Ohio EPA
40 years and moving forward

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

October 5, 2012

Mr. Anthony Sansalone
MHP Holdings – Flora LLC
P.O. Box 960
Milford, Ohio 45150

**RE: Hamilton County, New Horizon MHP, Compliance Evaluation Inspection**

Dear Mr. Sansalone:

On September 28, 2012, I conducted a Compliance Evaluation Inspection at this facility (NPDES Permit No. OH0132004; OEPA Permit No. 1PV00116*BD). The inspection was also conducted as part of the NPDES permit renewal for the facility. Greg Ross and Eric Lynch were representing this facility. A copy of my inspection report is enclosed.

The inspection report contains one marginal area. The Effluent/Receiving Waters section was rated marginal as a result of the NPDES permit violations.

The corrosion of the metal package plant was also noted in the inspection report. The WWTP will most likely need to be completely replaced sooner than later. The facility should start preparing for the eventual replacement of this treatment system.

The areas noted in the report summary are currently being addressed. Therefore, a response is not required at this time.

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

Sincerely,

Ned Sarle
Environmental Specialist
Division of Surface Water
Permits Section

NS/tf

Enclosure

ec: Eric Lynch, Winelco, Inc.

OhioEPA

**State of Ohio Environmental Protection Agency**
**Southwest District Office**

# NPDES Compliance Inspection Report
# Semi-Public Sewage Disposal Inspection Form

| Section A: National Data System Coding | | | | | |
|---|---|---|---|---|---|
| **Permit #** | **NPDES#** | **Month/Day/Year** | **Inspection Type** | **Inspector** | **Facility Type** |
| 1PV00116*BD | OH0132004 | 9/28/2012 | C | S | 2 |

| Section B: Facility Data | | |
|---|---|---|
| **Name and Location of Facility Inspected** | **Entry Time** | **Permit Effective Date** |
| New Horizon MHP<br>11007 Flora Road<br>Harrison, Ohio 45030 | 11:50 A.M. | 11/1/2007 |
| | **Exit Time** | **Permit Expiration Date** |
| | 12:50 P.M. | 10/31/2012 |
| **Name(s) and Title(s) of On-Site Representatives** | **Phone Number(s)** | |
| Eric Lynch, Winelco, Inc.<br>Greg Ross, Winelco, Inc. | (513) 222-8845<br>(513) 439-0145 | |
| **Name, Address and Title of Responsible Official** | **Phone Number** | |
| Anthony Sansalone<br>MHP Holdings - Flora LLC<br>P.O. Box 960<br>Milford, Ohio 45150 | (513) 722-2441 | |

| 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 | S | Laboratory | S | Compliance Schedule |
| S | Operations & Maintenance | M | 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 |
|---|---|
| 10/5/12 | 10/5/12 |
| Ned Sarle<br>Permit Section<br>Division of Surface Water<br>Southwest District Office | Date<br>Martyn Burt<br>Compliance & Enforcement Supervisor<br>Division of Surface Water<br>Southwest District Office |

Permit #: 1PV000116*BD
NPDES #: OH0132004

| | |
|---|---|
| Average Daily Design Flow: | **15,600 Gallons/Day** |
| Plant Serves: | 41 Mobile Homes |
| Average Daily Flow:<br>(Period of Review): | **4400 Gallons/Day**<br>**(November 2007 through July 2012)** |
| Method of flow monitoring: | **dosing pump elapse time meters** |
| Type of alarms for plant: | **High water alarms for dosing tank** |

## Pretreatment

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

**Comments/Status:**

No pretreatment system is provided.

## 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 | ☒ | ☐ | Plant is septic | ☐ | ☒ |
| Blowers are operating | ☒ | ☐ | Blowers are on a timer | ☒ | ☐ |
| Skimmers are operating | ☒ | ☐ | Plant is flooded | ☐ | ☒ |
| Diffusers are operating | ☒ | ☐ | Grating is present | ☒ | ☐ |
| Sludge return is operating | ☒ | ☐ | | | |

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

**Comments/Status:**

Blowers are on a timer. For the Summer, they are on for 45 minutes and off for 15 minutes. For the Winter, they are on for 30 minutes and off for 30 minutes.

## Secondary Treatment (Settling)

Clarity: **Clear**
Condition of Weir: **Excessive Algae/Solids Build Up**
Weir is level: **Yes**
Effluent in weir: **Light Solids**

Permit #: 1PV000116*BD
NPDES #: OH0132004

Clarifier walls need scraped: **No**

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

**Comments/Status:**

None.

## Tertiary Treatment

| | Yes | No | | Yes | No |
|---|---|---|---|---|---|
| Surface sand filters: **Slow** | ☒ | ☐ | **Subsurface** | ☐ | ☒ |
| Distribution box operating | ☒ | ☐ | Beds alternated | ☒ | ☐ |
| Are filters ponding/flooding | ☐ | ☒ | Beds raked | ☒ | ☐ |
| Sand filters overgrown | ☐ | ☒ | Chlorination present | ☐ | ☒ |
| UV present | ☒ | ☐ | Dechlorination present | ☐ | ☒ |

Overall maintenance of components is: **Good**

Comments/Status:

None.

## Sludge Handling/Storage Disposal

Hauler name: **Winelco, Inc.**
Disposal Site: **MSD Mill Creek WWTP**
Sludge wasted from: **Sludge holding tank**
How often is sludge wasted: **Weekly**
Sludge drying beds: **No** Sludge holding tank: **Yes**

Overall maintenance of components is: **Good**

**Comments/Status:**

None.

## Plant Discharge

Discharge point is a: **Ditch**
Name of discharge point: **unnamed tributary of Kolb Creek**
Discharge is visible: **Yes** Quality of Effluent: **Clear**

**Comments/Status:**

None.

**Summary of Findings / Comments**

A review of the Discharge Monitoring Reports for November 2007 through July 2012 indicated several NPDES permit violations. These violations are listed on Attachment I. These violations have been addressed as required by the permit. Future violations must continue to be reported as required by the NPDES permit as detailed in Part III.12 titled "Noncompliance Notification."

The WWTP is designed for an average daily flow rate of 15,600 gpd. For the noted period, the average daily flow rate was 4,400 gpd, and the peak daily flow rate was 62,100 gpd.

For 2011, 6,000 gallons of sludge were hauled from the WWTP. The sludge was hauled by Winelco, Inc. and was taken to the MSD Mill Creek WWTP.

The WWTP is approximately 40 years old and has metal tanks. The metal tanks are starting to have excessive corrosion. The facility is looking at replacing several metal cross beams for this WWTP. Treatment systems such as this one typically are expected to last between 20 to 30 years. This WWTP will most likely need to be completely replaced sooner than later. The facility should continue to monitor the WWTP condition and replace it in a timely manner.

Winelco tests the wastewater samples on site for temperature, DO and pH. The grab samples for TSS, NH3, fecal coliform and CBOD5 are placed on ice and taken back to Winelco's facility where they are tested. The attached General Lab Criteria checklist was used to evaluate some of these test procedures. The procedures used by the facility appear to be adequate.

Attachment I

Effluent Limit Violations for November 2007 through July 2012

| Reporting Period | Parameter | Limit Type | Units | Permit Limit | Reported Value |
|---|---|---|---|---|---|
| May 2008 | DO | Daily | mg/l | 6.0 | 4.8 |
| July 2009 | DO | Daily | mg/l | 6.0 | 4.5 |
| November 2009 | TSS | Monthly | mg/l | 12 | 25 |
| November 2009 | TSS | Daily | mg/l | 18 | 25 |
| June 2010 | Fecal Coliform | Monthly | #/100 ml | 1000 | 1200 |
| June 2010 | Fecal Coliform | Daily | #/100 ml | 2000 | 7200 |
| December 2011 | TSS | Monthly | kg/day | 0.71 | 0.85 |
| January 2012 | Ammonia | Monthly | mg/l | 3.0 | 4.0 |

# General Lab Criteria – New Horizon MHP

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| **Balance** | | Acceptable? | | |
| • Standard Weights | • Either NIST Class s or ASTM/ANSI Class 1 weights [1,2] | ☐ Yes | ☐ No | |
| • Calibration Frequency / Documentation | • Calibration verification required at least once each day the balance is used.[3] | ☐ Yes | ☐ No | |
| • Cleanliness, air movement, vibration | • Cleanliness of balance is a must and air movement and vibration needs to be kept to a minimum[1] | ☐ Yes | ☐ No | |
| • Other | • Service and recalibrate annually (manufacturer representative or comparable)[1] | ☐ Yes | ☐ No | |
| | • Must be able to measure to 0.1 grams[4] | ☐ Yes | ☐ No | |
| | • Instrument manual available | ☐ Yes | ☐ No | |
| | • Log book maintained[2] | ☐ Yes | ☐ No | |
| Comments: : | | | | |

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| **Drying Oven (Suspended Solids)** | | Acceptable? | | |
| • Temperature Recordkeeping | • Temperature recorded with each use[4] | ☐ Yes | ☐ No | |
| | • Log book maintained[2] | ☐ Yes | ☐ No | |
| • Calibration Frequency / Documentation | • Thermometer calibrated annually with NIST traceable thermometer[1,2]. Correction factor posted on thermometer / equipment[1] | ☐ Yes | ☐ No | |
| • Other | • Thermometer temperature accurate to 0.5° Celsius[5] | ☐ Yes | ☐ No | |
| | • Acceptable temperature range is 103° – 105° C [4] | ☐ Yes | ☐ No | |
| | • Instrument manual available | ☐ Yes | ☐ No | |
| Comments: : | | | | |

# General Lab Criteria – New Horizon MHP

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| pH Meter | | Acceptable? | | |
| • 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] | ☒ Yes | ☐ No | A |
| | • Logbook maintained[2] | ☒ Yes | ☐ No | |
| • Minimum of 2 point calibration | • Calibration per manufacturer specification and calibration buffers must bracket anticipated result[7] | ☒ Yes | ☐ No | |
| • Slope Documentation / Acceptability | • Slope acceptable range indicated on benchsheet[2] | ☒ Yes | ☐ No | |
| • Buffer Expiration Date | • Buffers must not be expired | ☒ Yes | ☐ No | |
| • Other | • Instrument manual available | ☒ Yes | ☐ No | |
| | • Teflon covered magnetic stirrer or equivalent for mixing[8] | ☐ Yes | ☐ No | |
| Comments: : None. | | | | |

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| Dissolved Oxygen Meter | | Acceptable? | | |
| • Calibration Method | • Air or known DO calibration method[10] | ☒ Yes | ☐ No | A |
| | • Calibration per manufacturer specification[10] | ☒ Yes | ☐ No | |
| • Calibration Frequency / Documentation | • Logbook maintained[2] | ☒ Yes | ☐ No | |
| | • Calibration verification required at least once each day the meter is used.[3] | ☒ Yes | ☐ No | |
| • Other | • Small to no bubble present under membrane (must be smaller than the lead in number 2 pencil)[11] | ☒ Yes | ☐ No | |
| | • Instrument manual available | ☒ Yes | ☐ No | |
| Comments: None. | | | | |

# General Lab Criteria – New Horizon MHP

| 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) | ☐ Yes | ☐ No | |
| | • Temperature checked / recorded daily[2] (CBOD) | ☐ Yes | ☐ No | |
| | • Acceptable temperature range (CBOD) is 20° C ±1.0 °[12] | ☐ Yes | ☐ No | |
| | • Acceptable temperature range (E-Coli) is 35° C ±0.5 °[22] | ☐ Yes | ☐ No | |
| | • Logbook maintained [2] | ☐ Yes | ☐ No | |
| • Temperature Calibration / Documentation | • Thermometer calibrated annually with NIST traceable thermometer[1, 2] | ☐ Yes | ☐ No | |
| | • Temperature correction information posted on incubator[1] | ☐ Yes | ☐ 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] | ☐ Yes | ☐ No | |
| • Other | • Instrument manual available | ☐ Yes | ☐ No | |
| | • Temperature Log (thermometer accurate to 0.5 Celsius).[1] | ☐ Yes | ☐ No | |
| Comments: : | | | | |

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| Refrigerator | | Acceptable? | | |
| • Temperature Recordkeeping | • Temperature Log (thermometer accurate to 0.5 Celsius).[5] | ☐ Yes | ☐ No | |
| • Temperature Calibration / Documentation | • Thermometer calibrated annually with NIST traceable thermometer [1, 2] | ☐ Yes | ☐ No | |
| • Other | • Thermometer held in water bath. [1] | ☐ Yes | ☐ No | |
| | • Refrigerator temperature ≤6° Celsius.[13] | ☐ Yes | ☐ No | |
| | • Do not store volatile solvents, food, or beverages.[14] | ☐ Yes | ☐ No | |
| Comments: | | | | |

# General Lab Criteria – New Horizon MHP

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| Chlorine Meter | | Acceptable? | | |
| • Calibration Frequency / Documentation | • pH / millivolt meter read to 0.1 mV[15] | ☐ Yes | ☐ 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] | ☐ Yes | ☐ No | |
| • Calibration Method | • Calibration using three iodate solutions 0.2, 1.0, 5.0 milliliters or calibration per manufacturer specification[16] | ☐ Yes | ☐ No | |
| | • Standards used for calibration not expired | ☐ Yes | ☐ No | |
| • Slope Documentation / Acceptability | • Calibration curve (acceptable slope) | ☐ Yes | ☐ No | |
| • Other | • Electrode free of deposits and foreign material | ☐ Yes | ☐ No | |
| | • Log book being maintained.[2] | ☐ Yes | ☐ No | |
| | • Instrument manual available | ☐ Yes | ☐ No | |
| Comments: : | | | | |

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| Ammonia Meter | | Acceptable? | | |
| • 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] | ☐ Yes | ☐ No | |
| | • Log book being maintained[2] | ☐ Yes | ☐ No | |
| • Slope acceptability | • Verify calibration slope is acceptable (per mfg. spec.). | ☐ Yes | ☐ 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] | ☐ Yes | ☐ No | |
| | • Standards used for calibration not expired | ☐ Yes | ☐ No | |
| • Other | • Electrode free of deposits and foreign material | ☐ Yes | ☐ No | |
| | • Teflon covered magnetic stirrer or equivalent for mixing[18] | ☐ Yes | ☐ No | |
| | • Instrument manual available | ☐ Yes | ☐ No | |
| Comments: : | | | | |

# General Lab Criteria – New Horizon MHP

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| **Sample Collection/Handling** | | Acceptable? | | |
| • Sample Labeling | • Samples container labeled (description, date, time, preservative added, initialed).[19] | ☐ Yes | ☐ No | |
| • Chain of Custody | • Chain of custody (description, date, time, signature).[19] | ☐ Yes | ☐ No | |
| • Other | • Composite samples refrigerated during sample collection[14] | ☐ Yes | ☐ No | |
| | • Equipment blanks utilized[14] | ☐ Yes | ☐ No | |
| | • SOP for cleaning of sampling equipment | ☐ Yes | ☐ No | |
| | • Logbook being maintained[2] | ☐ Yes | ☐ No | |
| Comments: | | | | |

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| **Desiccator** | | Acceptable? | | |
| • General criteria | • Properly working seals. | ☐ Yes | ☐ No | |
| | • Desiccant fresh (blue color) | ☐ Yes | ☐ No | |
| • Documentation | • Log book being maintained[2] | ☐ Yes | ☐ No | |
| Comments: | | | | |

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| **Bench sheets** | | Acceptable? | | |
| • General criteria | • Date(s)[2] | ☐ Yes | ☐ No | |
| | • Analyst initials[2] | ☐ Yes | ☐ No | |
| | • Blue or black ink pen[2] | ☐ Yes | ☐ No | |
| | • Calibration information[2] | ☐ Yes | ☐ No | |
| | • Equations, calculations, units for all measurements, notations, and results present[2] | ☐ Yes | ☐ No | |
| | • Corrections, single line through, initialed and dated[2] | ☐ Yes | ☐ No | |
| Comments: | | | | |

# General Lab Criteria – New Horizon MHP

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| Hot Water Bath (Fecal Coliform/E. Coli) | | Acceptable? | | |
| • Temperature Recordkeeping | • Temperature Log (thermometer accurate to 0.2° C)[21] | ☐ Yes | ☐ No | |
| | • Incubator temperature 44.5° C ± 0.2° [21/24] | | | |
| • Temperature Calibration / Documentation | • Thermometer calibrated annually with NIST traceable thermometer [1, 2] | ☐ Yes | ☐ No | |
| | • Log book being maintained [2] | ☐ Yes | ☐ No | |
| • Water Level | • Thermometer total immersion or partial (line on thermometer to ID immersion depth) [1, 5] | ☐ Yes | ☐ No | |
| Comments: | | | | |

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| Autoclaves/Steam Sterilizers | | Acceptable? | | |
| • All apparatus utilized is adequately sterilized before use | • Sterilizing temperature 121° C [25] | ☐ Yes | ☐ No | |
| | • 10 to 30 minutes time based on material being sterilized[26] | ☐ Yes | ☐ 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] | ☐ Yes | ☐ 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] | ☐ Yes | ☐ No | |
| • Temperature Calibration / Documentation | • Thermometer calibrated annually with NIST traceable thermometer [1,2] | ☐ Yes | ☐ No | |
| | • Log book being maintained [2] | ☐ Yes | ☐ No | |
| • Performance Checks | • Test monthly for efficacy using a biological such as commercially available *Geobacillus stearothermophilus* in spore strips, suspensions, or capsules [1] | ☐ Yes | ☐ No | |
| Comments: | | | | |

# General Lab Criteria – New Horizon MHP

| Criteria | Standard Methods Requirement | | | Rating |
|---|---|---|---|---|
| Final Effluent Temperature Monitoring | | Acceptable? | | |
| • General Criteria | • Thermometer calibrated annually with NIST traceable thermometer [1,2] | ☐ Yes | ☐ No | |
| | • Thermometer accurate to 0.1° Celsius[5] | ☐ Yes | ☐ No | |
| | • Log book being maintained [2] | ☐ Yes | ☐ No | |
| Comments: | | | | |

| | | |
|---|---|---|
| **Number of Criteria Rated:** | Acceptable | 2 |
| | Marginal | |
| | Unacceptable | |
| | Total Number of Areas Rated | 2 |

**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).

**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).

**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).

| | |
|---|---|
| Consider recommending PAI Audit from DES when: | >60% of ratings are Marginal<br>>45% of ratings are a combination of Marginal or Unacceptable<br>>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-Cl I, Item 2 |
| 3 | Method 1020-B, Item 10 | 16 | Method 4500-Cl 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 |

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.

# General Lab Criteria – New Horizon MHP

## 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 ≤6° C | 6h | 48h |
| TSS | P, G | 200 | G, C | Refrigerate ≤6° C | 7 d | 7 d |
| pH | P, G | 50 | G | Analyze immediately | 0.25h | 0.25 h |
| NH3-N | P, G | 500 | G, C | Analyze as soon as possible or add $H_2SO_4$ to pH <2, Refrigerate ≤6° 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 ≤6° C | 7 d | 14 d |
| Base/Neutrals and acids | G (solvent rinsed or baked) | 1000 | C, G | Refrigerate ≤6° C | 7 d | 7 days until extraction 40 days after extraction |
| Pesticides | G (PTFE lined lid) | 1000 | C | Refrigerate ≤6° C | 7 d | 7 days until extraction 40 days after extraction |
| Fecal Coliform / E-Coli | G, P (Sterilized) | 100 | G | Refrigerate ≤10° 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 $H_2SO_4$ to pH <2, Refrigerate ≤6° C | 28 d | 28 d |

## Approved Standard Methods

| | |
|---|---|
| CBOD / BOD 5 Day | Std Methods 5210-B |
| Ammonia, Selective Electrode Method | Std Methods 4500-NH3 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 |