Ohio | Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

August 25, 2011

RE: Notice of Violation and Acute Toxicity
NPDES Permit 1IN00022

Mr. Tim W. McDaniel
Navistar, Inc.
6125 Urbana Road
Springfield, OH 45502

Dear Mr. McDaniel:

This letter is to notify you of several significant violations of your NPDES permit. In particular, Navistar's discharge was found to be acutely toxic, Navistar failed to monitor temperature at outfall 002 at the required frequency, Navistar failed to fix the temperature monitoring system at outfall 002 in a timely manner and Navistar failed to conduct $CBOD_5$ monitoring during the second weekly period of July.

Acute Toxicity

On July 18 and 19, 2011 Ohio EPA conducted a bioassay of Navistar's discharge to the unnamed tributary of Moore Run from permitted outfall 001. The attached bioassay report indicates Navistar's discharge to be acutely toxic.

Acute toxicity is a violation of Part III.2.D of your NPDES permit where it states:

> The effluent shall, at all times, be free of substances in amounts that either singly or in combination with other substances are toxic to human, animal, or aquatic life.

It is my contention that the toxicity of Navistar's discharge is associated with the annual primary pretreat and prime line cleanout event that began at the beginning of July. During these annual events, substantial amounts of high-strength wastes are received in storage tanks (permanent and temporary) and extra effort is made to build up an inventory of normal industrial wastewater to blend with the cleanout wastewaters so as to mitigate the impact on the biological treatment system.

A review of the bioassay analysis report reveals Navistar's discharge had very high levels of total dissolved solids (3,300 mg/l) and conductivity (4,300 umhos/cm) that, based on Ohio's Water Quality Standards for these parameters (1,500 mg/l and 2,400 umhos/cm respectively), likely caused or contributed to the effluent being acutely toxic.

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401 East Fifth Street
Dayton, OH 45402-2911

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www.epa.ohio.gov

Although there isn't a Water Quality Standard for sodium, Navistar's discharge was very high at 1,010 mg/l compared to about 90 mg/l normally discharged by a publicly-owned treatment works.

In addition, phosphorous, which is normally limited to 1 mg/l where discharges contribute to nuisance growth of aquatic weeds or algae, was extremely high at 489 mg/l. It is reasonable to suspect that the high phosphorous is associated with Navistar's phosphating process which likely also contributes dissolved solids.

It is also noteworthy that bioassay test concentrations turned very cloudy during the test which is similar to what was observed last July when Navistar's discharge caused the receiving stream to become very cloudy.

These findings lead me to believe that wastewater generated by Navistar's annual pretreat and prime line cleanout events is not acceptable for treatment and discharge by its waste water treatment plant and that these wastes need to be hauled off-site for disposal.

To address this issue, if Navistar plans to continue to process and discharge wastewater associated with annual pretreat and prime line cleanout events, it is necessary for you to explain why you believe the wastewater discharge from these events does not and will not cause or contribute to your discharge being acutely toxic. Alternately, you are invited to propose changes in operations associated with these events that demonstrate how the wastewater discharge will not be toxic in the future.

CBOD Monitoring Violation at Outfall 001

During the monitoring week of July 8 through 14, 2011 Navistar failed to conduct weekly monitoring of $CBOD_5$ as required by its NPDES permit. Additionally, it was revealed that $CBOD_5$ was apparently not compliant with discharge limits as indicated by results of process checks.

Instead of monitoring that would likely have indicated a non-compliant discharge, Navistar said it recirculated the effluent until process checks on July 15th revealed compliance with the effluent limit would be achieved. However, compliance monitoring for $CBOD_5$ wasn't performed again until July 20th resulting in 18 days without $CBOD_5$ monitoring when the WWTP was treating wastewater that apparently causes its effluent to be acutely toxic.

A review of Navistar's Discharge Monitoring Report for July shows that the plant was discharging during the entire week of July 8 through 15 which does not support the claim that $CBOD_5$ monitoring could not be performed.

In summary, Navistar violated its weekly monitoring frequency for $CBOD_5$, misused the alternate 'AC' reporting code to indicate the plant was not discharging when it was, and otherwise appears to have avoided $CBOD_5$ monitoring for a large period of time when the WWTP was known to be operating under stressful conditions.

In response to this issue, it is my intention to require increased monitoring in the renewed permit during times when the WWTP is treating wastewater from annual pretreat and prime line cleanout events.

It is necessary for you to provide copies of all original internal $CBOD_5$ monitoring results for the month of July; scanned copies via e-mail is acceptable.

Navistar's failure to comply with the requirements of its NPDES permit may be cause for further enforcement action. Please provide a written response to this notice of violation by September 19, 2011 addressing the findings I have presented.

If you have any questions concerning this letter or the attached bioassay report, please call me at (937) 285-6095.

Sincerely,

Matt Walbridge
Division of Surface Water

ATTACHMENT

CC: Lisa Silva – Navistar

A Report on the Acute Toxicity of International Truck and Engine
Outfall 001 Effluents to *Pimephales promelas* and *Ceriodaphnia dubia*

Bioassay Report Number:
11-4073-SW

Sample Number:
133420

Reviewed By
Ohio EPA - DES
QA Staff

JUL 25 2011

Reviewer VD

Jonathan C. McLaughlin

Bioassay Section
Division of Environmental Services
Ohio Environmental Protection Agency

INTRODUCTION

Two grab samples and a composite sample of International Truck and Engine outfall 001 effluents were collected by Greg Buthker, Mary Anne Mahr, and Josh Becker, DSW, SWDO, Ohio EPA for use in screening bioassays as part of a toxics evaluation in conjunction with permit reissuance. Grab samples were also collected from the receiving stream, an unnamed tributary, upstream from the discharge. The effluent grab samples were collected on 18 July 2011 at 1155 hours and on 19 July 2011 at 1145 hours. The composite sample was collected on 18-19 July 2011 between 1130-1130 hours. The unnamed tributary upstream water was collected on 18 July 2011 at 1210 hours. A mixing zone sample was manually prepared in the laboratory on 19 July 2011 at 0910 hours by combining equal aliquots of upstream water and effluent. The fathead minnow, *Pimephales promelas*, and *Ceriodaphnia dubia* were used as test organisms in these 48-hour screening bioassays.

Based upon toxicity observed in the 18 July 2001 effluent grab at the 24-hour test inspection, static-acute definitive toxicity tests were initiated using the composite effluent to determine median lethal concentrations (LC50) or median effect concentrations (EC50). Test concentrations were 100, 50, 25, 12.5, and 6.25 percent by volume effluent (%). An unnamed tributary upstream water from outfall 001 was used as diluent and primary control. Rearing unit water (fathead minnows) and hard reconstituted water (*C. dubia*) were used as laboratory controls.

PREVIOUS RESULTS

Bioassays of International Truck and Engine outfall 001 effluents were previously conducted by the Ohio EPA within the last ten years in March and May 2004, and April and June 2009 (Bioassay Numbers 04-2942-SW, 04-2961-SW, 09-3875-SW, and 09-3902-SW, respectively). The 2004 effluents were not acutely toxic to either *P. promelas* or *C. dubia* (Appendix 1). The April and June 2009 effluents were acutely toxic to *Ceriodaphnia* and persisted into the mixing zone. Daphnid mortality during the April 2009 tests was 15, 90, 100 and 90 percent in the manual mixing zone, 6 and 7 April effluent grabs, and composite effluent, respectively. Additional organisms pale and or lethargic were 10, 5, and 10 percent in the manual mixing zone, 6 April effluent grab, and composite effluent, respectively. Mortality of *C. dubia* during the June 2009 tests was 70, 70, and 80 percent in the 8 and 9 June effluent grabs, and composite effluent, respectively. An additional 20 percent of the surviving daphnia exposed to the 8 June effluent grab were pale in appearance. All surviving *Ceriodaphnia* in the 9 June effluent grab and composite effluent were pale in appearance. Although unacceptable mortality was observed in the primary control, the results of the June 2009 tests initiated on 9 June are still valid due to acceptable survivorship in the secondary control. Acute toxicity (mortality plus surviving organisms pale in appearance) was 60 and 70 percent in the Moore Run upstream water and manual mixing zone, respectively.

RESULTS AND CONCLUSIONS

Details of the tests may be found on the attached bioassay report forms. The effluents and manual mixing zone were were acutely toxic to *P. promelas* and *Ceriodaphnia*. Fathead minnow mortality was 5, 40, 15, and 80 percent in the manual mixing zone, 18 and 19 July effluent grabs, and composite effluent, respectively. One surviving fish in the 19 July effluent grab was displaying a loss of equilibrium. Complete *Ceriodaphnia* mortality was observed in the manual mixing zone, 19 July effluent grab, and composite effluent. Daphnia mortality was 95 percent in the 18 July effluent grab with the surviving organism pale in appearance. Survival in the upstream water and laboratory control waters was 100 percent.

Magnitude of composite effluent toxicity in the fathead minnow definitive acute toxicity test can be expressed as a 96-hour LC50 of 74.0% (95 percent confidence limits of 50.0-100.0%) and EC50 of 70.7% (50.0-100.0%). The LC50 and EC50 values convert to an acute toxic unit (TUa) of 1.4. At the 24-hour test inspection 95 percent of the fish exposed to the 100% test concentration were dead. At that time no other mortality or other adverse effects were observed in the remaining test concentrations and controls. The test remained that way until the concluding

OHIO ENVIRONMENTAL PROTECTION AGENCY
Screening Bioassay Report Form

Report Date: 22 July 2011	**Bioassay Report Number:** 11-4073-SW

Investigators:	Jonathan C. McLaughlin

Effluent tested and source:	International Truck and Engine, 6125 Urbana Rd., Springfield, Clark County, Ohio, outfall 001
NPDES Number:	OH0009954
Ohio EPA Permit Number:	1IN00022
Business/Process:	Truck assembly
Collector(s):	Greg Buthker, Mary Anne Mahr, and Josh Becker, DSW, SWDO, Ohio EPA

Test Organisms:	Fathead minnow (*Pimephales promelas*) and *Ceriodaphnia dubia* from Ohio EPA Bioassay Section rearing units

Fathead Minnow Data:	n = 20. Number of fish used in estimating mean standard length and mean weight

	Mean	Standard Deviation	Range
Standard Length (millimeters):	7.1	0.66	6.0-8.0
Weight (milligrams):	1.8	0.60	0.9-3.1
Hatched: 6-7 July 2011; 12-13 days old at test initiation			

Rearing unit water and reconstituted water were used in the controls for this static bioassay. Adverse effects measured in the test are death, immotility, and loss of equilibrium. Death is the cessation of all visible movement with no response to gentle prodding (fish) or to gentle test container agitation (*Ceriodaphnia*). An immotile organism is paralyzed or stunned with only occasional slight movements and cannot maintain its normal position in the water column. Loss of equilibrium is the organism's inability to maintain normal swimming posture in the water column and may be characterized by periods of quiescence followed by bursts of uncontrolled swimming. The effluent is considered to be acutely toxic if 20 percent, or more, of either species of test organism exhibits any combination of the adverse effects in the 100 percent effluent. Test results are invalid if more than ten percent of either species of test organism exhibits the adverse effects in the control.

observations were taken at which time in was noted that the lone surviving organism in the 100% test concentration was displaying lethargy. Survival in the diluent/primary control and laboratory control waters was 100 percent.

Magnitude of composite effluent toxicity in the *C. dubia* definitive acute toxicity test can be expressed as a 48-hour LC50 of 3.9% (0.4-7.5%) and EC50 of 1.9% (0.0-5.2%). The LC50 and EC50 values convert to respective TUas of 25.6 and 52.6. By test end all organisms exposed to the 100% and 50% test concentrations were dead. *Ceriodaphia* mortality (plus those pale in appearance) was 80(90), 65(75), and 75(85) percent in the 25%, 12.5%, and 6.25% test concentrations, respectively. Survival in the primary and secondary controls was 100 percent.

Screening bioassays are utilized to determine if an effluent is acutely toxic to the test organisms and to indicate if more extensive bioassays should be conducted to estimate median lethal concentrations or persistence of toxicity. The results of these bioassays indicate that International Truck and Engine outfall 001 effluents were acutely toxic to *P. promelas* and *C. dubia*. This is similar to the 2009 results in which the effluents were acutely toxic to *Ceriodaphnia* only and contrast to the 2004 results in which the effluents were not acutely toxic to either test species. Given the amount of toxicity observed in these tests and the downward trend in effluent quality over the last ten years a conservative approach should be taken when evaluating the quality of this discharge. The *C. dubia* 48-hour EC50 of 1.9% should be used to evaluate this effluent. Additional bioassays should be conducted to better determine effluent variability and, if present, the magnitude of toxicity associated with this discharge.

Using an acute to chronic ratio of 10 and the 48-hour EC50 of 1.9% indicates the potential for chronic toxicity exists where the instream waste concentration of International Truck and Engine outfall 001 effluent exceeds 0.2%. Discharge data for International Truck and Engine, and the unnamed tributary upstream from outfall 001 should be evaluated to determine if chronic toxicity should be of concern. Chronic tests may be required to adequately evaluate the toxicity in this discharge.

Results of screening bioassays of International Truck and Engine outfall 001 effluent

Bioassay Number: 11-4073-SW

Sample	Time Collected Date: Time: (hours)	Test Start Date: Time: (hours)	Cumulative percent mortality (plus/or exhibiting other adverse effects)			
			P. promelas Time (hours)		*C. dubia* Time (hours)	
			24	48	24	48
Unnamed trib. upstream	18 July 2011 1210	19 July 2011 0930	0	0	0	0
Manual mixing zone (1:1)	19 July 2011 0910	19 July 2011 0930	5	5	10	100
Grab 001	18 July 2011 1155	19 July 2011 0930	40	40	10 (90)[1]	95 (100)[1]
Rearing unit water control		19 July 2011 0930	0	0	-	-
Reconstituted water control		19 July 2011 0930	-	-	0	0
Grab 001	19 July 2011 1145	20 July 2011 0940	15 (30)[2]	15 (20)[2]	30 (100)[1]	100
Composite 001	18-19 July 2011 1130-1130	20 July 2011 0940	80	80	40 (100)[1]	100
Rearing unit water control		20 July 2011 0940	0	0	-	-
Reconstituted water control		20 July 2011 0940	-	-	0	0

[1] Organisms pale in appearance.
[2] Organisms displaying a loss of equilibrium.

Relevant information: A mixing zone sample was manually prepared in the laboratory by combining equal aliquots of upstream water and effluent. The upstream water and manual mixing zone were clear and clear with a yellow tinge, respectively. The effluents were clear yellow. The manual mixing zone and effluents foamed when poured. At the 24-hour test inspection the manual mixing zone turned very cloudy despite the upstream water and effluent remaining their same color. After warming to the 25°C test temperature, the manual mixing zone and 18 July effluent grab were shaken vigorously for approximately 15 seconds to release supersaturated dissolved oxygen. Physicochemical parameters measured prior to test initiation and at test end are on the next page.

Results of screening bioassays of International Truck and Engine outfall 001 effluent

Bioassay Number: 11-4073-SW

Relevant information (cont.): Physicochemical parameters recorded prior to test initiation were:

Sample	Temperature (°C) Upon Rcpt.	Temperature (°C) Test Init.	Dissolved Oxygen (mg/L) Initial-Adjusted	pH (S.U.)	Conductivity (µmhos/cm)
Unnamed tributary upstream	1.1	25.3	7.1	7.61	824
Manual mixing zone (1:1)	-	25.4	9.4-7.9	7.44	2150
Grab 001, 18 July 2011	0.8	25.4	9.0-7.8	7.49	3560
Grab 001, 19 July 2011	3.3	25.0	8.8	7.62	3830
Composite 001	2.8	25.0	8.5	7.60	4160
Rearing unit water control	22.0	25.0	8.4	7.63	313
Reconstituted water control	24.9	24.9	7.7	8.34	552

Physicochemical values for the laboratory controls are the averages of two measurements.

Physicochemical parameters recorded at *P. promelas* (FHM) and *C. dubia* (CDU) test end were:

Sample	Temperature (°C) FHM	Temperature (°C) CDU	Dissolved Oxygen (mg/L) FHM	Dissolved Oxygen (mg/L) CDU	pH (S.U.) FHM	pH (S.U.) CDU	Conductivity (µmhos/cm) FHM	Conductivity (µmhos/cm) CDU
Unnamed tributary upstream	25.5	25.2	7.1	7.7	8.44	8.85	806	783
Manual mixing zone (1:1)	25.4	25.1	7.0	7.7	7.89	8.37	2070	2050
Grab 001, 18 July 2011	25.2	25.2	7.1	7.7	7.63	7.68	3600	3610
Grab 001, 19 July 2011	25.1	25.1	6.9	7.7	7.72	7.86	3880	3850
Composite 001	25.2	25.0	6.8	7.6	7.69	7.81	4180	4180
Rearing unit water control	25.6	-	7.1	-	8.09	-	322	-
Reconstituted water control	-	25.2	-	7.7	-	8.22	-	564

Physicochemical values for the laboratory controls are the averages of two measurements.

OHIO ENVIRONMENTAL PROTECTION AGENCY
Definitive Toxicity Test Report Form

Report Date: 24 July 2011	**Bioassay Report Number:** 11-4073-SW

Investigators:	Jonathan C. McLaughlin

Effluent tested and source:	International Truck and Engine, 6125 Urbana Rd., Springfield, Clark County, Ohio, outfall 001 composite
NPDES Number:	OH0009954
Ohio EPA Permit Number:	1IN00022
Business/Process:	Truck assembly
Collector(s):	Greg Buthker, Mary Anne Mahr, and Josh Becker, DSW, SWDO, Ohio EPA
Date & Time of Collection:	18-19 July 2011 between 1130-1130 hours

Dilution water source:	Unnamed tributary upstream from outfall 001
Collector(s):	Greg Buthker, Mary Anne Mahr, and Josh Becker, DSW, SWDO, Ohio EPA
Date and time of collection:	18 July 2011 at 1210 hours.

Test type:	Static nonrenewal
Duration of test:	96-hours
Beginning date:	20 July 2011 at 1010 hours

Test organism:	*Pimephales promelas*
Origin:	Ohio EPA Rearing Unit
Number per test container:	10
Number per concentration/control:	20

Fathead Minnow Data: n = 20. Number of fish used in estimating mean standard length and mean weight.

	Mean	Standard Deviation	Range
Standard Length (millimeters):	7.0	0.73	6.0-8.0
Weight (milligrams):	1.7	0.70	0.8-2.9

Hatched: 6-7 July 2011; 13-14 days old at test initiation

Concentrations tested:	100, 50, 25, 12.5, 6.25, the unnamed tributary water diluent/primary control and rearing unit water (aged, carbon and oyster shell filtered, Columbus, Ohio, tap water) laboratory control
Concentration expressed as:	Percent by volume effluent (%) The primary control is dilution water only - no addition of toxicant.

Adverse effects measured in the test are death, lethargy, and loss of equilibrium. Death is the cessation of all visible movement with no response to gentle prodding. A lethargic organism is sluggish in movement. Loss of equilibrium is the organism's inability to maintain normal swimming posture in the water column and may be characterized by periods of quiescence followed by bursts of uncontrolled swimming. A lethargic organism is sluggish in movement. Results are expressed as the median lethal concentration (LC50) and/or median effective concentration (EC50). The median concentration is the derived estimate of the toxicant concentration at which 50 percent of the test organisms would show the effect measured. The EC50 includes the LC50 data (mortality) plus data on other adverse effects.

Cumulative percent *Pimephales promelas* mortality

Time (hours)	Percent by volume effluent					Diluent control	Laboratory control	LC50	EC50
	100	50.0	25.0	12.5	6.25	Unnamed trib. water	Rearing unit water	(95 percent confidence limits)	
24	95	0	0	0	0	0	0	74.0% (50.0-100%)	-
48	95	0	0	0	0	0	0	74.0% (50.0-100%)	-
72	95	0	0	0	0	0	0	74.0% (50.0-100%)	-
96	95 (100)[1]	0	0	0	0	0	0	74.0% (50.0-100%)	70.7% (50.0-100%)

[1] Surviving organisms lethargic in behavior.

Relevant information: The LC50s, EC50, and 95 percent confidence limits are expressed as percent by volume effluent (%). The composite effluent was clear yellow and foamed when poured. The unnamed tributary diluent water was clear. At the 24-hour test inspection the 50% to 6.25% test concentrations turned very cloudy and had a film on the surface despite the dilution water and composite effluent remaining their same color. The LC50s/EC50 and corresponding 95 percent confidence limits were estimated using the binomial method from a modified version of the TOXSTAT program developed by Charles Stephan of the USEPA (6201 Congdon Blvd., Duluth, MN 55804). Physicochemical parameters measured at test initiation and at test end are on the reverse.

Results of definitive acute bioassay of International Truck and Engine outfall 001 composite effluent

Bioassay Number: 11-4073-SW (cont.)

Relevant information (cont.): Physicochemical parameters measured at test initiation and at test end were:

Test Concentration (%)	Temperature (°C)		Dissolved Oxygen (mg/L)		pH (S.U.)		Conductivity (µmhos/cm)	
	Init.	End	Init.	End	Init.	End	Init.	End
100	25.5	25.5	8.0	7.3	7.61	7.77	4160	4190
50.0	25.5	25.3	7.4	7.2	7.50	8.15	2430	2420
25.0	25.5	25.1	7.3	7.2	7.46	8.23	1585	1463
12.5	25.6	25.3	7.5	7.2	7.49	8.26	1193	1028
6.25	25.6	25.1	8.0	7.3	7.50	8.36	1003	879
Unnamed trib. diluent/ primary control	25.4	25.1	7.5	7.5	7.75	8.20	815	724
Rearing unit water laboratory control	24.5	25.6	8.0	7.3	8.42	7.82	314	326

OHIO ENVIRONMENTAL PROTECTION AGENCY
Definitive Toxicity Test Report Form

Report Date: 22 July 2011	**Bioassay Report Number:** 11-4073-SW

Investigators:	Jonathan C. McLaughlin

Effluent tested and source:	International Truck and Engine, 6125 Urbana Rd., Springfield, Clark County, Ohio, outfall 001 composite
NPDES Number:	OH0009954
Ohio EPA Permit Number:	1IN00022
Business/Process:	Truck assembly
Collector(s):	Greg Buthker, Mary Anne Mahr, and Josh Becker, DSW, SWDO, Ohio EPA
Date & Time of Collection:	18-19 July 2011 between 1130-1130 hours

Dilution water source:	Unnamed tributary from outfall 001
Collector(s):	Greg Buthker, Mary Anne Mahr, and Josh Becker, DSW, SWDO, Ohio EPA
Date and time of collection:	18 July 2011 at 1210 hours.

Test organism:	*Ceriodaphnia dubia*
Origin:	Ohio EPA Rearing Unit
Number per test container:	5
Number per concentration/control:	20

Test type:	Static nonrenewal
Duration of test:	48 hours
Beginning date:	20 July 2011 at 1020 hours

Concentrations tested:	100, 50, 25, 12.5, 6.25, unnamed tributary water diluent/primary control, and hard reconstituted water, laboratory control
Concentration expressed as:	Percent by volume effluent (%) The primary control is dilution water only - no addition of toxicant.

Adverse effects measured in the test are death, immotility, and loss of equilibrium. Death is the cessation of all visible movement with no response to gentle test container agitation. An immotile organism is paralyzed or stunned with only occasional slight movements and cannot maintain its' normal position in the water column. Loss of equilibrium is the organism's inability to maintain normal swimming posture in the water column and may be characterized by periods of quiescence followed by bursts of uncontrolled swimming. Results are expressed as the median lethal concentration (LC50) and/or median effective concentration (EC50). The median concentration is the derived estimate of the toxicant concentration at which 50 percent of the test organisms would show the effect measured. The EC50 includes the LC50 data (mortality) plus data on other adverse effects.

Results of definitive acute bioassay of International Truck and Engine outfall 001 composite effluent

Bioassay Number: 11-4073-SW (cont.)

Cumulative percent *Ceriodaphnia dubia* mortality

Time (hours)	Percent by volume effluent					Diluent control	Laboratory control	LC50	EC50
	100	50.0	25.0	12.5	6.25	Unnamed trib. water	Rearing unit water	(95 percent confidence limits)	
24	40	35	10	0	0	0	0	>100	50.5%
	(100)[1]								(41.7-61.2%)
48	100	100	80	65	75	0	0	3.9%	1.9%
			(90)	(75)	(85)			(0.4-7.5%)	(0.0-5.2%)

[1] Organisms pale in appearance.

Relevant information: The LC50s, EC50s, and 95 percent confidence limits are expressed as percent by volume effluent (%). The composite effluent was clear yellow and foamed when poured. At the 24-hour test inspection the 50% to 6.25% test concentrations turned very cloudy and had a film on the surface despite the dilution water and composite effluent remaining their same color. All LC50s, EC50s, and their corresponding 95 percent confidence limits were estimated using the probit method from a modified version of the TOXSTAT program developed by Charles Stephan of the USEPA (6201 Congdon Blvd., Duluth, MN 55804). Physicochemical parameters recorded prior to test initiation and at test end were:

Test Concentration (%)	Temperature (°C)		Dissolved Oxygen (mg/L)		pH (S.U.)		Conductivity (µmhos/cm)	
	Init.	End	Init.	End	Init.	End	Init.	End
100	25.5	24.4	8.0	7.7	7.61	7.85	4160	4390
50.0	25.5	24.5	7.4	7.7	7.50	8.43	2430	2420
25.0	25.5	24.4	7.3	7.7	7.46	8.59	1585	1473
12.5	25.6	24.5	7.5	7.7	7.49	8.66	1193	1017
6.25	25.6	24.5	8.0	7.7	7.50	8.72	1003	869
Unnamed trib. diluent/ primary control	25.4	24.3	7.5	7.8	7.75	8.41	815	662
Reconstituted water/ laboratory control	24.9	24.4	7.8	7.8	8.54	8.38	552	587

Appendix 1.

Results of previous bioassays of International Truck and Engine outfall 001 effluent

Screening Results

Bioassay Number	Date (mm/yy)	Acutely Toxic (Y/N)	*Pimephales promelas* mortality (plus/or exhibiting other adverse effects)			*Ceriodaphnia dubia* mortality (plus/or exhibiting other adverse effects)		
			Day 1 Grab	Day 2 Grab	Composite	Day 1 Grab	Day 2 Grab	Composite
04-2942-SW	03/04	N	0	0	0	0	0	0
04-2961-SW	05/04	N	0	0	0	0	0	0
09-3875-SW	04/09	Y	5(15) [2]	0	0	90(95) [1,2]	100	90(100) [1]
3902-SW	06/09	Y	0	5	0	70(90) [1]	70(100) [1]	80(100) [1]

[1] Organisms pale in appearance
[2] Organisms lethargic in behavior
* All previous results are available electronically upon request.

Definitive Results

Bioassay Number	*Pimephales promelas*			*Ceriodaphnia dubia*		
	LC50 (95 percent confidence limits)	EC50 (95 percent confidence limits)	LC50 TUa (EC50 TUa)	LC50 (95 percent confidence limits)	EC50 (95 percent confidence limits)	LC50 TUa (EC50 TUa)
-	-	-	-	-	-	-
-	-	-	-	-	-	-

Definitions

- The **LC50s** and **EC50s** are reported as percent by volume effluent (%).
- The **LC50** is the effluent concentration that is lethal to 50 percent of a species of test organism in a stated exposure period. The **EC50** includes mortality plus data on other adverse effects. Both are usually obtained by statistical or graphical methods.
- The **TUa** is calculated by dividing 100 by the **LC50** or **EC50**.

OHIO EPA, DES, BIOASSAY SECTION, SAMPLE SUBMISSION FORM

Name of Entity and Outfall Tested: International Truck OEPA Permit #: 1IN00022

Facility Address: 6125 Urbana Road Springfield Ohio NPDES#: OH00 9954

Receiving Stream (R.M.) Moores Run Trib County: Clark

Collector(s)(Print Full Name): Greg Buthker

Collector(s) Signature: Greg Buthker

Upstream control samples shall be collected upstream from any discharge/receiving stream interactions. Generally, acute (near field) samples should be collected in the center of the effluent plume 5 times the stream depth downstream from the outfall and chronic (far field) samples should be collected midplume, or if a plume no longer exists, midstream 5 times the stream width downstream from the outfall. If atypical mixing characteristics exist, samples can be collected at closer distances than the above guidelines to insure the samples are within the effluent plume. If a mixing zone sample cannot be safely collected, one can be prepared using equal aliquots of the day 1 effluent grab and upstream dilution water (be sure to write "manual" in the "Location of Sample Collection" space provided below).

Sample Identification	Effluent-Day 1 Grab	Effluent-Day 2 Grab	Effluent-Composite	Upstream/Dilution-Grab	Acute Mixing Zone-Grab	Chronic Mixing Zone-Grab
Location of Sample Collection	AT outfall to trib					AT Bridge 1/4 Mi use
If Composite, Sample Volume and Frequency						
Collection Containers, Types and Number	2 cubie					4 cubie
Volume Collected	2 gallons					4 gallons
Date of Sample Collection	07/18/2011					07/18/2011
Time of Sample Collection, beginning-Ending Time	11 55					12 10
Flow (in MGD)						
Temperature (°C)	24.16					16.39
Dissolved Oxygen (mg/L)	7.70/92.6%					4.99/51%
pH (S.U.)	7.51					7.23
Conductivity (µmhos/cm)	3265					776
Total Residual Chlorine (mg/L)	—					

Place a check mark next to all the appropriate characteristics of the outfall/mixing zone:

__ Turbulent Mixing __ Onshore Pipe __ Shore hugging Plume __ Flume
__ Nonturbulent Mixing __ Offshore Pipe __ Rapid Complete Mixing __ Diffuser

Notes: Lisa Silva said the US dilution water had to be at the unnamed trib culvert ust of the outfall. Not @ County line Rd. on Moores Run.

133420

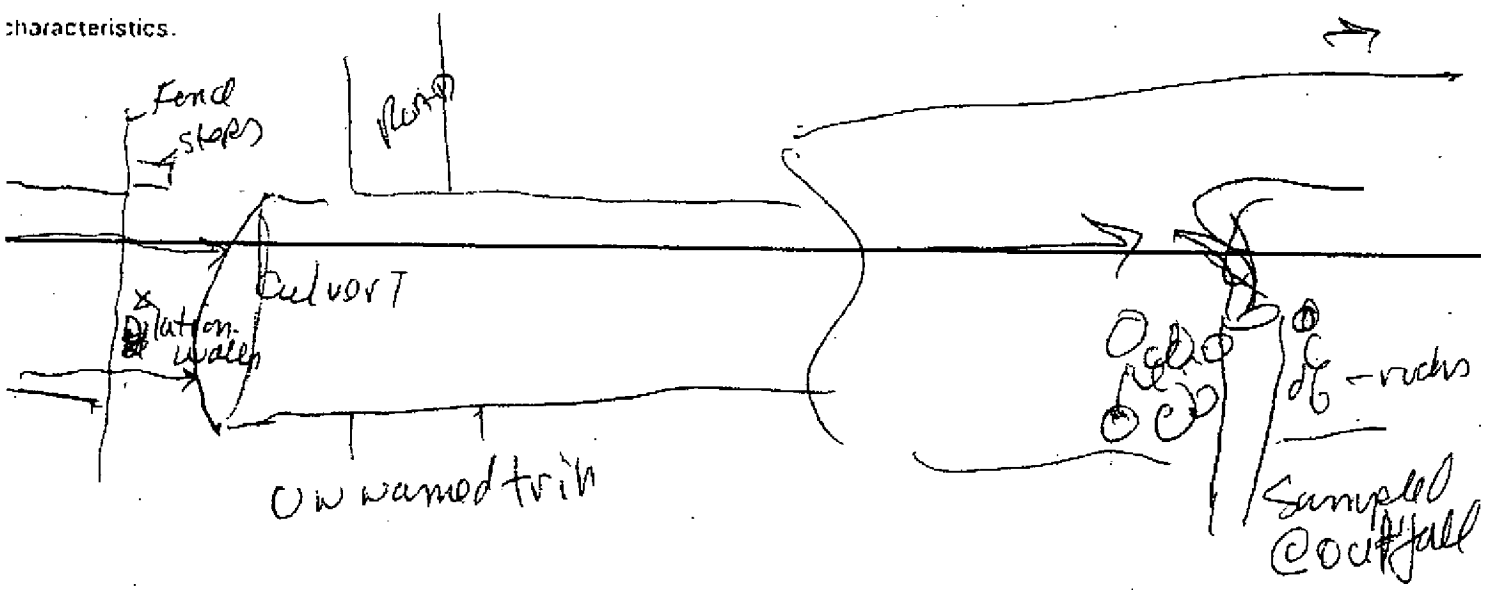
Name and Title		YEAR	MONTH	DAY	HOUR	MINUTE
Received from:	[illegible]	2011	07	18	13	00
Received by:	[illegible]	11	07	19	09	00
Received from:	[illegible]	11	07	19	09	10
Received by:	[illegible]	11	07	19	09	10
Received from:						
Received by:						
Received from:						
Received by:						
Received from:						
Received by:						

In the vicinity of the discharge: Stream Depth ~6" Stream Width 10 feet

CHEMISTRY SAMPLE NUMBERS
133417-19

Location Map Drawing

Describe and map the upstream control and any mixing zone sampling sites so someone else could sample at the exact same points (include landmarks if possible). Stream depth should be recorded for any acute (near field) mixing zone sample and stream width for any chronic (far field) mixing zone sample. For the mixing zone sample location, delineate the distance downstream from the outfall and map the effluent plume. Be specific on discharge and receiving stream characteristics.



OHIO EPA, DES, BIOASSAY SECTION, SAMPLE SUBMISSION FORM

Name of Entity and Outfall Tested: INTERNATIONAL TRUCK OEPA Permit #: 1IN00022

Facility Address: 6125 URBANA RD - SPRINGFIELD, OH (AKA NAVISTAR) NPDES#: OH0009454

Receiving Stream (R.M.) UNNAMED TRIB TO MOORE RUN County: CLARK

Collector(s)(Print Full Name): MARY A. MAHR JOSH BECKER

Collector(s) Signature: [signature] [signature]

pstream control samples shall be collected upstream from any discharge/receiving stream interactions. Generally, acute ear field) samples should be collected in the center of the effluent plume 5 times the stream depth downstream from the utfall and chronic (far field) samples should be collected midplume, or if a plume no longer exists midstream 5 times the ream width downstream from the outfall. If atypical mixing characteristics exist, samples can be collected at closer stances than the above guidelines to insure the samples are within the effluent plume. If a mixing zone sample cannot e safely collected, one can be prepared using equal aliquots of the day 1 effluent grab and upstream dilution water (be ure to write "manual" in the "Location of Sample Collection" space provided below).

Sample Identification	Effluent-Day 1 Grab	Effluent-Day 2 Grab	Effluent-Composite	Upstream/Dilution-Grab	Acute Mixing Zone-Grab	Chronic Mixing Zone-Grab
Location of Sample Collection		Final Effluent 001	FINAL EFFLUENT 001			
If Composite, Sample Volume and Frequency			15 MIN - 150/80 mL			
Collection Containers, Types and Number		CUBITAINER 1	CUBITAINER 2			
Volume Collected		Gallon	Gallon			
Date of Sample Collection		7-19-11	7-18-19-11			
Time of Sample Collection, Beginning-Ending Time		1145	1130 - 1130			
Flow (in MGD)						
Temperature (°C)		25.17				
Dissolved Oxygen (mg/L)		7.92/9.48				
pH (S.U.)		7.60				
Conductivity (µmhos/cm)		2533				
Total Residual Chlorine (mg/L)						

Place a check mark next to all the appropriate characteristics of the outfall/mixing zone:

__ Turbulent Mixing __ Onshore Pipe __ Shore hugging Plume __ Flume
__ Nonturbulent Mixing __ Offshore Pipe __ Rapid Complete Mixing __ Diffuser

Notes: DAY-1 - SAMPLED AFTER PROCESS STOPPAGE/SHUTDOWN OF WEEKEND AND POSSIBLY FOR 2 WEEKS

- DAY 2 - PROCESSES/PRODUCTION BEGAN ON DAY 1 SO DAY 2 CAPTURED RESTART OF BUSINESS

- SPLIT SAMPLES

Revised 11/1997

Name and Title		YEAR	MONTH	DAY	HOUR	MINUTE
Received from:		11	07	19	13	45
Received by:		11	07	20	09	05
Received from:		11	07	20	09	20
Received by:		11	07	20	09	20
Received from:						
Received by:						
Received from:						
Received by:						
Received from:						
Received by:						

In the vicinity of the discharge: Stream Depth _____ Stream Width _____

CHEMISTRY SAMPLE NUMBERS
133486-87

Location Map Drawing

Describe and map the upstream control and any mixing zone sampling sites so someone else could sample at the exact same points (include landmarks if possible). Stream depth should be recorded for any acute (near field) mixing zone sample and stream width for any chronic (far field) mixing zone sample. For the mixing zone sample location, delineate the distance downstream from the outfall and map the effluent plume. Be specific on discharge and receiving stream characteristics.

OhioEPA Division of Environmental Services

Laboratory Inorganic Analysis Data Report

Sample	133486				
Date Received	07/20/2011 9:41 AM	**Matrix**	WW	**Collected by**	BUTHKER, GREGORY
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected	07/18/2011 11:30 AM	07/19/2011 11:30 AM		**Station ID**	301615
Program	SWDO-DSW			**Customer ID**	11GSB0718
Client	DSW			**External ID**	75002
OEPA Division	DSW				
Location	1 - INTERNATIONAL TRUCK (aka Navistar) OUTFALL 001 TO TRIBUTARY				

Analysis	Parameter	Storet	Result	RL	Units	Date	Qualifier
CBOD-5	CBOD5	P80082	<2.0	2	mg/L	07/20/2011	
Solids_Diss	Total Dissolved Solids	P70300	3330	10	mg/L	08/03/2011	PT
Solids_Susp	Total Suspended Solids	P530	8	5	mg/L	07/21/2011	
ICPMS_(WAT)	Arsenic	P1002	10.2	2	ug/L	07/29/2011	
ICPMS_(WAT)	Cadmium	P1027	<0.20	0.2	ug/L	07/29/2011	
ICPMS_(WAT)	Chromium	P1034	<2.0	2	ug/L	07/29/2011	
ICPMS_(WAT)	Copper	P1042	15.6	2	ug/L	07/29/2011	
ICPMS_(WAT)	Lead	P1051	<2.0	2	ug/L	07/29/2011	
ICPMS_(WAT)	Nickel	P1067	299	20	ug/L	07/29/2011	
ICPMS_(WAT)	Selenium	P1147	9.8	2	ug/L	07/29/2011	
ICP_(WAT)	Aluminum	P1105	<200	200	ug/L	07/28/2011	
ICP_(WAT)	Barium	P1007	<15	15	ug/L	07/28/2011	
ICP_(WAT)	Calcium	P916	20	2	mg/L	07/28/2011	
ICP_(WAT)	Hardness, Total	P900	194	10	mg/L	07/28/2011	
ICP_(WAT)	Iron	P1045	177	50	ug/L	07/28/2011	
ICP_(WAT)	Magnesium	P927	35	1	mg/L	07/28/2011	
ICP_(WAT)	Manganese	P1055	43	10	ug/L	07/28/2011	
ICP_(WAT)	Potassium	P937	94	2	mg/L	07/28/2011	
ICP_(WAT)	Sodium	P929	1010	50	mg/L	07/29/2011	
ICP_(WAT)	Strontium	P1082	70	30	ug/L	07/28/2011	
ICP_(WAT)	Zinc	P1092	57	10	ug/L	07/28/2011	
Mercury_(WAT)	Mercury	P71900	<0.20	0.2	ug/L	07/22/2011	
Alkalinity	Alkalinity	P410	708	5	mg/L	07/27/2011	
Ammonia	Ammonia	P610	<0.050	0.05	mg/L	07/20/2011	
COD	COD	P340	45	20	mg/L	07/21/2011	
Chloride	Chloride	P940	341	25	mg/L	07/20/2011	
Conductivity	Conductivity	P95	4300	2	umhos/cm	07/27/2011	
Nitrate	Nitrate+nitrite	P630	10.8	0.5	mg/L	07/20/2011	
TKN	TKN	P625	7.65	1	mg/L	07/21/2011	
TP	Total Phosphorus	P665	489	6	mg/L	07/27/2011	

Field Comments COMPOSITE

Lab Comments

QC / Sample Comments TDS past holding time due to reanalysis.

Approved By VDESHMUKH **On** 08/11/2011

OhioEPA Division of E ronmental Services

Laboratory Organic Analysis Data Report

Sample	133487				
Date Received	07/20/2011 9:41 AM	**Matrix**	WW	**Collected by**	BUTHKER, GREGORY
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected	07/18/2011 11:30 AM	07/19/2011 11:30 AM		**Station ID**	301615
Program	SWDO-DSW			**Customer ID**	11GSB0718
Client	DSW			**External ID**	75006
OEPA Division	DSW				
Location	4 - INTERNATIONAL TRUCK (aka Navistar) OUTFALL 001 TO TRIBUTARY				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 608	**ug/L**					
PCB-1016		012674-11-2	<0.10	0.1	07/21/2011	
PCB-1221		011104-28-2	<0.10	0.1	07/21/2011	
PCB-1232		011141-16-5	<0.10	0.1	07/21/2011	
PCB-1242		053469-21-9	<0.10	0.1	07/21/2011	
PCB-1248		012672-29-6	<0.10	0.1	07/21/2011	
PCB-1254		011097-69-1	<0.10	0.1	07/21/2011	
PCB-1260		011096-82-5	<0.10	0.1	07/21/2011	
USEPA 625	**ug/L**					
Acenaphthene		000083-32-9	<5.2	5.2	07/26/2011	
Acenaphthylene		000208-96-8	<5.2	5.2	07/26/2011	
Anthracene		000120-12-7	<2.1	2.1	07/26/2011	
Benzo[a]anthracene		000056-55-3	<2.1	2.1	07/26/2011	
Benzo[a]pyrene		000050-32-8	<2.1	2.1	07/26/2011	
Benzo[b]fluoranthene		000205-99-2	<2.1	2.1	07/26/2011	
Benzo[g,h,i]perylene		000191-24-2	<2.1	2.1	07/26/2011	
Benzo[k]fluoranthene		000207-08-9	<2.1	2.1	07/26/2011	
bis(2-Chloroethoxy)methane		000111-91-1	<5.2	5.2	07/26/2011	
bis(2-Chloroethyl)ether		000111-44-4	<2.1	2.1	07/26/2011	
bis(2-Chloroisopropyl)ether		000108-60-1	<2.1	2.1	07/26/2011	
bis(2-Ethylhexyl)phthalate		000117-81-7	<10.4	10.4	07/26/2011	
4-Bromophenyl-phenylether		000101-55-3	<5.2	5.2	07/26/2011	
Butylbenzylphthalate		000085-68-7	<2.1	2.1	07/26/2011	
4-Chloro-3-methylphenol		000059-50-7	<10.4	10.4	07/26/2011	UJ
2-Chloronaphthalene		000091-58-7	<5.2	5.2	07/26/2011	
2-Chlorophenol		000095-57-8	<2.1	2.1	07/26/2011	
4-Chlorophenyl-phenylether		007005-72-3	<2.1	2.1	07/26/2011	
Chrysene		000218-01-9	<2.1	2.1	07/26/2011	
Di-n-butylphthalate		000084-74-2	<5.2	5.2	07/26/2011	
Di-n-octylphthalate		000117-84-0	<2.1	2.1	07/26/2011	
Dibenz[a,h]anthracene		000053-70-3	<2.1	2.1	07/26/2011	
1,3-Dichlorobenzene		000541-73-1	<2.1	2.1	07/26/2011	
1,4-Dichlorobenzene		000106-46-7	<2.1	2.1	07/26/2011	
1,2-Dichlorobenzene		000095-50-1	<2.1	2.1	07/26/2011	
~~2,4-Dichlorophenol~~		~~000120-83-2~~	~~<2.1~~	~~2.1~~	~~07/26/2011~~	
Diethylphthalate		000084-66-2	<5.2	5.2	07/26/2011	
2,4-Dimethylphenol		000105-67-9	<10.4	10.4	07/26/2011	
Dimethylphthalate		000131-11-3	<5.2	5.2	07/26/2011	
4,6-Dinitro-2-methylphenol		000534-52-1	<5.2	5.2	07/26/2011	
2,4-Dinitrophenol		000051-28-5	<20.8	20.8	07/26/2011	
2,6-Dinitrotoluene		000606-20-2	<2.1	2.1	07/26/2011	
2,4-Dinitrotoluene		000121-14-2	<2.1	2.1	07/26/2011	
Fluoranthene		000206-44-0	<2.1	2.1	07/26/2011	
Fluorene		000086-73-7	<2.1	2.1	07/26/2011	
Hexachlorobenzene		000118-74-1	<2.1	2.1	07/26/2011	
Hexachlorobutadiene		000087-68-3	<2.1	2.1	07/26/2011	
Hexachlorocyclopentadiene		000077-47-4	<2.1	2.1	07/26/2011	
Hexachloroethane		000067-72-1	<5.2	5.2	07/26/2011	
Indeno[1,2,3-cd]pyrene		000193-39-5	<2.1	2.1	07/26/2011	
Isophorone		000078-59-1	<2.1	2.1	07/26/2011	
N-Nitroso-di-n-propylamine		000621-64-7	<2.1	2.1	07/26/2011	

OhioEPA Division of E. .ronmental Services

Laboratory Organic Analysis Data Report

Sample	133487				
Date Received	07/20/2011 9:41 AM	**Matrix**	WW	**Collected by**	BUTHKER, GREGORY
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected	07/18/2011 11:30 AM	07/19/2011 11:30 AM		**Station ID**	301615
Program	SWDO-DSW			**Customer ID**	11GSB0718
Client	DSW			**External ID**	75006
OEPA Division	DSW				
Location	4 - INTERNATIONAL TRUCK (aka Navistar) OUTFALL 001 TO TRIBUTARY				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 625	**ug/L**					
N-Nitrosodiphenylamine		000086-30-6	<5.2	5.2	07/26/2011	
Naphthalene		000091-20-3	<2.1	2.1	07/26/2011	
Nitrobenzene		000098-95-3	<2.1	2.1	07/26/2011	
2-Nitrophenol		000088-75-5	<2.1	2.1	07/26/2011	
4-Nitrophenol		000100-02-7	<20.8	20.8	07/26/2011	
Pentachlorophenol		000087-86-5	<10.4	10.4	07/26/2011	
Phenanthrene		000085-01-8	<2.1	2.1	07/26/2011	
Phenol		000108-95-2	<2.1	2.1	07/26/2011	
Pyrene		000129-00-0	<2.1	2.1	07/26/2011	
1,2,4-Trichlorobenzene		000120-82-1	<2.1	2.1	07/26/2011	
2,4,6-Trichlorophenol		000088-06-2	<5.2	5.2	07/26/2011	UJ

Field Comments COMPOSITE

Lab Comments

QC / Sample Comments 625: 4-chloro-3-methylphenol and 2,4,6-trichlorophenol estimated due to poor QC recovery.

Approved By VDESHMUKH **On** 08/16/2011

OhioEPA Division of E onmental Services

Laboratory Organic Analysis Data Report

Sample	133418				
Date Received	07/19/2011 9:16 AM	**Matrix**	WW	**Collected by**	BUTHKER, GREG
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected		07/18/2011 11:55 AM		**Station ID**	301615
Program	SWDO-DSW			**Customer ID**	11GSB0718
Client	DSW			**External ID**	75007
OEPA Division	DSW				
Location	5 - INTERNATIONAL TRUCK (aka Navistar) OUTFALL 001 TO TRIBUTARY				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 624	**ug/L**					
Benzene		000071-43-2	<0.50	0.5	07/19/2011	
Bromobenzene		000108-86-1	<0.50	0.5	07/19/2011	
Bromochloromethane		000074-97-5	<0.50	0.5	07/19/2011	
Bromodichloromethane		000075-27-4	<0.50	0.5	07/19/2011	
Bromoform		000075-25-2	<0.50	0.5	07/19/2011	
Bromomethane		000074-83-9	<0.50	0.5	07/19/2011	
n-Butylbenzene		000104-51-8	<0.50	0.5	07/19/2011	
sec-Butylbenzene		000135-98-8	<0.50	0.5	07/19/2011	
tert-Butylbenzene		000098-06-6	<0.50	0.5	07/19/2011	
Carbon tetrachloride		000056-23-5	<0.50	0.5	07/19/2011	
Chlorobenzene		000108-90-7	<0.50	0.5	07/19/2011	
Chloroethane		000075-00-3	<0.50	0.5	07/19/2011	
Chloroform		000067-66-3	<0.50	0.5	07/19/2011	
Chloromethane		000074-87-3	<0.50	0.5	07/19/2011	
2-Chlorotoluene		000095-49-8	<0.50	0.5	07/19/2011	
4-Chlorotoluene		000106-43-4	<0.50	0.5	07/19/2011	
Dibromochloromethane		000124-48-1	<0.50	0.5	07/19/2011	
1,2-Dibromo-3-chloropropane		000096-12-8	<0.50	0.5	07/19/2011	
1,2-Dibromoethane		000106-93-4	<0.50	0.5	07/19/2011	
Dibromomethane		000074-95-3	<0.50	0.5	07/19/2011	
1,2-Dichlorobenzene		000095-50-1	<0.50	0.5	07/19/2011	
1,3-Dichlorobenzene		000541-73-1	<0.50	0.5	07/19/2011	
1,4-Dichlorobenzene		000106-46-7	<0.50	0.5	07/19/2011	
Dichlorodifluoromethane		000075-71-8	<0.50	0.5	07/19/2011	
1,1-Dichloroethane		000075-34-3	<0.50	0.5	07/19/2011	
1,2-Dichloroethane		000107-06-2	<0.50	0.5	07/19/2011	
1,1-Dichloroethene		000075-35-4	<0.50	0.5	07/19/2011	
cis-1,2-Dichloroethene		000156-59-2	<0.50	0.5	07/19/2011	
trans-1,2-Dichloroethene		000156-60-5	<0.50	0.5	07/19/2011	
1,2-Dichloropropane		000078-87-5	<0.50	0.5	07/19/2011	
1,3-Dichloropropane		000142-28-9	<0.50	0.5	07/19/2011	
2,2-Dichloropropane		000594-20-7	<0.50	0.5	07/19/2011	
1,1-Dichloropropene		000563-58-6	<0.50	0.5	07/19/2011	
cis-1,3-Dichloropropene		010061-01-5	<0.50	0.5	07/19/2011	
~~trans-1,3-Dichloropropene~~		~~010061-02-6~~	~~<0.50~~	~~0.5~~	~~07/19/2011~~	
Ethylbenzene		000100-41-4	<0.50	0.5	07/19/2011	
Hexachlorobutadiene		000087-68-3	<0.50	0.5	07/19/2011	
Isopropylbenzene		000098-82-8	<0.50	0.5	07/19/2011	
4-Isopropyltoluene		000099-87-6	<0.50	0.5	07/19/2011	
Methylene chloride		000075-09-2	<0.50	0.5	07/19/2011	
Naphthalene		000091-20-3	<0.50	0.5	07/19/2011	
n-Propylbenzene		000103-65-1	<0.50	0.5	07/19/2011	
Styrene		000100-42-5	<0.50	0.5	07/19/2011	
1,1,1,2-Tetrachloroethane		000630-20-6	<0.50	0.5	07/19/2011	
1,1,2,2-Tetrachloroethane		000079-34-5	<0.50	0.5	07/19/2011	
Tetrachloroethene		000127-18-4	<0.50	0.5	07/19/2011	
Toluene		000108-88-3	<0.50	0.5	07/19/2011	
1,2,3-Trichlorobenzene		000087-61-6	<0.50	0.5	07/19/2011	
1,2,4-Trichlorobenzene		000120-82-1	<0.50	0.5	07/19/2011	
1,1,1-Trichloroethane		000071-55-6	<0.50	0.5	07/19/2011	
1,1,2-Trichloroethane		000079-00-5	<0.50	0.5	07/19/2011	

OhioEPA Division of Environmental Services

Laboratory Organic Analysis Data Report

Sample	133418				
Date Received	07/19/2011 9:16 AM	**Matrix**	WW	**Collected by**	BUTHKER, GREG
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected		07/18/2011 11:55 AM		**Station ID**	301615
Program	SWDO-DSW			**Customer ID**	11GSB0718
Client	DSW			**External ID**	75007
OEPA Division	DSW				
Location	5 - INTERNATIONAL TRUCK (aka Navistar) OUTFALL 001 TO TRIBUTARY				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 624	**ug/L**					
Trichloroethene		000079-01-6	<0.50	0.5	07/19/2011	
Trichlorofluoromethane		000075-69-4	<0.50	0.5	07/19/2011	
1,2,3-Trichloropropane		000096-18-4	<0.50	0.5	07/19/2011	
1,2,4-Trimethylbenzene		000095-63-6	<0.50	0.5	07/19/2011	
1,3,5-Trimethylbenzene		000108-67-8	<0.50	0.5	07/19/2011	
Vinyl chloride		000075-01-4	<0.50	0.5	07/19/2011	
o-Xylene		000095-47-6	<0.50	0.5	07/19/2011	
Total m&p-xylenes		000108-38-3	<0.50	0.5	07/19/2011	

Field Comments DAY 1 - GRAB

Lab Comments

QC / Sample Comments

Approved By VDESHMUKH **On** 07/27/2011