



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

September 5, 2013

Ms. Julie Setser
P&G Pet Care Health and Nutrition Center
8700 Mason Montgomery Road
Mason, Ohio 45040

**RE: Preble County, P&G Pet Care Health and Nutrition Center
Compliance Evaluation Inspection**

Dear Ms. Setser:

On August 29, 2013, I conducted a Compliance Evaluation Inspection at the P&G Pet Care Health and Nutrition Center (NPDES Permit No. OH0072770; OEPA Permit No. 11H00012*ED). The inspection was also conducted as part of the NPDES Permit renewal. Representing this facility was Crystal Taulbee, Mike Giffen and Larry Gray. A copy of my inspection report is enclosed.

The inspection report contains two marginal areas. The Operation & Maintenance section was rated marginal as a result of the secondary clarifier that must be repaired. The Laboratory section was rated marginal as a result of the deficiencies noted in the attached General Lab Criteria checklist.

The areas noted in the report summary will require a written response by September 27, 2013. The response should include a description of the actions proposed to correct the violations and the dates anticipated for completion of these actions.

If you have any questions, please call me at (937) 285-6096.

Sincerely,

Ned Sarle
Environmental Specialist
Division of Surface Water
Permits Section

Enclosures

ec: Crystal Taulbee, P&G Pet Care Health and Nutrition Center

NS\bp



State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report
Inspection Form

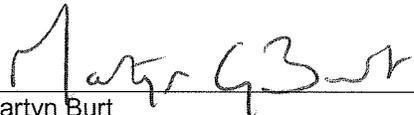
Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
11H00012*ED	OH0072770	8/29/2013	C	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
P&G Pet Care Health and Nutrition Center 6571 State Route 503 North Lewisburg, Ohio 45338	9:35 AM	10/1/2008
	Exit Time	Permit Expiration Date
	12:35 PM	9/30/2013
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Crystal Taulbee, HS&E Program Leader	(937) 336-3555	
Mike Giffen, Veolia Water	(937) 974-1631	
Larry Gray, Jones, Lang and LaSalle	(937) 962-7711	
Name, Address and Title of Responsible Official	Phone Number	
Julie Setser, Director Pet Care 8700 Mason Montgomery Road Mason, Ohio 45040	(513) 622-4909	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	M	Laboratory	S	Compliance Schedule
M	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
S	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)

See Attached Summary of Findings / Comments.

Inspector	Reviewer
 Date 9/15/13	 Date 9/15/13
Ned Sarle Permit Section Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

Permit #: 11H00012*ED
 NPDES #: OH0072770

Average Daily Design Flow:	75,000 Gallons/Day
Plant Serves:	Research center for dog and cat food.
Average Daily Flow: (Period of Review):	17,200 Gallons/Day (May 2011 through July 2013)
Method of flow monitoring:	v-notch weir and ultrasound
Type of alarms for plant:	high water alarms

Pretreatment

Type of Pretreatment: **Bar Screen**
 Does the Trash Trap need pumped: **N/A**
 Maintenance of pretreatment components is: **Good**

Comments/Status:

The bar screen is manually cleaned. A DAF unit is provided prior to the treatment system for the wastewater generated from the old dog food manufacturing facility. The flow monitoring equipment is calibrated once a year. It was last calibrated on March 12, 2013.

**Secondary Treatment
(Aeration)**

Color of sludge: **Medium Brown**
 Quality of Sludge: **Medium**
 Foam: **None present**
 Odor: **No objectionable odor present**

	Yes	No		Yes	No
Aeration is taking place	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plant is septic	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Blowers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Blowers are on a timer	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Skimmers are operating	<input type="checkbox"/>	<input type="checkbox"/>	Plant is flooded	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diffusers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Grating is present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sludge return is operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Maintenance of aerating equipment is...**Good**

Comments/Status:

Railing is provided for the treatment tanks.

**Secondary Treatment
(Settling)**

Clarity: **Clear**
 Condition of Weir: **Clean**

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Weir is level: **Yes**
 Effluent in weir: **Clear**
 Clarifier walls need scraped: **No**

Overall maintenance of settling components is: **Good**

Comments/Status:

Sludge is collected with rotating scrapers and is returned continuously.

Tertiary Treatment

	Yes	No		Yes	No
Surface sand filters: Rapid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Subsurface	<input type="checkbox"/>	<input type="checkbox"/>
Distribution box operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Beds alternated	<input type="checkbox"/>	<input type="checkbox"/>
Are filters ponding/flooding	<input type="checkbox"/>	<input type="checkbox"/>	Beds raked	<input type="checkbox"/>	<input type="checkbox"/>
Sand filters overgrown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Chlorination present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
UV present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dechlorination present	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Overall maintenance of components is: **Good**

Comments/Status:

None.

Sludge Handling/Storage Disposal

Hauler name: **Frech's Sanitary Waste Hauling**
 Disposal Site: **Richmond Indiana WWTP**
 Sludge wasted from: **secondary clarifier sludge return**
 How often is sludge wasted: **2-3 times a week**
 Sludge drying beds: **No** Sludge holding tank: **Yes**

Overall maintenance of components is: **Good**

Comments/Status:

Sludge hauled from the sludge holding tank between 6-8 times a year.

Plant Discharge

Discharge point is a: **Stream**
 Name of discharge point: **Twin Creek**
 Discharge is visible: **Yes** Quality of Effluent: **Clear**

Comments/Status:

WWTP sign provided as required by the NPDES Permit.

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Summary of Findings / Comments

Areas Requiring a Response

One of the two secondary clarifiers is broken and is not able to be returned to operation. All treatment units must be maintained in good operational condition so that they may be used as needed. The broken secondary clarifier must be repaired so that it may be used in the treatment system.

The WWTP is required to be under the supervision of a Class I WWTP operator. Mike Giffen is a Class I WWTP operator. However, an Operator of Record Notification Form has not been submitted as required. A copy of this form may be found at the following web link: www.io.gov/.../asp. This form must be submitted as soon as possible. The form should list anyone that may satisfy the supervision requirement.

The facility conducts the wastewater analysis for DO, pH, chlorine and temperature. Belmont Labs conducts the wastewater analysis for all other parameters. The wastewater sampling program was evaluated in the attached General Lab Criteria checklist. Several items were noted as needing to be addressed. Please indicate how these areas will be addressed.

Areas Not Requiring a Response

A review of the Discharge Monitoring Reports (DMRs) for May 2011 through July 2013 indicated five permit violations. These violations are listed below. Please take all necessary action to prevent future violations. All future violations must continue to be reported as required by the NPDES Permit as detailed in Part III.12 titled "Noncompliance Notification."

Reporting Period	Parameter	Limit Type	Units	Permit Limit	Reported Value
May 2011	CBOD5	Monthly	mg/l	5.0	6.0
May 2011	CBOD5	Daily	mg/l	7.75	13.7
October 2011	Ammonia	Daily	mg/l	1.16	3.28
July 2013	TSS	Daily	mg/l	9.16	29
July 2013	TSS	Monthly	mg/l	6.0	7.3

The WWTP consists of a manual bar rack, two aeration tanks, two secondary clarifiers, two rapid sand filters, a chlorine contact tank, a dechlorination tank and post aeration. An aerated sludge holding tank is also provided. The screenings are taken to the Preble County Landfill. A DAF unit is also provided for the process flow from the manufacturing facility that ceased operation in August 2011.

The wastewater is generated from an old dog food product line that is no longer operating, 90 full and part time staff people, and an animal care facility for 300 dogs and

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300 cats. The treatment plant is designed for an average daily flow rate of 75,000 gpd. A review of the DMRs for the noted period indicated that the average and peak flow rates were 17,200 gpd and 83,000 gpd.

Sludge is hauled from the aerobic sludge digestion tanks. In 2012, 1.9 dry tons were hauled to the Richmond POTW.

General Lab Criteria – The Iams Company, August 29, 2013

Criteria	Standard Methods Requirement	Acceptable?		Rating
pH Meter				
<ul style="list-style-type: none"> • Calibration Frequency / Documentation 	<ul style="list-style-type: none"> • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)³ 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	A
	<ul style="list-style-type: none"> • Logbook maintained² 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
<ul style="list-style-type: none"> • Minimum of 2 point calibration 	<ul style="list-style-type: none"> • Calibration per manufacturer specification and calibration buffers must bracket anticipated result⁷ 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
<ul style="list-style-type: none"> • Slope Documentation / Acceptability 	<ul style="list-style-type: none"> • Slope acceptable range indicated on benchsheet² 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
<ul style="list-style-type: none"> • Buffer Expiration Date 	<ul style="list-style-type: none"> • Buffers must not be expired 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
<ul style="list-style-type: none"> • Other 	<ul style="list-style-type: none"> • Instrument manual available 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	<ul style="list-style-type: none"> • Teflon covered magnetic stirrer or equivalent for mixing⁸ 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Comments: None.

Criteria	Standard Methods Requirement	Acceptable?		Rating
Dissolved Oxygen Meter				
<ul style="list-style-type: none"> • Calibration Method 	<ul style="list-style-type: none"> • Air or known DO calibration method¹⁰ 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	A
	<ul style="list-style-type: none"> • Calibration per manufacturer specification¹⁰ 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
<ul style="list-style-type: none"> • Calibration Frequency / Documentation 	<ul style="list-style-type: none"> • Logbook maintained² 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	<ul style="list-style-type: none"> • Calibration verification required at least once each day the meter is used.³ 	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
<ul style="list-style-type: none"> • Other 	<ul style="list-style-type: none"> • Small to no bubble present under membrane (must be smaller than the lead in number 2 pencil)¹¹ 	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	<ul style="list-style-type: none"> • Instrument manual available 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Comments: The Dissolved Oxygen meter calibration must be confirmed each day that it is used.

General Lab Criteria – The Iams Company, August 29, 2013

Criteria	Standard Methods Requirement		Rating
Incubator (CBOD/ E-Coli)			Acceptable?
• Temperature Recordkeeping	• Temperature checked / recorded twice daily for each shelf in use ¹ (E-Coli)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	• Temperature checked / recorded daily ² (CBOD)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	• Acceptable temperature range (CBOD) is 20° C ±1.0 ^{o12}	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	• Acceptable temperature range (E-Coli) is 35° C ±0.5 ^{o22}	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	• Logbook maintained ²	<input type="checkbox"/> Yes <input type="checkbox"/> No	
• Temperature Calibration / Documentation	• Thermometer calibrated annually with NIST traceable thermometer ^{1,2}	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	• Temperature correction information posted on incubator ¹	<input type="checkbox"/> Yes <input type="checkbox"/> No	
• E-Coli can use multiple tubes (five 20 ml or ten 10 ml), or mfg's multi-well tray	• E-coli Ultraviolet lamp (365 nm wave length, 6 W bulb) ²³	<input type="checkbox"/> Yes <input type="checkbox"/> No	
• Other	• Instrument manual available	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	• Temperature Log (thermometer accurate to 0.5 Celsius). ¹	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Comments:

Criteria	Standard Methods Requirement		Rating
Refrigerator			Acceptable?
• Temperature Recordkeeping	• Temperature Log (thermometer accurate to 0.5 Celsius). ⁵	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	U
• Temperature Calibration / Documentation	• Thermometer calibrated annually with NIST traceable thermometer ^{1,2}	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
• Other	• Thermometer held in water bath. ¹	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	• Refrigerator temperature ≤6° Celsius. ¹³	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	• Do not store volatile solvents, food, or beverages. ¹⁴	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Comments: The temperature in the refrigerator must be monitored and recorded each day it is used for the wastewater sampling program.

General Lab Criteria – The Iams Company, August 29, 2013

Criteria	Standard Methods Requirement	Acceptable?		Rating
Chlorine Meter				
• Calibration Frequency / Documentation	• pH / millivolt meter read to 0.1 mV ¹⁵	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples) ³	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Calibration Method	• Calibration using three iodate solutions 0.2, 1.0, 5.0 milliliters or calibration per manufacturer specification ¹⁶	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Standards used for calibration not expired	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Slope Documentation / Acceptability	• Calibration curve (acceptable slope)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Other	• Electrode free of deposits and foreign material	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Log book being maintained. ²	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Instrument manual available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments:				

Criteria	Standard Methods Requirement	Acceptable?		Rating
Ammonia Meter				
• Calibration Frequency / Documentation	• Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples) ³	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Log book being maintained ²	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Slope acceptability	• Verify calibration slope is acceptable (per mfg. spec.).	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Calibration Method	• Standards used for calibration (3 ammonia solutions of 10 mg/l, 1 mg/l, and 0.1 mg/l) or per mfg. spec. ¹⁷	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Standards used for calibration not expired	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Other	• Electrode free of deposits and foreign material	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Teflon covered magnetic stirrer or equivalent for mixing ¹⁸	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Instrument manual available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments:				

General Lab Criteria – The Iams Company, August 29, 2013

Criteria	Standard Methods Requirement	Acceptable?		Rating
Sample Collection/Handling				
• Sample Labeling	• Samples container labeled (description, date, time, preservative added, initialed). ¹⁹	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
• Chain of Custody	• Chain of custody (description, date, time, signature). ¹⁹	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
• Other	• Composite samples refrigerated during sample collection ¹⁴	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Equipment blanks utilized ¹⁴	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• SOP for cleaning of sampling equipment	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Logbook being maintained ²	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Comments: New sample containers are used when grabbing wastewater samples. Please make sure that if any sampling container is reused it must be cleaned in an acceptable manner.

Criteria	Standard Methods Requirement	Acceptable?		Rating
Desiccator				
• General criteria	• Properly working seals.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Desiccant fresh (blue color)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Documentation	• Log book being maintained ²	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Comments:

Criteria	Standard Methods Requirement	Acceptable?		Rating
Bench sheets				
• General criteria	• Date(s) ²	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	M
	• Analyst initials ²	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Blue or black ink pen ²	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Calibration information ²	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Equations, calculations, units for all measurements, notations, and results present ²	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Corrections, single line through, initialed and dated ²	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Comments: Much of this information is maintained in the operator log and on the flow charts. All of this information should be maintained on actual lab bench sheets.

General Lab Criteria – The Iams Company, August 29, 2013

Criteria	Standard Methods Requirement	Acceptable?		Rating
Hot Water Bath (Fecal Coliform/E. Coli)				
• Temperature Recordkeeping	• Temperature Log (thermometer accurate to 0.2° C) ²¹	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Incubator temperature 44.5° C ± 0.2 ^{o21/24}			
• Temperature Calibration / Documentation	• Thermometer calibrated annually with NIST traceable thermometer ^{1,2}	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Log book being maintained ²	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Water Level	• Thermometer total immersion or partial (line on thermometer to ID immersion depth) ^{1,5}	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments:				

Criteria	Standard Methods Requirement	Acceptable?		Rating
Autoclaves/Steam Sterilizers				
• All apparatus utilized is adequately sterilized before use	• Sterilizing temperature 121° C ²⁵	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• 10 to 30 minutes time based on material being sterilized ²⁶	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Documentation	• Verify the autoclave temperature weekly by using a maximum registering thermometer (MRT) to confirm that 121°C has been reached as measured in the exhaust. ¹	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Date, contents, sterilization time and temperature, total time in autoclave, and analyst's initials should be recorded each time the autoclave is used ¹	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Temperature Calibration / Documentation	• Thermometer calibrated annually with NIST traceable thermometer ^{1,2}	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Log book being maintained ²	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Performance Checks	• Test monthly for efficacy using a biological such as commercially available <i>Geobacillus stearothermophilus</i> in spore strips, suspensions, or capsules ¹	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments:				

General Lab Criteria – The Iams Company, August 29, 2013

Criteria	Standard Methods Requirement	Acceptable?	Rating
Final Effluent Temperature Monitoring			
• General Criteria	• Thermometer calibrated annually with NIST traceable thermometer ^{1,2}	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	A
	• Thermometer accurate to 0.1° Celsius ⁵	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	• Log book being maintained ²	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Comments: None.			
Number of Criteria Rated:			
			Acceptable 3
			Marginal 1
			Unacceptable 1
			Total Number of Areas Rated 5
<p>Acceptable Ratings – No action required (recommend SOP's written or updated, perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, written response not required).</p>			
<p>Marginal Ratings – Improvements required, written response required (recommend SOP's be written or updated, recommend they perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response).</p>			
<p>Unsatisfactory Rating - Improvements required, written response required, NOV issued (recommend SOP's be written or updated, recommend they perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response to NOV).</p>			
Consider recommending PAI Audit from DES when:		>60% of ratings are Marginal >45% of ratings are a combination of Marginal or Unacceptable >30% of ratings are Unacceptable	

Notation of Referenced Method

- | | |
|----------------------------|------------------------------|
| 1 Method 9020-B, Item 3 | 14 Method 1060A, Item 1 |
| 2 Method 1020-A, Item 1 | 15 Method 4500-CI I, Item 2 |
| 3 Method 1020-B, Item 10 | 16 Method 4500-CI I, Item 4 |
| 4 Method 2540-B, Item 2 | 17 Method 4500-NH3 D, Item 4 |
| 5 Method 2550-B, Item 1 | 18 Method 4500-NH3 D, Item 2 |
| 6 Method 1020-A, Item 1 | 19 Method 1060-B, Item 2 |
| 7 Method 4500-H B, Item 4 | 20 Method 1060-B, Item 1 |
| 8 Method 4500-H B, Item 2 | 21 Method 9222D, Item 1 |
| 9 Method 1020-B, Item 2 | 22 Method 9223 B, Item 2 |
| 10 Method 4500-O B, Item 3 | 23 Method 9223 B, Item 3 |
| 11 Method 4500-O G, Item 3 | 24 Method 1603, Item 2 |
| 12 Method 5210-B, Item 5 | 25 Method 9030-B, Item 3 |
| 13 CFR 136.3, Table II | 26 Method 9020 B, Table IV |

General Lab Criteria – The Iams Company, August 29, 2013

Equipment Logbook Content - all maintenance performed on a piece of equipment should be documented in the logbook. This should include parts replacement and routine maintenance activities. Entries should include date, maintenance performed and initials of person making entry.

Preservation and Holding Times						
Parameter	Container	Min. Sample Size (mL)	Sample Type	Preservation	Maximum Storage Time	
					Recommended	Regulatory
BOD / CBOD	P, G	1000	G, C	Refrigerate $\leq 6^{\circ}\text{C}$	6h	48h
TSS	P, G	200	G, C	Refrigerate $\leq 6^{\circ}\text{C}$	7 d	7 d
pH	P, G	50	G	Analyze immediately	0.25h	0.25 h
NH ₃ -N	P, G	500	G, C	Analyze as soon as possible or add H ₂ SO ₄ to pH <2, Refrigerate $\leq 6^{\circ}\text{C}$	7 d	28 d
TRC	P, G	500	G	Analyze immediately	0.25h	0.25 h
DO (electrode)	G, BOD Bottle	300	G	Analyze immediately	0.25h	0.25 h
Temperature	P, G	--	G	Analyze immediately	0.25h	0.25 h
Metals, general	P, G	1000	G, C	For dissolved filter immediately and add HNO ₃ to pH <2	6 months	6 months
Purgeables by purge and trap	G (PTFE lined lid)	40 (X2)	G	HCl to pH<2, Refrigerate $\leq 6^{\circ}\text{C}$	7 d	14 d
Base/Neutrals and acids	G (solvent rinsed or baked)	1000	C, G	Refrigerate $\leq 6^{\circ}\text{C}$	7 d	7 days until extraction 40 days after extraction
Pesticides	G (PTFE lined lid)	1000	C	Refrigerate $\leq 6^{\circ}\text{C}$	7 d	7 days until extraction 40 days after extraction
Fecal Coliform / E-Coli	G, P (Sterilized)	100	G	Refrigerate $\leq 10^{\circ}\text{C}$ If chlorine present, add sodium thiosulfate tablet	6 hrs transport Start analysis within 2 hrs of receipt in lab.	
Oil and Grease	G	1000	G	HCl or H ₂ SO ₄ to pH <2, Refrigerate $\leq 6^{\circ}\text{C}$	28 d	28 d

Approved Standard Methods	
CBOD / BOD 5 Day	Std Methods 5210-B
Ammonia, Selective Electrode Method	Std Methods 4500-NH ₃ D
Total Residual Chlorine, DPD Colorimetric Method	Std Methods 4500-Cl G
Total Suspended Solids, Dried at 103-105 °C	Std Methods 2540-D
Dissolved Oxygen, Membrane Electrode Method	Std Method 4500-O G
pH, Electrometric Method	Std Methods 4500-H+ B
Fecal Coliform, Membrane Filter Procedure	Std Methods 9222D
Escherichia Coli, Enzyme Substrate Test	Std Method 9223B
Escherichia Coli Membrane Filtration Procedure	EPA Method 1603
Oil and Grease	USEPA 1664A or Std Methods 5520B
Metals, general	USEPA 200, Std Methods 3111B or C, or 3120B
Volatiles (Purgeables by purge and trap)	USEPA 6210, Std Methods 624
Semi-Volatiles (Base/Neutrals and acids)	USEPA 6410, Std Methods 625
Pesticides	USEPA 6410 and 6630, Std Methods 608