

CH2MHILL • B&W West Valley, LLC

West Valley Demonstration Project

Ms. Nicole Wright
Toxicity Testing Unit
New York State Department of Environmental Conservation
Division of Water
Bureau of Watershed Programs
625 Broadway, 4th Floor
Albany, New York 12233-3506

AC-EA
WR:2012:0030
May 17, 2012

SUBJECT: Whole Effluent Toxicity (WET) Testing Reports for the WVDP SPDES Permit No. NY-0000973, Outfalls 001 and 007

Dear Ms. Wright:

The West Valley Demonstration Project (WVDP) site has completed the first quarterly Whole Effluent Toxicity (WET) Testing as required on page 11 of 32 of the site's SPDES permit (NY0000973).

The WET testing was completed by New England Bioassay, a Division of GZA GeoEnvironmental, Inc., located in Manchester, Connecticut, through a subcontract with TestAmerica, Buffalo, New York.

All test results were within permit limits and the results have been certified by the testing laboratory and the permittee. The test summary data sheets can be found on pages 8 and 9 of 53 for outfall 001 and on pages 7 and 8 of 50 for outfall 007. Please note that the daily average flow at the time of sampling for outfall 001 was 183 gpm, and outfall 007 was 4.8 gpm.

The WET testing was completed at outfall 001 in February, 2012 with 24-hour composite samples collected on February 5-6, 2012 and on February 8-9, 2012. The WET Testing was completed at outfall 007 in March, 2012 with 24-hour composite samples collected on March 8-9, 2012 and on March 12-13, 2012. The test species used in both tests were the Ceriodaphnia dubia (Water Flea) and the Pimephales promelas (Fathead minnow) as specified in the permit. It should be noted that for Outfall 001, the test results were considered "invalid" due to the morbidity percentage of species in the receiving waters. However, the effluent species survival results were 100%, indicating no toxicity. Also because of the batch discharge nature of Outfall 001, retesting was not performed. However, this testing will be performed again next quarter.

The WET testing was coordinated with routine chemical and physical parameters required by the site's SPDES permit at each outfall, and those results have been reported in their respective Discharge Monitoring Reports (DMRs).

Very truly yours,



John D. Rendall, Manager
Regulatory Strategy

JDR:DPK:bnj

ATTACHMENTS: 1) Analytical Laboratory Report - Whole Effluent Toxicity Testing for Outfall 001
2) Analytical Laboratory Report - Whole Effluent Toxicity Testing for Outfall 007

cc: M. A. Jackson, NYSDEC-Region 9 DOW
E. W. Wohlers, Cattaraugus County Health Department
J. M. Wiedman, NYSDEC-Albany DOW
J. M. Dundas, DOE-WVDP, AC-DOE
M. P. Krentz, DOE-WVDP, AC-DOE
M. N. Maloney, DOE-WVDP, AC-DOE
L. E Bennett, CHBWV, AC-PRES (Public Reading Room)
H. H. Dukes, CHBWV, WV-PL-6
D. P. Klenk, CHBWV, AC-EA
J. D. Rendall, CHBWV, AC-EA
R. L. Scharf, CHBWV, WV-PL6
A. W. Upshaw, CHBWV, WV-PL6
W. N. Kean, URS SMS, AC-URS
Letter Log (B. Jeffery), CHBWV, AC-BUS

Attachment 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-15860-1

TestAmerica Sample Delivery Group: 93

Client Project/Site: West Valley SPDES

For:

CH2M Hill B&W West Valley (CHBWV)

MS-ELAB

West Valley, New York 14171-9799

Attn: Chester Wrotniak



Authorized for release by:

4/26/2012 2:31:08 PM

John Schove

Project Manager I

john.schove@testamericainc.com

LINKS

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results through

Total Access

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: CH2M Hill B&W West Valle (CBWV)
Project/Site: West Valley SPDES

TestAmerica Job ID: 480-15860-1
SDG: 93

Job ID: 480-15860-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-15860-1

Comments

This report has been revised to correct typographical errors.

Chronic Toxicity was performed by New England Bioassay. Final results are contained under this cover.

Receipt

No analytical or quality issues were noted.



New England Bioassay
a Division of GZA GeoEnvironmental, Inc.

77 Batson Drive
Manchester, CT
06042
860-643-9560
FAX 860-646-7169

CHRONIC AQUATIC TOXICITY TEST REPORT

West Valley Demonstration Project
West Valley, New York
Receiving Water: Franks Creek
NPDES Permit: NY0000973

Test Start Date: February 7, 2012

Test Period: February 2012

Report Prepared by:

New England Bioassay
A Division of New England Bioassay
77 Batson Drive
Manchester, CT 06002

NEB Project Number: 05.0044240.00

Report Date: February 24, 2012

Report Submitted to:

Test America, Buffalo
10 Hazelwood Drive
Amherst, NY 14228

Sample ID: Outfall 001

Please contact the Lab Supervisor, Kim Wills, at (860) 858-3153 or kimberly.wills@gza.com
if you have any questions concerning these results.

Whole Effluent Toxicity Testing Report Instruction Form

Client Name/Project: Test America/West Valley Demonstration Project Test Date: 2/7/12

Sample ID: Outfall 001 Effluent

Your results were as follows:

☒ Passed Acute Limits

☐ Fail – Please proceed according to the instructions in your permit.

☒ Chronic Limits Invalid – see comments section of this report

☐ Original Test Invalid – Valid retest performed. Both test and retest results are attached.

☐ Retesting will be or has been performed according to the Case 1 Protocols outlined in the attached copy of EPA-New England's species-specific, self-implementing policy for alternate dilution water.

☐ This is your _____ case of dilution water toxicity. Please proceed according to the Case 2 Protocols outlined in the attached copy of EPA-New England's species-specific, self-implementing policy for alternate dilution water. The alternate dilution water you select for future tests for this species should be described as follows: "synthetic laboratory water made up according to EPA's toxicity test protocols, by adding specified amounts of salts into deionized water in order to match the hardness of our receiving water." Writing this letter should help you to avoid retests in the future.

☐ Available information is insufficient to determine whether this test passed or failed. Please compare results to your permit limits. Please submit a current copy of your permit to the NEB Lab so that we can determine the status of future tests results and help ensure your compliance with permit requirements.

Please complete the items on this list before reporting these results according to the instructions in the "Monitoring and Reporting" Section of your permit.

- Please complete, sign and date the upper portion of the "Whole Effluent Toxicity Test Report Certification" page which is the page directly following this page.
- Fill in the Sample Type and Sample Method (upper right) and the Permit Limits (lower left) on the New England Bioassay, Inc.-EPA Toxicity Test Summary Sheet(s) if they are incomplete.
- Fill in any missing information on the NEB Chain-of-Custody documents. This includes ensuring that the following information is recorded: Sampler's name and title, Facility name and address, Sample collection methods, Sample collection start and end dates and times, Types of sample, Chlorination status of samples upon shipment to NEB, Site description and Sample collection procedures.
- Monitoring results should be summarized on your monthly Discharge Monitoring Report Form.
- Signed and dated originals of this report must be submitted to the State (and Federal) Agencies specified in the "Monitoring and Reporting" section of your permit.

Questions? Please contact the Lab Supervisor, Kim Wills, at (860) 858-3153 or kimberly.wills@gza.com.

AQUATIC TOXICITY TEST SUMMARY

Client: West Valley Demonstration Project

Sample ID: Outfall 001 and Frank's Creek

NPDES Number: NY0000973

NEB Project Number: 05.0044240.00

NEB Test Numbers: 12-278 A&B

Sample Dates: 2/5-6/12, 2/8-9/12 (Effluent)
2/6/12, 2/9/12 (Receiving Water)

Test Dates: 2/7-14/12

Test Type: Modified Chronic Static Renewal Freshwater Test

Test Duration: 8 days (*Ceriodaphnia*) & 7 days (*Pimephales*)

Test species: *Ceriodaphnia dubia* and *Pimephales promelas*

Dilution Water Source: Frank's Creek

Test Method: U.S. Environmental Protection Agency (EPA) Document EPA-821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition

Concentrations Tested: 0%, 6.25%, 12.5%, 25%, 50% and 100% effluent

Acute Results: *Ceriodaphnia dubia* 48-hour LC50 = >100%
Pimephales promelas 48-hour LC50 = >100%
Ceriodaphnia dubia TUa = 0.3
Pimephales promelas TUa = 0.3

Chronic Results: *Ceriodaphnia dubia* C-NOEC = 100% *see comments section of report
Pimephales promelas C-NOEC = 100% *see comments section of report
Ceriodaphnia dubia TUc = 1.0 *see comments section of report
Pimephales promelas TUc = 1.0 *see comments section of report

Mean Control Survival: *Ceriodaphnia dubia* – 100% (laboratory control) and 100% (dilution water)
Pimephales promelas – 100% (laboratory control) and 75% (dilution water)

Reference Toxicant Data: **Date:** 2/15/12 & 2/1/12 (*Ceriodaphnia dubia* and *Pimephales promelas*)
Toxicant: Sodium chloride
Source: New England Bioassay
C-NOEC: *Ceriodaphnia dubia* – 1.0 g/L
Pimephales promelas – 0.5 g/L

WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION (Permittee)

I certify under penalty of law that this document 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 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.

Executed on 05-17-2012
[Date]

[Signature]
[Authorized Signature]

Bryan C. Bower, Director

[Print or Type Name and Title]

West Valley Demonstration Project

[Print or Type the Permittee's Name]

NY-0000973

[Print or Type the NPDES Permit No.]

Since the WET test and report check is complicated, the New England Bioassay Aquatic Toxicity Laboratory has certified the validity of the WET test data in the section below. Please note that this does not relieve the permittee from its responsibility to sign and certify the report under 40 C.F.R. S 122.41(k).

WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION (Bioassay Laboratory)

I certify under penalty of law that this document 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 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.

Executed on 2/24/12
[Date]

[Signature] for Kim Wills
[Authorized Signature]

Kim Wills, Laboratory Supervisor

[Print or Type Name and Title]

New England Bioassay

[Print or Type Name of Bioassay Laboratory]

24. Telephone Contacts

If you have questions, please contact Joy Hilton, Water Technical Unit, at (617) 918-1877 or David McDonald, Ecosystem Assessment Unit, at (617) 918-8609.

NEW ENGLAND BIOASSAY, A DIVISION OF GZA GEOENVIRONMENTAL, INC.
EPA TOXICITY TEST SUMMARY SHEET

Facility Name: West Valley Demonstration Project Test Start Date: 2/7/12
NPDES Permit Number: NY0000973 Pipe Number: Outfall 001

<u>Test Type</u>	<u>Test Species</u>	<u>Sample Type</u>	<u>Sample Method</u>
☐ Acute	☐ Fathead Minnow	☐ Prechlorinated	☐ Grab
☐ Chronic	☒ Ceriodaphnia	☐ Dechlorinated	☒ Composite
☒ Modified	☐ Daphnia Pulex	☐ Chlorine Spiked in Lab	☐ Flowthru
(chronic reporting	☐ Mysid Shrimp	☐ Chlorinated on site	☐ Other
acute values)	☐ Sheepshead	☒ Unchlorinated	
☐ 24hr screening	☐ Menidia		
	☐ Sea Urchin		
	☐ Champia	TRC: <u>0.019</u> mg/L	
	☐ Selenastrum		
	☐ Other _____		

Dilution Water

☒ receiving water collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination; (Receiving water name: Frank's Creek)
☐ alternate surface water of known quality and a hardness, etc. to generally reflect the characteristics of the receiving water; (Surface water name: _____)
☐ synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;
☐ or artificial sea salts mixed with deionized water;
☐ deionized water and hypersaline brine; or
☐ other _____

Effluent sampling date (s): 2/5-6/12 2/8-9/12

Effluent concentrations tested (in%): 0 6.25 12.5 25 50 100
 * Permit limit concentration: TUa < 0.3, TUc < 1.0

Was effluent salinity adjusted? No

Actual effluent concentrations tested after salinity adjustment (%): 0 6.25 12.5 25 50 100

Reference Toxicant test date: 2/15/12

Test Acceptability Criteria

Mean Control Survival: 100% Mean Control Reproduction: 10.4 young/female
 Mean Diluent Survival: 100% Mean Diluent Reproduction: 7.1 young/female

	<u>Limits</u>		<u>Results</u>
LC50	<u>N/A</u>	LC50	<u>> 100%</u>
		Upper Value	<u>+ ∞</u>
		Lower Value	<u>100%</u>
		Data Analysis	
		Method Used	<u>Graphical</u>
TUa	<u>0.3</u>	TUa	<u>0.3</u>
A-NOEC	<u>N/A</u>	A-NOEC	<u>100%</u>
C-NOEC	<u>N/A</u>	C-NOEC	<u>100%*</u>
		LOEC	<u>>100%*</u>
TUc	<u>1.0</u>	TUc	<u>1.0*</u>
IC25	<u>N/A</u>	IC25	<u>>100%*</u>
IC50	<u>N/A</u>	IC50	<u>-----</u>

NEW ENGLAND BIOASSAY, A DIVISION OF GZA GEOENVIRONMENTAL, INC.
EPA TOXICITY TEST SUMMARY SHEET

Facility Name: West Valley Demonstration Project Test Start Date: 2/7/12
NPDES Permit Number: NY0000973 Pipe Number: Outfall 001

<u>Test Type</u>	<u>Test Species</u>	<u>Sample Type</u>	<u>Sample Method</u>
☐ Acute	☒ Fathead Minnow	☐ Prechlorinated	☐ Grab
☐ Chronic	☐ Ceriodaphnia	☐ Dechlorinated	☒ Composite
☒ Modified	☐ Daphnia Pulex	☐ Chlorine Spiked in Lab	☐ Flowthru
(chronic reporting	☐ Mysid Shrimp	☐ Chlorinated on site	☐ Other
acute values)	☐ Sheepshead	☒ Unchlorinated	
☐ 24hr screening	☐ Menidia		
	☐ Sea Urchin		
	☐ Champia	TRC: <u>0.019</u> mg/L	
	☐ Selenastrum		
	☐ Other _____		

Dilution Water

☒ receiving water collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination; (Receiving water name: Frank's Creek)
☐ alternate surface water of known quality and a hardness, etc. to generally reflect the characteristics of the receiving water; (Surface water name: _____)
☐ synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;
☐ or artificial sea salts mixed with deionized water;
☐ deionized water and hypersaline brine; or
☐ other _____

Effluent sampling date (s): 2/5-6/12 2/8-9/12

Effluent concentrations tested (in%): 0 6.25 12.5 25 50 100

* Permit limit concentration: TUa ≤ 0.3, TUc ≤ 1.0

Was effluent salinity adjusted? No

Actual effluent concentrations tested after salinity adjustment (%): 0 6.25 12.5 25 50 100

Reference Toxicant test date: 2/1/12

Test Acceptability Criteria

Mean Control Survival: <u>100%</u>	Mean Control Weight: <u>0.516 mg</u>
Mean Diluent Survival: <u>75%</u>	Mean Diluent Weight: <u>0.431 mg</u>

	<u>Limits</u>		<u>Results</u>
LC50	<u>N/A</u>	LC50	<u>>100%</u>
		Upper Value	<u>+∞</u>
		Lower Value	<u>100%</u>
		Data Analysis	
		Method Used	<u>Graphical</u>
TUa	<u>0.3</u>	TUa	<u>0.3</u>
A-NOEC	<u>N/A</u>	A-NOEC	<u>100%</u>
C-NOEC	<u>N/A</u>	C-NOEC	<u>100%*</u>
		LOEC	<u>>100%*</u>
TUc	<u>1.0</u>	TUc	<u>1.0*</u>
IC25	<u>N/A</u>	IC25	<u>>100%*</u>
IC50	<u>N/A</u>	IC50	<u>-----</u>

CERIODAPHNIA DUBIA AQUATIC TOXICITY TEST REPORT

Test Reference Manual: EPA 821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition

Test Method: *Ceriodaphnia dubia* Survival and Reproduction Test – 1002.0

Test Type: Modified Chronic Static Renewal Freshwater Test

Temperature : 25 ± 1°C

Light Quality: Ambient Laboratory Illumination

Photoperiod: 16 hours light, 8 hours dark

Test Chamber Size: 30 mL

Test Solution Volume: Minimum 15 mL

Renewal of Test Solutions: Daily, using most recently collected sample

Age of Test Organisms: Less than 24 hours

Number of Neonates Per Test Chamber: 1

Number of Replicate Test Chambers Per Treatment: 10

Number of Neonates Per Test Concentration: 10

Feeding Regime: Fed 0.1 mL each of YCT and algal suspension per exposure chamber daily.

Aeration: None

Dilution Water: Frank's Creek

Alternate Control Water: NEB Moderately Hard Water (hardness 80-100 mg/L)

Effluent Concentrations: 0%, 6.25%, 12.5%, 25%, 50% and 100% effluent

Test Duration: Until 60% of control females have three broods - 8 days

End Points: Survival and reproduction.

Test Acceptability: Control Survival: ≥ 80% Yes X No
Control Reproduction: Average ≥ 15/control female Yes No X

Sampling Requirements: NYSDEC has approved West Valley Demonstration Project to use only two sets of samples for their chronic testing due to the batch nature of their discharge.

Sample Volume Required: Minimum 2 liters/day

Test Organism Source: NEB

Test Acceptability Criteria: Mean Alternate Water Control Survival = 100%
 Mean Dilution Water Control Survival = 100%
 Mean Alternate Control Reproduction = 10.4 / surviving female
 Mean Dilution Control Reproduction = 7.1 / surviving female

Test Results:

	<u>Limits</u>	<u>Results</u>
48-hour LC50		<u>> 100%</u>
Upper Value		<u>+ ∞</u>
Lower Value		<u>100%</u>
Data Analysis Method Used		<u>Graphical</u>
A-		<u>100%</u>
TUa	0.3	<u>0.3</u>
48-hour EC50		<u>> 100%</u>
Survival C-NOEC		<u>100%</u>
Reproduction C-NOEC		<u>100%*</u>
Reportable C-NOEC		<u>100%*</u>
TUc	1.0	<u>1.0*</u>
LOEC		<u>> 100%*</u>
MAWC		<u>> 100%*</u>
IC25		<u>> 100%*</u>

Reference Toxicant Data:

Date: 2/15/12
Toxicant: Sodium chloride
Dilution Water: NEB Lab Synthetic Soft Water
Source: New England Bioassay
IC₂₅: 1.203 g/L
In Acceptable Range: Yes X No

Dechlorination Procedures: Chlorine is measured using 4500 CL-G DPD Colorimetric Method.

X Dechlorination was not required

_ Sample was dechlorinated by adding sodium thiosulfate to the sample prior to test initiation. Since dechlorination of the effluent was necessary, a thiosulfate control of diluent water spiked with sodium thiosulfate was also included in the test series. Chlorine was _____ mg/L in a dechlorinated sample.

_ Chlorine Measurement was elevated due to interference. Chlorine was _____ mg/L in a filtered sample.

_ Total Residual Chlorine was re-measured following aeration, and was found to be _____ mg/L.

PIMEPHALES PROMELAS AQUATIC TOXICITY TEST REPORT

Test Reference Manual: EPA 821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition

Test Method: *Pimephales promelas* Larval Survival and Growth Test – 1000.0

Test Type: Modified Chronic Static Renewal Freshwater Test

Temperature : 25 ± 1°C

Light Quality: Ambient Laboratory Illumination

Photoperiod: 16 hours light, 8 hours dark

Test Chamber Size: 600 mL

Test Solution Volume: Minimum 200 mL

Renewal of Test Solutions: Daily, using most recently collected sample

Age of Test Organisms: Less than 24 hours

Number of Larvae Per Test Chamber: 10

Number of Replicate Test Chambers Per Concentration: 4

Number of Larvae Per Test Concentration: 40

Feeding Regime: Fed 0.1 mL newly hatched brine shrimp nauplii twice daily.

Cleaning: Siphoned daily, immediately before test solution renewal.

Aeration: DO concentration fell below 4.0 mg/L Yes ☐ No ☒
Aerated at <100 bubbles/minute Yes ☐ No ☒

Dilution Water: Frank's Creek

Alternate Control Water: NEB Moderately Hard Water (hardness 80-100 mg/L)

Effluent Concentrations: 0%, 6.25%, 12.5%, 25%, 50% and 100% effluent

Test Duration: 7 days

End Points: Survival and growth.

Test Acceptability: Control Survival: ≥ 80% Yes ☒ No ☐
Control Average Dry Weight ≥ 0.25 mg Yes ☒ No ☐

Sampling Requirements: NYSDEC has approved West Valley Demonstration Project to use only two sets of samples for their chronic testing due to the batch nature of their discharge.

Sample Volume Required: Minimum 2.5 liters/day

Test Organism Source: NEB

Test Acceptability Criteria: Mean Dilution Water Control Survival = 75%
Mean Alternate Water Control Survival = 100%
Mean Dilution Water Control Weight = 0.431 mg
Mean Alternate Water Control Weight = 0.516 mg

<u>Test Results:</u>	<u>Limits</u>	<u>Results</u>
48-hour LC50		<u>>100%</u>
Upper Value		<u>+∞</u>
Lower Value		<u>100%</u>
Data Analysis Method Used		<u>Graphical</u>
A-NOEC		<u>100%</u>
TUa	0.3	<u>0.3</u>
48-hour EC50		<u>>100%</u>
Survival C-NOEC		<u>100%*</u>
Growth C-NOEC		<u>100%*</u>
Reportable C-NOEC		<u>100%*</u>
TUc	1.0	<u>1.0*</u>
LOEC		<u>>100%*</u>
MAWC		<u>>100%*</u>
IC25		<u>>100%*</u>

Reference Toxicant Data: Date: 2/1/12
Toxicant: Sodium chloride
Dilution Water: NEB Lab Synthetic Soft Water
Source: New England Bioassay
IC₂₅: 1.054 g/L
In Acceptable Range: Yes X No

Dechlorination Procedures: Chlorine is measured using 4500 CL-G DPD Colorimetric Method.

X Dechlorination was not required

_ Sample was dechlorinated by adding sodium thiosulfate to the sample prior to test initiation. Since dechlorination of the effluent was necessary, a thiosulfate control of diluent water spiked with sodium thiosulfate was also included in the test series. Chlorine was _____ mg/L in a dechlorinated sample.

_ Chlorine Measurement was elevated due to interference. Chlorine was _____ mg/L in a filtered sample.

_ Total Residual Chlorine was re-measured following aeration, and was found to be _____ mg/L.

Additional Notes or Other Conditions Affecting the Test:

The EPA acceptability criteria for both the mean number of young per female in the *Ceriodaphnia* and the survival in the dilution water for the fathead minnows were not met. Normally a retest would be scheduled however Outfall 001 only discharges for 6-7 days at a time, and only at certain points during the year, therefore another sample was not able to be obtained at this time. Since resampling is not an option for West Valley 001 we are reporting the data we collected, and our observations and conclusions based on the results.

****Ceriodaphnia dubia*:** The survival of the *Ceriodaphnia* met all validity requirements, so we were able to accurately report the acute data and the survival C-NOEC. The mean total of young per female in both the laboratory control water and the Frank's Creek dilution water was less than 15 per female, which does not meet the EPA's acceptability criteria and therefore statistical analysis is technically not valid for the reproduction data. However when comparing the 100% effluent reproduction (9.3 young/female) to the laboratory water (10.4 young/female) it would appear there is no statistically significant decrease. When comparing the 100% effluent to the Frank's Creek (7.1 young/female) the effluent actually produced a slightly higher number of young (9.3 per female), indicating that there is no effluent toxicity in comparison to the river. Since the survival data shows no effluent toxicity, and the reproduction data does not indicate any effluent toxicity, we are reporting the TUC as 1.0 for the *Ceriodaphnia*.

***Fathead minnows:** The survival data meets all validity requirements at 48-hours therefore the acute endpoints are valid and reportable. The survival in the Frank's Creek was 75% at 7-days, which falls below the 80% validity criteria. The survival in the 100% effluent was 97.5% at test completion, and the lowest survival rate in any effluent concentration was 95% at test completion. When the effluent survival data is run against the laboratory control water, which had a 7-day survival of 100%, there is no statistically significant difference. When looking at the fish weights we see that the mean weight in the 100% effluent was 0.5045 mg, which the statistics show is not significantly decreased from the laboratory control weight of 0.5160 mg. This data strongly concludes that the effluent is not toxic to either the survival or weight of the fathead minnows, and we are reporting a TUC of 1.0.

River-Water Toxicity: The phenomenon of river-water toxicity to fathead minnows (but not daphnids) in chronic tests is not uncommon. (Kszos and Stewart, 1992; Grothe and Johnson, 1996; Kszos, 1997; SETAC/EPA WET expert advisory panel, 1999; Downey et al. 2000; Federal Register, 2002). These investigators observed that unacceptable survival of fathead minnows in chronic toxicity tests using receiving water may be associated with a natural pathogen (possibly a bacteria) found in river water. The phenomenon usually has these characteristics:

- High variability in fish survival is often observed among replicates within a concentration in receiving water and lower effluent concentrations.
- Adverse survival effects are seen in chronic tests with fish but not in chronic tests with daphnids; adverse effects are usually not observed in acute fish tests.
- Mortality is usually first observed on test days 3 or 4; once mortality is noted in an individual replicate, most, if not all, fish in that replicate will succumb before the test is completed.
- A fungal growth is sometimes observed on the fish; the fungal growth has been attributed to *Saprolegnia sp.* and appears to be a secondary infection.

NEW ENGLAND BIOASSAY TOXICITY DATA FORM
CHRONIC COVER SHEET

CLIENT: Test America, Inc.
ADDRESS: 10 Hazelwood Drive
Amherst, NY 14228
West Valley - 001
CONTACT: _____
SAMPLE TYPE: _____
DILUTION WATER SOURCE: Receiving Water

C. dubia TEST ID NO: 12-078 A
P. promelas TEST ID NO: 12-278 B
COC NO: C32-1444/45
PROJECT NO: 05-0044240-00

INVERTEBRATES

TEST SET UP (TECH INIT.): MG

TEST SPECIES: *Ceriodaphnia dubia*
SOURCE/NEB LOT #: Cd12(RM#030)
AGE: < 24 Hours
TEST SOLUTION VOLUME: 15 mL
NO. ORGANISMS PER TEST CHAMBER: 1
NO. ORGANISMS PER CONCENTRATION: 10

START DATE: 2/7/12 AT 1205 hours
END DATE: 2/15/12 AT 1400 hours

Laboratory Control Water

Test Day	Batch Number	Hardness mg/l CaCO ₃	Alkalinity mg/l CaCO ₃
0	C32-MH001	86	60
1	C32-MH001	86	60
2	C32-MH001	86	60
3	C32-MH002	94	65
4	C32-MH002	94	65
5	C32-MH002	94	65
6	C32-MH002	94	65
7	C32-MH012	94	65

Results of *Ceriodaphnia dubia* Chronic Test

95% Conf. Limit
48 Hour LC₅₀: >100% 100 ± 0
7 Day LC₅₀: >100% 100 ± 0
Survival NOEC: 100%
Survival LOEC: >100%
Reproduction NOEC: 100% *
Reproduction LOEC: >100% *
Reproduction IC25: >100% *

NOEC: NO-OBSERVED-EFFECT-CONCENTRATION

VERTEBRATES

TEST SET UP (TECH INIT.): MV

TEST SPECIES: *Pimephales promelas*
SOURCE/NEB LOT #: Pp12(2-7)
AGE: < 24 Hours
TEST SOLUTION VOLUME: 400 mL
NO. ORGANISMS PER TEST CHAMBER: 10
NO. ORGANISMS PER CONCENTRATION: 40

START DATE: 2/7/12 AT 1220 hours
END DATE: 2/14/12 AT 1240 hours

Sample Collection Time

Effluent # 1 from: 2/5/12 at 1500
to: 2/6/12 at 1500
Diluent # 1 2/6/12 at 0920
Effluent # 2 from: 2/8/12 at 1020
to: 2/9/12 at 1020
Diluent # 2 to: 2/9/12 at 0900
Effluent # 3 from: NA at NA
to: NA at NA
Diluent # 3 to: NA at NA

Results of *Pimephales promelas* Chronic Test

95% Conf. Limit
48 Hour LC₅₀: >100% 100 ± 0
7 Day LC₅₀: >100% 100 ± 0
Survival NOEC: 100% *
Survival LOEC: >100% *
Growth NOEC: 100% *
Growth LOEC: >100% *
Growth IC25: >100% *

LOEC: LOWEST-OBSERVED-EFFECT-CONCENTRATION

ANIMAL CONDITION/BEHAVIOR: _____

COMMENTS: * See comments section of report

REVIEWED BY: WJG

DATE: 2/24/12

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP001, 10282 Rook Springs Rd West Valley, NY 14171-9702				
NEB PROJECT NUMBER: 05.0044240.00			NEB TEST NUMBER: 12-278a	
TEST ORGANISM: <i>Ceriodaphnia dubia</i>			AGE: < 24 hours	
START DATE: 2/7/12			END DATE: 2/15/12	
TIME: 1205			TIME: 1400	
COC #: C32-1444/45			LOT #: Cd12(RM1030)	

Effluent concentration	Day Number	Source 1: _____ Source 2: _____										Total Live Young	Number Live Adults	Analyst - Transfer	Analyst - Counts
		Replicate													
		A	B	C	D	E	F	G	H	I	J				
NEB Lab Synthetic Control	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10	MG	
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10	ML	
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10	PD	
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10	C3	C3
	4	2	✓	2	4	1	2	1	1	2	✓	15	10	BB	BB
	5	✓	✓	1	✓	✓	2	4	✓	3	✓	10	10	PD	PD
	6	2	3	✓	✓	2	✓	✓	1	✓	✓	8	10	ML	ML
	7	4	8	8	2	✓	✓	2	8	4	✓	36	10	ML	ML
	8	✓	✓	✓	8	9	✓	✓	12	6	✓	35	10	MG	MG
Totals	8	11	11	14	12	4	7	22	15	0	104	10		109	
Receiving Water Diluent	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	4	2	✓	✓	2	✓	2	✓	✓	1	3	10	10		
	5	5	3	✓	✓	3	✓	✓	✓	3	✓	14	10		
	6	✓	✓	2	2	✓	2	1	3	✓	1	11	10		
	7	3	8	1	2	✓	4	3	4	3	3	31	10		
	8	2	✓	✓	✓	✓	✓	✓	✓	3	✓	5	10		
Totals	12	11	3	10	3	8	4	7	10	2	71	10			
6.25%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	5	3	5	✓	3	6	2	✓	3	3	✓	26	10		
	6	✓	✓	1	✓	✓	1	2	✓	✓	2	6	10		
	7	4	5	2	4	✓	3	8	4	8	3	41	10		
	8	6	4	✓	3	1	✓	✓	1	4	✓	19	10		
Totals	13	14	3	10	7	6	10	8	15	5	91	10			

Notes:

NEW ENGLAND BIOASSAY- CHRONIC TOXICITY TEST BROOD DATA SHEET

Page 2 of 2

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP001, 10282 Rock Springs Rd West Valley, NY 14171-9702		
NEB PROJECT NUMBER: 05.004240.00	ORGANISM: <i>Ceriodaphnia dubia</i>	START DATE: 2/7/12

Effluent concentration	Day Number	Replicate										Total Live Young	Number Live Adults	Analyst - Transfer	Analyst - Counts
		A	B	C	D	E	F	G	H	I	J				
12.5%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	5	✓	2	✓	2	3	1	4	3	✓	✓	15	10		
	6	✓	✓	2	✓	✓	✓	✓	✓	3	2	8	10		
	7	4	2	5	3	4	4	5	6	5	4	42	10		
	8	✓	✓	✓	5	4	✓	2	6	✓	✓	17	10		
	Totals	4	4	7	10	11	10	11	15	8	10	82	10		
25%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	5	✓	3	2	2	4	✓	4	2	3	✓	20	9		
	6	✓	✓	✓	✓	✓	2	✓	1	✓	3	10	9		
	7	4	2	3	✓	5	4	3	✓	4	2	27	9		
	8	✓	2	4	✓	8	✓	2	1	8	1	26	9		
	Totals	4	7	9	2	17	10	9	4	15	10	79	9		
50%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	5	3	3	✓	3	✓	4	✓	4	2	✓	19	10		
	6	✓	✓	3	✓	1	✓	2	✓	2	3	11	10		
	7	5	5	4	4	2	3	4	7	✓	6	40	10		
	8	4	4	✓	3	4	4	✓	5	4	✓	28	10		
	Totals	12	12	7	10	7	11	10	11	8	9	98	10		
100%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	10		
	5	1	✓	3	4	3	6	4	✓	5	4	30	10		
	6	✓	1	✓	1	3	2	✓	2	✓	✓	9	9		
	7	6	2	✓	✓	2	3	5	3	✓	4	25	8		
	8	3	✓	✓	5	6	9	✓	6	✓	✓	93	8		
	Totals	10	3	3	10	14	20	9	11	15	8	93	8		

CT-TOX: BINOMIAL, MOVING AVERAGE, PROBIT, AND SPEARMAN METHODS

MINIMUM REQUIRED TRIM IS TOO LARGE: 100.0,SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (%)
6.25	10.	0.	.00	.9766D-01
12.50	10.	0.	.00	.9766D-01
25.00	10.	0.	.00	.9766D-01
50.00	10.	0.	.00	.9766D-01
100.00	10.	0.	.00	.9766D-01

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 99.9023 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISTICAL SOUND RESULTS.

DATE: 2/7/12 TEST NUMBER: 12-278a DURATION: 48 h
SAMPLE: West Valley 001 SPECIES: C.dubia

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	100.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

**** = LIMIT DOES NOT EXIST

CT-TOX: BINOMIAL, MOVING AVERAGE, PROBIT, AND SPEARMAN METHODS

MINIMUM REQUIRED TRIM IS TOO LARGE: 80.0, SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (%)
6.25	10.	0.	.00	.9766D-01
12.50	10.	0.	.00	.9766D-01
25.00	10.	1.	10.00	.1074D+01
50.00	10.	0.	.00	.9766D-01
100.00	10.	2.	20.00	.5469D+01

THE BINOMIAL TEST SHOWS THAT 50.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 99.9023 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

THE MOVING AVERAGE METHOD CANNOT BE USED WITH THIS DATA SET BECAUSE NO SPAN WHICH PRODUCES AVERAGE ANGLES BRACKETING 45 DEGREES ALSO USES TWO PERCENT DEAD BETWEEN 0 AND 100 PERCENT.

NO CONVERGENCE IN 25 ITERATIONS. PROBIT METHOD PROBABLY CAN NOT BE USE WITH THIS SET OF DATA.

DATE: 2/7/12 TEST NUMBER: 12-278a DURATION: 7 days
SAMPLE: West Valley 001 SPECIES: C.dubia

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	50.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.
ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

**** = LIMIT DOES NOT EXIST

CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 1 of 4)
 Test Code: 12-278a | 21-2095-7963

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 08-5982-0357	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:11	Analysis: STP 2x2 Contingency Tables	Official Results: Yes
Batch ID: 18-3843-3794	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:05	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 15 Feb-12 14:00	Species: Ceriodaphnia dubia	Brine:
Duration: 8d 2h	Source: In-House Culture	Age: <24h
Sample ID: 07-1218-2070	Code: 2A730936	Client: Test America
Sample Date: 06 Feb-12	Material: Industrial Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU
Untransformed		C > T	NA	NA	100	>100	NA	1

Fisher Exact/Bonferroni-Holm Test

Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)
Lab Water		6.25	1	1.0000	Exact	Non-Significant Effect
		12.5	1	1.0000	Exact	Non-Significant Effect
		25	0.5	1.0000	Exact	Non-Significant Effect
		50	1	1.0000	Exact	Non-Significant Effect
		100	0.2368	1.0000	Exact	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria

Data Summary

C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Lab Water	10	0	10	1	0	0.0%
6.25		10	0	10	1	0	0.0%
12.5		10	0	10	1	0	0.0%
25		9	1	10	0.9	0.1	10.0%
50		10	0	10	1	0	0.0%
100		8	2	10	0.8	0.2	20.0%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Water	1	1	1	1	1	1	1	1	1	1
6.25		1	1	1	1	1	1	1	1	1	1
12.5		1	1	1	1	1	1	1	1	1	1
25		1	1	1	0	1	1	1	1	1	1
50		1	1	1	1	1	1	1	1	1	1
100		1	1	0	1	1	1	1	1	0	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Water	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	0/1	1/1

CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 2 of 4)
Test Code: 12-278a | 21-2095-7963

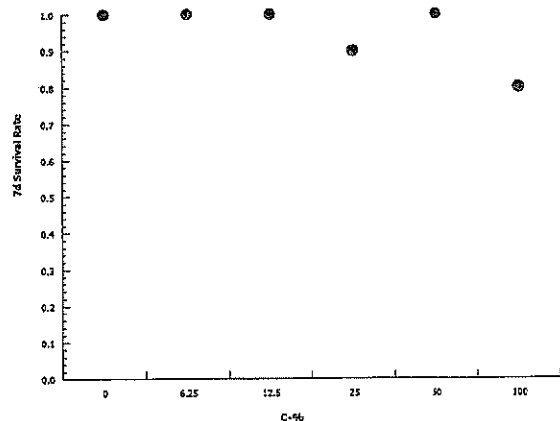
Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 08-5982-0357 Endpoint: 7d Survival Rate
Analyzed: 23 Feb-12 15:11 Analysis: STP 2x2 Contingency Tables

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 3 of 4)
Test Code: 12-278a | 21-2095-7963

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 10-5161-6779	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:11	Analysis: STP 2x2 Contingency Tables	Official Results: Yes
Batch ID: 18-3843-3794	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:05	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 15 Feb-12 14:00	Species: Ceriodaphnia dubia	Brine:
Duration: 8d 2h	Source: In-House Culture	Age: <24h
Sample ID: 07-1218-2070	Code: 2A730936	Client: Test America
Sample Date: 06 Feb-12	Material: Industrial Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU
Untransformed		C > T	NA	NA	100	>100	NA	1

Fisher Exact/Bonferroni-Holm Test

Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	1	1.0000	Exact	Non-Significant Effect
		12.5	1	1.0000	Exact	Non-Significant Effect
		25	0.5	1.0000	Exact	Non-Significant Effect
		50	1	1.0000	Exact	Non-Significant Effect
		100	0.2368	1.0000	Exact	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria

Data Summary

C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Dilution Water	10	0	10	1	0	0.0%
6.25		10	0	10	1	0	0.0%
12.5		10	0	10	1	0	0.0%
25		9	1	10	0.9	0.1	10.0%
50		10	0	10	1	0	0.0%
100		8	2	10	0.8	0.2	20.0%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1	1	1	1	1	1	1	1	1	1
6.25		1	1	1	1	1	1	1	1	1	1
12.5		1	1	1	1	1	1	1	1	1	1
25		1	1	1	0	1	1	1	1	1	1
50		1	1	1	1	1	1	1	1	1	1
100		1	1	0	1	1	1	1	1	0	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	0/1	1/1

CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 4 of 4)
Test Code: 12-278a | 21-2095-7963

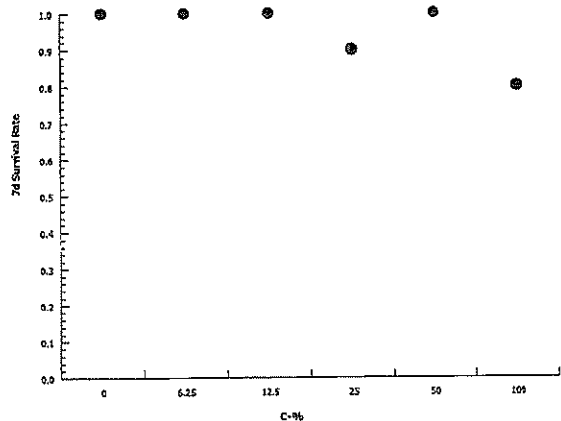
Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 10-5161-6779 Endpoint: 7d Survival Rate
Analyzed: 23 Feb-12 15:11 Analysis: STP 2x2 Contingency Tables

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 1 of 4)
Test Code: 12-278a | 21-2095-7963

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bloassay

Analysis ID: 06-7674-3884	Endpoint: Reproduction	CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:11	Analysis: Parametric-Control vs Treatments	Official Results: Yes
Batch ID: 18-3843-3794	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:05	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 15 Feb-12 14:00	Species: Ceriodaphnia dubia	Brine:
Duration: 8d 2h	Source: In-House Culture	Age: <24h
Sample ID: 07-1218-2070	Code: 2A730936	Client: Test America
Sample Date: 06 Feb-12	Material: Industrial Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	NA	C > T	NA	NA	100	>100	NA	1	45.0%

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Water		6.25	0.6362	2.289	4.678	18	0.5847	CDF	Non-Significant Effect
		12.5	1.077	2.289	4.678	18	0.3824	CDF	Non-Significant Effect
		25	1.223	2.289	4.678	18	0.3200	CDF	Non-Significant Effect
		50	0.2936	2.289	4.678	18	0.7319	CDF	Non-Significant Effect
		100	0.5383	2.289	4.678	18	0.6290	CDF	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	10.4	15 - NL	Yes	Below Acceptability Criteria
PMSD	0.4498	0.13 - 0.47	Yes	Passes Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	44.68333	8.936666	5	0.428	0.8271	Non-Significant Effect
Error	1127.5	20.87963	54			
Total	1172.183		59			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	5.624	15.09	0.3446	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9785	0.9459	0.3681	Normal Distribution

Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Water	10	10.4	6.014	14.79	11	0	22	1.939	58.96%	0.0%
6.25		10	9.1	6.23	11.97	9	3	15	1.269	44.09%	12.5%
12.5		10	8.2	5.681	10.72	7.5	4	15	1.114	42.94%	21.15%
25		10	7.9	4.454	11.35	6.5	2	17	1.524	60.98%	24.04%
50		10	9.8	7.62	11.98	9.5	6	16	0.9638	31.1%	5.77%
100		10	9.3	5.605	12.99	9.5	3	20	1.633	55.54%	10.58%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Water	8	11	11	14	12	4	7	22	15	0
6.25		13	14	3	10	7	6	10	8	15	5
12.5		4	4	7	10	11	6	11	15	8	6
25		4	7	9	2	17	6	9	4	15	6
50		12	12	7	10	7	11	6	16	8	9
100		10	3	3	10	14	20	9	11	5	8

CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 2 of 4)
Test Code: 12-278a | 21-2095-7963

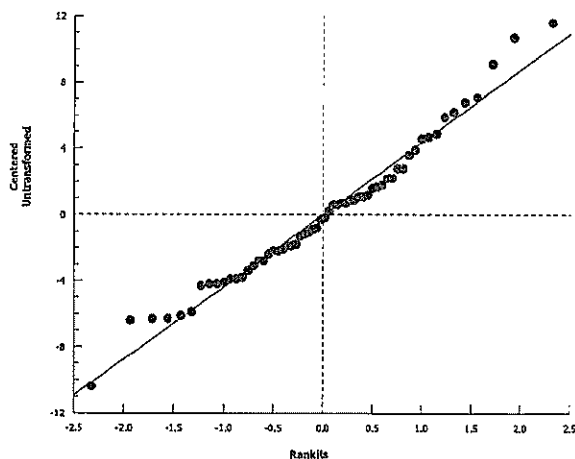
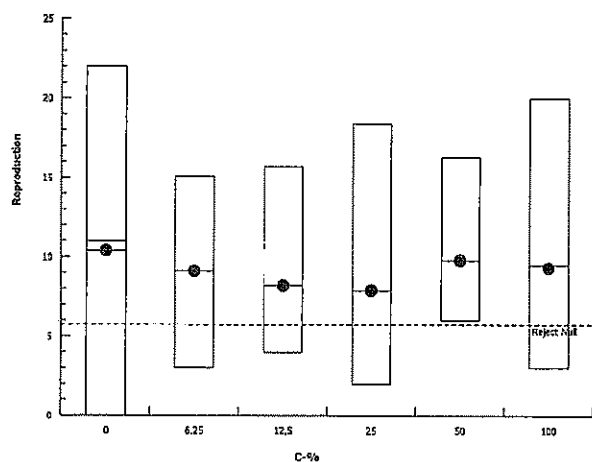
Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 06-7674-3884 Endpoint: Reproduction
Analyzed: 23 Feb-12 15:11 Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 3 of 4)
 Test Code: 12-278a | 21-2095-7963

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 05-7217-6938	Endpoint: Reproduction	CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:11	Analysis: Parametric-Control vs Treatments	Official Results: Yes
Batch ID: 18-3843-3794	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:05	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 15 Feb-12 14:00	Species: Ceriodaphnia dubia	Brine:
Duration: 8d 2h	Source: In-House Culture	Age: <24h
Sample ID: 07-1218-2070	Code: 2A730936	Client: Test America
Sample Date: 06 Feb-12	Material: Industrial Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	NA	C > T	NA	NA	100	>100	NA	1	58.3%

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	-1.107	2.289	4.137	18	0.9886	CDF	Non-Significant Effect
		12.5	-0.6086	2.289	4.137	18	0.9546	CDF	Non-Significant Effect
		25	-0.4426	2.289	4.137	18	0.9324	CDF	Non-Significant Effect
		50	-1.494	2.289	4.137	18	0.9968	CDF	Non-Significant Effect
		100	-1.217	2.289	4.137	18	0.9919	CDF	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	7.1	15 - NL	Yes	Below Acceptability Criteria
PMSD	0.5827	0.13 - 0.47	Yes	Above Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	50.73333	10.14667	5	0.6212	0.6842	Non-Significant Effect
Error	882	16.33333	54			
Total	932.7333		59			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	4.065	15.09	0.5401	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.967	0.9459	0.1045	Normal Distribution

Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	10	7.1	4.802	9.398	7	3	12	1.016	45.25%	0.0%
6.25		10	9.1	6.23	11.97	9	3	15	1.269	44.09%	-28.17%
12.5		10	8.2	5.681	10.72	7.5	4	15	1.114	42.94%	-15.49%
25		10	7.9	4.454	11.35	6.5	2	17	1.524	60.98%	-11.27%
50		10	9.8	7.62	11.98	9.5	6	16	0.9638	31.1%	-38.03%
100		10	9.3	5.605	12.99	9.5	3	20	1.633	55.54%	-30.99%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	12	11	3	6	3	8	4	7	10	7
6.25		13	14	3	10	7	6	10	8	15	5
12.5		4	4	7	10	11	6	11	15	8	6
25		4	7	9	2	17	6	9	4	15	6
50		12	12	7	10	7	11	6	16	8	9
100		10	3	3	10	14	20	9	11	5	8

CETIS Analytical Report

Report Date: 23 Feb-12 15:12 (p 4 of 4)
Test Code: 12-278a | 21-2095-7963

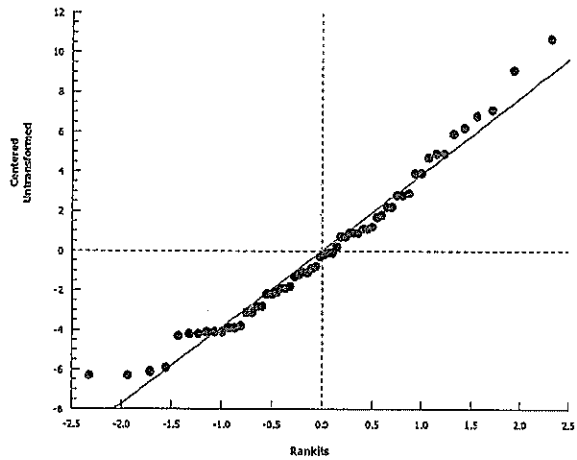
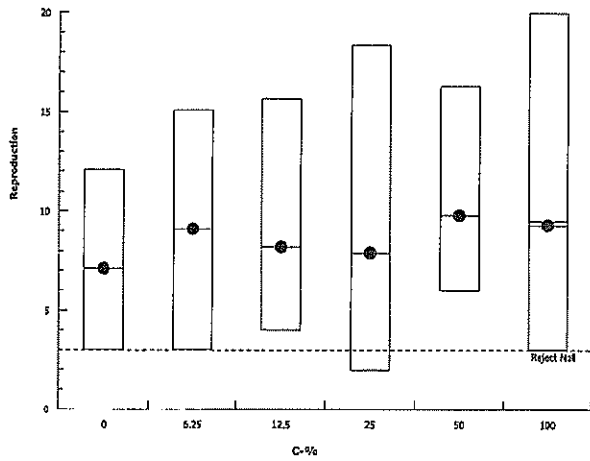
Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 05-7217-6938 Endpoint: Reproduction
Analyzed: 23 Feb-12 15:11 Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



NEB 's DATA SHEET FOR ROUTINE CHEMICAL AND PHYSICAL DETERMINATIONS

Page 1 of 2

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP001, 10282 Rock Springs Rd West Valley, NY 14171-9702								
NEB PROJECT NUMBER: 05.0044240.00					TEST ORGANISM: Ceriodaphnia dubia			
DILUTION WATER SOURCE: Receiving water					START DATE: 2/7/12		TIME: 1205	
ANALYST	MV	CV	MV	FO	BB	BB	CB	CB
NEB Lab Synthetic Control	1	2	3	4	5	6	7	8 REMARKS
Temp., °C Initial	24.2	24.4	25.3	25.0	24.0	24.4	24.5	24.1
D.O., mg/L Initial	8.3	8.0	8.2	8.1	9.0	7.7	8.0	8.5
pH, s.u. Initial	7.8	7.7	7.7	7.7	7.6	7.9	7.9	7.7
Conductivity, µS Initial	321	322	348	345	344	343	343	349
Temp., °C Final	24.4	24.0	24.3	24.0	24.0	24.2	24.1	24.7
D.O., mg/L Final	8.3	8.5	9.6	9.0	8.7	7.7	8.5	9.4
pH, s.u. Final	7.9	8.0	8.3	8.1	8.4	7.9	7.7	7.9
Conductivity, µS Final	362	350	363	366	358	380	345	355
Receiving Water Diluent	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.0	24.0	24.0	24.9	26.0
D.O., mg/L Initial	10.6	9.5	9.7	9.9	8.7	9.9	8.5	7.9
pH, s.u. Initial	7.3	7.3	7.4	7.3	7.2	7.3	7.4	7.5
Conductivity, µS Initial	192	193	193	217	217	217	217	229
Temp., °C Final	24.6	24.5	24.2	24.4	24.0	24.4	24.2	24.7
D.O., mg/L Final	8.5	8.5	9.6	9.1	8.6	7.8	7.8	9.2
pH, s.u. Final	7.8	8.0	8.2	8.1	8.3	8.0	7.9	8.1
Conductivity, µS Final	221	218	219	253	240	241	233	234
6.25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.0	24.0	24.0	25.3	26.0
D.O., mg/L Initial	10.6	9.1	9.4	9.7	8.9	9.7	8.3	7.9
pH, s.u. Initial	7.4	7.3	7.4	7.1	7.2	7.1	7.4	7.4
Conductivity, µS Initial	280	278	275	296	310	296	287	289
Temp., °C Final	24.7	24.5	24.1	24.0	24.0	24.6	24.3	24.8
D.O., mg/L Final	8.5	8.3	9.6	8.9	8.4	7.5	7.7	9.2
pH, s.u. Final	7.6	8.0	8.2	8.1	8.3	7.9	7.9	8.1
Conductivity, µS Final	298	298	299	304	324	325	295	299
12.5%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.6	24.0	24.0	25.2	26.0
D.O., mg/L Initial	8.8	9.1	9.4	9.9	9.2	9.9	8.3	8.1
pH, s.u. Initial	7.4	7.4	7.5	7.1	7.2	7.1	7.4	7.4
Conductivity, µS Initial	371	373	382	393	386	393	373	354
Temp., °C Final	24.8	24.5	24.3	24.1	24.0	24.3	24.5	24.8
D.O., mg/L Final	8.2	8.3	9.4	9.3	8.3	7.7	7.8	9.4
pH, s.u. Final	7.8	8.0	8.1	8.2	8.3	8.0	7.9	8.2
Conductivity, µS Final	387	391	394	407	406	403	383	364

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP001, 10282 Rock Springs Rd West Valley, NY 14171-9702		
NEB PROJECT NUMBER: 05.0044240.00	TEST ORGANISM: Ceriodaphnia dubia	
DILUTION WATER SOURCE: Receiving Water	START DATE: 07/12	TIME: 1205

25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.0	24.0	24.0	24.9	26.0
D.O., mg/L Initial	8.8	9.1	9.3	10.1	9.3	8.3	8.3	8.0
pH, s.u. Initial	7.4	7.4	7.5	7.1	7.2	7.4	7.4	7.5
Conductivity, µS Initial	546	554	566	548	530	537	535	514
Temp., °C Final	24.8	24.4	24.1	24.2	24.0	24.3	24.4	24.8
D.O., mg/L Final	8.3	8.1	9.6	8.5	8.1	7.7	7.6	9.6
pH, s.u. Final	7.9	8.0	8.1	8.5	8.3	8.0	7.9	8.3
Conductivity, µS Final	558	569	567	560	548	552	545	523
50%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.6	24.6	24.0	24.4	24.6	26.0
D.O., mg/L Initial	8.9	9.1	9.3	10.0	9.3	8.3	8.3	8.0
pH, s.u. Initial	7.5	7.6	7.7	7.2	7.3	7.7	7.7	7.7
Conductivity, µS Initial	885	909	931	843	854	856	844	834
Temp., °C Final	24.9	24.4	24.5	24.5	24.0	24.7	24.6	24.8
D.O., mg/L Final	8.2	8.1	9.7	8.3	8.1	7.4	7.7	9.4
pH, s.u. Final	7.9	8.0	8.3	8.4	8.3	8.1	8.0	8.4
Conductivity, µS Final	880	916	908	839	855	855	843	843
100%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	25.5	24.0	24.0	24.0	24.1	26.0
D.O., mg/L Initial	9.1	9.4	9.1	11.0	9.7	8.5	8.2	8.0
pH, s.u. Initial	7.7	7.7	7.7	7.4	7.6	7.9	7.7	7.9
Conductivity, µS Initial	1568	1602	1610	1448	1453	1449	1445	1429
Temp., °C Final	25.0	24.5	24.2	24.2	24.0	24.8	25.0	24.8
D.O., mg/L Final	8.5	8.3	10.0	9.5	8.3	7.6	8.1	9.5
pH, s.u. Final	8.0	8.3	8.3	8.3	8.6	8.2	8.2	8.5
Conductivity, µS Final	1516	1582	1536	1426	1432	1418	1455	1435
	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial								
D.O., mg/L Initial								
pH, s.u. Initial								
Conductivity, µS Initial								
Temp., °C Final								
D.O., mg/L Final								
pH, s.u. Final								
Conductivity, µS Final								

**NEB'S SURVIVAL DATA SHEET FOR FATHEAD MINNOW LARVAL
SURVIVAL AND GROWTH TEST**

Page 1 of 1

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP001, 10282 Rock Springs Rd West Valley, NY 14171-9702			
NEB PROJECT NUMBER: 05.004424100		NEB TEST NUMBER: 12-2TB	COC #: C32-1444/45
TEST ORGANISM: <i>Pimephales promelas</i>		AGE: <24 hours	LOT #: Pp12(2-7)
START DATE: 2/7/12	TIME: 1220	END DATE: 2/14/12	TIME: 1240

Effluent Concentration	Replicate Number	Number of Survivors								
		Day								
		0	1	2	3	4	5	6	7	Remarks
	ANALYST		BB	10	10	PD	10	C3	C3	
NEB Lab Synthetic Control	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
Receiving Water Control Dil	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	0 ^{10x}	0	0	0	fungal observed
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
6.25%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	9 ^{1x}	8 ^{1x}	8	8	8	
	D	10	10	10	10	10	10	10	10	
12.5%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	9 ^{1x}	9	9	9	
25%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	9 ^{1x}	
50%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
100%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	9 ^{1x}	
	D	10	10	10	10	10	10	10	10	

☐ DO concentration fell below 4.0 mg/L

☐ All test solutions were aerated at <100 bubbles/minute as of _____.

CT-TOX: BINOMIAL, MOVING AVERAGE, PROBIT, AND SPEARMAN METHODS

MINIMUM REQUIRED TRIM IS TOO LARGE: 100.0, SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (%)
6.25	40.	0.	.00	.9095D-10
12.50	40.	0.	.00	.9095D-10
25.00	40.	0.	.00	.9095D-10
50.00	40.	0.	.00	.9095D-10
100.00	40.	0.	.00	.9095D-10

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS
STATISTICALLY

SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL
CONFIDENCE

LEVEL ASSOCIATED WITH THESE LIMITS IS 100.0000 PERCENT.

THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT
WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER
THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE
ANY STATISTICALLY SOUND RESULTS.

DATE: 2/7/12 TEST NUMBER: 12-278 DURATION: 48 h
SAMPLE: West Valley SPECIES: P. promelas

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	100.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

**** = LIMIT DOES NOT EXIST

MINIMUM REQUIRED TRIM IS TOO LARGE: 97.5, SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%

LC50: .000

95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (%)
6.25	40.	2.	5.00	.7467D-07
12.50	40.	1.	2.50	.3729D-08
25.00	40.	1.	2.50	.3729D-08
50.00	40.	0.	.00	.9095D-10
100.00	40.	1.	2.50	.3729D-08

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS
STATISTICALLY

SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL
CONFIDENCE

LEVEL ASSOCIATED WITH THESE LIMITS IS 100.0000 PERCENT.

THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

THE MOVING AVERAGE METHOD CANNOT BE USED WITH
THIS DATA SET BECAUSE NO SPAN WHICH PRODUCES
AVERAGE ANGLES BRACKETING 45 DEGREES ALSO USES
TWO PERCENT DEAD BETWEEN 0 AND 100 PERCENT.

NO CONVERGENCE IN 25 ITERATIONS. PROBIT METHOD
PROBABLY CAN NOT BE USE WITH THIS SET OF DATA.

DATE: 2/7/12

TEST NUMBER: 12-278

DURATION: 168 h

SAMPLE: West Valley

SPECIES: P. promelas

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	100.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.

ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

**** = LIMIT DOES NOT EXIST

CETIS Analytical Report

Report Date: 23 Feb-12 15:05 (p 1 of 4)

Test Code: 12-278b | 03-5553-9800

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bloassay

Analysis ID: 05-2727-1659	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:04	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 02-9096-5702	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:20	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 14 Feb-12 12:40	Species: Pimephales promelas	Brine:
Duration: 7d 0h	Source: In-House Culture	Age: <24h
Sample ID: 16-5055-7464	Code: 62618218	Client: Test America
Sample Date: 06 Feb-12	Material: WWTF Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	NA	C > T	NA	NA	100	>100	NA	1	8.91%

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Water		6.25	16	10	1	6	0.6105	Asymp	Non-Significant Effect
		12.5	16	10	1	6	0.6105	Asymp	Non-Significant Effect
		25	16	10	1	6	0.6105	Asymp	Non-Significant Effect
		50	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		100	16	10	1	6	0.6105	Asymp	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01690202	0.003380405	5	0.47	0.7937	Non-Significant Effect
Error	0.1294666	0.007192588	18			
Total	0.1463686		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	0.47	4.248	0.7937	Equal Variances
Variances	Levene Equality of Variance	4.23	4.248	0.0102	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7605	0.884	<0.0001	Non-normal Distribution

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Water	4	1	1	1	1	1	1	0	0.0%	0.0%
6.25		4	0.95	0.7909	1	1	0.8	1	0.05	10.53%	5.0%
12.5		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	2.5%
25		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	2.5%
50		4	1	1	1	1	1	1	0	0.0%	0.0%
100		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	2.5%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Water	4	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
6.25		4	1.336	1.093	1.578	1.412	1.107	1.412	0.07622	11.41%	5.4%
12.5		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	2.89%
25		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	2.89%
50		4	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
100		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	2.89%

CETIS Analytical Report

Report Date: 23 Feb-12 15:05 (p 2 of 4)
Test Code: 12-278b | 03-5553-9800

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 05-2727-1659 Endpoint: 7d Survival Rate CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:04 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Lab Water	1	1	1	1
6.25		1	1	0.8	1
12.5		1	1	1	0.9
25		1	1	1	0.9
50		1	1	1	1
100		1	1	0.9	1

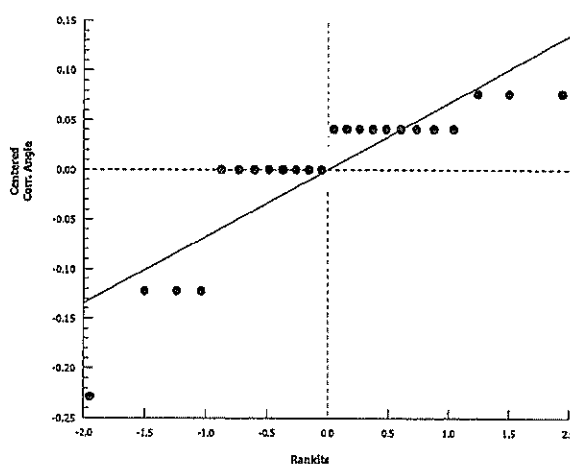
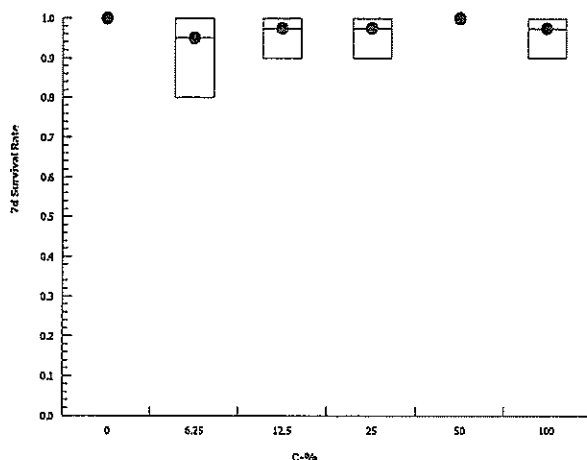
Angular (Corrected) Transformed Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Lab Water	1.412	1.412	1.412	1.412
6.25		1.412	1.412	1.107	1.412
12.5		1.412	1.412	1.412	1.249
25		1.412	1.412	1.412	1.249
50		1.412	1.412	1.412	1.412
100		1.412	1.412	1.249	1.412

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Lab Water	10/10	10/10	10/10	10/10
6.25		10/10	10/10	8/10	10/10
12.5		10/10	10/10	10/10	9/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	10/10	9/10	10/10

Graphics



CETIS Analytical Report

Report Date: 16 Feb-12 13:54 (p 1 of 4)
Test Code: 12-278b | 03-5553-9800

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 20-9729-3724	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 16 Feb-12 13:54	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 02-9096-5702	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:20	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 14 Feb-12 12:40	Species: Pimephales promelas	Brine:
Duration: 7d 0h	Source: In-House Culture	Age: <24h
Sample ID: 16-5055-7464	Code: 62618218	Client: Test America
Sample Date: 06 Feb-12	Material: WWTF Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	NA	C > T	NA	NA	100	>100	NA	1	52.4%

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	18.5	10	1	6	0.8729	Asymp	Non-Significant Effect
		12.5	18.5	10	1	6	0.8729	Asymp	Non-Significant Effect
		25	18.5	10	1	6	0.8729	Asymp	Non-Significant Effect
		50	20	10	1	6	0.9516	Asymp	Non-Significant Effect
		100	18.5	10	1	6	0.8729	Asymp	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.75	0.8 - NL	Yes	Below Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2612111	0.05224222	5	0.7193	0.6174	Non-Significant Effect
Error	1.307417	0.07263426	18			
Total	1.568628		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	0.7193	4.248	0.6174	Equal Variances
Variances	Levene Equality of Variance	6.473	4.248	0.0013	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.6812	0.884	<0.0001	Non-normal Distribution

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	0.75	0	1	1	0	1	0.25	66.67%	0.0%
6.25		4	0.95	0.7909	1	1	0.8	1	0.05	10.53%	-26.67%
12.5		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	-30.0%
25		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	-30.0%
50		4	1	1	1	1	1	1	0	0.0%	-33.33%
100		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	-30.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1.099	0.1016	2.096	1.412	0.1588	1.412	0.3133	57.03%	0.0%
6.25		4	1.336	1.093	1.578	1.412	1.107	1.412	0.07622	11.41%	-21.58%
12.5		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	-24.81%
25		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	-24.81%
50		4	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-28.52%
100		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	-24.81%

CETIS Analytical Report

Report Date: 16 Feb-12 13:54 (p 2 of 4)

Test Code: 12-278b | 03-5553-9800

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 20-9729-3724

Endpoint: 7d Survival Rate

CETIS Version: CETISv1.8.4

Analyzed: 16 Feb-12 13:54

Analysis: Nonparametric-Control vs Treatments

Official Results: Yes

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	0	1	1
6.25		1	1	0.8	1
12.5		1	1	1	0.9
25		1	1	1	0.9
50		1	1	1	1
100		1	1	0.9	1

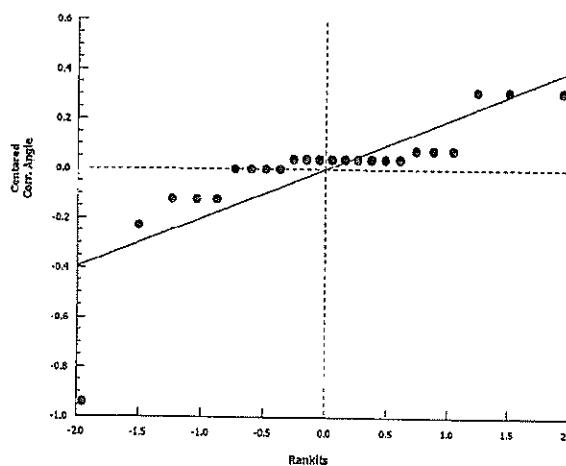
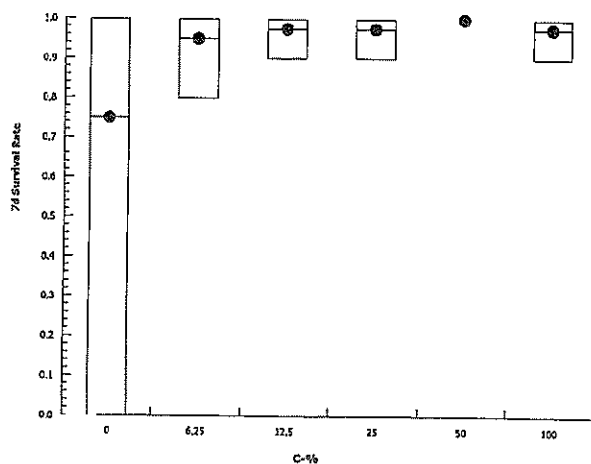
Angular (Corrected) Transformed Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.412	0.1588	1.412	1.412
6.25		1.412	1.412	1.107	1.412
12.5		1.412	1.412	1.412	1.249
25		1.412	1.412	1.412	1.249
50		1.412	1.412	1.412	1.412
100		1.412	1.412	1.249	1.412

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	0/10	10/10	10/10
6.25		10/10	10/10	8/10	10/10
12.5		10/10	10/10	10/10	9/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	10/10	9/10	10/10

Graphics



NEW ENGLAND BIOASSAY- WEIGHT DATA FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Facility Name and Address: West Valley Demonstration Project WSNP001, 10282 Rock Springs Rd West Valley, NY 14171-9702			
NEB Project Number: 05.0044240.00		NEB Test Number: 12-278	
Test Dates: 2/7-14/12		Weighing Date: 2/15/12	
Drying Temperature (°C): 100		Drying Time (hours): 6	
Analyst - Initial Weights (A): C3 2/16/12		Analyst - Final Weights (B): MV	

Effluent Concentration	Replicate Number	A Weight of boat (mg)	B Dry weight: foil and larvae (mg)
NEB Lab Synthetic Control	A	924.12	928.88
	B	926.27	931.96
	C	930.54	935.63
	D	934.58	939.68
Receiving Water Diluent	A	933.17	939.07
	B	932.48	---
	C	930.60	936.73
	D	926.70	931.91
6.25%	A	921.12	926.38
	B	926.47	931.71
	C	923.63	928.30
	D	924.89	930.18
12.5%	A	927.63	933.36
	B	920.29	926.16
	C	922.29	927.38
	D	925.89	930.99
25%	A	917.25	923.18
	B	913.01	918.97
	C	912.55	918.19
	D	909.07	913.27
50%	A	910.61	916.47
	B	910.76	916.11
	C	914.72	920.39
	D	909.39	914.94
100%	A	917.42	922.66
	B	917.72	923.01
	C	920.15	924.96
	D	922.14	926.98

Analyst _____

CETIS Analytical Report

Report Date: 23 Feb-12 15:05 (p 3 of 4)

Test Code: 12-278b | 03-5553-9800

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 01-7887-6627	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:04	Analysis: Parametric-Control vs Treatments	Official Results: Yes
Batch ID: 02-9096-5702	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:20	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 14 Feb-12 12:40	Species: Pimephales promelas	Brine:
Duration: 7d 0h	Source: In-House Culture	Age: <24h
Sample ID: 16-5055-7464	Code: 82618218	Client: Test America
Sample Date: 06 Feb-12	Material: WWTF Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	NA	C > T	NA	NA	100	>100	NA	1	14.8%

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Water		6.25	0.1415	2.407	0.077	6	0.7883	CDF	Non-Significant Effect
		12.5	-0.9039	2.407	0.077	6	0.9777	CDF	Non-Significant Effect
		25	-0.8567	2.407	0.077	6	0.9748	CDF	Non-Significant Effect
		50	-1.407	2.407	0.077	6	0.9946	CDF	Non-Significant Effect
		100	0.3616	2.407	0.077	6	0.7058	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01010813	0.002021626	5	0.9992	0.4461	Non-Significant Effect
Error	0.03641995	0.002023331	18			
Total	0.04652808		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	7.153	15.09	0.2095	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9105	0.884	0.0362	Normal Distribution

Mean Dry Weight-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Water	4	0.516	0.4544	0.5776	0.5095	0.476	0.569	0.01935	7.5%	0.0%
6.25		4	0.5115	0.4642	0.5588	0.525	0.467	0.529	0.01487	5.81%	0.87%
12.5		4	0.5447	0.4793	0.6102	0.5415	0.509	0.587	0.02055	7.55%	-5.57%
25		4	0.5432	0.4105	0.676	0.5785	0.42	0.596	0.04171	15.36%	-5.28%
50		4	0.5607	0.5267	0.5948	0.561	0.535	0.586	0.0107	3.82%	-8.67%
100		4	0.5045	0.4639	0.5451	0.504	0.481	0.529	0.01276	5.06%	2.23%

Mean Dry Weight-mg Detail

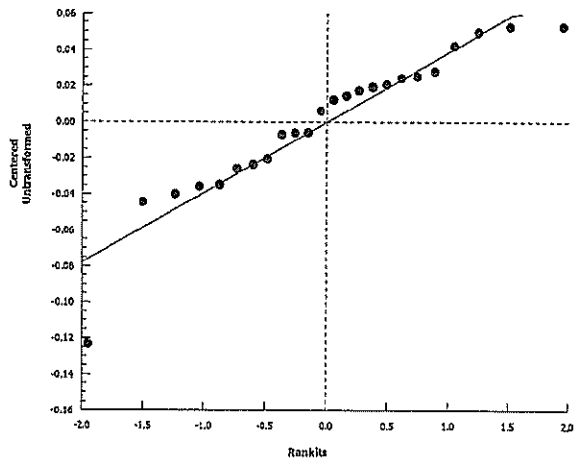
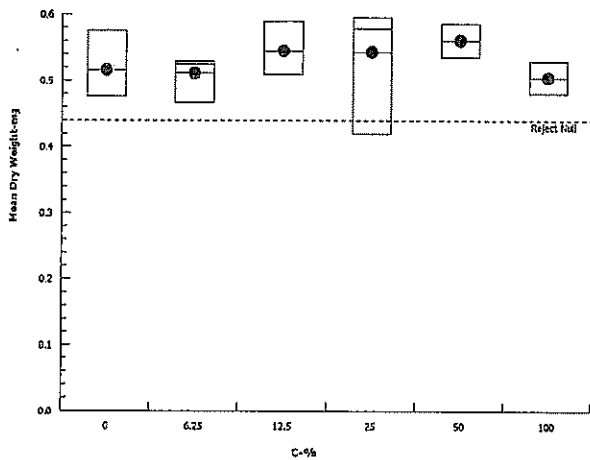
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Lab Water	0.476	0.569	0.509	0.51
6.25		0.526	0.524	0.467	0.529
12.5		0.573	0.587	0.509	0.51
25		0.593	0.596	0.564	0.42
50		0.586	0.535	0.567	0.555
100		0.524	0.529	0.481	0.484

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 01-7887-8627	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv1.8.4
Analyzed: 23 Feb-12 15:04	Analysis: Parametric-Control vs Treatments	Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 16 Feb-12 13:54 (p 3 of 4)

Test Code: 12-278b | 03-5553-9800

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 04-8358-6906	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv1.8.4
Analyzed: 16 Feb-12 13:54	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 02-9096-5702	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 07 Feb-12 12:20	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 14 Feb-12 12:40	Species: Pimephales promelas	Brine:
Duration: 7d 0h	Source: In-House Culture	Age: <24h
Sample ID: 16-5055-7464	Code: 62618218	Client: Test America
Sample Date: 06 Feb-12	Material: WWTF Effluent	Project:
Receive Date: 07 Feb-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 36h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	NA	C > T	NA	NA	100	>100	NA	1	49.6%

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	17	10	0	6	0.7334	Asymp	Non-Significant Effect
		12.5	16	10	0	6	0.6105	Asymp	Non-Significant Effect
		25	19	10	0	6	0.9055	Asymp	Non-Significant Effect
		50	18	10	0	6	0.8333	Asymp	Non-Significant Effect
		100	16	10	0	6	0.6105	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04379657	0.008759314	5	0.5548	0.7330	Non-Significant Effect
Error	0.2841923	0.01578846	18			
Total	0.3279888		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	29.19	15.09	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7311	0.884	<0.0001	Non-normal Distribution

Mean Dry Weight-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	0.431	-0.03042	0.8924	0.5555	0	0.613	0.145	67.28%	0.0%
6.25		4	0.5115	0.4642	0.5588	0.525	0.467	0.529	0.01487	5.81%	-18.68%
12.5		4	0.5447	0.4793	0.6102	0.5415	0.509	0.587	0.02055	7.55%	-26.39%
25		4	0.5432	0.4105	0.676	0.5785	0.42	0.596	0.04171	15.36%	-26.04%
50		4	0.5607	0.5267	0.5948	0.561	0.535	0.586	0.0107	3.82%	-30.1%
100		4	0.5045	0.4639	0.5451	0.504	0.481	0.529	0.01276	5.06%	-17.05%

Mean Dry Weight-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.59	0	0.613	0.521
6.25		0.526	0.524	0.467	0.529
12.5		0.573	0.587	0.509	0.51
25		0.593	0.596	0.564	0.42
50		0.586	0.535	0.567	0.555
100		0.524	0.529	0.481	0.484

CETIS Analytical Report

Report Date: 16 Feb-12 13:54 (p 4 of 4)

Test Code: 12-278b | 03-5553-9800

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 04-8358-6906

Endpoint: Mean Dry Weight-mg

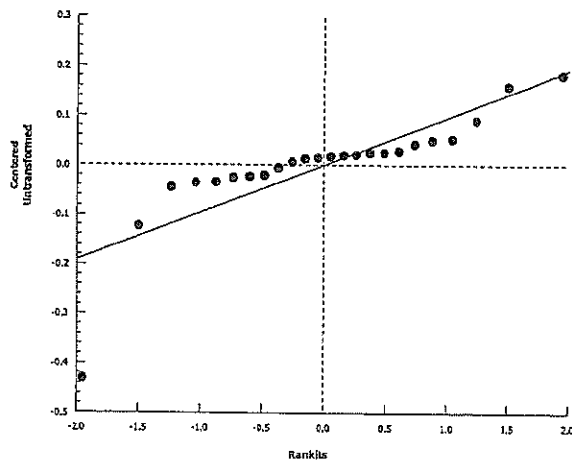
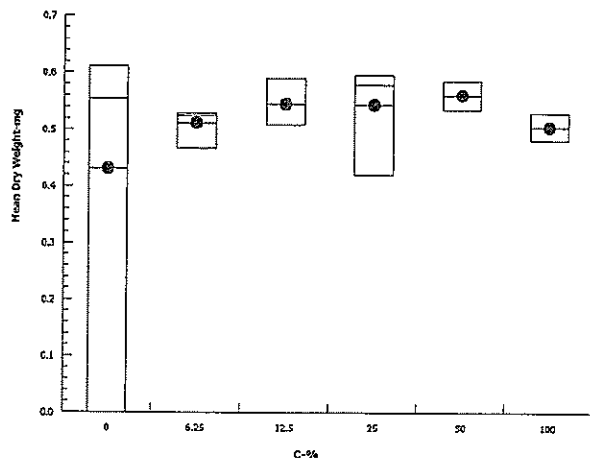
CETIS Version: CETISv1.8.4

Analyzed: 16 Feb-12 13:54

Analysis: Nonparametric-Control vs Treatments

Official Results: Yes

Graphics



	Final Weight	Tare Weight	Fish Weight	weight/10	Mean
1	928.88	924.12	4.76	0.476	0.5160
2	931.96	926.27	5.69	0.569	
3	935.63	930.54	5.09	0.509	
4	939.68	934.58	5.10	0.51	
1	939.07	933.17	5.90	0.59	0.4310
2	0	0	0.00	0	
3	936.73	930.6	6.13	0.613	
4	931.91	926.7	5.21	0.521	
1	926.38	921.12	5.26	0.526	0.5115
2	931.71	926.47	5.24	0.524	
3	928.3	923.63	4.67	0.467	
4	930.18	924.89	5.29	0.529	
1	933.36	927.63	5.73	0.573	0.5448
2	926.16	920.29	5.87	0.587	
3	927.38	922.29	5.09	0.509	
4	930.99	925.89	5.10	0.51	
1	923.18	917.25	5.93	0.593	0.5433
2	918.97	913.01	5.96	0.596	
3	918.19	912.55	5.64	0.564	
4	913.27	909.07	4.20	0.420	
1	916.47	910.61	5.86	0.586	0.5608
2	916.11	910.76	5.35	0.535	
3	920.39	914.72	5.67	0.567	
4	914.94	909.39	5.55	0.555	
1	922.66	917.42	5.24	0.524	0.5045
2	923.01	917.72	5.29	0.529	
3	924.96	920.15	4.81	0.481	
4	926.98	922.14	4.84	0.484	
1			0.00	0.000	0.0000
2			0.00	0.000	
3			0.00	0.000	
4			0.00	0.000	

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP001, 10282 Rock Springs Rd West Valley, NY 14171-9702								
NEB PROJECT NUMBER: 05.0044240.00					TEST ORGANISM: <i>Pimephales promelas</i>			
DILUTION WATER SOURCE: Receiving Water					START DATE: 2/7/12		TIME: 1820	
ANALYST	MV	CW	MV	LO	PO	BB	C3	
NEB Lab Synthetic Control	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.2	24.4	25.3	25.0	24.2	24.4	24.5	
D.O., mg/L Initial	8.3	8.0	8.2	8.1	8.1	7.7	8.0	
pH, s.u. Initial	7.8	7.7	7.7	7.7	7.4	7.9	7.9	
Conductivity, µS Initial	321	322	348	345	343	343	343	
Temp., °C Final	24.3	24.0	24.0	24.0	24.0	24.0	24.6	
D.O., mg/L Final	7.4	7.3	7.0	6.8	5.8	7.10	6.9	
pH, s.u. Final	7.6	7.7	7.6	7.5	8.0	7.7	7.9	
Conductivity, µS Final	345	345	359	368	383	373	361	
Receiving Water Diluent	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.0	24.0	24.0	24.9	
D.O., mg/L Initial	10.6	9.5	9.7	9.9	8.7	9.9	8.5	
pH, s.u. Initial	7.3	7.3	7.4	7.3	7.2	7.3	7.4	
Conductivity, µS Initial	192	193	193	217	217	217	217	
Temp., °C Final	24.4	24.0	24.3	24.4	24.0	24.0	24.1	
D.O., mg/L Final	7.7	7.4	7.5	7.1	6.2	7.3	7.1	
pH, s.u. Final	7.6	7.6	7.6	7.3	7.9	7.6	7.1	
Conductivity, µS Final	223	216	192	233	242	237	241	
6.25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.0	24.0	24.0	25.3	
D.O., mg/L Initial	10.6	9.1	9.4	9.7	8.9	9.7	8.3	
pH, s.u. Initial	7.4	7.3	7.4	7.1	7.2	7.1	7.4	
Conductivity, µS Initial	280	278	275	296	310	296	287	
Temp., °C Final	24.1	24.0	24.8	24.0	24.0	24.4	24.6	
D.O., mg/L Final	7.7	7.5	7.1	7.0	5.9	7.6	6.9	
pH, s.u. Final	7.6	7.6	7.5	7.4	7.7	7.6	7.6	
Conductivity, µS Final	310	314	238*	312	334	327	307	
12.5%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.0	24.0	24.0	25.2	
D.O., mg/L Initial	8.8	9.1	9.4	9.9	9.2	9.9	8.3	
pH, s.u. Initial	7.4	7.4	7.5	7.1	7.2	7.1	7.4	
Conductivity, µS Initial	371	373	382	393	386	393	373	
Temp., °C Final	24.7	24.0	24.4	24.1	24.0	24.5	25.0	
D.O., mg/L Final	7.6	7.2	6.9	6.7	7.0	7.4	6.4	
pH, s.u. Final	7.6	7.5	7.5	7.5	7.8	7.6	7.5	
Conductivity, µS Final	394	395	397	412	418	400	396	

* checked twice

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP001, 10282 Rock Springs Rd West Valley, NY 14171-9702		
NEB PROJECT NUMBER: 05.0044240.00	TEST ORGANISM: <i>Pimephales promelas</i>	
DILUTION WATER SOURCE: Receiving Water	START DATE: 2/7/12	TIME: 1220

25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.0	24.0	24.0	24.0	24.9	
D.O., mg/L Initial	8.8	9.1	9.3	10.1	9.3	10.1	8.3	
pH, s.u. Initial	7.4	7.4	7.5	7.1	7.2	7.4	7.4	
Conductivity, µS Initial	546	554	566	548	531	537	535	
Temp., °C Final	24.8	24.5	24.8	24.3	24.0	24.6	24.9	
D.O., mg/L Final	7.3	7.1	6.9	7.3	6.6	6.8	6.7	
pH, s.u. Final	7.6	7.5	7.5	7.5	7.8	7.6	7.6	
Conductivity, µS Final	565	575	510	562	576	558	555	
50%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	24.6	24.0	24.0	24.4	24.6	
D.O., mg/L Initial	8.9	9.1	9.3	10.0	9.3	8.3	8.3	
pH, s.u. Initial	7.5	7.6	7.7	7.2	7.3	7.7	7.7	
Conductivity, µS Initial	885	909	931	843	854	856	844	
Temp., °C Final	24.6	24.4	24.8	24.0	24.0	24.6	25.1	
D.O., mg/L Final	7.5	7.1	6.9	6.6	7.1	7.6	6.8	
pH, s.u. Final	7.7	7.7	7.7	7.7	8.0	7.8	7.7	
Conductivity, µS Final	886	934	885	884	990	881	868	
100%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.0	25.5	24.0	24.0	24.0	24.1	
D.O., mg/L Initial	9.1	9.4	9.1	11.0	9.7	8.5	8.2	
pH, s.u. Initial	7.7	7.7	7.7	7.4	7.6	7.9	7.7	
Conductivity, µS Initial	1568	1602	1610	1448	1453	1449	1445	
Temp., °C Final	24.8	24.3	24.4	24.0	24.0	24.6	24.9	
D.O., mg/L Final	7.2	7.0	6.9	6.8	7.3	7.0	6.8	
pH, s.u. Final	7.9	7.9	8.0	7.9	8.2	8.0	7.9	
Conductivity, µS Final	1511	1625	1609	1489	1514	1476	1475	
	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial								
D.O., mg/L Initial								
pH, s.u. Initial								
Conductivity, µS Initial								
Temp., °C Final								
D.O., mg/L Final								
pH, s.u. Final								
Conductivity, µS Final								

INITIAL CHEMISTRY INFORMATION

CLIENT: Test America - West Valley - 001

JOB # 05.0044240.00

TEST #: C. dubia ID No. 12-278 A P. promelas ID No. 12-278 B

SAMPLE TYPE:	Effluent #1	River Water #1	Effluent #2	River Water #2	Effluent #3	River Water #3
RECEIPT DATE	2/7/12	2/7/12	2/10/12	2/10/12		
COC #	C32-1444	C32-1445	C32-1504	C32-1505		
PH (SU)	7.0	6.8	7.5	7.3		
Temperature (°C)	14, 23	20, 24	0.8, 0.5	2.0, 2.1		
Dissolved Oxygen (mg/L)	8.93	10.3	9.8	10.6		
Specific Conductivity (µmhos/cm)	1488	181	1384	205		
Salinity (ppt)	<1	<1	<1	<1		
TRC - DPD (mg/L)	0.019	0.005	0.016	0.015		
TRC - Amperometric (mg/L)	NA	NA	NA	NA		
Hardness (mg/L as CaCO ₃)	90	60	100	70		
Alkalinity (mg/L as CaCO ₃)	170	55	160	60		
Color	very light yellow	colorless	light yellow	colorless		
Clarity	clear	clear	clear	clear		
INITIALS	CB	CB	MV	MV		

NOTE: NA = NOT APPLICABLE

Data Reviewed By: WJMT

Date Reviewed: 2/24/12

TA/ West Valley

TABLE A-14

Table of Random Permutations of 16

Cd test 10:

Pp test 10:

7	12	15	15	1	2	7	16	10	2	14	15	7	13	13	10	6	1	8	10
13	3	8	16	7	10	11	10	13	5	11	7	13	16	7	7	5	13	2	14
3	1	4	6	14	13	3	14	9	13	13	2	9	15	6	2	8	4	5	8
11	8	16	14	15	6	2	6	2	16	8	5	12	3	9	13	4	3	10	4
14	9	1	6	3	9	14	13	8	6	5	8	14	7	3	15	13	11	4	7
2	16	10	13	5	5	13	2	11	7	3	12	5	14	12	16	2	2	9	15
4	6	13	7	2	15	1	9	1	4	7	10	6	9	11	9	7	6	16	11
6	14	6	10	4	14	4	15	3	3	4	16	2	6	5	1	12	10	6	9
10	15	2	1	13	12	16	3	4	8	10	1	15	5	14	12	14	12	3	2
12	10	7	12	9	11	9	8	12	14	15	4	11	8	16	8	9	14	14	1
15	7	5	2	10	7	8	12	6	15	6	13	16	12	15	4	11	8	12	6
16	2	11	8	8	8	15	5	16	1	1	9	8	1	8	14	16	5	13	5
9	13	14	3	6	4	10	11	5	12	9	3	10	4	4	3	10	9	1	3
8	11	9	4	11	3	12	7	7	10	12	14	3	10	1	6	15	16	15	12
1	5	12	11	16	16	5	4	14	9	16	11	1	2	10	5	1	15	7	13
5	4	3	9	12	1	6	1	15	11	2	11	1	1	2	11	3	7	11	16
11	8	16	5	5	13	1	13	2	16	14	12	9	8	7	5	13	3	13	3
2	2	8	8	14	16	4	3	8	11	10	14	15	1	2	11	4	5	15	9
6	13	2	13	6	5	9	15	11	10	12	6	16	15	16	9	10	12	16	15
14	12	4	18	16	11	14	10	5	12	3	3	12	14	15	13	6	4	1	16
8	6	3	9	4	10	6	4	16	2	2	9	8	16	4	6	5	15	7	8
9	15	12	10	3	2	12	6	1	15	4	13	7	7	9	12	14	8	8	11
3	10	11	12	13	12	5	11	7	8	9	5	14	11	10	1	3	13	3	6
16	1	13	14	8	14	15	5	3	7	11	15	6	12	5	7	11	1	14	4
1	14	14	2	9	15	16	14	6	14	7	8	3	13	11	8	7	7	12	7
4	4	6	4	12	3	11	8	15	9	8	1	13	6	3	3	15	9	9	12
15	5	1	11	10	6	3	7	10	5	5	11	10	10	12	15	16	14	5	2
3	3	5	5	7	7	13	2	14	3	16	4	5	5	13	4	9	16	2	6
12	7	15	15	15	9	8	12	12	13	15	10	1	4	6	16	2	6	11	1
10	11	10	3	2	4	2	1	4	6	6	7	11	9	14	10	8	11	4	13
7	9	7	7	11	1	7	15	13	1	13	2	4	2	1	2	12	2	10	14
13	16	1	1	1	8	10	9	9	4	1	16	2	3	8	14	1	12	6	17
1	6	7	4	8	6	5	2	8	15	4	6	6	1	4	5	7	13	2	10
9	15	11	3	11	15	9	10	1	3	8	2	15	7	9	8	16	1	14	3
10	16	4	5	12	9	16	11	7	1	7	16	11	8	3	3	12	2	3	4
4	14	1	9	5	5	4	13	6	8	15	5	12	5	7	16	5	11	8	1
7	3	13	14	15	2	1	14	16	5	14	9	2	16	1	12	6	14	4	13
16	11	2	1	14	16	6	9	3	4	16	14	3	15	11	11	3	9	12	5
3	10	16	16	13	7	13	1	11	14	9	10	16	2	10	2	10	7	10	16
11	13	9	13	4	13	8	3	5	13	10	12	5	12	5	14	13	16	5	6
15	2	3	12	9	12	2	4	13	10	2	4	13	3	16	1	14	8	6	12
14	1	14	6	10	1	3	12	4	2	11	7	8	14	6	4	4	4	15	11
13	12	5	11	3	11	15	8	2	7	13	1	9	10	12	10	11	10	9	8
12	5	10	7	2	14	7	15	14	16	6	8	4	9	8	15	8	6	11	9
8	9	8	10	6	4	11	7	10	11	1	11	7	11	13	6	1	15	13	15
2	7	6	2	1	8	10	6	15	12	12	3	10	6	14	7	2	12	16	7
6	4	15	8	16	10	14	16	9	6	5	15	1	13	15	13	15	5	1	2
5	8	12	15	7	13	12	5	12	9	6	14	1	16	8	7	2	3	3	12
13	4	10	4	16	13	16	13	5	3	16	4	15	4	3	12	12	1	4	7
5	14	4	6	8	2	15	1	13	14	10	15	14	9	10	1	14	8	8	16
2	2	2	15	14	16	9	12	16	6	5	13	16	1	7	5	11	2	9	3
7	12	15	8	12	3	5	14	7	12	12	1	12	12	14	16	3	11	11	8
6	9	7	14	9	14	10	11	15	11	7	11	6	3	11	4	4	6	6	9
14	5	16	7	10	8	11	8	14	13	9	3	3	7	13	11	10	4	5	1
15	11	8	9	7	12	8	7	1	15	4	9	13	13	6	3	15	9	1	14
11	6	6	1	4	1	3	16	12	5	1	8	4	11	5	2	15	10	12	4
4	10	3	16	2	11	7	9	6	9	2	16	5	8	1	9	5	12	16	6
1	8	1	13	1	4	14	10	9	8	15	10	7	10	9	10	6	14	10	11
9	7	14	2	6	5	2	15	10	2	14	2	8	2	4	13	8	5	15	5
3	3	12	11	5	9	6	6	3	10	13	12	9	6	2	15	7	15	7	13
10	15	11	5	13	7	12	5	2	7	11	5	10	15	12	3	1	13	13	10
8	13	13	3	3	10	13	2	4	1	8	6	11	14	15	6	9	16	2	2
16	16	5	12	11	6	1	3	8	16	3	7	2	5	15	14	13	7	14	15

Source: Reprinted, with permission, from William G. Cochran and Gertrude M. Cox, *Experimental Designs* (2d. ed.; New York: John Wiley & Sons, Inc., 1957), p. 533.

Sampler: C. T. Koesch
Title: Environmental Scientist
Facility: West Valley

End Date: 2-6-12 Time: 1500

Sample Type: _____ Prechlorinated
 _____ Dechlorinated
 _____ ~~✓~~ Unchlorinated
 _____ Chlorinated

L-3 Wier (SPOO1) Sampled via EM-2 Flow weighted Composite Sampling

Frank's Creek (WNFR067) Sampled via EM-2 Grab Sampling

Sample Shipment

FOR NEE USE ONLY

**IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042**

CH2M Hill B&W West Valley LLC (CHBWV) 10282 Rock Springs Rd. West Valley, NY 14171
CHAIN-OF-CUSTODY / REQUEST-FOR-ANALYSIS / PACKING SHEET

Sample Type: SPDES

Electronic Disk - Yes

External Lab Destination TestAmerica	Purchase Order Number CH-000068	Charge Number WV03.IN.01.01.01.02.06	Release Number 93	Report Format Level 1	Priority 10 Business Days
Custodian Signature <i>[Signature]</i>		C-O-C Reviewed By: <i>[Signature]</i>		Report Data to: Chet Wrotniak (716)942-4160	
Location Code WNSP001	Sample ID 2012-01148	Date 02/06/12	Time 1500	# Cont 4	Preservative Cool
					Tests WET
Notes:					

Notes:

Samples shipped under contract with Test America

Signature Rel: Date/Time <i>[Signature]</i> 2/6/12@1550	Signature Rel: Date/Time
Signature Rec: Date/Time <i>[Signature]</i> 2/7/12@0845	Signature Rec: Date/Time
Signature Rel: Date/Time	Signature Rel: Date/Time
Signature Rec: Date/Time	Signature Rec: Date/Time
Signature Rel: Date/Time	Sample Receipt at Lab: Cool YES NO Temp: C _____
Signature Rec: Date/Time	Custody Tape Intact: YES NO

RECEIVING WATER

Sampler: Charles Roesch
Title: Environmental Scientist
Facility: West Valley

Sampling Method: X Grab

Sample ID: Franks Creek

Date Collected: 2-9-12

Time Collected: 0700

Date Collected: _____

Time Collected: _____

Sample Type: _____ Prechlorinated
 _____ Dechlorinated
 _____  Unchlorinated
 _____ Chlorinated

L-3 Wier (SP001) Sampled via EM-2 Flow Weighted Composite Sampling

Frank's Creek (WVFRC67) Sampled via EM-2 Grab Sample

Requested Analysis: X Chronic and modified acute

Sample Shipment

Method of Shipment: _____

Relinquished By: Date: Time:

Received By: Michael White Date: 2/10/12 Time: 0900

Relinquished By: _____ Date: _____ Time: _____

Received By: _____ Date: _____ Time: _____

Relinquished By: _____ Date: _____ Time: _____

Received By: _____ Date: _____ Time: _____

FOR NEB USE ONLY

Temperature of Effluent Upon Receipt at Lab: 0.8/0.5 C

Temperature of Receiving Water Upon Receipt at Lab: 70.2°C

Effluent COC# C32-1504

Receiving Water COC# C32-1505

**IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042**

CH2M Hill B&W West Valley LLC (CHBWV) 10282 Rock Springs Rd. West Valley, NY 14171
CHAIN-OF-CUSTODY / REQUEST-FOR-ANALYSIS / PACKING SHEET

Sample Type: SPDES

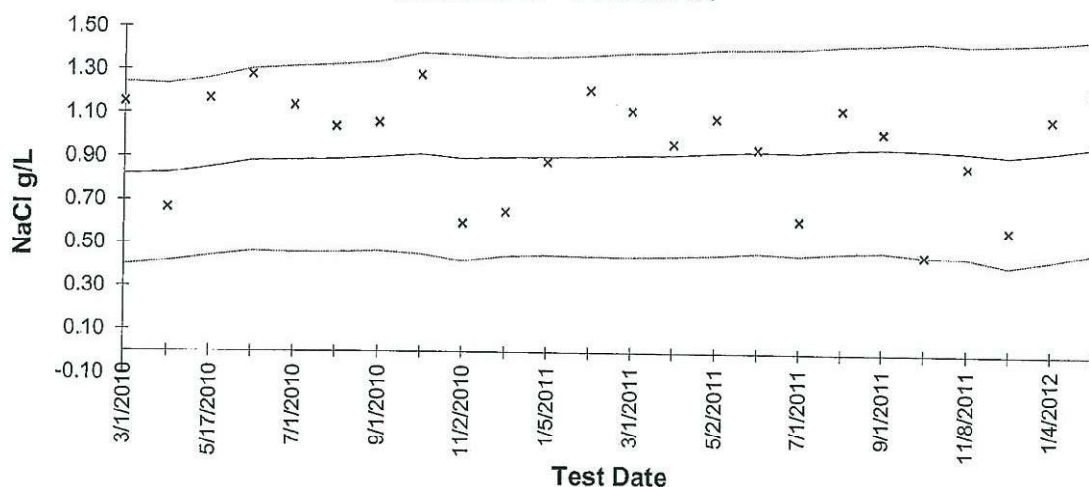
Electronic Disk - Yes

External Lab Destination TestAmerica	Purchase Order Number CH-000068	Charge Number WV03.EN.01.01.01.02.06 ✓	Release Number 99	Report Format Level 1	Priority 5 Business Days
Custodian Signature <i>D. R. Guadagnoli</i>		C-O-C Reviewed By: <i>W. P. ... 2-9-12</i>		Report Data to: Chet Wrotniak (716)942-4160	
Location Code	Sample ID	Date	Time	# Cont	Preservative Tests
WNSP001	2012-01474	02/09/12	1020	1	Cool WET
Notes:					

Notes:
 Samples are being sent via contract with Test America

Signature Rel: Date/Time <i>D. R. Guadagnoli 2/9/12 @ 1345</i>	Signature Rel: Date/Time
Signature Rec: Date/Time <i>M. W. ... 2/10/12 @ 0900</i>	Signature Rec: Date/Time
Signature Rel: Date/Time	Signature Rel: Date/Time
Signature Rec: Date/Time	Signature Rec: Date/Time
Signature Rel: Date/Time	Sample Receipt at Lab: Cool YES NO Temp: C _____
Signature Rec: Date/Time	Custody Tape Intact: YES NO

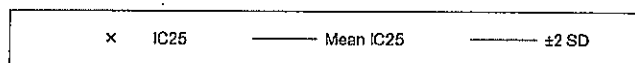
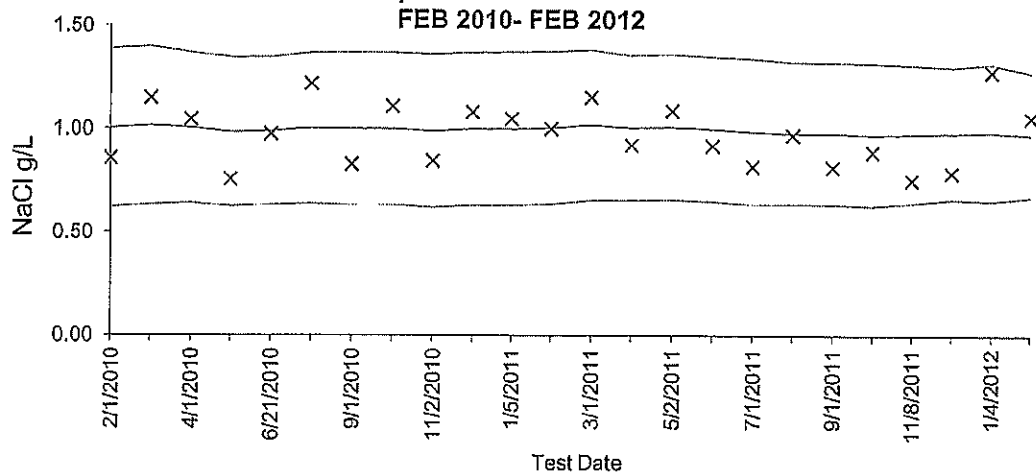
Sodium Chloride Reference Toxicant Data
***Ceriodaphnia dubia* Chronic Toxicity**
MAR 2010 - FEB 2012



x IC25 Reproduction — Mean IC25 - - - ± 2 SD

Test ID	Date	IC ₂₅	Mean IC ₂₅	STD	-2STD	+2STD	CV %
30-1246	3/1/2010	1.15	0.82	0.21	0.40	1.24	25.8
30-1388	4/1/2010	0.67	0.82	0.20	0.41	1.23	24.8
30-1581	5/17/2010	1.17	0.85	0.21	0.44	1.26	24.1
30-1734	6/21/2010	1.28	0.88	0.21	0.46	1.30	23.8
30-1767	7/1/2010	1.14	0.89	0.21	0.46	1.32	24.2
30-1954	8/2/2010	1.04	0.89	0.22	0.46	1.32	24.3
30-2101	9/1/2010	1.06	0.90	0.22	0.46	1.34	24.2
10-1779	10/4/2010	1.28	0.91	0.23	0.45	1.38	25.3
10-1791	11/2/2010	0.60	0.90	0.24	0.42	1.37	26.6
10-1857	12/1/2010	0.65	0.90	0.23	0.44	1.36	25.4
11-79	1/5/2011	0.88	0.90	0.23	0.45	1.36	25.2
11-256	2/3/2011	1.21	0.91	0.23	0.44	1.37	25.5
11-344	3/1/2011	1.12	0.91	0.24	0.44	1.38	25.7
11-534	4/1/2011	0.97	0.92	0.23	0.45	1.39	25.6
11-791	5/2/2011	1.09	0.93	0.24	0.45	1.40	25.6
11-949	6/1/2011	0.94	0.93	0.23	0.47	1.40	25.1
11-1136	7/1/2011	0.62	0.93	0.24	0.45	1.41	25.6
11-1371	8/1/2011	1.13	0.95	0.24	0.47	1.42	25.3
11-1734	9/1/2011	1.02	0.95	0.24	0.47	1.43	25.1
11-2375	10/3/2011	0.45	0.95	0.25	0.45	1.44	26.0
11-2543	11/8/2011	0.87	0.94	0.25	0.45	1.43	26.2
11-2753	12/1/2011	0.57	0.92	0.26	0.41	1.44	27.8
12-185	1/4/2012	1.09	0.94	0.25	0.44	1.45	26.7
12-323	2/15/2012	1.20	0.97	0.25	0.47	1.46	25.5

Reference Toxicant Data
7-day Chronic Toxicity Test
P. promelas Growth Data
FEB 2010- FEB 2012



Test ID	Date	IC ₂₅	Mean IC ₂₅	STD	-2STD	+2STD	CV %
30-1116	2/1/2010	0.86	1.00	0.19	0.62	1.39	19.15
30-1245	3/1/2010	1.15	1.02	0.19	0.63	1.40	18.80
30-1384	4/1/2010	1.04	1.01	0.18	0.64	1.37	18.11
30-1528	5/4/2010	0.76	0.98	0.18	0.62	1.34	18.28
30-1733	6/21/2010	0.98	0.99	0.18	0.63	1.34	17.99
30-1763	7/1/2010	1.22	1.00	0.18	0.64	1.37	18.14
30-2099	9/1/2010	0.83	1.00	0.18	0.63	1.37	18.42
10-1773	10/4/2010	1.11	1.00	0.18	0.63	1.37	18.44
10-1792	11/2/2010	0.85	0.99	0.19	0.62	1.36	18.78
10-1858	12/1/2010	1.08	1.00	0.19	0.63	1.37	18.55
11-80	1/5/2011	1.05	1.00	0.19	0.63	1.37	18.54
11-257	2/3/2011	1.00	1.01	0.18	0.64	1.37	18.31
11-399	3/1/2011	1.15	1.02	0.18	0.66	1.38	17.86
11-511	4/1/2011	0.92	1.00	0.17	0.65	1.35	17.41
11-793	5/2/2011	1.09	1.01	0.18	0.66	1.36	17.40
11-1001	6/1/2011	0.92	1.00	0.17	0.65	1.35	17.42
11-1187	7/1/2011	0.82	0.99	0.18	0.64	1.34	17.83
11-1394	8/1/2011	0.97	0.98	0.17	0.64	1.32	17.53
11-1735	9/1/2011	0.82	0.98	0.17	0.63	1.32	17.60
11-2376	10/3/2011	0.89	0.97	0.17	0.63	1.32	17.76
11-2560	11/8/2011	0.75	0.98	0.17	0.64	1.31	17.07
11-2754	12/1/2011	0.79	0.98	0.16	0.66	1.30	16.27
12-186	1/4/2012	1.28	0.98	0.17	0.65	1.32	16.80
12-298	2/1/2012	1.05	0.97	0.15	0.67	1.27	15.43

Attachment 2

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-17145-1

TestAmerica Sample Delivery Group: 120/123

Client Project/Site: West Valley SPDES

For:

CH2M Hill B&W West Valley (CHBWV)

MS-ELAB

West Valley, New York 14171-9799

Attn: Chester Wrotniak



Authorized for release by:

4/26/2012 1:58:00 PM

John Schove

Project Manager I

john.schove@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Ask
The
Expert

Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: CH2M Hill B&W West Valle (CBWV)
Project/Site: West Valley SPDES

TestAmerica Job ID: 480-17145-1
SDG: 120/123

Job ID: 480-17145-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-17145-1

Comments

This report has been revised to change the name of the receiving water collection location from Frank's Creek to Erdman Brook.

This report has been revised to correct typographical errors.

Chronic Toxicity was performed by New England Bioassay. Final results are contained under this cover.

Receipt

No analytical or quality issues were noted.

CHRONIC WHOLE EFFLUENT TOXICITY TEST REPORT

West Valley Demonstration Project
West Valley, New York
Receiving Water: Erdman Brook
NPDES Permit: NY0000973

Test Start Date: March 10, 2012

Test Period: March 2012

Report Prepared by:
New England Bioassay
A division of GZA GeoEnvironmental, Inc.
77 Batson Drive
Manchester CT 06042

NEB Project Number: 05.0044240.00

Report Date: March 26, 2012

Report Submitted to:

Test America, Buffalo
10 Hazelwood Drive
Amherst, NY 14228

Sample ID: 2012-02048/02049

Please contact the Lab Supervisor, Kim Wills, at (860) 858-3153 or kimberly.wills@gza.com
if you have any questions concerning these results.

Whole Effluent Toxicity Testing Report Instruction Form

Client Name/Project: Test America/ West Valley 007 Test Date: 3/10/12

Sample ID: 2012-02048/02049

Your results were as follows:

☒ Pass

- ☐ Fail – Please proceed according to the instructions in your permit.
- ☐ Invalid – Retesting is still required. Retest report will be sent at a later date under separate cover.
- ☐ Original Test Invalid – Valid retest performed. Both test and retest results are attached.
- ☐ Retesting will be or has been performed according to the Case 1 Protocols outlined in the attached copy of EPA-New England's species-specific, self-implementing policy for alternate dilution water.
- ☐ This is your _____ case of dilution water toxicity. Please proceed according to the Case 2 Protocols outlined in the attached copy of EPA-New England's species-specific, self-implementing policy for alternate dilution water. The alternate dilution water you select for future tests for this species should be described as follows: "synthetic laboratory water made up according to EPA's toxicity test protocols, by adding specified amounts of salts into deionized water in order to match the hardness of our receiving water." Writing this letter should help you to avoid retests in the future.
- ☐ Available information is insufficient to determine whether this test passed or failed. Please compare results to your permit limits. Please submit a current copy of your permit to the NEB Lab so that we can determine the status of future tests results and help ensure your compliance with permit requirements.

Please complete the items on this list before reporting these results according to the instructions in the "Monitoring and Reporting" Section of your permit.

- Please complete, sign and date the upper portion of the "Whole Effluent Toxicity Test Report Certification" page which is the page directly following this page.
- Fill in the Sample Type and Sample Method (upper right) and the Permit Limits (lower left) on the New England Bioassay-EPA Toxicity Test Summary Sheet(s) if they are incomplete.
- Fill in any missing information on the NEB Chain-of-Custody documents. This includes ensuring that the following information is recorded: Sampler's name and title, Facility name and address, Sample collection methods, Sample collection start and end dates and times, Types of sample, Chlorination status of samples upon shipment to NEB, Site description and Sample collection procedures.
- Monitoring results should be summarized on your monthly Discharge Monitoring Report Form.
- Signed and dated originals of this report must be submitted to the State (and Federal) Agencies specified in the "Monitoring and Reporting" section of your permit.

Questions? Please contact the Lab Supervisor, Kim Wills, at (860) 858-3153 or
kimberly.wills@gza.com.

WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION (Permittee)

I certify under penalty of law that this document 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 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.

Executed on 05-17-2012
[Date]

[Signature]
[Authorized Signature]

Bryan C. Bower, Director
[Print or Type Name and Title]

West Valley Demonstration Project
[Print or Type the Permittee's Name]

NY-0000973
[Print or Type the NPDES Permit No.]

Since the WET test and report check is complicated, the New England Bioassay Aquatic Toxicity Laboratory has certified the validity of the WET test data in the section below. Please note that this does not relieve the permittee from its responsibility to sign and certify the report under 40 C.F.R. S 122.41(k).

WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION (Bioassay Laboratory)

I certify under penalty of law that this document 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 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.

Executed on 3/28/12
[Date]

[Signature]
[Authorized Signature]

Kim Wills, Laboratory Supervisor
[Print or Type Name and Title]

New England Bioassay
[Print or Type Name of Bioassay Laboratory]

24. Telephone Contacts

If you have questions, please contact Joy Hilton, Water Technical Unit, at (617) 918-1877 or David McDonald, Ecosystem Assessment Unit, at (617) 918-8609.

AQUATIC TOXICITY TEST SUMMARY

Client: West Valley Demonstration Project

Sample ID: Outfall 007 and Erdman Brook

NPDES Number: NY0000973

NEB Project Number: 05.0044240.00

NEB Test Numbers: 12-443 A&B

Sample Dates: 3/8-9/12, 3/12-13/12 (Effluent)
3/9/12, 3/13/12 (Receiving Water)

Test Dates: 3/10-17/12

Test Type: Modified Chronic Static Renewal Freshwater Test

Test Duration: 6 days (Ceriodaphnia) & 7 days (Pimephales)

Test species: *Ceriodaphnia dubia* and *Pimephales promelas*

Dilution Water Source: Erdman Brook

Test Method: U.S. Environmental Protection Agency (EPA) Document EPA-821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition

Concentrations Tested: 0%, 6.25%, 12.5%, 25%, 50% and 100% effluent

Acute Results: *Ceriodaphnia dubia* 48-hour LC50 = $>100\%$
Pimephales promelas 48-hour LC50 = $>100\%$
Ceriodaphnia dubia TU_a = 0.3
Pimephales promelas TU_a = 0.3

Chronic Results: *Ceriodaphnia dubia* C-NOEC = 100%
Pimephales promelas C-NOEC = 100%
Ceriodaphnia dubia TU_c = 1.0
Pimephales promelas TU_c = 1.0

Mean Control Survival: *Ceriodaphnia dubia* – 100% (laboratory control) and 90% (dilution water)
Pimephales promelas – 100% (laboratory control) and 95% (dilution water)

Reference Toxicant Data: Date: 3/1/12 (*Ceriodaphnia dubia* and *Pimephales promelas*)
Toxicant: Sodium chloride
Source: New England Bioassay
IC25: *Ceriodaphnia dubia* – 1.26 g/L
Pimephales promelas – 1.21 g/L

New England Bioassay a division of GZA – EPA Toxicity Test Summary Sheet

Facility Name: West Valley Demonstration Project Test Start Date: 3/10/12
 NPDES Permit Number: NY0000973 Pipe Number: Outfall 007

<u>Test Type</u>	<u>Test Species</u>	<u>Sample Type</u>	<u>Sample Method</u>
☐ Acute	☐ Fathead Minnow	☐ Prechlorinated	☐ Grab
☐ Chronic	☒ Ceriodaphnia	☐ Dechlorinated	☒ Composite
☒ Modified	☐ Daphnia Pulex	☐ Chlorine Spiked in Lab	☐ Flowthru
(chronic reporting	☐ Mysid Shrimp	☐ Chlorinated on site	☐ Other
acute values)	☐ Sheepshead	☒ Unchlorinated	
☐ 24hr screening	☐ Menidia		
	☐ Sea Urchin		
	☐ Champia	TRC: <u>0.010</u> mg/L	
	☐ Selenastrum		
	☐ Other _____		

Dilution Water

☒ receiving water collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination; (Receiving water name: Erdman Brook)
☐ alternate surface water of known quality and a hardness, etc. to generally reflect the characteristics of the receiving water; (Surface water name: _____)
☐ synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;
☐ or artificial sea salts mixed with deionized water;
☐ deionized water and hypersaline brine; or
☐ other _____

Effluent sampling date (s): 3/8-9/12 3/12-13/12

Effluent concentrations tested (in%): 0 6.25 12.5 25 50 100

* Permit limit concentration: TUa < 0.3, TUc < 1.0

Was effluent salinity adjusted? No

If yes, to what value? N/A ppt

With sea salts? N/A Hypersaline brine solution? N/A

Actual effluent concentrations tested after salinity adjustment (%): 0 6.25 12.5 25 50 100

Reference Toxicant test date: 3/1/12

Test Acceptability Criteria

Mean Control Survival: 100%

Mean Control Reproduction: 30.4 young/female

Mean Diluent Survival: 90%

Mean Diluent Reproduction: 27.2 young/female

	<u>Limits</u>		<u>Results</u>
LC50	<u>N/A</u>	LC50	<u>> 100%</u>
		Upper Value	<u>+ ∞</u>
		Lower Value	<u>100%</u>
		Data Analysis	
		Method Used	<u>Graphical</u>
TUa	<u>0.3</u>	TUa	<u>0.3</u>
A-NOEC	<u>N/A</u>	A-NOEC	<u>100%</u>
C-NOEC	<u>N/A</u>	C-NOEC	<u>100%</u>
		LOEC	<u>>100%</u>
TUc	<u>1.0</u>	TUc	<u>1.0</u>
IC25	<u>N/A</u>	IC25	<u>>100%</u>
IC50	<u>N/A</u>	IC50	<u>-----</u>

New England Bioassay a division of GZA – EPA Toxicity Test Summary Sheet

Facility Name: West Valley Demonstration Project Test Start Date: 3/10/12
 NPDES Permit Number: NY0000973 Pipe Number: Outfall 007

<u>Test Type</u>	<u>Test Species</u>	<u>Sample Type</u>	<u>Sample Method</u>
☐ Acute	☒ Fathead Minnow	☐ Prechlorinated	☐ Grab
☐ Chronic	☐ Ceriodaphnia	☐ Dechlorinated	☒ Composite
☒ Modified	☐ Daphnia Pulex	☐ Chlorine Spiked in Lab	☐ Flowthru
(chronic reporting	☐ Mysid Shrimp	☐ Chlorinated on site	☐ Other
acute values)	☐ Sheepshead	☒ Unchlorinated	
☐ 24hr screening	☐ Menidia		
	☐ Sea Urchin		
	☐ Champia	TRC: <u>0.010</u> mg/L	
	☐ Selenastrum		
	☐ Other _____		

Dilution Water

☒ receiving water collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination; (Receiving water name: ErdmanBrook)
☐ alternate surface water of known quality and a hardness, etc. to generally reflect the characteristics of the receiving water; (Surface water name: _____)
☐ synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;
☐ or artificial sea salts mixed with deionized water;
☐ deionized water and hypersaline brine; or
☐ other _____

Effluent sampling date (s): 3/8-9/12 3/12-13/12

Effluent concentrations tested (in%): 0 6.25 12.5 25 50 100

* Permit limit concentration: TUa ≤ 0.3, TUc ≤ 1.0

Was effluent salinity adjusted? No

If yes, to what value? N/A ppt

With sea salts? N/A Hypersaline brine solution? N/A

Actual effluent concentrations tested after salinity adjustment (%): 0 6.25 12.5 25 50 100

Reference Toxicant test date: 3/1/12

Test Acceptability Criteria

Mean Control Survival: <u>100%</u>	Mean Control Weight: <u>0.5970 mg</u>
Mean Diluent Survival: <u>95%</u>	Mean Diluent Weight: <u>0.5210 mg</u>

	<u>Limits</u>		<u>Results</u>
LC50	<u>N/A</u>	LC50	<u>>100%</u>
		Upper Value	<u>+∞</u>
		Lower Value	<u>100%</u>
		Data Analysis	
		Method Used	<u>Graphical</u>
TUa	<u>0.3</u>	TUa	<u>0.3</u>
A-NOEC	<u>N/A</u>	A-NOEC	<u>100%</u>
C-NOEC	<u>N/A</u>	C-NOEC	<u>100%</u>
		LOEC	<u>>100%</u>
TUc	<u>1.0</u>	TUc	<u>1.0</u>
IC25	<u>N/A</u>	IC25	<u>>100%</u>
IC25		IC50	<u>>100%</u>

CERIODAPHNIA DUBIA AQUATIC TOXICITY TEST REPORT

Test Reference Manual: EPA 821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition

Test Method: *Ceriodaphnia dubia* Survival and Reproduction Test – 1002.0

Test Type: Modified Chronic Static Renewal Freshwater Test

Temperature : 25 ± 1°C

Light Quality: Ambient Laboratory Illumination

Photoperiod: 16 hours light, 8 hours dark

Test Chamber Size: 30 mL

Test Solution Volume: Minimum 15 mL

Renewal of Test Solutions: Daily, using most recently collected sample

Age of Test Organisms: Less than 24 hours

Number of Neonates Per Test Chamber: 1

Number of Replicate Test Chambers Per Treatment: 10

Number of Neonates Per Test Concentration: 10

Feeding Regime: Fed 0.1 mL each of YCT and algal suspension per exposure chamber daily.

Aeration: None

Dilution Water: Erdman Brook

Alternate Control Water: NEB Moderately Hard Water (hardness 80-100 mg/L)

Effluent Concentrations: 0%, 6.25%, 12.5%, 25%, 50% and 100% effluent

Test Duration: Until 60% of control females have three broods - 7 days

End Points: Survival and reproduction.

Test Acceptability: Control Survival: ≥ 80% Yes ☒ No ☐
Control Reproduction: Average ≥ 15/control female Yes ☒ No ☐

Sampling Requirements: NYSDEC has approved West Valley Demonstration Project to use only two sets of samples for their chronic testing due to the batch nature of their discharge.

Sample Volume Required: Minimum 2 liters/day

Test Organism Source: NEB

Test Acceptability Criteria: Mean Control Survival = 100%

Mean Dilution Water Control Survival = 90%

Mean Control Reproduction = 30.4/surviving female

Mean Dilution Water Control Reproduction = 27.2/surviving female

Test Results:

	<u>Limits</u>	<u>Results</u>	<u>Status</u>
48-hour LC50		<u>> 100%</u>	
Upper Value		<u>+ ∞</u>	
Lower Value		<u>100%</u>	
Data Analysis Method Used		<u>Graphical</u>	
A-		<u>100%</u>	
TUa	0.3	<u>0.3</u>	
48-hour EC50		<u>> 100%</u>	
Survival C-NOEC		<u>100%</u>	
Reproduction C-NOEC		<u>100%</u>	
Reportable C-NOEC		<u>100%</u>	
TUc	1.0	<u>1.0</u>	
LOEC		<u>> 100%</u>	
MAWC		<u>> 100%</u>	
IC25		<u>> 100%</u>	

Reference Toxicant Data:

Date: 3/1/12
Toxicant: Sodium chloride
Dilution Water: NEB Lab Synthetic Soft Water
Source: New England Bioassay
IC₂₅: 1.26 g/L
In Acceptable Range: Yes X No

Dechlorination Procedures: Chlorine is measured using 4500 CL-G DPD Colorimetric Method.

X Dechlorination was not required

_ Sample was dechlorinated by adding sodium thiosulfate to the sample prior to test initiation. Since dechlorination of the effluent was necessary, a thiosulfate control of diluent water spiked with sodium thiosulfate was also included in the test series. Chlorine was _____ mg/L in a dechlorinated sample.

_ Chlorine Measurement was elevated due to interference. Chlorine was _____ mg/L in a filtered sample.

_ Total Residual Chlorine was re-measured following aeration, and was found to be _____ mg/L.

PIMEPHALES PROMELAS AQUATIC TOXICITY TEST REPORT

Test Reference Manual: EPA 821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition

Test Method: *Pimephales promelas* Larval Survival and Growth Test – 1000.0

Test Type: Modified Chronic Static Renewal Freshwater Test

Temperature : 25 ± 1°C

Light Quality: Ambient Laboratory Illumination

Photoperiod: 16 hours light, 8 hours dark

Test Chamber Size: 600 mL

Test Solution Volume: Minimum 200 mL

Renewal of Test Solutions: Daily, using most recently collected sample

Age of Test Organisms: Less than 24 hours

Number of Larvae Per Test Chamber: 10

Number of Replicate Test Chambers Per Concentration: 4

Number of Larvae Per Test Concentration: 40

Feeding Regime: Fed 0.1 mL newly hatched brine shrimp nauplii twice daily.

Cleaning: Siphoned daily, immediately before test solution renewal.

Aeration: DO concentration fell below 4.0 mg/L Yes ☐ No ☒
Aerated at <100 bubbles/minute Yes ☐ No ☒

Dilution Water: Erdman Brook

Alternate Control Water: NEB Moderately Hard Water (hardness 80-100 mg/L)

Effluent Concentrations: 0%, 6.25%, 12.5%, 25%, 50% and 100% effluent

Test Duration: 7 days

End Points: Survival and growth.

Test Acceptability: Control Survival: ≥ 80% Yes ☒ No ☐
Control Average Dry Weight ≥ 0.25 mg Yes ☒ No ☐

Sampling Requirements: NYSDEC has approved West Valley Demonstration Project to use only two sets of samples for their chronic testing due to the batch nature of their discharge.

Sample Volume Required: Minimum 2.5 liters/day

Test Organism Source: NEB

Test Acceptability Criteria: Mean Control Survival = 100%
Mean Dilution Water Control Survival = 95%
Mean Control Weight = 0.5970 mg
Mean Dilution Water Control Weight = 0.5210 mg

<u>Test Results:</u>	<u>Limits</u>	<u>Results</u>	<u>Status</u>
48-hour LC50		<u>>100%</u>	
Upper Value		<u>+∞</u>	
Lower Value		<u>100%</u>	
Data Analysis Method Used		<u>Graphical</u>	
A-NOEC		<u>100%</u>	
TUa	0.3	<u>0.3</u>	
48-hour EC50		<u>>100%</u>	
Survival C-NOEC		<u>100%</u>	
Growth C-NOEC		<u>100%</u>	
Reportable C-NOEC		<u>100%</u>	
TUc	1.0	<u>1.0</u>	
LOEC		<u>>100%</u>	
MAWC		<u>>100%</u>	
IC25		<u>>100%</u>	

Reference Toxicant Data: **Date:** 3/1/12
Toxicant: Sodium chloride
Dilution Water: NEB Lab Synthetic Soft Water
Source: New England Bioassay
IC₂₅: 1.21 g/L
In Acceptable Range: Yes X No

Dechlorination Procedures: Chlorine is measured using 4500 CL-G DPD Colorimetric Method.

X Dechlorination was not required

_ Sample was dechlorinated by adding sodium thiosulfate to the sample prior to test initiation. Since dechlorination of the effluent was necessary, a thiosulfate control of diluent water spiked with sodium thiosulfate was also included in the test series. Chlorine was mg/L in a dechlorinated sample.

_ Chlorine Measurement was elevated due to interference. Chlorine was mg/L in a filtered sample.

_ Total Residual Chlorine was re-measured following aeration, and was found to be mg/L.

NEW ENGLAND BIOASSAY TOXICITY DATA FORM
CHRONIC COVER SHEET

CLIENT: Test America, Inc.
ADDRESS: 10 Hazelwood Drive
Amherst, NY 14228
West Valley - 007
CONTACT: _____
SAMPLE TYPE: _____
DILUTION WATER SOURCE: Receiving Water

C. dubia TEST ID NO: 12-4439
P. promelas TEST ID NO: 12-4435
COC NO: C32-1800107
PROJECT NO: 05.0044240.00

INVERTEBRATES

TEST SET UP (TECH INIT.): LO

TEST SPECIES: *Ceriodaphnia dubia*
SOURCE/NEB LOT #: 012(3-10)
AGE: <24 Hours
TEST SOLUTION VOLUME: 15 mL
NO. ORGANISMS PER TEST CHAMBER: 1
NO. ORGANISMS PER CONCENTRATION: 10

START DATE: 3/10/12 AT 1025 hours
END DATE: 3/16/12 AT 0925 hours

Laboratory Control Water

Test Day	Batch Number	Hardness mg/l CaCO ₃	Alkalinity mg/l CaCO ₃
0	C32-M11005	88	65
1	↓	88	65
2	↓	88	65
3	↓	88	65
4	↓	88	65
5	↓	88	65
6	↓	88	65
7	↓	88	65

Results of *Ceriodaphnia dubia* Chronic Test

48 Hour LC₅₀: >100% 95% Conf. Limit ± ∞
7 Day LC₅₀: >100% ± ∞
Survival NOEC: 100%
Survival LOEC: >100%
Reproduction NOEC: 100%
Reproduction LOEC: >100%
Reproduction IC25: >100%

NOEC: NO-OBSERVED-EFFECT-CONCENTRATION

VERTEBRATES

TEST SET UP (TECH INIT.): LO

TEST SPECIES: *Pimephales promelas*
SOURCE/NEB LOT #: 012(RM4053)*
AGE: <24 Hours
TEST SOLUTION VOLUME: 400 mL
NO. ORGANISMS PER TEST CHAMBER: 10
NO. ORGANISMS PER CONCENTRATION: 40

START DATE: 3/10/12 AT 1100 hours
END DATE: 3/17/12 AT 1215 hours

Sample Collection Time

Effluent # 1 from: 3/8/12 at 0945
to: 3/9/12 at 0945
Diluent # 1 3/9/12 at 1005
Effluent # 2 from: 3/12/12 at 1000
to: 3/13/12 at 1000
Diluent # 2 to: 3/15/12 at 0920
Effluent # 3 from: NA at NA
to: NA at NA
Diluent # 3 to: NA at NA

Results of *Pimephales promelas* Chronic Test

48 Hour LC₅₀: >100% 95% Conf. Limit ± ∞
7 Day LC₅₀: >100% ± ∞
Survival NOEC: 100%
Survival LOEC: >100%
Growth NOEC: 100%
Growth LOEC: >100%
Growth IC25: >100%

LOEC: LOWEST-OBSERVED-EFFECT-CONCENTRATION

ANIMAL CONDITION/BEHAVIOR: _____

COMMENTS: * lot numbers switched w/g

REVIEWED BY: _____ DATE: _____

NEW ENGLAND BIOASSAY - CHRONIC TOXICITY TEST BROOD DATA SHEET

Page 1 of 2

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP007, 10282 Rock Springs Rd West Valley, NY 14171-9702			
NEB PROJECT NUMBER: 05.0644240.00		NEB TEST NUMBER: 12-4439	COC #: 032-1806107
TEST ORGANISM: Ceriodaphnia dubia		AGE: < 24 hours	LOT #: C d12 RMH 05.8
START DATE: 3/10/12	TIME: 1025	END DATE: 3/16/12	TIME: 0925

Effluent concentration	Day Number	Source 1: _____ Source 2: _____										Total Live Young	Number Live Adults	Analyst - Transfer	Analyst - Counts
		Replicate													
		A	B	C	D	E	F	G	H	I	J				
NEB Lab Synthetic Control	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10	KD	
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10	MG	
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10	BB	
	3	5	6	3	5	6	6	5	5	6	5	52	10	MG	MG
	4	✓	✓	10	10	✓	✓	✓	✓	✓	✓	20	10	PD	PD
	5	11	12	✓	✓	10	11	10	9	9	11	83	10	BB	BB
	6	19	16	13	11	16	17	13	16	14	14	149	10	KO	KO
	7														
	Totals	35	34	26	26	32	34	28	30	29	30	304	10		MG
Receiving Water Diluent	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	5	5	2	6	6	6	6	4	5	3	48	10		
	4	✓	✓	✓	11	9	✓	✓	✓	10	✓	30	10		
	5	10	11	✓	✓	✓	10	8	10	✓	12	61	10		
	6	14	16	✓	12	16	13	13	15	16	18	133	9		
	7														
	Totals	29	32	2	29	31	29	27	29	31	33	270	9		
6.25%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	5	3	5	6	4	7	5	7	7	6	55	10		
	4	✓	✓	10	11	11	9	✓	✓	10	✓	51	10		
	5	12	10	✓	✓	✓	✓	9	11	✓	10	52	10		
	6	12	14	17	14	21	17	13	15	16	18	157	10		
	7														
	Totals	29	27	32	31	36	33	27	33	33	34	315	10		

Notes:

NEW ENGLAND BIOASSAY - CHRONIC TOXICITY TEST BROOD DATA SHEET

Page 2 of 2

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP007, 10282 Rock Springs Rd West Valley, NY 14171-9702		
NEB PROJECT NUMBER: 05.00494240.00	ORGANISM: <i>Ceriodaphnia dubia</i>	START DATE: 3/10/12

Effluent concentration	Day Number	Replicate										Total Live Young	Number Live Adults	Analyst - Transfer	Analyst - Counts
		A	B	C	D	E	F	G	H	I	J				
12.5%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	7	8	6	5	6	7	5	6	4	6	60	10		
	4	x19	14	12	7	13	✓	✓	✓	8	✓	63	9		
	5		✓	✓	✓	✓	10	11	10	✓	9	40	9		
	6		15	16	13	16	18	16	13	16	13	130	9		
	7														
	Totals	x110	37	34	25	35	35	32	29	28	28	299	9		
25%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	6	5	4	5	4	6	6	5	5	6	52	10		
	4	✓	12	13	✓	✓	✓	✓	✓	8	✓	32	6		
	5	10	✓	✓	12	13	16	15	13	✓	14	93	6		
	6	15	14	18	18	16	21	13	14	15	13	157	10		
	7														
	Totals	31	31	34	35	33	43	34	32	28	33	334	10		
50%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	7	6	7	6	6	5	5	5	3	6	56	10		
	4	9	7	13	12	10	✓	✓	✓	13	✓	64	10		
	5	✓	✓	✓	✓	✓	10	9	11	✓	10	40	10		
	6	13	14	17	16	15	14	16	16	16	18	155	10		
	7														
	Totals	29	27	37	34	31	29	30	32	32	34	315	10		
100%	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		10		
	3	7	7	6	5	4	7	6	6	8	7	63	10		
	4	✓	✓	9	11	11	12	✓	✓	12	✓	55	10		
	5	13	11	✓	✓	✓	✓	9	8	✓	11	52	10		
	6	13	15	12	12	14	11	13	13	14	12	129	10		
	7														
	Totals	33	33	27	28	29	30	28	27	34	30	299	10		

CT-TOX: BINOMIAL, MOVING AVERAGE, PROBIT, AND SPEARMAN METHODS

MINIMUM REQUIRED TRIM IS TOO LARGE: 100.0, SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (%)
6.25	10.	0.	.00	.9766D-01
12.50	10.	0.	.00	.9766D-01
25.00	10.	0.	.00	.9766D-01
50.00	10.	0.	.00	.9766D-01
100.00	10.	0.	.00	.9766D-01

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 99.9023 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.

DATE: 3/10/12 TEST NUMBER: 12-443a DURATION: 48 h
SAMPLE: West Valley 007 SPECIES: C.dubia

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	100.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

**** = LIMIT DOES NOT EXIST

MINIMUM REQUIRED TRIM IS TOO LARGE: 97.5,SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (%)
6.25	10.	0.	.00	.9766D-01
12.50	10.	1.	10.00	.1074D+01
25.00	10.	0.	.00	.9766D-01
50.00	10.	0.	.00	.9766D-01
100.00	10.	0.	.00	.9766D-01

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 99.9023 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.

DATE: 3/10/12 TEST NUMBER: 12-443a DURATION: 7 days
SAMPLE: West Valley 007 SPECIES: C.dubia

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	100.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.
ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

**** = LIMIT DOES NOT EXIST

CETIS Analytical Report

Report Date: 26 Mar-12 08:07 (p 1 of 2)
Test Code: 12-443a | 03-6210-3257

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 00-3230-1318	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 26 Mar-12 8:07	Analysis: STP 2x2 Contingency Tables	Official Results: Yes
Batch ID: 02-6100-0500	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 10 Mar-12 10:25	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 16 Mar-12 09:25	Species: Ceriodaphnia dubia	Brine:
Duration: 5d 23h	Source: In-House Culture	Age: <24h
Sample ID: 16-2524-8507	Code: 60DF52FB	Client: Test America
Sample Date: 09 Mar-12	Material: Industrial Effluent	Project:
Receive Date: 10 Mar-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 34h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU
Untransformed		C > T	NA	NA	100	>100	NA	1

Fisher Exact/Bonferroni-Holm Test

Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	1	1.0000	Exact	Non-Significant Effect
		12.5	0.7632	1.0000	Exact	Non-Significant Effect
		25	1	1.0000	Exact	Non-Significant Effect
		50	1	1.0000	Exact	Non-Significant Effect
		100	1	1.0000	Exact	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.9	0.8 - NL	Yes	Passes Acceptability Criteria

Data Summary

C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Dilution Water	9	1	10	0.9	0.1	0.0%
6.25		10	0	10	1	0	-11.11%
12.5		9	1	10	0.9	0.1	0.0%
25		10	0	10	1	0	-11.11%
50		10	0	10	1	0	-11.11%
100		10	0	10	1	0	-11.11%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1	0	1	1	1	1	1	1	1	1
6.25		1	1	1	1	1	1	1	1	1	1
12.5		0	1	1	1	1	1	1	1	1	1
25		1	1	1	1	1	1	1	1	1	1
50		1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

CETIS Analytical Report

Report Date: 26 Mar-12 08:07 (p 2 of 2)
Test Code: 12-443a | 03-6210-3257

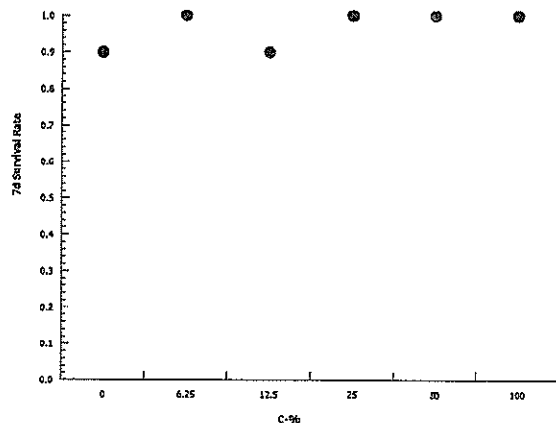
Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 00-3230-1318 Endpoint: 7d Survival Rate
Analyzed: 26 Mar-12 8:07 Analysis: STP 2x2 Contingency Tables

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 26 Mar-12 08:07 (p 1 of 2)
Test Code: 12-443a | 03-6210-3257

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 19-5354-1821	Endpoint: Reproduction	CETIS Version: CETISv1.8.4
Analyzed: 26 Mar-12 8:07	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 02-6100-0500	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 10 Mar-12 10:25	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 16 Mar-12 09:25	Species: Ceriodaphnia dubia	Brine:
Duration: 5d 23h	Source: In-House Culture	Age: <24h
Sample ID: 16-2524-8507	Code: 60DF52FB	Client: Test America
Sample Date: 09 Mar-12	Material: Industrial Effluent	Project:
Receive Date: 10 Mar-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 34h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	NA	C > T	NA	NA	100	>100	NA	1	19.4%

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	126	75	5	18	0.9980	Asymp	Non-Significant Effect
		12.5	113.5	75	2	18	0.9590	Asymp	Non-Significant Effect
		25	138.5	75	3	18	1.0000	Asymp	Non-Significant Effect
		50	124.5	75	4	18	0.9970	Asymp	Non-Significant Effect
		100	107	75	3	18	0.8746	Asymp	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	27.2	15 - NL	Yes	Passes Acceptability Criteria
PMSD	0.1944	0.13 - 0.47	Yes	Passes Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	219.9333	43.98667	5	1.649	0.1630	Non-Significant Effect
Error	1440.8	26.68148	54			
Total	1660.733		59			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	22.81	15.09	0.0004	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.806	0.9459	<0.0001	Non-normal Distribution

Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	10	27.2	20.74	33.66	29	2	33	2.855	33.19%	0.0%
6.25		10	31.5	29.36	33.64	32.5	27	36	0.9458	9.49%	-15.81%
12.5		10	29.9	25.45	34.35	30.5	16	37	1.969	20.82%	-9.93%
25		10	33.4	30.59	36.21	33	28	43	1.24	11.74%	-22.79%
50		10	31.5	29.39	33.61	31.5	27	37	0.9339	9.38%	-15.81%
100		10	29.9	28.04	31.76	29.5	27	34	0.8226	8.7%	-9.93%

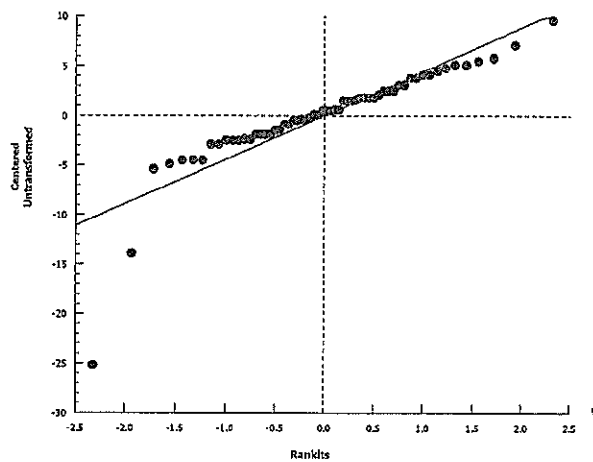
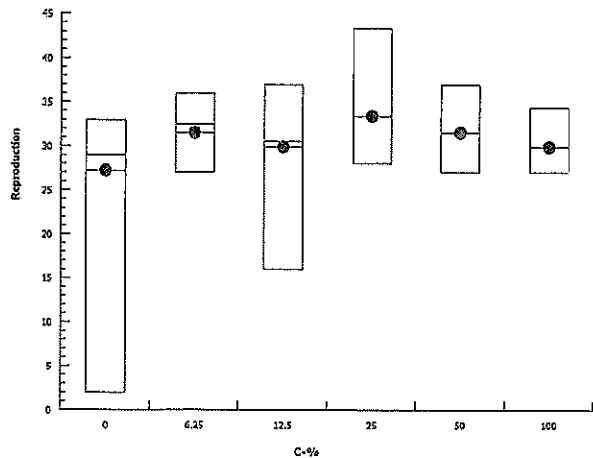
Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	29	32	2	29	31	29	27	29	31	33
6.25		29	27	32	31	36	33	27	33	33	34
12.5		16	37	34	25	35	35	32	29	28	28
25		31	31	34	35	33	43	34	32	28	33
50		29	27	37	34	31	29	30	32	32	34
100		33	33	27	28	29	30	28	27	34	30

Ceriodaphnia 7-d Survival and Reproduction Test New England Bioassay

Analysis ID: 19-5354-1821 Endpoint: Reproduction CETIS Version: CETISv1.8.4
Analyzed: 26 Mar-12 8:07 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 26 Mar-12 08:07 (p 1 of 2)
 Test Code: 12-443a | 03-6210-3257

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID: 16-9212-3942	Endpoint: Reproduction	CETIS Version: CETISv1.8.4
Analyzed: 26 Mar-12 8:07	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 02-6100-0500	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 10 Mar-12 10:25	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 16 Mar-12 09:25	Species: Ceriodaphnia dubia	Brine:
Duration: 5d 23h	Source: In-House Culture	Age: <24h
Sample ID: 16-2524-8507	Code: 60DF52FB	Client: Test America
Sample Date: 09 Mar-12	Material: Industrial Effluent	Project:
Receive Date: 10 Mar-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 34h	Station:	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	2036090	200	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	27.2	15 - NL	Yes	Passes Acceptability Criteria

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	NA	NA
IC10	>100	N/A	N/A	<1	NA	NA
IC15	>100	N/A	N/A	<1	NA	NA
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

Reproduction Summary

Reproduction Summary			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	10	27.2	2	33	2.855	9.028	33.19%	0.0%
6.25		10	31.5	27	36	0.9458	2.991	9.49%	-15.81%
12.5		10	29.9	16	37	1.969	6.226	20.82%	-9.93%
25		10	33.4	28	43	1.24	3.921	11.74%	-22.79%
50		10	31.5	27	37	0.9339	2.953	9.38%	-15.81%
100		10	29.9	27	34	0.8226	2.601	8.7%	-9.93%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	29	32	2	29	31	29	27	29	31	33
6.25		29	27	32	31	36	33	27	33	33	34
12.5		16	37	34	25	35	35	32	29	28	28
25		31	31	34	35	33	43	34	32	28	33
50		29	27	37	34	31	29	30	32	32	34
100		33	33	27	28	29	30	28	27	34	30

CETIS Analytical Report

Report Date: 26 Mar-12 08:07 (p 2 of 2)
Test Code: 12-443a | 03-6210-3257

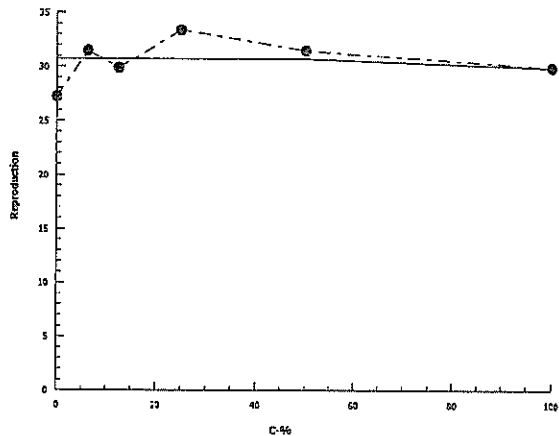
Ceriodaphnia 7-d Survival and Reproduction Test

New England Bloassay

Analysis ID: 16-9212-3942 Endpoint: Reproduction
Analyzed: 26 Mar-12 8:07 Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



NEB 's DATA SHEET FOR ROUTINE CHEMICAL AND PHYSICAL DETERMINATIONS

Page 1 of 2

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP007, 10282 Rock Springs Rd West Valley, NY 14171-9702							
NEB PROJECT NUMBER: 05.0644240.00					TEST ORGANISM: <i>Ceriodaphnia dubia</i>		
DILUTION WATER SOURCE: Receiving Water					START DATE: 3/10/12		TIME: 1025
ANALYST	LO	MG	CZ	CZ	PD	ML	
NEB Lab Synthetic Control	1	2	3	4	5	6	7
Temp., °C Initial	25.9	24.5	24.7	24.8	25.2	24.6	
D.O., mg/L Initial	8.0	8.1	7.9	8.3	8.2	8.4	
pH, s.u. Initial	7.9	8.0	7.9	7.8	7.5	7.5	
Conductivity, µS Initial	348	347	328	350	353	355	
Temp., °C Final	24.0	24.0	24.1	24.2	24.0	25.1	
D.O., mg/L Final	8.6	8.9	8.2	8.3	8.3	8.5	
pH, s.u. Final	7.8	8.4	7.9	7.9	7.9	7.8	
Conductivity, µS Final	364	367	384	381	399	391	
Receiving Water Diluent	1	2	3	4	5	6	7
Temp., °C Initial	25.0	25.4	24.0	24.7	26.0	24.3	
D.O., mg/L Initial	11.2	9.0	9.6	9.1	10.4	9.4	
pH, s.u. Initial	7.6	7.7	7.7	7.7	7.5	7.6	
Conductivity, µS Initial	333	334	286	327	503	492	
Temp., °C Final	24.3	24.0	24.5	24.8	24.3	25.3	
D.O., mg/L Final	8.3	8.7	8.5	8.1	8.4	8.6	
pH, s.u. Final	7.8	8.4	8.0	8.0	8.1	8.0	
Conductivity, µS Final	353	356	333	356	539	536	
6.25%	1	2	3	4	5	6	7
Temp., °C Initial	24.9	25.6	24.0	24.3	26.0	24.0	
D.O., mg/L Initial	10.7	8.7	9.6	9.2	9.6	9.4	
pH, s.u. Initial	7.5	7.6	7.7	7.7	7.7	7.6	
Conductivity, µS Initial	416	389	354	386	568	556	
Temp., °C Final	24.5	24.0	24.7	24.9	24.5	25.1	
D.O., mg/L Final	8.1	9.1	8.4	8.3	8.6	8.7	
pH, s.u. Final	8.1	8.6	8.1	8.2	8.2	8.2	
Conductivity, µS Final	423	413	406	413	597	595	
12.5%	1	2	3	4	5	6	7
Temp., °C Initial	25.0	25.6	24.0	24.4	26.0	24.1	
D.O., mg/L Initial	10.5	8.7	9.3	8.9	9.8	9.5	
pH, s.u. Initial	7.6	7.7	7.6	7.7	7.7	7.6	
Conductivity, µS Initial	465	463	444	447	645	624	
Temp., °C Final	24.5	24.0	24.8	25.0	24.5	25.2	
D.O., mg/L Final	8.2	8.8	8.5	8.4	8.8	9.0	
pH, s.u. Final	8.1	8.4	8.2	8.3	8.2	8.3	
Conductivity, µS Final	480	494	463	475	626	677	

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP007, 10282 Rock Springs Rd West Valley, NY 14171-9702	
NEB PROJECT NUMBER: 05.0044240.00	TEST ORGANISM: <i>Ceriodaphnia dubia</i>
DILUTION WATER SOURCE: Receiving Water	START DATE: 3/10/12 TIME: 1025

25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.2	25.6	24.0	24.3	26.0	24.0		
D.O., mg/L Initial	10.5	8.6	9.0	8.9	9.8	9.7		
pH, s.u. Initial	7.6	7.7	7.6	7.7	7.8	7.7		
Conductivity, µS Initial	592	581	544	595	786	770		
Temp., °C Final	24.3	24.0	25.0	25.5	24.6	25.4		
D.O., mg/L Final	8.5	9.0	8.5	8.2	8.7	8.7		
pH, s.u. Final	8.2	8.5	8.2	8.3	8.2	8.4		
Conductivity, µS Final	620	632	600	636	846	847		
50%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.4	25.4	24.0	24.5	25.5	24.0		
D.O., mg/L Initial	10.2	8.6	9.2	8.6	10.0	9.6		
pH, s.u. Initial	7.7	7.8	7.7	7.8	7.9	7.7		
Conductivity, µS Initial	850	856	860	867	1071	1061		
Temp., °C Final	24.6	24.0	25.1	25.1	24.6	25.2		
D.O., mg/L Final	8.0	9.0	8.4	8.4	8.5	8.9		
pH, s.u. Final	8.3	8.6	8.2	8.4	8.3	8.5		
Conductivity, µS Final	855	894	884	891	1092	1143		
100%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.6	25.1	24.0	24.7	25.1	24.0		
D.O., mg/L Initial	9.7	8.5	8.8	9.3	11.1	10.0		
pH, s.u. Initial	7.7	7.9	7.7	7.9	8.0	7.8		
Conductivity, µS Initial	7.8	1373	1296	1396	1613	1630		
Temp., °C Final	24.6	24.0	25.2	25.2	24.6	25.3		
D.O., mg/L Final	8.8	9.3	8.7	8.5	9.1	8.9		
pH, s.u. Final	8.4	8.8	8.4	8.5	8.4	8.6		
Conductivity, µS Final	1350	1385	1400	1375	1640	1678		
	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial								
D.O., mg/L Initial								
pH, s.u. Initial								
Conductivity, µS Initial								
Temp., °C Final								
D.O., mg/L Final								
pH, s.u. Final								
Conductivity, µS Final								

Ceriodaphnia dubia

Culture Chart

Lot # Cd12(RMH030) ABrood mother source: RMH019-B1Source's brood size: 17 (Qty.)West Valley, 0044240
2-7-12

Tech	LC	LC	LC		Ad	LC	LC	LC		LC						
Date	2/1	2/2	2/3		2/5	2/6	2/7	2/8		2/9						
Day acc.	0	1	2	3	4	5	6	7		8	9	10	11	12	13	14
Cup #																
1	N	N	N		Y	Y	8 T1	Y	N	1	Y					
2	N	N	N		Y	Y		Y	N	2	Y					
3	N	N	N		Y	Y	9 T2	Y	Y	3	Y					
4	N	N	O		4 ^Y	8	9 T10	Y	N/O	4	Y					
5	N	N	N		Y	Y		Y	Y	5	Y					
6	N	N	O		Y	7	10 T3	Y	O	6	Y					
7	N	N	N		Y	Y		Y	Y	7	Y					
8	N	N	N		Y	Y	8 T5	Y	N	8	Y					
9	N	N	N		Y	Y	9 T4	Y	N	9	Y					
10	N	N	N		Y	Y	10 T6	Y	Y	10	Y					
11	N	N	N		Y	Y		Y	Y	11	Y					
12	N	N	N		Y	Y	10 T1	Y	N	12	Y					
13	N	N	N		Y	Y	9 T7	Y	Y	13	Y					

Y = neonates present

X = brood mother dead

2Y = two broods

ae = aborted eggs

N = no neonates

acc. = acclimation (H₂O type used w/ renewal this day)

✓ = neo's present mid-day of preceding day (see time in log)

P = neo's present in P.M. of preceding day (see time in log)

T# = neonates used in test, rep. # noted (and brood counted).

Test organism collection:

Tray diagram

used?

(Y/N)

Time period, neonates released

Collection date / time

Project #	Test ID #	Symbols (✓/P)	used? (Y/N)	Time period, neonates released	Collection date / time
0044240		T —	Y	2-7-12 / 0525 → 1130	2-7-12 / 1145
0044789		Ⓣ —	Y	2-7-12 / 0525 → 1130	2-7-12 / 1145
		T			
		T			
		T			
		T			

Brood mother source: RMH019-B4Source's brood size: 24 (Qty.)West Valley, 2-7-12

Tech	U	U	U		U	U	U	U		U						
Date	2/1	2/2	2/3		2/5	2/6	2/7	2/8		2/9						
Day acc.	0	1	2	3	4	5	6	7		8	9	10	11	12	13	14
Cup #																
1	N	N	N		Y	Y	9 T8	Y	Y	1	N					
2	N	N	N		Y	Y	8 T9	Y	Y	2	N					
3	N	N	N		Y	Y	8 T10	Y	Y	3	N					
4	N	N	N		Y	Y	9 T2	Y	Y	4	N					
5	N	N	0		4 ^Y	9	9 T3	Y	7	5	N					
6	N	N	N		Y	Y	8 T4	Y	Y	6	N					
7	N	N	0		5 ^Y	8		Y	7	7	N					
8	N	N	N		Y	Y	10 T5	Y	Y	8	N					
9	N	N	N		Y	Y	9 T6	Y	Y	9	N					
10	N	N	N		Y	Y		Y	Y	10	N					
11	N	N	N		Y	Y	10 T7	Y	Y	11	N					
12	N	N	N		Y	Y	11 T8	Y	Y	12	N					
13	N	N	N		Y	Y	10 T9	Y	Y	13	N					

Y = neonates present

X = brood mother dead

✓ = neo's present mid-day of preceding day (see time in log)

2Y = two broods

ae = aborted eggs

P = neo's present in P.M. of preceding day (see time in log)

N = no neonates

acc. = acclimation (H₂O type used w/ renewal this day)

T# = neonates used in test, rep. # noted (and brood counted).

Test organism collection:

Tray diagram
used?

Project #	Test ID #	Symbols (✓/P)	(Y/N)	Time period, neonates released	Collection date / time
0044240		T	—	Y 2-7-12 / 0525 → 1130	2-7-12 / 1145
0044789		(T)	—	Y 2-7-12 / 0525 → 1130	2-7-12 / 1145
		T			
		T			
		T			
		T			

**NEB 'S SURVIVAL DATA SHEET FOR FATHEAD MINNOW LARVAL
SURVIVAL AND GROWTH TEST**

Page 1 of 1

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP007, 10282 Rock Springs Rd West Valley, NY 14171-9702			
NEB PROJECT NUMBER: 05.0044240.00		NEB TEST NUMBER: 12-4436	COC #: C32-1806107
TEST ORGANISM: <i>Pimephales promelas</i>		AGE: < 24 hours	LOT #: Pp12(3-10)
START DATE: 3/10/12	TIME: 1100	END DATE: 3/17/12	TIME: 1215

Effluent Concentration	Replicate Number	Number of Survivors								
		Day								
		0	1	2	3	4	5	6	7	Remarks
	ANALYST									
NEB Lab Synthetic Control	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
Receiving Water Diluent	A	10	10	10	10	10	10	10	10	
	B	10	10	9x	9	9	9	9	9	
	C	10	10	9x	9	9	9	9	9	
	D	10	10	10	10	10	10	10	10	
6.25%	A	10	10	9x	9	9	8x	8	8	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	9x	9	9	9	
	D	10	10	10	10	10	10	9x	9	
12.5%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
25%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	9x	
50%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
100%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	9x	9	9	
	D	10	10	10	10	10	10	10	10	

- ☐ DO concentration fell below 4.0 mg/L
- ☐ All test solutions were aerated at <100 bubbles/minute as of _____.

CT-TOX: BINOMIAL, MOVING AVERAGE, PROBIT, AND SPEARMAN METHODS

MINIMUM REQUIRED TRIM IS TOO LARGE: 99.5,SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. NUMBER NUMBER PERCENT BINOMIAL
% EXPOSED DEAD DEAD PROB. (%)
6.25 40. 1. 2.50 .3729D-08
12.50 40. 0. .00 .9095D-10
25.00 40. 0. .00 .9095D-10
50.00 40. 0. .00 .9095D-10
100.00 40. 0. .00 .9095D-10

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY
SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE
LEVEL ASSOCIATED WITH THESE LIMITS IS 100.0000 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT
WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER
THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE
ANY STATISCALLY SOUND RESULTS.

DATE: 3/10/12 TEST NUMBER: 12-443b DURATION: 48 h
SAMPLE: West Valley 007 SPECIES: P.promelas

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	100.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.
ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

**** = LIMIT DOES NOT EXIST

MINIMUM REQUIRED TRIM IS TOO LARGE: 97.0, SO SK IS NOT CALCULABLE.
SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (%)
6.25	40.	4.	10.00	.9285D-05
12.50	40.	0.	.00	.9095D-10
25.00	40.	1.	2.50	.3729D-08
50.00	40.	0.	.00	.9095D-10
100.00	40.	1.	2.50	.3729D-08

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 100.0000 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

THE MOVING AVERAGE METHOD CANNOT BE USED WITH THIS DATA SET BECAUSE NO SPAN WHICH PRODUCES AVERAGE ANGLES BRACKETING 45 DEGREES ALSO USES TWO PERCENT DEAD BETWEEN 0 AND 100 PERCENT.

NO CONVERGENCE IN 25 ITERATIONS. PROBIT METHOD PROBABLY CAN NOT BE USE WITH THIS SET OF DATA.

DATE: 3/10/12 TEST NUMBER: 12-443b DURATION: 7 days
SAMPLE: West Valley 007 SPECIES: P.promelas

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*****	100.000	*****	*****
MAA	*****	*****	*****	*****
PROBIT	*****	*****	*****	*****
SPEARMAN	.000	*****	*****	*****

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.
ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

***** = LIMIT DOES NOT EXIST

CETIS Analytical Report

Report Date: 26 Mar-12 08:23 (p 1 of 4)
Test Code: 12-443b | 07-3775-3249

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 01-2308-2250	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 26 Mar-12 8:21	Analysis: Parametric-Control vs Treatments	Official Results: Yes
Batch ID: 08-5623-2109	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 10 Mar-12 11:00	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 17 Mar-12 12:15	Species: Pimephales promelas	Brine:
Duration: 7d 1h	Source: In-House Culture	Age: <24h
Sample ID: 16-2524-8507	Code: 60DF52FB	Client: Test America
Sample Date: 09 Mar-12	Material: Industrial Effluent	Project:
Receive Date: 10 Mar-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 35h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	NA	C > T	NA	NA	100	>100	NA	1	8.87%

Dunnett Multiple Comparison Test

Control	vs C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water	6.25	1.361	2.407	0.135	6	0.2756	CDF	Non-Significant Effect
	12.5	-1.455	2.407	0.135	6	0.9953	CDF	Non-Significant Effect
	25	-0.7273	2.407	0.135	6	0.9649	CDF	Non-Significant Effect
	50	-1.455	2.407	0.135	6	0.9953	CDF	Non-Significant Effect
	100	-0.7273	2.407	0.135	6	0.9649	CDF	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.95	0.8 - NL	Yes	Passes Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.07076486	0.01415297	5	2.255	0.0930	Non-Significant Effect
Error	0.1129814	0.006276745	18			
Total	0.1837463		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.418	4.248	0.2650	Equal Variances
Variances	Levene Equality of Variance	3.192	4.248	0.0309	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9079	0.884	0.0318	Normal Distribution

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	0.95	0.8581	1	0.95	0.9	1	0.02887	6.08%	0.0%
6.25		4	0.9	0.7701	1	0.9	0.8	1	0.04082	9.07%	5.26%
12.5		4	1	1	1	1	1	1	0	0.0%	-5.26%
25		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	-2.63%
50		4	1	1	1	1	1	1	0	0.0%	-5.26%
100		4	0.975	0.8954	1	1	0.9	1	0.025	5.13%	-2.63%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1.331	1.181	1.48	1.331	1.249	1.412	0.04705	7.07%	0.0%
6.25		4	1.254	1.056	1.453	1.249	1.107	1.412	0.06231	9.94%	5.73%
12.5		4	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-6.12%
25		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	-3.06%
50		4	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-6.12%
100		4	1.371	1.242	1.501	1.412	1.249	1.412	0.04074	5.94%	-3.06%

CETIS Analytical Report

Report Date: 26 Mar-12 08:23 (p 2 of 4)
Test Code: 12-443b | 07-3775-3249

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bloassay

Analysis ID: 01-2308-2250

Endpoint: 7d Survival Rate

CETIS Version: CETISv1.8.4

Analyzed: 26 Mar-12 8:21

Analysis: Parametric-Control vs Treatments

Official Results: Yes

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	0.9	0.9	1
6.25		0.8	1	0.9	0.9
12.5		1	1	1	1
25		1	1	1	0.9
50		1	1	1	1
100		1	1	0.9	1

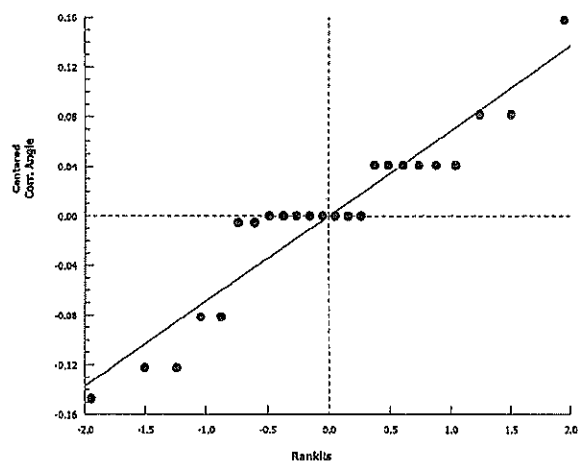
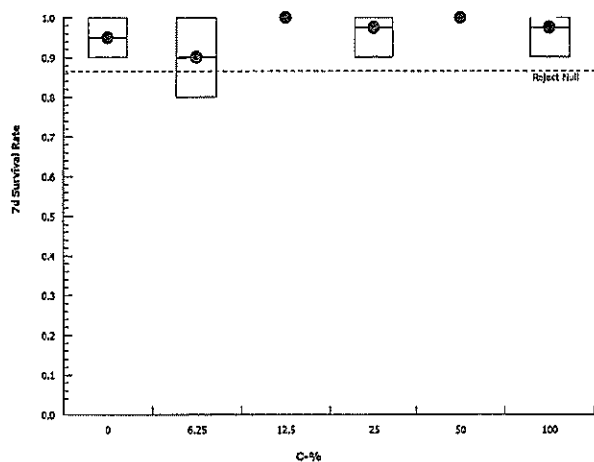
Angular (Corrected) Transformed Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.412	1.249	1.249	1.412
6.25		1.107	1.412	1.249	1.249
12.5		1.412	1.412	1.412	1.412
25		1.412	1.412	1.412	1.249
50		1.412	1.412	1.412	1.412
100		1.412	1.412	1.249	1.412

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	9/10	9/10	10/10
6.25		8/10	10/10	9/10	9/10
12.5		10/10	10/10	10/10	10/10
25		10/10	10/10	10/10	9/10
50		10/10	10/10	10/10	10/10
100		10/10	10/10	9/10	10/10

Graphics



NEW ENGLAND BIOASSAY - WEIGHT DATA FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Facility Name and Address: West Valley Demonstration Project WSNP007, 10282 Rock Springs Rd West Valley, NY 14171-9702			
NEB Project Number: 05.6044240.00		NEB Test Number: 12-4436	
Test Dates: 3/10-17/12		Weighing Date: 3/23/12	
Drying Temperature (°C): 100		Drying Time (hours): 6	
Analyst - Initial Weights (A): C3 3/17/12		Analyst - Final Weights (B): PD	

Effluent Concentration	Replicate Number	A	B
		Weight of boat (mg)	Dry weight: foil and larvae (mg)
NEB Lab Synthetic Control	A	952.30	958.29
	B	950.01	956.25
	C	949.16	955.13
	D	953.30	958.98
Receiving Water Diluent	A	953.98	959.54
	B	954.91	960.17
	C	954.78	960.33 960.47
	D	956.00	960.33
6.25%	A	968.12	973.41
	B	973.02	978.62
	C	964.12 962.21	966.99
	D	960.40	965.11
12.5%	A	975.85	980.79
	B	977.75	983.01
	C	978.40	984.09
	D	978.92	983.92
25%	A	977.69	982.94
	B	975.12	980.48
	C	975.87	981.06
	D	971.00	975.69
50%	A	966.69	972.17
	B	957.63	963.20
	C	956.44 962.58	967.95
	D	956.41	961.03
100%	A	955.81	962.06
	B	955.98	962.05
	C	954.49	960.12
	D	959.40	964.62

1.E. = incorrect entry

CETIS Analytical Report

Report Date: 26 Mar-12 08:23 (p 3 of 4)
Test Code: 12-443b | 07-3775-3249

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 06-4042-2323	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv1.8.4
Analyzed: 26 Mar-12 8:22	Analysis: Parametric-Control vs Treatments	Official Results: Yes
Batch ID: 08-5623-2109	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 10 Mar-12 11:00	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 17 Mar-12 12:15	Species: Pimephales promelas	Brine:
Duration: 7d 1h	Source: In-House Culture	Age: <24h
Sample ID: 16-2524-8507	Code: 60DF52FB	Client: Test America
Sample Date: 09 Mar-12	Material: Industrial Effluent	Project:
Receive Date: 10 Mar-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 35h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	NA	C > T	NA	NA	100	>100	NA	1	14.4%

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	0.3694	2.407	0.075	6	0.7026	CDF	Non-Significant Effect
		12.5	-0.04018	2.407	0.075	6	0.8449	CDF	Non-Significant Effect
		25	0.281	2.407	0.075	6	0.7376	CDF	Non-Significant Effect
		50	-0.1606	2.407	0.075	6	0.8763	CDF	Non-Significant Effect
		100	-1.871	2.407	0.075	6	0.9987	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01320869	0.002641738	5	1.362	0.2844	Non-Significant Effect
Error	0.03490407	0.001939115	18			
Total	0.04811276		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.7	15.09	0.8890	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9383	0.884	0.1498	Normal Distribution

Mean Dry Weight-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	0.521	0.4234	0.6186	0.541	0.433	0.569	0.03068	11.78%	0.0%
6.25		4	0.5095	0.442	0.577	0.5035	0.471	0.56	0.02122	8.33%	2.21%
12.5		4	0.5223	0.468	0.5765	0.513	0.494	0.569	0.01706	6.53%	-0.24%
25		4	0.5122	0.465	0.5595	0.522	0.469	0.536	0.01484	5.79%	1.68%
50		4	0.526	0.4569	0.5951	0.5425	0.462	0.557	0.02172	8.26%	-0.96%
100		4	0.5792	0.5057	0.6528	0.585	0.522	0.625	0.0231	7.98%	-11.18%

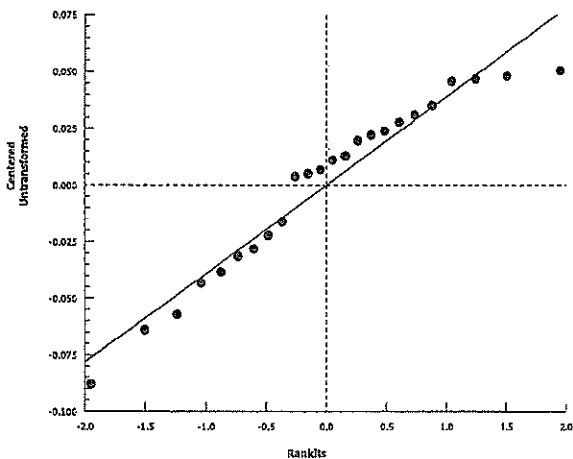
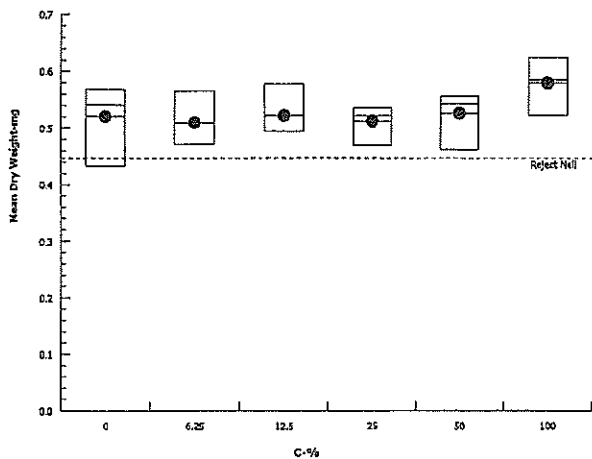
Mean Dry Weight-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.556	0.526	0.569	0.433
6.25		0.529	0.56	0.478	0.471
12.5		0.494	0.526	0.569	0.5
25		0.525	0.536	0.519	0.469
50		0.548	0.557	0.537	0.462
100		0.625	0.607	0.563	0.522

Fathead Minnow 7-d Larval Survival and Growth Test New England Bioassay

Analysis ID: 06-4042-2323	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv1.8.4	
Analyzed: 26 Mar-12 8:22	Analysis: Parametric-Control vs Treatments	Official Results: Yes	

Graphics



CETIS Analytical Report

Report Date: 26 Mar-12 08:23 (p 1 of 2)
Test Code: 12-443b | 07-3775-3249

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 03-5774-9676	Endpoint: Mean Dry Weight-mg	CETIS Version: CETISv1.8.4
Analyzed: 26 Mar-12 8:22	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 08-5623-2109	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 10 Mar-12 11:00	Protocol: EPA/821/R-02-013 (2002)	Diluent:
Ending Date: 17 Mar-12 12:15	Species: Pimephales promelas	Brine:
Duration: 7d 1h	Source: In-House Culture	Age: <24h
Sample ID: 16-2524-8507	Code: 60DF52FB	Client: Test America
Sample Date: 09 Mar-12	Material: Industrial Effluent	Project:
Receive Date: 10 Mar-12	Source: West Valley Demonstration Project (NY000)	
Sample Age: 35h	Station:	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	2113367	200	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	NA	NA
IC10	>100	N/A	N/A	<1	NA	NA
IC15	>100	N/A	N/A	<1	NA	NA
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

Mean Dry Weight-mg Summary

Calculated Variate

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	0.521	0.433	0.569	0.03068	0.06137	11.78%	0.0%
6.25		4	0.5095	0.471	0.56	0.02122	0.04245	8.33%	2.21%
12.5		4	0.5223	0.494	0.569	0.01706	0.03412	6.53%	-0.24%
25		4	0.5122	0.469	0.536	0.01484	0.02968	5.79%	1.68%
50		4	0.526	0.462	0.557	0.02172	0.04344	8.26%	-0.96%
100		4	0.5792	0.522	0.625	0.0231	0.04621	7.98%	-11.18%

Mean Dry Weight-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.556	0.526	0.569	0.433
6.25		0.529	0.56	0.478	0.471
12.5		0.494	0.526	0.569	0.5
25		0.525	0.536	0.519	0.469
50		0.548	0.557	0.537	0.462
100		0.625	0.607	0.563	0.522

CETIS Analytical Report

Report Date: 26 Mar-12 08:23 (p 2 of 2)
Test Code: 12-443b | 07-3775-3249

Fathead Minnow 7-d Larval Survival and Growth Test

New England Bioassay

Analysis ID: 03-5774-9676

Endpoint: Mean Dry Weight-mg

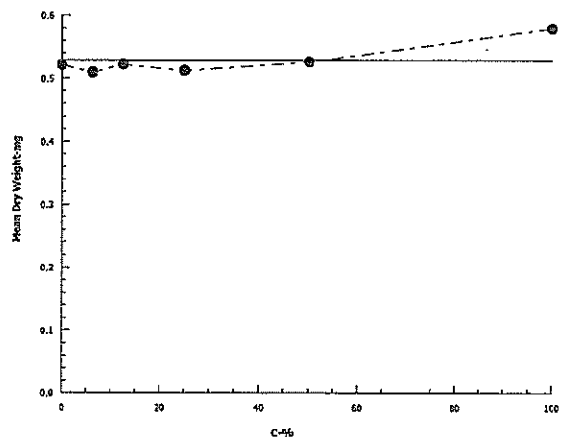
CETIS Version: CETISv1.8.4

Analyzed: 26 Mar-12 8:22

Analysis: Linear Interpolation (ICPIN)

Official Results: Yes

Graphics



	Final Weight	Tare Weight	Fish Weight	weight/10	Mean
1	958.29	952.3	5.99	0.599	0.5970
2	956.25	950.01	6.24	0.624	
3	955.13	949.16	5.97	0.597	
4	958.98	953.3	5.68	0.568	
1	959.54	953.98	5.56	0.556	0.5210
2	960.17	954.91	5.26	0.526	
3	960.47	954.78	5.69	0.569	
4	960.33	956	4.33	0.433	
1	973.41	968.12	5.29	0.529	0.5095
2	978.62	973.02	5.60	0.560	
3	966.99	962.21	4.78	0.478	
4	965.11	960.4	4.71	0.471	
1	980.79	975.85	4.94	0.494	0.5223
2	983.01	977.75	5.26	0.526	
3	984.09	978.4	5.69	0.569	
4	983.92	978.92	5.00	0.5	
1	982.94	977.69	5.25	0.525	0.5123
2	980.48	975.12	5.36	0.536	
3	981.06	975.87	5.19	0.519	
4	975.69	971	4.69	0.469	
1	972.17	966.69	5.48	0.548	0.5260
2	963.2	957.63	5.57	0.557	
3	967.95	962.58	5.37	0.537	
4	961.03	956.41	4.62	0.462	
1	962.06	955.81	6.25	0.625	0.5792
2	962.05	955.98	6.07	0.607	
3	960.12	954.49	5.63	0.563	
4	964.62	959.4	5.22	0.522	
1			0.00	0.000	0.0000
2			0.00	0.000	
3			0.00	0.000	
4			0.00	0.000	

NEB 's DATA SHEET FOR ROUTINE CHEMICAL AND PHYSICAL DETERMINATIONS

Page 1 of 2

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP007, 10282 Rook Springs Rd West Valley, NY 14171-9702								
NEB PROJECT NUMBER: 05-6544240-00					TEST ORGANISM: <i>Pimephales promelas</i>			
DILUTION WATER SOURCE: Receiving Water					START DATE: 3/10/12		TIME: 1100	
ANALYST	KO	MG	C2	C3	PD	MU	C8	
NEB Lab Synthetic Control	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.9	24.5	24.7	24.8	25.2	24.6	25.5	
D.O., mg/L Initial	8.0	8.1	7.9	8.3	8.2	8.4	8.5	
pH, s.u. Initial	7.4	8.0	7.9	7.8	7.5	7.5	7.6	
Conductivity, µS Initial	348	347	328	350	353	355	351	
Temp., °C Final	24.0	24.2	24.5	26.0	25.7	24.3	24.7	
D.O., mg/L Final	8.9	9.0	7.4	4.4	6.7	6.3	6.2	
pH, s.u. Final	7.7	7.8	7.6	7.7	7.7	7.8	7.8	
Conductivity, µS Final	360	346	363	374	370	365	371	
Receiving Water Diluent	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.0	25.4	24.0	24.7	26.0	24.3	26.0	
D.O., mg/L Initial	11.2	9.0	9.6	9.1	10.4	9.4	8.8	
pH, s.u. Initial	7.6	7.7	7.7	7.7	7.5	7.6	7.6	
Conductivity, µS Initial	333	334	286	327	503	492	495	
Temp., °C Final	24.0	24.5	24.4	26.0	25.4	24.2	24.6	
D.O., mg/L Final	9.0	8.5	8.1	4.7	6.4	6.4	6.4	
pH, s.u. Final	7.7	7.6	7.5	7.5	7.7	7.6	7.8	
Conductivity, µS Final	347	330	319	335	501	508	511	
6.25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.9	25.6	24.0	24.3	26.0	24.0	26.0	
D.O., mg/L Initial	10.7	8.7	9.6	9.2	9.6	9.4	9.0	
pH, s.u. Initial	7.5	7.6	7.7	7.7	7.7	7.6	7.6	
Conductivity, µS Initial	416	389	354	386	568	556	574	
Temp., °C Final	24.0	24.8	24.4	26.0	25.7	24.4	24.6	
D.O., mg/L Final	8.3	8.7	7.9	5.0	6.7	6.4	6.5	
pH, s.u. Final	7.6	7.6	7.5	7.5	7.7	7.6	7.9	
Conductivity, µS Final	427	387	393	396	567	567	588	
12.5%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.0	25.6	24.0	24.4	26.0	24.1	26.0	
D.O., mg/L Initial	10.5	8.7	9.3	8.9	9.8	9.5	9.0	
pH, s.u. Initial	7.6	7.7	7.6	7.7	7.7	7.6	7.7	
Conductivity, µS Initial	465	463	414	447	645	624	635	
Temp., °C Final	24.0	24.7	24.4	26.0	25.4	24.3	24.7	
D.O., mg/L Final	8.6	8.6	7.9	4.2	7.1	6.5	6.5	
pH, s.u. Final	7.7	7.6	7.6	7.4	7.7	7.7	7.9	
Conductivity, µS Final	476	449	456	463	642	637	645	

FACILITY NAME & ADDRESS: West Valley Demonstration Project WSNP007, 10282 Rock Springs Rd West Valley, NY 14171-9702			
NEB PROJECT NUMBER: 05. 0644240.00		TEST ORGANISM: <i>Pimephales promelas</i>	
DILUTION WATER SOURCE: Receiving Water		START DATE: 3/10/12	TIME: 1100

25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.2	25.6	24.0	24.3	26.0	24.0	26.0	
D.O., mg/L Initial	10.5	8.6	9.0	8.9	9.8	9.7	9.0	
pH, s.u. Initial	7.6	7.7	7.6	7.7	7.8	7.7	7.7	
Conductivity, µS Initial	592	581	544	595	786	770	783	
Temp., °C Final	24.6	24.6	24.5	26.0	25.5	24.4	24.4	
D.O., mg/L Final	8.7	8.9	7.7	4.2	6.5	6.2	6.6	
pH, s.u. Final	7.8	7.8	7.6	7.5	7.9	6.7.7	8.0	
Conductivity, µS Final	599	560	594	610	790	772	797	
50%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.4	25.4	24.0	24.5	25.5	24.0	26.0	
D.O., mg/L Initial	10.2	8.6	9.2	8.6	10.0	9.6	9.0	
pH, s.u. Initial	7.7	7.8	7.7	7.8	7.9	7.7	7.8	
Conductivity, µS Initial	850	856	800	810.7	1071	1061	1066	
Temp., °C Final	24.0	24.8	24.2	24.8	25.7	24.4	24.6	
D.O., mg/L Final	9.0	9.2	7.9	4.9	6.6	5.8	6.4	
pH, s.u. Final	8.0	8.0	7.8	7.7	7.8	7.8	8.1	
Conductivity, µS Final	857	822	875	880	1075	1061	1064	
100%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	25.6	25.1	24.0	24.7	25.1	24.0	25.8	
D.O., mg/L Initial	9.7	8.5	8.8	9.3	11.1	10.0	8.9	
pH, s.u. Initial	7.7	7.9	7.7	7.9	8.0	7.8	7.8	
Conductivity, µS Initial	7.8	1373	12916	13916	16843	1630	1627	
Temp., °C Final	24.0	24.7	24.3	26.6	25.5	24.3	24.7	
D.O., mg/L Final	8.6	9.5	7.7	4.5	6.5	5.9	6.1	
pH, s.u. Final	8.0	8.2	8.0	7.9	8.0	8.0	8.2	
Conductivity, µS Final	1362	1307	1415	1416	1627	1617	1622	
	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial								
D.O., mg/L Initial								
pH, s.u. Initial								
Conductivity, µS Initial								
Temp., °C Final								
D.O., mg/L Final								
pH, s.u. Final								
Conductivity, µS Final								

TABLE A-14

Table of Random Permutations of 16

Cd# 12-443a

Pp# 12-443b

7	12	15	15	1	2	7	16	10	2	14	15	7	13	13	10	6	1	8	10
13	3	8	16	7	10	11	10	13	5	11	7	13	16	7	7	5	13	2	14
3	1	4	5	14	13	3	14	9	13	13	2	9	15	6	2	8	4	5	8
11	8	16	14	15	6	2	6	2	16	8	5	12	3	9	13	4	3	10	4
14	9	1	6	3	9	14	13	8	6	5	8	14	7	3	15	13	11	4	7
2	16	10	13	5	5	13	2	11	7	3	12	5	14	12	16	2	2	9	15
4	6	13	7	2	15	1	9	1	4	7	10	6	9	11	9	7	6	16	11
6	14	6	10	4	14	4	15	3	3	4	16	2	6	5	1	12	10	6	9
10	15	2	1	13	12	16	3	4	8	10	1	15	5	14	12	14	12	3	2
12	10	7	12	9	11	9	8	12	14	15	4	11	8	16	8	9	14	14	1
15	7	5	2	10	7	8	12	6	15	6	13	16	12	15	4	11	8	12	6
16	2	11	8	8	8	15	5	16	1	1	9	8	1	8	14	16	5	13	5
9	13	14	3	6	4	10	11	5	12	9	3	10	4	4	3	10	9	1	3
8	11	9	4	11	3	12	7	7	10	12	14	3	10	1	6	15	16	15	12
1	5	12	11	16	16	5	4	14	9	16	11	1	2	10	5	1	15	7	13
5	4	3	9	12	1	6	4	15	11	2	6	4	11	2	11	3	7	11	16
11	8	16	5	5	13	1	13	2	16	14	12	9	8	7	5	13	3	13	3
2	2	8	8	14	16	4	3	8	11	10	14	15	1	2	11	4	5	15	9
6	13	2	13	6	5	9	15	11	10	12	6	16	15	16	9	10	12	16	15
14	12	4	16	16	11	14	10	5	12	2	9	8	16	4	13	6	4	1	16
8	6	3	9	4	10	6	4	16	2	4	13	7	7	9	12	14	8	8	11
9	15	12	10	3	2	12	6	1	15	9	5	14	11	10	1	3	13	3	9
3	10	11	12	13	12	5	11	7	8	11	15	6	12	5	7	11	1	14	4
16	1	13	14	8	14	15	5	3	7	7	8	3	13	11	8	7	7	12	7
1	14	14	2	1	15	16	14	6	14	8	1	13	6	3	3	15	9	9	12
4	4	6	4	10	6	3	7	10	5	5	11	10	10	12	15	16	14	5	2
15	5	1	11	10	7	13	2	14	3	16	4	5	5	13	4	9	16	2	6
5	3	5	6	7	9	9	8	12	13	15	10	1	4	6	16	2	6	11	1
12	7	15	15	15	4	2	1	4	6	6	7	11	9	14	10	8	11	4	13
10	11	10	3	2	1	7	15	13	1	13	2	4	2	1	2	12	2	10	1
7	9	7	7	1	8	10	9	9	4	1	16	2	3	8	14	1	13	6	1
13	16	9	1	1	6	5	2	8	15	4	6	6	1	4	5	7	13	2	10
1	6	7	4	8	15	9	10	1	3	8	2	15	7	9	8	16	1	14	3
9	15	11	3	11	9	16	11	7	1	7	16	11	8	3	3	12	2	3	4
10	16	4	5	12	5	4	13	6	8	15	5	12	5	7	16	5	11	6	1
4	14	1	9	5	2	1	14	16	5	14	9	2	16	1	12	6	14	4	13
7	3	13	14	15	16	6	9	3	4	16	14	3	15	11	11	3	9	12	5
16	11	2	1	14	7	13	1	11	14	9	10	16	2	10	2	10	7	10	16
3	10	16	16	13	13	8	3	5	13	10	12	5	12	5	14	13	16	5	6
11	13	9	13	4	12	2	4	13	10	2	4	13	3	16	1	14	8	6	12
15	2	3	12	9	1	3	12	4	2	11	7	8	14	6	4	4	4	15	11
14	1	14	6	10	14	7	15	14	16	13	1	9	10	12	10	11	10	9	8
13	12	5	11	3	4	11	7	10	11	6	8	4	9	8	15	8	6	11	9
12	5	10	7	2	8	10	6	15	12	1	11	7	11	13	6	1	15	13	15
8	9	8	10	6	10	14	16	9	6	12	3	10	6	14	7	2	12	16	7
2	7	6	2	1	3	12	5	12	9	5	15	1	13	15	13	15	5	1	2
6	4	15	8	16	13	16	13	5	3	6	14	1	16	8	7	2	3	3	12
5	8	12	15	7	2	15	1	13	14	16	4	15	4	3	12	12	1	4	7
13	4	10	4	16	16	9	12	16	6	5	13	16	1	7	1	14	8	8	16
5	14	4	6	8	3	5	14	7	12	12	1	12	12	14	5	11	2	9	3
2	2	2	15	14	14	10	11	15	11	7	11	6	3	11	16	3	11	11	8
7	12	15	8	12	8	11	8	14	13	9	3	3	7	13	4	4	6	6	9
6	9	7	14	9	12	8	7	1	15	4	9	13	13	6	8	15	9	1	14
14	5	16	7	10	11	7	9	6	9	2	16	5	8	1	9	5	12	16	6
15	11	2	9	7	15	4	10	9	8	15	10	7	10	9	10	6	14	10	11
11	6	6	1	4	5	2	15	10	2	14	2	8	2	4	13	8	5	15	5
4	10	3	16	2	9	6	6	3	10	13	12	9	6	2	15	7	15	7	13
1	8	1	12	1	7	12	5	2	7	11	5	10	15	12	3	1	13	13	10
9	7	14	2	6	10	13	2	4	1	8	6	11	14	15	6	9	16	2	2
12	1	10	15	15	6	1	3	8	16	3	7	2	5	16	14	13	7	14	15
3	3	12	14	5	6	1	3	8	16	3	7	2	5	16	14	13	7	14	15
10	15	14	5	13	6	1	3	8	16	3	7	2	5	16	14	13	7	14	15
8	13	12	3	3	6	1	3	8	16	3	7	2	5	16	14	13	7	14	15
16	16	5	12	11	6	1	3	8	16	3	7	2	5	16	14	13	7	14	15

Source: Reprinted, with permission, from William G. Cochran and Gertrude M. Cox, *Experimental Designs* (2d. ed.; New York: John Wiley & Sons, Inc., 1957), p. 583.

INITIAL CHEMISTRY INFORMATION

CLIENT: Test America - West Valley - 007

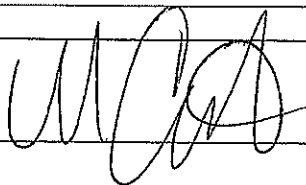
JOB # 05,0044240.00

TEST #: C. dubia ID No. 12-4439 P. promelas ID No. 12-4436

SAMPLE TYPE:	Effluent #1	River Water #1	Effluent #2	River Water #2	Effluent #3	River Water #3
RECEIPT DATE	3/10/12	3/10/12	3/14/12	3/14/12		
COC #	C32-1806	C32-1807	C32-1829	C32-1830		
PH (SU)	8.2	7.9	7.7	7.8		
Temperature (°C)	1.8/1.5	2.7/2.4	0.6/1.0	0.4		
Dissolved Oxygen (mg/L)	9.7	10.7	10.9	10.7		
Specific Conductivity (µmhos/cm)	1398	334	11622	462		
Salinity (ppt)	1	<1	1	<1		
TRC - DPD (mg/L)	0.010	0.040	0.073	0.005		
TRC - Amperometric (mg/L)	—	—	<0.05	—		
Hardness (mg/L as CaCO ₃)	124	86	148	122		
Alkalinity (mg/L as CaCO ₃)	155	50	205	80		
Color	lt. yellow	lt. yellow	lt. yellow	lt. yellow		
Clarity	clear	clear	clear	slightly cloudy		
INITIALS	MG	MG	MG	MG		

NOTE: NA = NOT APPLICABLE

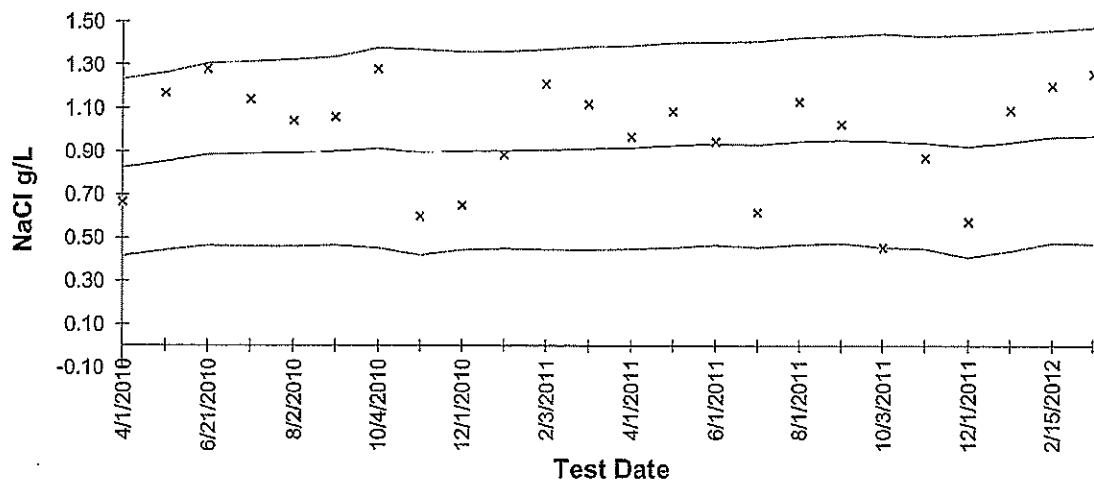
Data Reviewed By:



Date Reviewed:

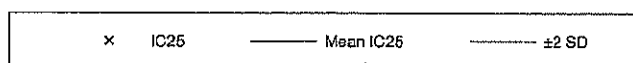
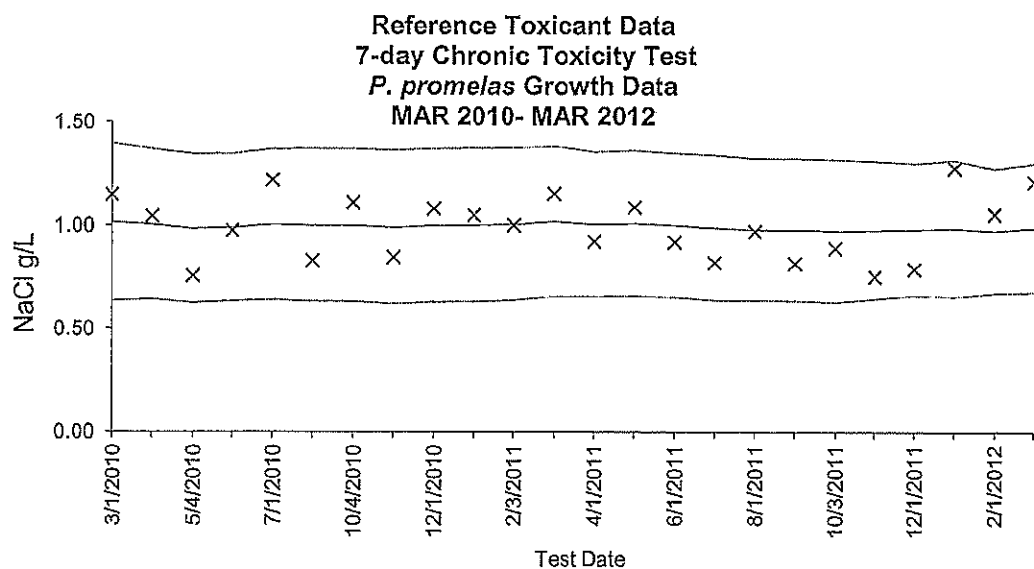
8/26/12

Sodium Chloride Reference Toxicant Data
***Ceriodaphnia dubia* Chronic Toxicity**
APR 2010 - MAR 2012



x IC25 Reproduction — Mean IC25 - - - ± 2 SD

Test ID	Date	IC ₂₅	Mean IC ₂₅	STD	-2STD	+2STD	CV %
30-1388	4/1/2010	0.67	0.82	0.20	0.41	1.23	24.8
30-1581	5/17/2010	1.17	0.85	0.21	0.44	1.26	24.1
30-1734	6/21/2010	1.28	0.88	0.21	0.46	1.30	23.8
30-1767	7/1/2010	1.14	0.89	0.21	0.46	1.32	24.2
30-1954	8/2/2010	1.04	0.89	0.22	0.46	1.32	24.3
30-2101	9/1/2010	1.06	0.90	0.22	0.46	1.34	24.2
10-1779	10/4/2010	1.28	0.91	0.23	0.45	1.38	25.3
10-1791	11/2/2010	0.60	0.90	0.24	0.42	1.37	26.6
10-1857	12/1/2010	0.65	0.90	0.23	0.44	1.36	25.4
11-79	1/5/2011	0.88	0.90	0.23	0.45	1.36	25.2
11-256	2/3/2011	1.21	0.91	0.23	0.44	1.37	25.5
11-344	3/1/2011	1.12	0.91	0.24	0.44	1.38	25.7
11-534	4/1/2011	0.97	0.92	0.23	0.45	1.39	25.6
11-791	5/2/2011	1.09	0.93	0.24	0.45	1.40	25.6
11-949	6/1/2011	0.94	0.93	0.23	0.47	1.40	25.1
11-1136	7/1/2011	0.62	0.93	0.24	0.45	1.41	25.6
11-1371	8/1/2011	1.13	0.95	0.24	0.47	1.42	25.3
11-1734	9/1/2011	1.02	0.95	0.24	0.47	1.43	25.1
11-2375	10/3/2011	0.45	0.95	0.25	0.45	1.44	26.0
11-2543	11/8/2011	0.87	0.94	0.25	0.45	1.43	26.2
11-2753	12/1/2011	0.57	0.92	0.26	0.41	1.44	27.8
12-185	1/4/2012	1.09	0.94	0.25	0.44	1.45	26.7
12-323	2/15/2012	1.20	0.97	0.25	0.47	1.46	25.5
12-497	3/1/2012	1.26	0.97	0.25	0.47	1.47	25.8



Test ID	Date	IC ₂₅	Mean IC ₂₅	STD	-2STD	+2STD	CV %
30-1245	3/1/2010	1.15	1.02	0.19	0.63	1.40	18.80
30-1384	4/1/2010	1.04	1.01	0.18	0.64	1.37	18.11
30-1528	5/4/2010	0.76	0.98	0.18	0.62	1.34	18.28
30-1733	6/21/2010	0.98	0.99	0.18	0.63	1.34	17.99
30-1763	7/1/2010	1.22	1.00	0.18	0.64	1.37	18.14
30-2099	9/1/2010	0.83	1.00	0.18	0.63	1.37	18.42
10-1773	10/4/2010	1.11	1.00	0.18	0.63	1.37	18.44
10-1792	11/2/2010	0.85	0.99	0.19	0.62	1.36	18.78
10-1858	12/1/2010	1.08	1.00	0.19	0.63	1.37	18.55
11-80	1/5/2011	1.05	1.00	0.19	0.63	1.37	18.54
11-257	2/3/2011	1.00	1.01	0.18	0.64	1.37	18.31
11-399	3/1/2011	1.15	1.02	0.18	0.66	1.38	17.86
11-511	4/1/2011	0.92	1.00	0.17	0.65	1.35	17.41
11-793	5/2/2011	1.09	1.01	0.18	0.66	1.36	17.40
11-1001	6/1/2011	0.92	1.00	0.17	0.65	1.35	17.42
11-1187	7/1/2011	0.82	0.99	0.18	0.64	1.34	17.83
11-1394	8/1/2011	0.97	0.98	0.17	0.64	1.32	17.53
11-1735	9/1/2011	0.82	0.98	0.17	0.63	1.32	17.60
11-2376	10/3/2011	0.89	0.97	0.17	0.63	1.32	17.76
11-2560	11/8/2011	0.75	0.98	0.17	0.64	1.31	17.07
11-2754	12/1/2011	0.79	0.98	0.16	0.66	1.30	16.27
12-186	1/4/2012	1.28	0.98	0.17	0.65	1.32	16.80
12-298	2/1/2012	1.05	0.97	0.15	0.67	1.27	15.43
12-498	3/1/2012	1.21	0.99	0.16	0.68	1.30	15.74

Sample #1

NEW ENGLAND BIOASSAY - CHAIN-OF-CUSTODY

EFFLUENT

Sampler: Martin Regan
 Title: Env. Scientist
 Facility: West Valley

Sampling Method: ☒ CompositeSample ID: Outfall 007Start Date: 3-8-12 Time: 09:45End Date: 3-9-12 Time: 09:45Sampling Method: ☐ Grab (for pH and TRC only ☐)

Date Collected: _____

Time Collected: _____

Sample Type: ☐ Prechlorinated
☐ Dechlorinated
☒ Unchlorinated
☐ Chlorinated

RECEIVING WATER

Sampler: Martin Regan
 Title: Env. Scientist
 Facility: West Valley

Sampling Method: ☒ GrabSample ID: ERDMAN BrookDate Collected: 3-9-12Time Collected: 10:05

Effluent Sampling Location and Procedures:

STP Discharge (WN3P007) Sampled via EM-2 Flow Weighted
Composite Sampling

Receiving Water Sampling Location and Procedures:

ERDMAN Brook (WNERB53) Sampled via EM-2 Grab Sample

Requested Analysis: ☒ Chronic and modified acute

Sample Shipment

Method of Shipment: _____

Relinquished By: _____ Date: _____ Time: _____

Received By: Mickal Lush Date: 5/10/12 Time: 0920

Relinquished By: _____ Date: _____ Time: _____

Received By: _____ Date: _____ Time: _____

Relinquished By: _____ Date: _____ Time: _____

Received By: _____ Date: _____ Time: _____

FOR NEB USE ONLY

Temperature of Effluent Upon Receipt at Lab: _____ °C

Temperature of Receiving Water Upon Receipt at Lab: _____ °C

Effluent COC# C32-1806Receiving Water COC# C32-1807

IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
 KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042

CH2M Hill B&W West Valley LLC (CHBWV) 10282 Rock Springs Rd. West Valley, NY 14171
CHAIN-OF-CUSTODY / REQUEST-FOR-ANALYSIS / PACKING SHEET

Sample Type: SPDES

Electronic Disk - Yes

External Lab Destination TestAmerica	Purchase Order Number CH-000068	Charge Number WV03.IN.01.01.01.02.06	Release Number 120	Report Format Level 1	Priority 5 Business Days
Custodian Signature <i>[Signature]</i>		C-O-C Reviewed By: <i>[Signature]</i>		Report Data to: Chet Wrotniak (716)942-4160	

Location Code	Sample ID	Date	Time	# Cont	Preservative	Tests
WNSP007	2012-02048	03/09/12	0945	1	Cool	WET

Notes:

Notes:
 Samples are being sent via contract with Test America.

Signature Rel: Date/Time <i>[Signature]</i> 3/9/12 @ 1030	Signature Rel: Date/Time
Signature Rec: Date/Time	Signature Rec: Date/Time
Signature Rel: Date/Time	Signature Rel: Date/Time
Signature Rec: Date/Time	Signature Rec: Date/Time
Signature Rel: Date/Time	Sample Receipt at Lab: Cool YES NO Temp: C _____
Signature Rec: Date/Time	Custody Tape Intact: YES NO



RECEIVING WATER

Sampler: C. T. Roedel
Title: Environmental Scientist
Facility: West Valley

Sampling Method: X Grab
Sample ID: ERDMAN Brook
Date Collected: 3-13-12
Time Collected: 0920

Date Collected: _____

Time Collected: _____

Sample Type: _____ Prechlorinated
 _____ Dechlorinated
 _____ ~~Unchlorinated~~
 _____ Chlorinated

STP Discharge (SP007) Sampled via EM-2 Flow Weighted Composite Sampling

ERDMAN BROOK (WNERB53) Sampled via EM-2 Grab Sampling

Requested Analysis: X Chronic and modified acute

Method of Shipment: _____

Relinquished By:	_____	Date:	_____	Time:	_____
Received By:	_____	Date:	_____	Time:	_____
Relinquished By:	_____	Date:	_____	Time:	_____
Received By:	_____	Date:	_____	Time:	_____
Relinquished By:	_____	Date:	_____	Time:	_____
Received By:	_____	Date:	_____	Time:	_____

Temperature of Effluent Upon Receipt at Lab: 0-6/21:0

Temperature of Receiving Water Upon Receipt at Lab: 0.4 °C

Effluent COC# C32-1829

Receiving Water COC# 032-1830

**IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042**

CH2M Hill B&W West Valley LLC (CHBWV) 10282 Rock Springs Rd. West Valley, NY 14171
CHAIN-OF-CUSTODY / REQUEST-FOR-ANALYSIS / PACKING SHEET

Sample Type: SPDES

Electronic Disk - Yes

External Lab Destination TestAmerica	Purchase Order Number CH-000068	Charge Number WV03.IN.01.01.01.02.06	Release Number 123	Report Format Level 1	Priority 5 Business Days
Custodian Signature <i>[Signature]</i>		C-O-C Reviewed By: <i>[Signature]</i>		Report Data to: Chet Wrotniak (716)942-4160	
Location Code	Sample ID	Date	Time	# Cont	Preservative
WNSP007	2012-02049	03/13/12	1000	1	Cool
Notes:		Tests WET			

Notes:
 Samples are being sent via contract with Test America.

Signature Rel: Date/Time <i>[Signature] 3/13/12 @ 1145</i>	Signature Rel: Date/Time
Signature Rec: Date/Time	Signature Rec: Date/Time
Signature Rel: Date/Time	Signature Rel: Date/Time
Signature Rec: Date/Time	Signature Rec: Date/Time
Signature Rel: Date/Time	Sample Receipt at Lab: Cool YES NO Temp: C _____
Signature Rec: Date/Time	Custody Tape Intact: YES NO



CH2M Hill B&W West Valley LLC (CHBWV) 10282 Rock Springs Rd. West Valley, NY 14171
CHAIN-OF-CUSTODY / REQUEST-FOR-ANALYSIS / PACKING SHEET

Sample Type: SPDES

Electronic Disk - Yes

External Lab Destination TestAmerica	Purchase Order Number CH-000068	Charge Number WV03.IN.01.01.01.02.06	Release Number 120	Report Format Level 1	Priority 5 Business Days
Custodian Signature <i>[Signature]</i>		C-O-C Reviewed By: <i>[Signature]</i>		Report Data to: Chet Wrotniak (716)942-4160	

Location Code	Sample ID	Date	Time	# Conts	Preservative	Tests
WNSP007	2012-02048	03/09/12	0945	1	Cool	WET

Notes:

Notes:

Samples are being sent via contract with Test America.

Signature Rel: Date/Time <i>[Signature]</i> 3/9/12 @ 10:30	Signature Rel: Date/Time <i>[Signature]</i> 03-09-12 11:00
Signature Rec: Date/Time <i>[Signature]</i> 03-09-12-11:30	Signature Rec: Date/Time <i>[Signature]</i> 3/9/12 1130
Signature Rel: Date/Time	Signature Rel: Date/Time
Signature Rec: Date/Time	Signature Rec: Date/Time
Signature Rel: Date/Time	Sample Receipt at Lab: Cool YES NO Temp: C _____
Signature Rec: Date/Time	Custody Tape Intact: YES NO <i>[Initials]</i>



Sample #1

NEW ENGLAND BIOASSAY CHAIN-OF-CUSTODY

EFFLUENT

RECEIVING WATER

Sampler: Martin Regan
 Title: Env. Scientist
 Facility: West Valley

Sampler: Martin Regan
 Title: Env. Scientist
 Facility: West Valley

Sampling Method: X Composite
 Sample ID: Outfall 007
 Start Date: 3-8-12 Time: 09:45
 End Date: 3-9-12 Time: 09:45

Sampling Method: X Grab
 Sample ID: EROMAN Brook
 Date Collected: 3-9-12
 Time Collected: 10:05

Sampling Method: Grab (for pH and TRC only)
 Date Collected:
 Time Collected:

Sample Type: Prechlorinated
X Dechlorinated
 Unchlorinated
 Chlorinated

Effluent Sampling Location and Procedures:

STP Discharge (WNSP007) Sampled Via EM-2 Flow Weighted
Composite Sampling

Receiving Water Sampling Location and Procedures:

EROMAN Brook (WNERB53) Sampled Via EM-2 Grab Sample

Requested Analysis: X Chronic and modified acute

Sample Shipment

Method of Shipment:

Relinquished By: <u> </u>	Date: <u> </u>	Time: <u> </u>
Received By: <u> </u>	Date: <u> </u>	Time: <u> </u>
Relinquished By: <u> </u>	Date: <u> </u>	Time: <u> </u>
Received By: <u> </u>	Date: <u> </u>	Time: <u> </u>
Relinquished By: <u> </u>	Date: <u> </u>	Time: <u> </u>
Received By: <u> </u>	Date: <u> </u>	Time: <u> </u>

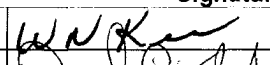
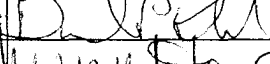
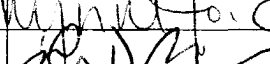
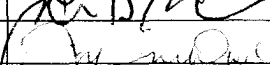
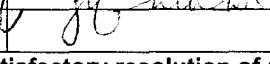
FOR NEB USE ONLY

Temperature of Effluent Upon Receipt at Lab: °C Temperature of Receiving Water Upon Receipt at Lab: °C
 Effluent COC# Receiving Water COC#

**IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
 KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042**

CORRESPONDENCE CONTROL SHEET

(Printed on Pink Paper)

Correspondence Code WR : 2012: 0030	Author's Name & Extension D. P. Klenk/4061	Date Review Submitted 04/26/12	Date Review Due 05/02/12	Record Series Code	
Subject Whole Effluent Toxicity Testing (WET) report's for the WVDP SPDES Permit No. NY-0000973, Outfalls 001 and 007					
Does this Correspondence Respond to any DOE or Regulator Correspondence? ☒ No ☐ Yes - If yes, then identify the following: Correspondence Code: _____ Action Number: _____					
Administratively Confidential or Proprietary Information Does this correspondence/attachments contain administratively confidential OR proprietary information? ☒ No ☐ Yes - If yes, then ensure documentation is properly marked as administratively confidential OR proprietary AND as OUO per requirements of WVDP-402.					
Export Controlled Information (ECI) Does or could this correspondence/attachments contain ECI (OUO, FOIA Exemption 3)? <i>[i.e., technical information that would be restricted by statute; refer to WVDP-402 for guidance on this determination.]</i> ☒ No ☐ Yes - If yes, then obtain export control review from the Export & Technology Control Officer (E&TCO) (or designee) AND ensure documentation is properly marked as ECI with E&TCO signature & date AND properly marked as OUO per requirements of WVDP-402.					
Official Use Only (OUO) Information Does or could this correspondence/attachments meet the definition of Official Use Only (OUO)? <i>[i.e., information is certain unclassified information that may be exempt from public release under the Freedom of Information Act (FOIA), (Exemptions 3-9) and has the potential to damage governmental, commercial, or private interests if disseminated to persons who do not need to know the information to perform their jobs or other DOE authorized activities; refer to WVDP-402 for additional guidance on this determination.]</i> ☒ No ☐ Yes - If yes, then ensure OUO information is properly marked per requirements of WVDP-402.					
Action/Funding Commitment Does this correspondence/attachments commit CHBWV to an action or commit funds? ☒ No ☐ Yes - If yes, then obtain CHBWV Project Manager, Deputy Project Manager, or Business Services Manager review AND approval by a cognizant President's Direct Reports team member.					
Additional Instructions or Comments					
REVIEWER APPROVALS (only used for hard copy process)					
MS/Printed Name	Signature	Date	Concur	Concur W/Comments	Nonconcur
AC-URS/W. N. Kean		4/30/12	☒	☐	☐
AC-EA/D. P. Klenk		4/30/12	☒	☐	☐
AC-PROC/L. K. Holfelder		4/30/12	☒	☐	☐
AC-EA/J. D. Rendall		5/2/12	☐	☒	☐
AC-DOE/J. M. Dundas		5/16/12	☒	☐	☐
			☐	☐	☐
Reviewer initial & date indicating satisfactory resolution of nonconcur (only used for hard copy process):					