C							
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments:

Cooler Temp at LI _____ Pres √ _____

Possible Hazards:

Disposal: Lab ☐ Client ☐ Charge ☐

Due Date: _____

Express Service _____

Express Service Approval _____

Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company UL	Date/Time 6/24/10 1517
Relinquished By	Signature	Company UL	Date/Time 6/24/10 1710
Received By	Signature	Company CPI	Date/Time 6/24 1710
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No.

Delivery Order

Trans☐ P.U.☐ Grab☐ Comp☐

Shipping/Delivery Charges

Composite Start | Composite Stop

Client: Omega Protein
Project ID: OMEG1008
Client Sample ID: Ocean After Gulf Island Discharge
Permit No: VA0003867
Sample Period: 6/25/10

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Acute Test Biological Summary Data		**Sample Concentration (%)**					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	100
C. variegatus EPA 2004.0	Survival (%):	95	100	100	100	100	100

Test Information **Species-Method**	**Start Date/Time** **End Date/Time**	**Organism Source**	**Hatch/Harvest Date/Time**	**Acclimation Temp.**	**Acclimation Water**	**Test Aerated?**
M. bahia EPA 2007.0	6/26/10 1215 6/28/10 1220	CBI Stock	6/22/10 1035 6/23/10 1005	25° C	HWM ASW 20 g/kg sal.	No
C. variegatus EPA 2004.0	6/26/10 1225 6/28/10 1225	CBI Stock	6/19/10 1400 6/20/10 1000	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	**Acute Test**	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	3	N/A
Use Temperature (°C)	26	26
Arrival Salinity (g/kg)	26	N/A
Use Salinity (g/kg)	26	20
pH (S.U.)	7.89	7.77
Dissolved Oxygen (mg/l)	7.0	7.3
Total Hardness (mg/l as $CaCO_3$)	4640	N/A
Alkalinity (mg/l as $CaCO_3$)	98	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	<1.0	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1008
Client Sample ID: Ocean After Gulf Island Discharge
Permit No: VA0003867
Sample Period: 6/25/10

Coastal Bioanalysts, Inc.

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	**Collection Date/Time**	**Date(s)/Time(s) 1st Used in Tests**	**Date(s)/Time(s) Used in Renewals**	**Sample Adjustments**
OMEG1008-A	6/25/10 1445	6/26/10 1215, 1225	N/A	Aerated 1.5 min

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	**Cont.**	**6.25**	**12.5**	**25.0**	**50.0**	**100**	**Cont.**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
Temp. (°C)	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0
D.O. (mg/l)	6.8 0.5	6.5 0.7	6.5 0.7	6.6 0.7	6.2 0.7	6.2 0.7	6.8 0.5	6.7 0.5	6.7 0.6	6.7 0.4	6.7 0.4	6.5 0.4
pH (S.U.)	7.62 0.13	7.65 0.13	7.66 0.17	7.71 0.18	7.67 0.22	7.83 0.12	7.72 0.04	7.69 0.07	7.71 0.07	7.80 0.03	7.82 0.05	7.86 0.08

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	**Data Source**	**% Control Survival**	**48-h LC50**	**95% C.L./A.L. for LC50**	**RTT in Control?**
M. bahia 2007.0	RTT	100	588	490-700	Yes
(6/20/10-6/22/10)	CC	100	570	475-664	
C. variegatus 2004.0	RTT	100	1084	976-1203	Yes
(6/20/10-6/22/10)	CC	99	1095	916-1274	

Note: RTT = Reference Toxicant Test, CC = Control Chart

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APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

6/29/10
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

VELAP# 460030
EPA# VA01116

Coastal Bioanalysts, Inc.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		CB	AG	CB	
Count Time:		1215	1005	1220	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	25	25
	1	25	25	25
	2	25	25	25
	3	25	25	25
	4	25	25	25
	5	25	25	25
pH (S.U.)	C	7.77	7.54	7.54
	1	7.77	7.67	7.51
	2	7.79	7.72	7.47
	3	7.83	7.80	7.51
	4	7.88	7.67	7.45
	5	7.44	7.84	7.70
D.O. (mg/l)	C	7.1	6.7	6.3
	1	7.3	6.1	6.2
	2	7.3	6.3	6.0
	3	7.3	6.5	5.4
	4	7.2	5.5	5.5
	5	7.0	5.9	5.8
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	26		26
Replicate Measured:		A	B	B
Initials:		CB	AG	LB
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 6/22/10 1435

Date /time end: 6/23/10 1005

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** ___ **250 ml**

Solution volume: ✓ **200 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 6/24/10

Time water added: 1200

Time mysids added: 1215

Set up by (initials): CB

NOTES:

Peer Rev. by: AB Date: 6/28/10 TEST I.D. OMEG1008 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV)

FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	9	95
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		LB	AG	LB	
Count Time:		1225	1005	1225	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	25	25
	1	25	25	25
	2	25	25	25
	3	25	25	25
	4	25	25	25
	5	25	25	25
pH (S.U.)	C	7.77	7.69	7.70
	1	7.77	7.67	7.64
	2	7.79	7.67	7.68
	3	7.83	7.78	7.78
	4	7.88	7.78	7.81
	5	7.94	7.87	7.78
D.O. (mg/l)	C	7.3	6.4	6.7
	1	7.3	6.3	6.6
	2	7.3	6.2	6.6
	3	7.2	6.5	6.5
	4	7.1	6.4	6.5
	5	7.0	6.3	6.3
Salinity (g/kg)	C	26		26
	1			
	2			
	3			
	4			
	5	26		26
Replicate Measured:		A	B	B
Initials:		LB	AG	LB
TRC (mg/l) in highest conc. at end of test:				ND

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other: _____

Hatch: Date/time start: 6/14/10 1400

Date /time end: 6/20/10 1000

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** _____ **ml**

Solution volume: ✓ **400 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 6/26/10

Time water added: 1200

Time fish added: 1225

Set up by (initials): LB

NOTES:

Peer Rev. by: PB Date: 6/28/10 TEST I.D. OMEG 1008 -ACV

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 1/14/10

INITIAL SAMPLE CHARACTERIZATION[1]					NOTES:
Sample Bottle[2]	A-1				
Tot. Res. Chlorine (mg/l)	<QL				
Hardness (mg/l $CaCO_3$)	4640				
Alkalinity (mg/l $CaCO_3$)	98				
NH_3-N (mg/l)	<1.0				
Color/Appearance[3]	C				
Obvious Odor?	NO				
Date/Time	4/26 0845				
Initials	CB				____ TRC corrected for potential positive interference by Mn or Cr with KI & NaAsO2

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	26							
Initial Salinity (g/kg)	26							
Adjusted Salinity (g/kg)	—							
DO (mg/l) After Warm/Sal	2.9							
Aeration Time (min)	1.5							
Adjusted D.O.	7.4							
Final pH (S.U.)	7.89							
Tot. Res. Chlorine (mg/l)[4]	N.D.							
Sample Filtered (60 um)?	NO							
Date/Time	4/26 1175							
Initials	CB							

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	E							
Temperature (°C)	26							
Salinity (g/kg)	28							
D.O. (mg/l)	2.3							
pH (S.U.)	2.77							
Date/Time	4/26/2010							
Initials	VR							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by PB Date 4/28/10 PROJECT I.D. DMEG1109
(First 8 characters of Laboratory Sample ID)

Coastal Bioanalysts
6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only): O m E G I G U 8 - A

A A A A Y Y N N — Project ID; A — Spl

FACILITY INFORMATION

CLIENT/FACILITY NAME	Omega Protein	CONTACT & PHONE #	804-453-4211
NPDES PERMIT NO	VA0003267	OUTFALL # OR LOCATION	Ocean
SAMPLE CHLORINATED? N	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	

TESTS REQUESTED: SPECIES OR EPA METH # — ACUTE ☑ CHRONIC ☐

SPECIES OR EPA METH # — ACUTE ☐ CHRONIC ☐

OTHER TESTS:

*A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. **IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.***

GRAB SAMPLE INFORMATION

SAMPLE DATE 6/25/10	SAMPLE TIME 14:45	SAMPLE VOLUME 4L

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME	SAMPLE END DATE & TIME	AUTOSAMPLER TEMP. (°C)

TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION: NUMBER SUBSAMPLES_____ VOL (ml) SUBSAMPLES_____ TIME INCREMENT_____ SET VOLUME SUBSAMPLE_____ SET VOLUME FLOW_____ TOTAL VOLUME_____

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
25.0	8.33	25.0		6/25/10 14:45	[illegible]

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS: After Gulf + Sun Discharge Ocean Sample

Theodore Schultz — Theodore Schultz — 6/25/10

(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
Theodore Schultz	6/25/10	12:20	Dropped off
	6/26/10	0840	J.R.

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY ✓ OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE ✓ OTHER____

SAMPLE ARRIVAL TEMP: (°C) 3 ARRIVED ON ICE? YES ✓ NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Client: Omega Protein
Project ID: OMEG1007
Client Sample ID: Ocean Blank-Pre Discharge
Permit No: VA0003867
Sample Period: 6/25/10

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	**Prepared By:**
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.

Acute Test Biological Summary Data		**Sample Concentration (%)**					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	100
C. variegatus EPA 2004.0	Survival (%):	100	100	100	100	100	100

Test Information **Species-Method**	**Start Date/Time** **End Date/Time**	**Organism Source**	**Hatch/Harvest Date/Time**	**Acclimation Temp.**	**Acclimation Water**	**Test Aerated?**
M. bahia EPA 2007.0	6/26/10 1210 6/28/10 1210	CBI Stock	6/22/10 1035 6/23/10 1005	25° C	HWM ASW 20 g/kg sal.	No
C. variegatus EPA 2004.0	6/26/10 1220 6/28/10 1215	CBI Stock	6/19/10 1400 6/20/10 1000	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	**Acute Test**	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	3	N/A
Use Temperature (°C)	26	26
Arrival Salinity (g/kg)	26	N/A
Use Salinity (g/kg)	26	20
pH (S.U.)	7.79	7.77
Dissolved Oxygen (mg/l)	7.0	7.3
Total Hardness (mg/l as $CaCO_3$)	4440	N/A
Alkalinity (mg/l as $CaCO_3$)	101	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	<1.0	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1007
Client Sample ID: Ocean Blank-Pre Discharge
Permit No: VA0003867
Sample Period: 6/25/10

Coastal Bioanalysts, Inc.

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	Collection Date/Time	Date(s)/Time(s) 1st Used in Tests	Date(s)/Time(s) Used in Renewals	Sample Adjustments
OMEG1007-A	6/25/10 1440	6/26/10 1210, 1220	N/A	Aerated 1.5 min

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	Cont.	6.25	12.5	25.0	50.0	100	Cont.	6.25	12.5	25.0	50.0	100
Temp. (°C)	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6	25 0.6
D.O. (mg/l)	7.0 0.4	6.7 0.5	6.5 0.8	6.4 0.8	5.8 1.2	5.7 1.2	6.8 0.5	6.8 0.5	6.8 0.5	6.7 0.5	6.6 0.5	6.5 0.4
pH (S.U.)	7.64 0.16	7.60 0.15	7.60 0.11	7.62 0.21	7.65 0.22	7.70 0.18	7.69 0.03	7.66 0.03	7.72 0.02	7.75 0.01	7.80 0.09	7.83 0.03

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0 (6/20/10-6/22/10)	RTT	100	588	490-700	Yes
	CC	100	570	475-664	
C. variegatus 2004.0 (6/20/10-6/22/10)	RTT	100	1084	976-1203	Yes
	CC	99	1095	916-1274	

Note: RTT = Reference Toxicant Test, CC = Control Chart

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAC.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

6/29/10
Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

VELAP# 460030
EPA# VA01116

Client: Omega Protein
Project ID: OMEG1007
Client Sample ID: Ocean Blank-Pre Discharge
Permit No: VA0003867
Sample Period: 6/25/10

Coastal Bioanalysts, Inc.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		DB	AG	CD	
Count Time:		1210	1000	1210	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	26	25	25
	1	26	25	25
	2	26	25	25
	3	26	25	25
	4	26	25	25
	5	26	25	25
pH (S.U.)	C	7.70	7.76	7.45
	1	7.70	7.67	7.42
	2	7.72	7.59	7.50
	3	7.75	7.72	7.38
	4	7.90	7.60	7.46
	5	7.85	7.74	7.50
D.O. (mg/l)	C	7.3	6.6	7.0
	1	7.3	6.3	6.6
	2	7.3	5.8	6.3
	3	7.3	6.2	5.8
	4	7.2	5.1	5.1
	5	7.0	5.6	4.6
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	26		26
Replicate Measured:		A	B	A
Initials:		CB	AG	CB
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 6/22/10 1035

Date /time end: 6/23/10 1005

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** ___ **250 ml**

Solution volume: ✓ **200 ml** _____ **ml**

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 6/24/10

Time water added: 1155

Time mysids added: 1210

Set up by (initials): CB

NOTES:

Peer Rev. by: PB Date: 6/28/10 TEST I.D. DMEG1007 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV) FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		CB	AG	CB	
Count Time:		1220	1000	1215	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	26	25	25
	1	26	25	25
	2	26	25	25
	3	26	25	25
	4	26	25	25
	5	26	25	25
pH (S.U.)	C	7.70	7.65	7.71
	1	7.70	7.65	7.64
	2	7.72	7.70	7.73
	3	7.75	7.74	7.76
	4	7.80	7.74	7.76
	5	7.85	7.84	7.80
D.O. (mg/l)	C	7.3	6.4	6.8
	1	7.3	6.3	6.8
	2	7.3	6.3	6.7
	3	7.3	6.4	6.5
	4	7.2	6.2	6.5
	5	7.0	6.2	6.4
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	26		26
Replicate Measured:		A	B	A
Initials:		CB	AG	CB
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other:

Hatch: Date/time start: 6/19/10 1400

Date /time end: 6/20/10 1400

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ **400 ml** ____ **ml**

Solution volume: ✓ **400 ml** ____ **ml**

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 6/24/10

Time water added: 1155

Time fish added: 1220

Set up by (initials): CB

NOTES:

Peer Rev. by: RB Date: 6/28/10 TEST I.D. DMEG1007 -ACV

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 1/14/10

INITIAL SAMPLE CHARACTERIZATION[1]					
Sample Bottle[2]	A-1				NOTES:
Tot. Res. Chlorine (mg/l)	<QL				
Hardness (mg/l $CaCO_3$)	4440				
Alkalinity (mg/l $CaCO_3$)	101				
NH_3-N (mg/l)	<1.0				
Color/Appearance[3]	C				
Obvious Odor?	ND				
Date/Time	6/26/0850				
Initials	LB				____ TRC corrected for potential positive interference by Mn or Cr with KI & NaAsO2

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	26							
Initial Salinity (g/kg)	26							
Adjusted Salinity (g/kg)	—							
DO (mg/l) After Warm/Sal	2.9							
Aeration Time (min)	15							
Adjusted D.O.	2.0							
Final pH (S.U.)	2.29							
Tot. Res. Chlorine (mg/l)[4]	N.D.							
Sample Filtered (60 um)?	ND							
Date/Time	6/26/1030							
Initials	LA							

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	E							
Temperature (°C)	26							
Salinity (g/kg)	20							
D.O. (mg/l)	2.3							
pH (S.U.)	2.27							
Date/Time	6/26/1000							
Initials	LA							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by PB Date 6/28/10 PROJECT I.D. OMEG1007
(First 8 characters of Laboratory Sample ID)

Coastal Bioanalysts
6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only)

A	A	A	A	Y	Y	N	N	-	A
O	M	E	G	1	0	0	7	-	A

Project ID — Spl

FACILITY INFORMATION

CLIENT/FACILITY NAME	Omega Protein	CONTACT & PHONE #	804-453-4211
NPDES PERMIT NO	VA0003867	OUTFALL # OR LOCATION	Ocean
SAMPLE CHLORINATED?	SAMPLE DECHLORINATED?	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	

TESTS REQUESTED:
- SPECIES OR EPA METH # Mohonk — ACUTE ☑ CHRONIC ☐
- SPECIES OR EPA METH # — ACUTE ☐ CHRONIC ☐

OTHER TESTS:

*A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME
6/25/10	14:40	4 L

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME	SAMPLE END DATE & TIME	AUTOSAMPLER TEMP. (°C)

TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION*
- NUMBER SUBSAMPLES ____ VOL (ml) SUBSAMPLES ____ TIME INCREMENT ____
- SET VOLUME SUBSAMPLE ____ SET VOLUME FLOW ____ TOTAL VOLUME ____

*FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
28.1	8.4	28.1		6/25/14 14:40	[illegible]

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS: Blank - Pre Discharge

Theodore Schultz — Theodore Schultz — 6/25/10
(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
Theodore Schultz	6/25/10	12:20	Dropped off
	6/26/10	0840	[illegible]

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY ✓ OTHER ↓

CONDITION ON ARRIVAL: ACCEPTABLE ✓ OTHER ____

SAMPLE ARRIVAL TEMP: (°C) 3 ARRIVED ON ICE? YES ✓ NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.