Aqua Survey, Inc.

BIOMONITORING REPORT
Mysidopsis bahia

KIN-BUC LANDFILL
383 MEADOW ROAD
EDISON, NEW JERSEY 08817

September 17, 2001

JOB #21-393

469 Point Breeze Road
Flemington, NJ 08822

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asi

562233

NJDEP BIOMONITORING REPORT FORM - ACUTE BIOASSAY

NJPDES PERMIT #: **NJ Permit Equivalent** **DSN 001**

FACILITY NAME: **Kin-Buc Landfill**
FACILITY ADDRESS: **383 Meadow Road, Edison, NJ 08817**

FACILITY CONTACT PERSON: **Glen Garieb** **PHONE #:** **908 561-7600**

ACUTE TOXICITY LABORATORY: **AQUA SURVEY INC.**
469 Point Breeze Road
Flemington, NJ 08822

ACUTE LABORATORY CERTIFICATION NO.: 10309

TEST SPECIFICATIONS

Effluent Type (e.g., final, predisinfection): Final

Test Type: Static Daily Renewal

TEST RESULTS

Test Starting Date: 8/27/01 Completion Date: 8/31/01

Test Endpoint: LC_{50} x
NMAT _____
EC_{50} _____

LC_{50}/EC_{50} (% effluent): >100% 95% Confidence Interval: N/A

Highest percent mortality in any test concentration (if applicable): N/A
Test concentration: N/A

Test Organism: Mysid shrimp (common name) *Mysidopsis bahia* (scientific name)

QUALITY CONTROL SUMMARY

Control mortality:	zero
Temperature maintained within 20° +/- 2°C?:	Yes
Dissolved Oxygen Levels always greater than 40% saturation?	Yes
Two or more concentrations exhibit a trend deviation?	No

CERTIFICATION

Accuracy of report certified by:

Thomas J. Dolce 9/19/01

Thomas J. Dolce
Laboratory Manager

Date

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TEST ORGANISM DATA

Test Organism Source: Culture x Commercial hatchery __ (Specify)

Test Organism Acclimation

Is the culture water and test dilution water the same and are the culture water temperature and dilution water temperature identical? Yes _ No x

If yes, proceed to Test Design section.

Fish and Grass Shrimp

Initial number of organisms:
Total acclimation period:
Acclimation period to 100 percent dilution water at the specified test temperature and test salinity:
Number of mortalities:
Test organism age at start of test (days):

Mysid and Cladoceran

Initial number of organisms: 200+
Test organism age at start of test (days): 3 days
Culture water source: Forty Fathoms
Culture water salinity: 25.3 ppt ; Culture water temperature: 22.5°C
Dilution water source: Mansquan
Dilution water salinity upon collection: 29.68 ppt
Number of mortalities: zero

TEST DESIGN

Number of effluent test concentrations: 5
Number of replicates/test concentration: 2
Number of test organisms/replicate: 10
Volume of liquid test chamber (liters): 0.5
Flowthrough bioassay exchange rate (replacements/day): N/A

EFFLUENT SAMPLING

Plant sampling location: Final Effluent just before weir
Effluent type: Final
Discharge (check one) Continuous x Intermittent _____
Effluent sample type: 24 composite

SAMPLE COLLECTION			SAMPLE DATA TAKEN UPON ARRIVAL AT LABORATORY			USE IN TOXICITY TEST	
ASI No.	Beginning Date/Time	Ending Date/Time	TEMP.	D.O.	pH	Date(s)	Time(s)
2011723	8/26/01;1200	8/27/01;1100	6.0	7.4	8.5	8/27/01	1600
2011732	8/27/01;1100	8/28/01;1000	3.1	9.7	8.6	8/28/01	1430
2011746	8/28/01;1100	8/29/01;1000	2.0	11.0	8.3	8/29/01	1600
2011749	8/29/01;1100	8/30/01;1000	2.5	9.5	8.2	8/30/01	1440

Maximum sample holding time (hours): <24
Testing location: Aqua Survey, Inc., Flemington, NJ

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EFFLUENT SAMPLE ADJUSTMENTS

Were any salinity adjustments made? Yes _x_ No

If yes, specify the source of sea salts, brine or water used: Forty Fathoms, Marine Enterprises, MD

Were any pH adjustments made? Yes _x_ No ___

If yes, specify the reagent used _1N NaOH_, the amount used 0.25 ml, 2 ml/sample

The pH level upon sample collection (initial pH)

The pH level after the addition of the sea salts (drifted pH)

The adjusted pH level

Was the effluent sample filtered in any manner? Yes ___ No _x_

If yes, please specify the mesh size: _____.

Were any adjustments to the levels of chlorine made? Yes ___ No _x_

If yes, specify the dechlorination agent used _____; and the amount of reagent used _____

Specify the chlorine levels prior to _____; and after addition of the reagent _____

Was an additional control included in the test containing the dechlorination agent? Yes ___ No ___

DILUTION WATER

Effluent Receiving Water: Raritan River

Dilution Water Source: Manasquan

(If reconstituted water is used specify type)

If a substitute dilution water (i.e. not the receiving water) was used, had its use been approved by NJDEP in the acute methodology questionnaire? Yes _x_ No ___

Collection Location: Manasquan

Collection Date(s): 8/22/01

TEST RESULTS

LC_{50}/EC_{50} (% Effluent)	24 hour	48 hour	72 hour	96 hour
	>100%*	>100%*	>100%*	>100%*

Calculation Method: Probit Method
The Trimmed Spearman Karber Method
Graphical Interpolation
Visual Inspection __*

NOTE: Attach the statistical printouts used to determine the LC_{50} value and the mortality data sheets.

Is the calculated LC_{50}/EC_{50} valid according to the specifications of the method used? Yes _x_ No ___

MISCELLANEOUS

Were any exposure chambers aerated during the test? Yes ___ No _x_

If yes, specify concentrations and duration, including the lowest percent saturation reached prior to aeration and at what time:_____.

Were test organisms observed for appearance and behavior at least daily? Yes _x_ No

NOTE: Attach a copy of the acute toxicity test benchsheets with observation coded for each day.

NOTE: Attach a copy of the raw data sheets for physical-chemical measurements taken during the test to the test report form.

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APPENDIX

AQUA SURVEY, INC.
96 HOUR BIOASSAY

GENERAL INFORMATION

Job #: 21-393 Client: KBL Organism: M. bahia

Dilution Water: Receiving _____ Culture _____ Alternative Manasquan

Test Type: Flow Through _____ Static Daily Renewal ✓ Static Non- Renewal _____

Test Volume: 500 ml Chamber Volume: 800 ml Light: 50-100 fc 68.5

Test Start Date: 8/27/01 Time: 1630 Technician: RZ

Test End Date: 8/31/01 Time: 1600 Technician: RF

ACCLIMATION INFORMATION (Laboratory or Field Acclimation Only)

Exchange Rate: Drip ____ Meter, Pump ____ Exchange Rate (mL/min) _____

Start Date: _____ Time: _____ Chamber Volume: _____

End Date: _____ Time: _____ Feeding: Day 0 ____ Day 1 ____ Day 2 8/27/01 Day 3 ____

Remarks: _____ Mortality: Day 0 ____ Day 1 ____ Day 2 ____ Day 3 ____

Temperature Range: _____ (Field Use Only) Temperature: Day 0 ____ Day 1 ____ Day 2 ____ Day 3 ____ (Lab Use Only)

DILUTER INFORMATION

Set Up Date: _____ Water Used: _____ Diluter Number: _____ Technician: _____

Cycles During Pretest: _____ Elapsed Time: _____ RZ 8/27/01

Day 1 Cycles: _____ Elapsed Time: _____ Day 2 Cycles: _____ Elapsed Time: _____

Day 3 Cycles: _____ Elapsed Time: _____ Total Cycles: _____ Elapsed Time: _____

DESCRIPTION OF SAMPLES (Use Only for In- Lab Samples)

Effluent Odor: None Color: ~~clear~~ slightly cloudy (milky white) Other: _____

Diluent Odor: None Color: clear Salinity: 30.4 ppt. Other: _____

ASI Number	Sample Data Taken Upon Arrival at Laboratory			Use in Toxicity Test	
	Temperature	D.O.	pH	Date(s)	Time(s)
2011723	6.0	7.4	8.5	8/27/01	1600
2011732	3.1	9.7	8.6	8/28/01	1430
2011746	2.0	11.0	8.3	8/29/01	1660
2011749	2.5	9.5	8.2	8/30/01	1440

AERATION PROCEDURE

Aeration Required: _____ Aeration Not Required: X

Description of Problem: Do levels below 50% saturation ____ DO levels dropping rapidly ____

Cycles Increased: Date: _____ Time: _____ Technician: _____

Dilution aeration begun: Date: _____ Time: _____ Technician: _____

Test aeration begun: Date: _____ Time: _____ Technician: _____

Aqua Survey, Inc.

LIVE COUNTS AND OBSERVATIONS

Job #: 21-393 Organism: M. bahia

Concentration %		Observation Interval- Hours									
		0		24		48		72		96	
		Live Count	Observ	Live Count	Observ	Live Count	Observ	Live Count	Observ	Live Count	Observ
Control	A	10	1	10	1	10	1	10	1	10	1
	B	10	1	10	1	10	1	10	1	10	1
6.25	A	10	1	10	1	10	1	10	1	10	1
	B	10	1	10	1	10	1	10	1	10	1
12.5	A	10	1	10	1	10	1	10	1	10	1
	B	10	1	10	1	10	1	10	1	10	1
25	A	10	1	10	1	10	1	10	1	10	1
	B	10	1	10	1	10	1	10	1	10	1
50	A	10	1	10	1	10	1	10	1	10	1
	B	10	1	10	1	10	1	10	1	10	1
100	A	10	1	10	3 (10)	10	2,3,5	10	2,3,5	10	1
	B	10	1	10	3 (10)	10	2,3,5	10	2,3,5	10	1
Date		8/27/01		8/28/01		8/29/01		8/30/01		8/31/01	
Initials		RF		RF		RF		RF		RF	

Terms and Conditions for Test Organisms' Appearance and Behaviour

Term	Explanation	Code
Normal	Unaffected	1
Inactive	Abnormally low activity, motionless or nearly so, weak and enfeebled	2
Irritated	Hyperactivity, muscle spasms, erratic swimming	3
Surfacing	Rising and remaining unusually long at the surface	4
Abnormal body orientation	Inverted or turned approximately 90° laterally from normal body position	5
Abnormal skin color	Light discolored, dark discolored, or varidiscolored (mottled)	6
Abnormal skin condition	Mucus shedding or coagulations, hemorrahaging from gills, eyes or anal opening	7
Abnormal respiration	Rapid, slow, gulping or periodic flexure of the operculum of fish as to reverse water flow (coughing)	8

AQUA SURVEY, INC.
96 HOUR BIOASSAY

WATER QUALITY

Job #: 21-393 **Organism:** M. bahia

Client: KBL

Conc.	ALKALINITY (mg/L in 25 mL)					HARDNESS (mg/L in 25 mL)				
0 %	0	24	48	72	96	0	24	48	72	96
Start	0.0									
Stop	2.9									
Diff	2.9									
X	40	40	40	40	40	40	40	40	40	40
	116									
Initial/ Date/ Time	TD 8/27/01 1700									
100 %										
Start	2.8	0.0	1.0	0						
Stop	19.8	11.2	11.1	8.2						
Diff	11.0	11.2	11.1	8.2						
X	40	40	40	40	40	40	40	40	40	40
	440	448	444	328						
Initial/ Date/ Time	RJ 8/27/01 1700	MS 8-28-01 1330	M 8/29/01 1630	MS 1400 8-30-01						

salinities too high

Residual Chlorine (mg/L in 25 mL)					
Conc.	0	24	48	72	96
0 %	ND				
100 %	ND	ND	ND	ND	
Initial/ Date/ Time	RJ. 8/27/01 1700	8-28-01 MS 1330	M 8/29/01 1630	8-30-01 MS 1400	

ND= Non Detectable Limit

Job #: 21-393
Client: KBL
Sample: Effluent
ASI Sample #: 2011723
Collection Date/Time: 8/27/01
Approx. sample volume: 3L
Initial pH 8.5
(Salinity adjusted): 8.1

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: 8.1
Date/Time: 8/27/01 1530 Initial: KT

ASI Sample #: 2011737
Collection Date/Time: 8/28/01
Approx. sample volume: 2L
Initial pH 8.6
(Salinity adjusted): 8.0

Normality & Vol. of HCl/NaOH: ~0.25ml of 1N NaOH pH: 8.2

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: 8.2
Date/Time: 8/28/01 1400 Initial: KT

ASI Sample #: 2011746
Collection Date/Time: 8/29/01
Approx. sample volume: 2L
Initial pH 8.7
(Salinity adjusted): 8.1

Normality & Vol. of HCl/NaOH: 1N / ~2mL pH: 8.4

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: 8.4
Date/Time: 8/29/01 1545 Initial: M

ASI Sample #: 2011749
Collection Date/Time: 8/30/01
Approx. sample volume: 2L
Initial pH 8.4
(Salinity adjusted): 8.0

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: 8.0
Date/Time: 8/30/01 1420 Initial: KT

AQUA SURVEY, INC.

CULTURE LAB DISTRIBUTION FORM

DATE: 8/27/01

TEST JOB#: 21.393 CLIENT: KBL

TEST LOCATION: IN-LAB [x] FIELD [ ]

TEST SPECIES: M bahia

TOTAL NUMBER ORGANISMS TRANSFERRED: 200+

AQUA SURVEY, INC. CULTURE LAB INVESTIGATORS: CC/CD

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: 10gal Tank
2. RECEIVING LOG #: ~~21.0486~~
3. CULTURE LOG #: 21.0488
4. AGE/SIZE INFORMATION: HD 8/24/01

B. HOLDING [x] CULTURE [ ] WATER PARAMETERS

1. TEMPERATURE: 22.1°C
2. SALINITY: 28.2ppt
3. WATER SOURCE: Manasquan

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT DATE: 8/27/01
   TIME: 16.00hrs
   BY: CC

2. LIVESTOCK RECEIVING DATE: 8/27/01
   TIME: 16.00hrs
   BY: KF

3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: CC

REMARKS:

AQUA SURVEY, INC.
CULTURE LABORATORY

15 Day - General Species Status Log

Species: M. bahia **Dates:** 8/24/01 →

Receiving [ ] Culture [X] Log #: HD 8/24/01 **Initial Stock @:** 200+

Test Job #: 21-393 **Client:** KBL **Food Type:** Artemia

Date	Day Number	Temp/DO	NH_3/NO_2	pH	Sal/Hardness	Alkalinity	Mortality	Remarks/Initials
8/24	1	22.5°C/6.9	0/0	7.8	25.3ppt	108	Ø	Acclimation started Fed Artemia CD
8/25	2	22.4°C/7.2	0/0	8.0	27.5ppt	124	Ø	Acclimation co Fed Artemia C
8/26	3	22.3°C/7.1	0/0	8.0	28.5ppt	132	Ø	Acclimation conclu Fed Artemia CC
8/27	4	22.1°C/6.8	0.25/0	7.9	28.2ppt	132	Ø	To Test Fed Artemia
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							

AQUA SURVEY, INC.

Culture Lab Acclimation Form

Acclimatization

[ ] No acclimatization required
[x] Temperature acclimatization
[x] Water acclimatization

Job #: 21-393 **Test Species:** M. bahia

Acclimatization Initial Parameters

Temperature: 22.5°C **Salinity:** 25.3ppt **Type of Water:** forty fathoms

Acclimatization Target Parameters

Temperature: 20±2°C **Salinity:** 30±2ppt **Type of Water:** Menesgeen

Acclimatization Chamber Volume (liters): 39l tank

Acclimatization Location: Culture Lab

Acclimatization Water Type: Menesgeen

Acclimatization Water Temperature: 20.7°C

Acclimatization Commencement-Date/Time: 8/24/01 / 1530hrs

Change Over Rate (Approximately mL/Minute): 10-20 ml/min.

Acclimatization Conclusion - Date/Time: 8/26/01 / 1100hrs

Technician Initials/Commencement: CD

Technician Initials/Conclusion: CC

Supervisor Initials: CD

Remarks:

393B-0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	08/27/01 15:50:43	0 20.55	46481.0	30.24	6.71	8.04
1	08/27/01 15:51:02	6.25 20.48	46475.0	30.23	6.73	8.04
2	08/27/01 15:51:24	12.5 20.31	46479.0	30.24	6.81	8.05
3	08/27/01 15:52:18	25 20.54	46386.0	30.17	6.86	8.07
4	08/27/01 15:52:47	50 20.11	46377.0	30.16	7.00	8.09
5	08/27/01 15:55:28	100 18.11	46079.0	29.95	7.62	8.08

Project #: 21-393 Test type: ☐ ACUTE ☐ CHRONIC ☐ OTHER _____ Date: 8/27/01

Species: ☐ *P. promelas* ☐ *C. dubia* ☐ *M. bahia* ☐ Other _____ Day of Study: 0

OPERATIONAL RANGE: Check if OK Meter Used:

Temperature: 18 to 22 ☑ Blue ☑

Salinity: 28 to 32 ☑ Red ☐

Dissolved Oxygen: >4.0 ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken: _____

See deviation summary sheet ☐ Initials: KF

Mon Aug 27 16:06:05 2001

393B-24.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	08/28/01 09:59:34	0 20.54	46683.0	30.38	6.22	7.89
1	08/28/01 10:00:14	6.25 20.52	46884.0	30.53	6.27	7.98
2	08/28/01 10:00:40	12.5 20.49	46918.0	30.55	6.39	8.03
3	08/28/01 10:01:03	25 20.61	46881.0	30.53	6.45	8.09
4	08/28/01 10:01:22	50 20.63	46698.0	30.39	6.49	8.15
5	08/28/01 10:01:50	100 20.74	46416.0	30.19	6.52	8.20

KF 8/28/01

Project #: 21-393 Test type: ☐ ACUTE ☑ CHRONIC ☐ OTHER _____ Date: 8/28/01

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ Day of Study: 24

OPERATIONAL RANGE: Check if OK Meter Used:

Temperature: 18 to 22 ☑ Blue ☑

Salinity: 28 to 32 ☑ Red ☐

Dissolved Oxygen: >4 0% ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken: _____

See deviation summary sheet ☐ Initials: KF

Tue Aug 28 11:31:52 2001

393B-48.DAT

	DateTime		Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y		C	uS/cm	ppt	mg/L	
0	08/29/01 09:27:47	0	20.56	47124.0	30.70	6.77	7.83
1	08/29/01 09:28:25	6.25	20.54	47151.0	30.72	6.64	7.92
2	08/29/01 09:29:35	12.5	20.59	47111.0	30.69	6.56	7.99
3	08/29/01 09:30:07	25	20.55	46857.0	30.51	6.54	8.08
4	08/29/01 09:30:54	50	20.61	46721.0	30.41	6.46	8.14
5	08/29/01 09:31:33	100	20.74	46135.0	29.98	6.44	8.19

Project #: 21-393 **Test type:** ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ **Date:** 8/29/01

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ **Day of Study:** 48hr

OPERATIONAL RANGE: **Check if OK** **Meter Used:**

Temperature: 18 to 22 ☑ **Blue** ☑

Salinity: 28 to 32 ☑ **Red** ☐

Dissolved Oxygen: >4.0 % ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken: _____

See deviation summary sheet ☐ **Initials:** KW

Wed Aug 29 10:40:08 2001

393B-72.DAT

	DateTime		Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y		C	uS/cm	ppt	mg/L	
0	08/30/01 09:31:14	0	20.39	47485.0	30.97	6.76	7.83
1	08/30/01 09:32:22	6.25	20.34	47523.0	30.99	6.61	7.97
2	08/30/01 09:33:22	12.5	20.32	47450.0	30.94	6.53	8.04
3	08/30/01 09:34:00	25	20.32	47215.0	30.77	6.48	8.15
4	08/30/01 09:34:44	50	20.39	46949.0	30.58	6.40	8.22
5	08/30/01 09:35:28	100	20.53	46524.0	30.27	6.35	8.28

Project #: 21393 **Test type:** ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ **Date:** 8/30/01

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ **Day of Study:** 72 hr

OPERATIONAL RANGE: **Check If OK** **Meter Used:**

Temperature: 18 to 22 ☑ **Blue** ☑

Salinity: 28 to 32 ☑ **Red** ☐

Dissolved Oxygen: >4.0% ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken: _____

See deviation summary sheet ☐

Initials: KW

Thu Aug 30 10:44:04 2001

393B-96.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	08/31/01 08:47:52 ow	20.37	46742.0	30.43	6.78	7.81
1	08/31/01 08:48:28 6.25	20.39	46831.0	30.49	6.68	7.85
2	08/31/01 08:48:58 12.5	20.40	46771.0	30.45	6.63	7.91
3	08/31/01 08:49:25 25	20.45	46675.0	30.38	6.61	7.98
4	08/31/01 08:49:51 50	20.46	46471.0	30.23	6.63	8.01
5	08/31/01 08:50:20 100	20.56	46011.0	29.89	6.64	8.01

Project #: 21-393 Test type: ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ Date: 8/31/01

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ Day of Study: 96 hr

OPERATIONAL RANGE: Check If OK Meter Used:

Temperature: 18 to 22 ☑ Blue ☑

Salinity: 28 to 32 ☑ Red ☐

Dissolved Oxygen: >4.0 % ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken: _____

See deviation summary sheet ☐ Initials: KW

Fri Aug 31 09:33:49 2001

asi 21-393

Job #:

Client: KIN BAC LANDFILL

Facility Location: EDISON

Discharge #:

Contact:

Phone #:

Sample Collection Point: FINAL EFF JUST BEFORE WIER

Test Type: Acute ✓ Chronic ____ Diluent Only ____ Other: ____

Dilution Collection Location:

Shipping Information: To: ASI

From: KBC

Shipment Method/ Special Instructions: ASI AUTO

Collection/ Sample Key: C= Composite; G= Grab; SD= Sediment; E= Effluent; D= Diluent; S= Soil; SL= Sludge; T= Tissue

ASI #	Collected By: Name (Print)/ Date*/ Time*	Collection/ Sample Type	Sample Volume	Relinquished By: Signature/ Date/ Time	Received By: Signature/ Date/ Time	Relinquished By: Signature/ Date/ Time	Received By: Signature/ Date/ Time
2011723	M. SWENSON	C/E	4L	[signature]	[signature]		
	8-26-01 1200 8-27-01 1100			8-27-01 1430	8/28/01 1430		
2011732	M. SWENSON	C/E	4L	[signature]	[signature]		
	8-27-01 1100 8-28-01 1000			8-28-01 1100	8/28/01 1100		
2011746	M. SWENSON	C/E	4L	[signature]	Robert [signature]		
	8-28-01 1100 8-29-01 1000			8-29-01 1500	8-29-01 1520		
2011749	M. SWENSON	C/E	4L	[signature]	Robert [signature]		
	8-29-01 1100 8-30-01 1000			8-30-01 1300	8-30-01 1305		

* Please Write Date and Time Sample Collection Started and Date and Time Sample Collection Ended

ASI #	Ice +	Temp. °C	Signature/ Date/ Time NOZ7	Notes:
2011723	1	6.0	[signature] 8-28-01 1430	
2011732	1	3.1	[signature] 8-28-01 1100	
2011746	1	2.0	[signature] 8-29-01 1500	
2011749	1	2.5	[signature] 8-30-01 1300	

FOR LABORATORY USE ONLY

+
I= Ice
D= Dry Ice
B= Blue Ice
N= None

2011703

QUALITY CARRIERS, INC.

3802 Corporex Park Drive, Tampa, FL 33619

Eugene #1

SCAC-QLYC

SHIPPER	ATLANTIC OCEAN	POINT PLEASANT, NJ 08742	ORDER 55612770
	C/O		LDF 55600104
PICK UP TIME / DATE	REASON IF LONG LOADING: Pump load 5 Hoses		WEIGHT
ENTER PLANT TIME / DATE		TRAILER SPOTTED TO LOAD YES / NO ✓	G
START LOAD TIME	SHIPPER AGENT SIGNATURE	DRIVER SIGNATURE	T
END LOAD TIME	DATE / TIME	DATE 8-22-01 TIME	N 45000 ☐ GC
DEPART PLANT TIME / DATE 8-22	IN CASE OF: LEAK, SPILL, FIRE OR OTHER EMERGENCY, CALL TOLL FREE		
TOTAL TIME	QUALITY CARRIERS 24 HOUR EMERGENCY RESPONSE: 800-759-8265		CHEMTREC 800-424-9300
RECEIVER	AQUA SURVEY INC	FLEMINGTON, NJ 08822	ACCESSORIAL CHARGES MARK Y IF USED, N IF NOT USED
RID #	C/O		SCALE LOAD N / HOSE SPEC ☐ 5

I HAVE CHECKED THE DOCUMENTS FOR THIS SHIPMENT AND VERIFY THAT THERE IS ADEQUATE STORAGE ROOM TO RECEIVE THIS SHIPMENT AND CONNECTION HAS BEEN MADE TO THE PROPER STORAGE FACILITY: CONSIGNEE: Tim Dale DATE:

SCH. DEL. TIME / DATE 08/23/01	REASON IF LONG UNLOADING: Air unload truck common		PUMP LOAD ☐ SS Y / COMPT CLND Y
ENTER PLANT TIME / DATE		TRAILER SPOTTED TO UNLOAD YES / NO ✓	COM-PRESSOR N / INTRANSIT HEAT N
START UNLOAD 830 TIME	CONSIGNEE AGENT SIGNATURE Tim Dale	DRIVER SIGNATURE	PUMP UNLOAD ☐ SS N / DRUMMING LBS.
END UNLOAD 900 TIME	DATE / TIME	DATE 8 TIME	BLOWER N / DEAD HEAD MILES
DEPART PLANT 9:15 TIME / DATE	Consignee: You are responsible for unloading all contents assigned to you by shipper. Please sign below that you have inspected the tank and all product has been removed and received in good order except as noted:		SCALE UNLOAD N / SPOT DAYS
TOTAL TIME 7 hr		Consignee Signature: Tim Dale	TOLLS $ 4.50
			TRANSFER

Driver: I have inspected the tank and the tank is empty. (Please call your dispatcher on any amount over 5 gals. left in tank.) Call before departing consignee.

Estimated amount of heel: 0 gal. Driver Signature: Steve Wright

COMP	H/M	COMMODITY AND HAZARDOUS MATERIAL DESCRIPTION (MUST AGREE WITH DESCRIPTION ON SHIPPING ORDER)	QUANTITY	LOAD TEMP
1		Sea Water	5,700	
2				
3				
4				
5				

INSTRUCTIONS:

TRACTOR NUMBERS	0613
PRELOAD	22383
LINE-HAUL	22383
RELAY 1	
RELAY 2	
UNLOAD-BY	
ONE WAY MILES	
TRAILER NUMBER	66162
TRAILER	66162
CHASSIS	
CONTAINER	

ON-TIME PERFORMANCE MEASUREMENT (✓ ONE)

LATE PICKUP: ☐ Shipper Error ☐ Dispatch Error ☐ Equipment Error ☐ Driver Error
Explanation:

LATE DELIVERY: ☐ Shipper Error ☐ Dispatch Error ☐ Equipment Error ☐ Driver Error
Explanation:

IRREGULAR OPERATION (✓ IF APPLICABLE)

☐ Cancelled Shipment ☐ Trailer Spotted
☐ Rejected Shipment ☐ Other
☐ Reconsigned Shipment ☐ Stop-Off (Attach Bill of Lading)
Explanation: Date:

ENDING PT. CITY STATE	ENDING ODOMETER READING	DATE	TIME	DRIVER 1	DRIVER NO.	LOG HRS.
CARTERET NJ	186	8-25		S WRIGHT	2000	2
STARTING PT. CITY STATE	STARTING ODOMETER READING	DATE	TIME	DRIVER 2	DRIVER NO.	LOG HRS.
CARTERET NJ	0	8-22		N HAWKA	1202	4

STATE CODE	FIRST CITY IN STATE OR MAJOR CHANGE IN DIRECTION	STATE CODE	FIRST CITY IN STATE OR MAJOR CHANGE IN DIRECTION	STATE CODE	FIRST CITY IN STATE OR MAJOR CHANGE IN DIRECTION	CLEANING POINT

ATTACH ORIG. FUEL & TOLL RECEIPTS TO BACK

FUEL PURCHASES GAL.	VENDOR	INVOICE NO.

I acknowledge that the current rate for the specific load referenced in this delivery receipt may be higher or lower than the compensation percentage indicated in my contractor agreement. I have been informed of and understand the rate for this specific movement and indicate my acceptance by my initials below. Further, I understand that this document becomes an addendum to my independent contractor agreement. Driver Initials _____ Date: _____

DELIVERY RECEIPT — CONSIGNEE - DRIVER LEAVE THIS COPY AT DESTINATION — Form No. QCDEL002 Rev. 10/99

MAN8-23.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	08/23/01 08:41:27	22.74	45743.0	29.68	7.08	7.81

ASI, INC.
SAMPLE RECEIVING FORM

Page of

Client: ——

Job #: ——

Shipped Via: ~~tanker~~ QC

# of Shipping Containers: 1

Type of Shipping Container: tanker

Custody Seal: Present __ Absent X Broken __

Condition of Shipping Container: Acceptable X Unacceptable __

	ASI #	Sample ID	Type of Container	Number of Containers	Condition of Samples†	Temp. °C	Ice +	Type of Sample*
1.	201703	manasquan	tanker	1	acceptable	22.74	no	water
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10								

Notes: (Discrepancies Between Sample Label and COC Record)

Opened/Received by: ~~Thu Aug 23 11:03:05 2001~~

Date/Time:

Page 1 of 1

* S - Soil
Se - Sediment
Sl - Sludge
W - Water
E - Effluent

† A - Acceptable
U - Unusable or Contaminated

\+ D - Dry Ice
I - Ice
B - Blue Ice
N - None