



STATE OF MAINE  
Department of Environmental Protection

Paul R. LePage  
GOVERNOR

Patricia Aho  
ACTING COMMISSIONER

June 21, 2011

Attn: Mr. Steven Thomas  
Hermon Car Wash  
Thomas Property Management  
585 Blackstream Road  
Hermon, Maine 04401

RE: Permit Compliance System (PCS) Tracking Number MEU508234  
Maine Waste Discharge License (WDL) Application W008234-5S-C-R  
**Final License**

Dear Mr. Thomas:

Enclosed please find a copy of your **final** Maine WDL which was approved by the Department of Environmental Protection. Please read the license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

A handwritten signature in cursive script, appearing to read 'G. Wood'.

Gregg Wood  
Division of Water Quality Management  
Bureau of Land and Water Quality

Enc.

cc: Matt Young, DEP/EMRO  
Erich Kluck, DEP/SMRO  
Sandy Mojica, USEPA



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
17 STATE HOUSE STATION  
AUGUSTA, ME 04333

## DEPARTMENT ORDER

### IN THE MATTER OF

HERMON CAR WASH	)	PROTECTION AND IMPROVEMENT
HERMON, PENOBSCOT COUNTY, MAINE	)	OF WATERS
COMMERCIAL CAR WASH	)	WASTE DISCHARGE LICENSE
MEU508234	)	
W008234-5S-C-R	)	
<b>APPROVAL</b>	)	<b>RENEWAL</b>

Pursuant to the provisions of Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of HERMON CAR WASH, (HCW/permittee hereinafter) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

### APPLICATION SUMMARY

The permittee has filed a timely and complete application with the Department to renew Maine Waste Discharge License (WDL) #W008234-5S-A-N issued by the Department on June 26, 2006, and is due to expire on June 26, 2011. The June 26, 2006, WDL authorized the HCW to operate a sub-surface wastewater disposal system that is designed to treat 1,000 gallons of wastewater per day generated by a commercial car wash facility on a 3.55 acre parcel located on the northerly side of Route 2 in the Town of Hermon.

### LICENSE SUMMARY

This licensing action is carrying forward all the terms and conditions of the previous licensing action except that this license;

1. Eliminates the limitations and monitoring requirements for diesel range organics (DRO) and gasoline range organics (GRO) and replaces them with limitations and monitoring requirements for extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) compounds based on a December 2009 guidance document prepared by the Department's Bureau of Remediation and Waste Management.
2. Eliminates the limitations and or monitoring requirements for methyl-tertiary-butyl-ether (MTBE), toluene, ethylbenzene, xylene zinc, chromium and lead as test results for the previous five-year period indicate results have been reported anywhere from one to three orders of magnitude below the limitations in the previous license.

## CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated May 20, 2011, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:
  - (a) Existing groundwater water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
  - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
  - (c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
  - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and
  - (e) Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

**ACTION**

THEREFORE, the Department APPROVES the above noted application of the HERMON CAR WASH to discharge up to 1,000 gallons per day of treated waste waters to the soil above groundwater, Class GW-A, via a sub-surface wastewater disposal system SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations including:

1. *“Standard Conditions of Industrial Discharge Licenses,”* revised August 14, 1996, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This license becomes effective upon the date of signature below and expires at midnight five (5) years thereafter. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this license, the terms and conditions of this license and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act, 5 M.R.S.A. § 10002 and Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2(21)(A)* (effective April 1, 2003)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application May 3, 2011.  
Date of application acceptance: May 4, 2011.

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY  
MEU508234 2011 6/21/11

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. Beginning the effective date of this license, the licensee is authorized to discharge treated process waste water from **Outfall #001** to groundwater, Class GW-A. **Outfall #001** is defined as monitoring port in the discharge line after the two clay filters prior to the subsurface leachfield discharge. Such discharges to the leachfield shall be limited and monitored by the licensee as specified below:

Effluent Characteristic	Discharge Limitations(as specified)	Minimum Monitoring Requirements(as specified)	
		Measurement Frequency	Sample Type
	<u>Monthly Average</u>		
Flow <sup>(1)</sup> [50050]	1,000 GPD [03]	1/Month [01/30]	Measure [MS]
Specific Conductance [00094]	Report, uhmos/cm [11]	2/Year [02/YR]	Grab [GR]
Temperature [00011]	Report, degree Fahrenheit [15]	2/Year [02/YR]	Grab [GR]
Benzene [34030]	Report µg /L [28]	2/Year [02/YR]	Grab [GR]
<b>EPH<sup>(2)</sup></b>			
C9-C18 Aliphatics [51678]	700 µg /L [28]	2/Year [02/YR]	Grab [GR]
C19-C36 Aliphatics [51679]	10,000 µg /L [28]	2/Year [02/YR]	Grab [GR]
C11-C22 Aromatics [51681]	200 µg /L [28]	2/Year [02/YR]	Grab [GR]
<b>VPH<sup>(3)</sup></b>			
C5-C8 Aliphatics [51676]	300 µg /L [28]	2/Year [02/YR]	Grab [GR]
C9-C12 Aliphatics [51677]	700 µg /L [28]	2/Year [02/YR]	Grab [GR]
C9-C10 Aromatics [51680]	200 µg /L [28]	2/Year [02/YR]	Grab [GR]
Chlorides [00940]	Report mg/L [19]	1/Year [01/YR]	Grab [GR]
pH [00400] <sup>(1)</sup>	6.0-9.0, S.U. [12]	---	---

The italicized numeric values bracketed in the table above and the table that follows are code numbers that Department personnel utilized to code the monthly Discharge Monitoring Reports.

## SPECIAL CONDITIONS

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

#### Footnotes:

**Sampling** – Sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine’s Department of Human Services. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

All analytical test results shall be submitted to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value (“J” flagged) is not acceptable and will be rejected by the Department. Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents.

1. **Flow** shall be calculated as follows: The total discharge by liquid (gallons) measured during the calendar month divided by the number of days in the month that the facility was operating. For the purposes of reporting on the quarterly DMR, report the maximum of the three monthly values calculated in a quarter.
2. **Extractible Petroleum Hydrocarbons (EPH)** – The permittee shall utilize test method entitled, Method For the Determination of Extractible Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, Division of Environmental Analysis, Office of Research and Standards, Bureau of Waste Site Cleanup, May 2004, Revision 1.1. The RL for EPH is 100 ug/L. See **Attachment A** of this license for a description of the Scope & Application and Summary of the Method.
3. **Volatile Petroleum Hydrocarbons (VPH)** - The permittee shall utilize test method entitled, Method For the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, Division of Environmental Analysis, Office of Research and Standards, Bureau of Waste Site Cleanup, May 2004, Revision 1.1. The RL for VPH is 100 ug/L. See **Attachment B** of this license for a description of the Scope & Application and Summary of the Method.

## **SPECIAL CONDITIONS**

### **B. NARRATIVE EFFLUENT LIMITATIONS**

1. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usage designated by the classification of the groundwater.
2. Notwithstanding specific conditions of this license the effluent must not lower the quality of any classified body of groundwater below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

### **C. NOTIFICATION REQUIREMENT**

The licensee shall notify the Department of the following.

1. Any increase of volume above the 1,000 GPD flow to the system or any change in the character of pollutants being introduced into the wastewater collection and treatment system.
2. For the purposes of this section, adequate notice shall include information on:
  - (a) the quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
  - (b) any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

### **D. UNAUTHORIZED DISCHARGES**

The licensee is authorized to discharge only in accordance with the terms and conditions of this license and only from Outfall 001 (to the leachfield area). Discharges of wastewater from any other point source are not authorized under this license.

### **E. MAINTENANCE AND OPERATIONS**

The licensee shall ensure that system components are properly maintained and operated. The licensee shall ensure that the following maintenance and operations provisions are implemented:

#### Subsurface Tanks

1. Inspections of the system components and tanks that are connected to the subsurface wastewater disposal system to determine levels of accumulated grease or sludge on a quarterly (1/Quarter). The licensee shall maintain a record of the inspections of all the system components (including grit sumps and oil/water separator tanks), the name of the inspector(s), date of inspections, and the results of the inspections, observations taken, and any maintenance recommended to be performed. A qualified inspector knowledgeable of septic system function and operations shall perform inspections.

## **SPECIAL CONDITIONS**

### **E. MAINTENANCE AND OPERATIONS (cont'd)**

2. Pumping of the tank at least once every year (1/Year) or more often if indicated by the inspections. The licensee shall maintain a record of tank pumping including the location and date of pumping, quantity of material removed, other relevant observations.

#### Treatment System

3. The licensee shall maintain reports of system inspections, quantity of solids removed, and frequency of maintenance, including records of system performance observations, and the dates of maintenance. The licensee shall inspect the system prior to daily operation and clean solid materials removed by filtration screens in the system.
4. The licensee shall maintain reports of the quantity of flow discharged to the system on a monthly basis including inspections of the subsurface leach field performance at the distribution box (or observations ports) in the system (height of water level, and characteristics of grease/sludge components, or short circuiting in the wastewater disposal field).

Copies of the reports of inspections performed must be retained by the licensee and must be made available to the Department staff upon request.

### **F. MONITORING AND REPORTING**

Monitoring results obtained during the previous month shall be summarized for each month and reported **quarterly (March, June, September and December)** on separate Discharge Monitoring Report (DMR) forms provided by the Department and shall be postmarked by the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to a Department Regional Office such that the DMRs are received by the Department by the fifteenth (15<sup>th</sup>) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted, unless otherwise specified, to the Department's facility inspector at:

Department of Environmental Protection  
Eastern Maine Regional Office  
Bureau of Land and Water Quality  
Division of Water Quality Management  
106 Hogan Road  
Bangor, Maine 04011

## **SPECIAL CONDITIONS**

### **F. MONITORING AND REPORTING (cont'd)**

Alternatively, if you are submitting an electronic Discharge Monitoring Report (eDMR), the completed eDMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the 15<sup>th</sup> day of the month following the completed reporting period. Hard Copy documentation submitted in support of the eDMR must be postmarked on or before the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15<sup>th</sup>) day of the month following the completed reporting period. Electronic documentation in support of the eDMR must be submitted not later than close of business on the 15<sup>th</sup> day of the month following the completed reporting period.

### **G. RE-OPENER CLAUSE**

Upon evaluation of test results required by Special Condition A of this licensing action, additional site-specific data or any other pertinent information or test results obtained during the term of this license, the Department may, at anytime and with notice to the licensee, modify this license to: (1) include effluent limits necessary to control specific pollutants where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional monitoring if results on file are inconclusive; (3) required installation of ground water monitoring wells in order to sample and report to the Department ground water quality conditions, or (4) change monitoring requirements and or limitations based on new information.

### **H. SEVERABILITY**

In the event that any provision, or part thereof, of this license is declared to be unlawful by a reviewing court, the remainder of the license shall remain in full force and effect, and shall be construed and enforced in all respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

# ATTACHMENT A

# METHOD FOR THE DETERMINATION OF EXTRACTABLE PETROLEUM HYDROCARBONS

## MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

### 1.0 SCOPE & APPLICATION

- 1.1 This method is designed to measure the collective concentrations of extractable aliphatic and aromatic petroleum hydrocarbons in water and soil/sediment matrices. Extractable aliphatic hydrocarbons are collectively quantitated within two ranges: C<sub>9</sub> through C<sub>18</sub> and C<sub>19</sub> through C<sub>36</sub>. Extractable aromatic hydrocarbons are collectively quantitated within the C<sub>11</sub> through C<sub>22</sub> range. These aliphatic and aromatic hydrocarbon ranges correspond to a boiling point range between approximately 150 °C and 265 °C.
- 1.2 This method is based on a solvent extraction, silica gel solid-phase extraction (SPE)/fractionation process, and gas chromatography (GC) analysis using a flame ionization detector (FID). This procedure should be used by, or under the supervision of, analysts experienced in extractable organics analysis. Analysts should be skilled in the interpretation of gas chromatograms and their use as a quantitative tool.
- 1.3 This method is designed to complement and support the toxicological approach developed by the Massachusetts Department of Environmental Protection to evaluate human health hazards that may result from exposure to petroleum hydrocarbons (MADEP, 1994 and MADEP, 2003). It is intended to produce data in a format suitable for evaluation by that approach and that may be compared to reporting and cleanup standards promulgated in the Massachusetts Contingency Plan (310 CMR 40.0000).
- 1.4 This method is also able to measure the individual concentrations of Target Polynuclear Aromatic Hydrocarbons (PAH) Analytes, including Diesel PAH Analytes, in water and soil/sediment matrices. The use of this method to quantify these analytes is optional, and the Reporting Limits for some of these PAH compounds in water are greater than the notification and/or cleanup standards specified in the Massachusetts Contingency Plan for sites located in groundwater resource area categorized as RCGW-1 in 310 CMR 40.0362(1)(a). In cases where it is necessary to demonstrate compliance with these standards, the use of a gas chromatography/mass spectrometry (GC/MS) method in the selective ion monitoring (SIM) mode and/or high performance liquid chromatography (HPLC) methodology may be necessary.
- 1.5 The fractionation step described in this method can be eliminated to allow for a determination of a Total Petroleum Hydrocarbon (TPH), and/or to obtain qualitative "fingerprinting" information. While TPH provides little information on the chemical constituents, toxicity, or environmental fate of petroleum mixtures, it may be a cost-effective screening tool in cases where relatively low concentrations of contamination are suspected.
- 1.6 Petroleum products suitable for evaluation by this method include kerosene, fuel oil #2, fuel oil #4, fuel oil #6, diesel fuel, jet fuel, and certain lubricating oils. This method, in and of itself, is not suitable for the evaluation of gasoline, mineral spirits, petroleum naphthas, or other petroleum products which contain a significant percentage of hydrocarbons lighter than C<sub>9</sub>. This method, in and of itself, is also not suitable for the evaluation of petroleum products which contain a significant percentage of hydrocarbons heavier than C<sub>36</sub>.
- 1.7 The Reporting Limit (RL) of this method for each of the collective aliphatic and aromatic fractional ranges is approximately 20 mg/kg in soil/sediment, and approximately 100 µg/L in water. The RL of this method for TPH is approximately 10 mg/kg in soil and approximately 100 µg/L in water. The RL of this method for the Target PAH Analytes is compound-specific, and ranges from approximately 0.2 to 1.0 mg/kg in soil/sediment, and 2 to 5 µg/L in water.
- 1.8 This method includes a data adjustment step to subtract the concentration of Target PAH Analytes from the concentration of C<sub>11</sub> through C<sub>22</sub> Aromatic Hydrocarbons. This data adjustment may be made by the laboratory or the data user.
- 1.9 Data reports produced using this method must contain all of the required EPH/TPH data information provided in Appendix 3. The format of these data reports is left to the discretion of individual laboratories.
- 1.10 Like all GC procedures, this method is subject to a "false positive" bias in the reporting of Target PAH Analytes, in that non-targeted hydrocarbon compounds eluting or co-eluting within a specified retention time window may be falsely identified and/or quantified as a Target or Diesel PAH Analyte. In addition, this

method is subject to a “false negative” bias in the reporting of Target PAH Analytes, in that the ability to identify Target PAH Analytes at low concentrations may be inhibited if a large unresolved complex mixture is present. While cleanup procedures specified in this method to segregate aliphatic and aromatic fractions will serve to mitigate these concerns, confirmatory analysis by dissimilar columns, GC/MS analysis, or other suitable technique is recommended in cases where a Target PAH Analyte reported by this method approaches or exceeds an applicable reporting or cleanup standard, and/or where coelution of a non-targeted hydrocarbon compound is suspected.

- 1.11 The first draft of this method was evaluated by two interlaboratory “Round Robin” testing programs. In the final evaluation effort, participating laboratories were provided (single-blind) sand samples spiked with a #2 fuel oil, and a “real world” groundwater sample contaminated by a highly weathered fuel oil. Laboratory proficiency was evaluated using a Z-score approach. Data received from 23 laboratories performing the method without significant modifications are summarized below:

Matrix	# Labs Proficient	% Labs Proficient	Data from Proficient Laboratories		
			Fraction	%RSD	% Labs within +/- 40% mean value
soil	19	83	C <sub>9</sub> -C <sub>18</sub> Aliphatics	23	95
			C <sub>19</sub> -C <sub>36</sub> Aliphatics	30	89
			C <sub>11</sub> -C <sub>22</sub> Aromatics	19	100
			Total All Fractions (TPH)	17	100
water	20	87	C <sub>9</sub> -C <sub>18</sub> Aliphatics	84	22
			C <sub>19</sub> -C <sub>36</sub> Aliphatics	192	94
			C <sub>11</sub> -C <sub>22</sub> Aromatics	47	72
			Total All Fractions (TPH)	35	83

Laboratory and method performance on the water sample were adversely impacted by the relatively low concentrations of the aliphatic fractions (due to the low solubilities of these hydrocarbons in “real world” samples), and by breakthrough of naphthalenes into the aliphatic extract during fractionation. Improvements incorporated into this final method are expected to mitigate problems of this nature and significantly improve overall method performance.

- 1.12 This method is one way to quantify collective concentrations of extractable aliphatic and aromatic petroleum hydrocarbons within specified carbon-number-ranges. It has been designed in a manner that attempts to strike a reasonable balance between analytical method performance and utility. In this manner, assumptions and biases have been incorporated into the method to help ensure protective, though not overly conservative data.

As an example, the Department recognizes that branched alkanes have lower boiling points than their n-alkane counterpart, while many of the cycloalkane constituents of diesel range volatile organics have higher boiling points than their n-alkane counterpart. As a consequence:

- (1) Depending upon the specific chromatographic column used, most branched C<sub>9</sub> alkanes are expected to elute before n-nonane, the beginning marker compound for the C<sub>9</sub> through C<sub>18</sub> aliphatic hydrocarbon range, and will not be counted in this range;
- (2) Depending upon the specific chromatographic column used, most branched C<sub>19</sub> alkanes are expected to elute before n-nonadecane, the beginning marker compound for the C<sub>19</sub> through C<sub>36</sub> aliphatic hydrocarbon range, and will be conservatively counted in the more toxic C<sub>9</sub> through C<sub>18</sub> aliphatic hydrocarbon range; and
- (3) Depending upon the specific chromatographic column used, most cycloalkanes within the C<sub>9</sub> through C<sub>18</sub> and C<sub>19</sub> through C<sub>36</sub> aliphatic hydrocarbon ranges will be counted within their proper range.

Based on the nature of petroleum releases encountered in the environment, the collective concentrations of the extractable aliphatic ranges as measured by the EPH Method are considered to be suitable for the evaluation of the risks posed by these releases, consistent with the toxicological approach developed by the Department to evaluate human health hazards that may result from exposure to petroleum hydrocarbons (MADEP, 1994 and MADEP, 2003).

- 1.13 There may be better, more accurate, and/or less conservative ways to produce this data. MADEP encourages methodological innovations that (a) better achieve method and/or data quality objectives, (b) increase analytical precision and accuracy, (c) reduce analytical uncertainties and expenses, and/or (d) reduce the use of toxic solvents and generation of hazardous wastes.

All significant modifications to this method, however, must be disclosed and described on the data report form, as detailed in Section 11.3 and on the MADEP MCP Analytical Method Report Certification Form (See Appendix 3, Question D). Laboratories who make such modifications, and or develop and utilize alternative approaches and methods, are further required to demonstrate:

- That such modifications or methodologies adequately quantify the petroleum hydrocarbon target ranges, as defined in Sections 3.4 through 3.6 of this document, ensuring that any methodological uncertainties or biases are addressed in a manner that ensures protective (i.e., conservative) results and data (e.g., over, not under-quantification of the more toxic ranges);
  - That such modifications and/or methodologies employ and document initial and continuing Quality Assurance/Quality Control procedures consistent with similar approaches detailed in the MADEP Compendium of Analytical Methods; and
  - That such methods and procedures are fully documented in a detailed Standard Operating Procedure.
- 1.14 Additional information and details on the MADEP VPH/EPH approach, and the results of interlaboratory "Round Robin" evaluations of this method, are available on the World Wide Web at <http://www.magnet.state.ma.us/dep/bwsc/pubs.htm>.
- 1.15 This method is intended to be used in conjunction with the current version of WSC-CAM-IV B, "Quality Assurance and Quality Control Requirements for the Method For The Determination of Extractable Petroleum Hydrocarbons (EPH)". WSC-CAM-IV B was developed by the Department to complement the MADEP EPH Method and to provide more detailed guidance regarding compliance with the quality control requirements and performance standards of the EPH Method.

## 2.0 SUMMARY OF METHOD

- 2.1 A sample submitted for EPH analysis is extracted with methylene chloride, dried over sodium sulfate, solvent exchanged into hexane, and concentrated in a Kuderna-Danish apparatus. Sample cleanup and separation into aliphatic and aromatic fractions is accomplished using commercially available silica gel cartridges or prepared silica gel columns. The two individual fraction extracts produced are re-concentrated to a final volume of 1 mL (i.e., an aliphatic extract and an aromatic extract). The concentrated extracts are then separately analyzed by a capillary column gas chromatograph equipped with a flame ionization detector. The resultant chromatogram of aliphatic compounds is collectively integrated within the C<sub>9</sub> through C<sub>18</sub> and C<sub>19</sub> through C<sub>36</sub> ranges. The resultant chromatogram of aromatic compounds is collectively integrated within the C<sub>11</sub> through C<sub>22</sub> range, and is (optionally) used to identify and quantitate individual concentrations of Target PAH Analytes.
- 2.2 Average calibration factors or response factors determined using an aliphatic hydrocarbon standard mixture are used to calculate the collective concentrations of C<sub>9</sub> through C<sub>18</sub> and C<sub>19</sub> through C<sub>36</sub> aliphatic hydrocarbons. An average calibration factor or response factor determined using a PAH standard mixture is used to calculate a collective C<sub>11</sub> through C<sub>22</sub> aromatic hydrocarbon concentration. Calibration factors or response factors determined for individual components of the PAH standard mixture are also used to calculate individual concentrations of Target PAH Analytes.
- 2.3 This method is suitable for the analysis of waters, soils, sediments, wastes, sludges, and non-aqueous phase liquids (NAPL). However, it should be noted that the method was validated only for soil and water matrices.
- 2.4 This method is based on (1) USEPA Methods 8000B, 8100, 3510C, 3520C, 3540C, 3541, 3545A, 3546, 3580 A and 3630C, SW-846, "Test Methods for Evaluating Solid Waste"; (2) Draft "Method for Determination of Diesel Range Organics", EPA UST Workgroup, November, 1990; and (3) "Method for Determining Diesel Range Organics", Wisconsin Department of Natural Resources, PUBL-SW-141, 1992.

# ATTACHMENT B

# METHOD FOR THE DETERMINATION OF VOLATILE PETROLEUM HYDROCARBONS

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

## 1.0 SCOPE & APPLICATION

- 1.1 This method is designed to measure the collective concentrations of volatile aliphatic and aromatic petroleum hydrocarbons in water and soil/sediment matrices. Volatile aliphatic hydrocarbons are collectively quantitated within two ranges: C<sub>5</sub> through C<sub>8</sub> and C<sub>9</sub> through C<sub>12</sub>. Volatile aromatic hydrocarbons are collectively quantitated within the C<sub>9</sub> to C<sub>10</sub> range. These aliphatic and aromatic hydrocarbon ranges correspond to a boiling point range between approximately 36°C and 220°C.
- 1.2 This method is based on a purge-and-trap, gas chromatography (GC) procedure using a Photoionization and Flame Ionization Detector (PID/FID) in-series. This method should be used by, or under the supervision of, analysts experienced in the use of purge-and-trap systems and gas chromatographs. The analysts should be skilled in the interpretation of gas chromatograms and their use as a quantitative tool.
- 1.3 This method is designed to complement and support the toxicological approach developed by the Massachusetts Department of Environmental Protection to evaluate human health hazards that may result from exposure to petroleum hydrocarbons (MADEP, 1994 and MADEP, 2003). It is intended to generate data in a format suitable for evaluation by that approach, and generate data that may be compared to reporting and cleanup standards promulgated in the Massachusetts Contingency Plan (310 CMR 40.0000).
- 1.4 This method is also able to measure the individual concentrations of the Target VPH Analytes benzene, toluene, ethylbenzene, xylenes (BTEX), naphthalene, and methyl-tert-butylether (MTBE) in water and soil/sediment matrices. Use of this method to identify and quantify these Target Analytes is optional.
- 1.5 Petroleum products suitable for evaluation by this method include gasoline, mineral spirits, and certain petroleum naphthas. This method, in and of itself, is not suitable for the evaluation of kerosene, jet fuel, heating oils, lubricating oils, and/or other petroleum products which contain a significant percentage of hydrocarbons heavier than C<sub>12</sub>.
- 1.6 The Reporting Limit (RL) of this method for each of the collective aliphatic and aromatic fractional ranges is approximately 5-10 mg/kg in soil/sediment and approximately 100-150 µg/L in water. The RL of this method for Target Analytes is compound-specific, and ranges from approximately 0.050 to 0.25 mg/kg in soil/sediment, and 1 to 5 µg/L in water.
- 1.7 This method includes a series of data adjustment steps to determine the concentrations of the aliphatic and aromatic ranges of interest. These steps may be taken by the laboratory or by the data user.
- 1.8 Data reports generated using this method must contain all of the information in the form provided in Appendix 3. The format of these reports is left up to the individual laboratories. However, the format of the Laboratory Certification must follow the format presented in Appendix 3.
- 1.9 Like all GC procedures, this method is subject to a "false positive" bias in the reporting of Target VPH Analytes, in that non-targeted hydrocarbon compounds eluting or co-eluting within a specified retention time window may be falsely identified and/or quantified as a Target VPH Analyte. Confirmatory analysis by a GC/mass spectrometry (MS) procedure or other suitable method is recommended in cases where a Target VPH Analyte reported by this method exceeds an applicable reporting or cleanup standard, and/or where co-elution of a non-targeted hydrocarbon compound is suspected.

- 1.10 The first draft of this method was evaluated by two inter-laboratory "Round Robin" testing programs. In the final evaluation effort, participating laboratories were provided (single-blind) sand samples spiked with gasoline, and a "real world" groundwater sample contaminated by gasoline. Laboratory proficiency was evaluated using a Z-score approach. Data received from 21 laboratories performing this method without significant modifications are summarized below:

Matrix	# Labs Proficient	% Labs Proficient	Data from Proficient Laboratories		
			Fraction	%RSD	% labs within +/- 30% mean value
soil	20	95	C <sub>5</sub> -C <sub>8</sub> Aliphatics	28	80
			C <sub>9</sub> -C <sub>12</sub> Aliphatics	52	50
			Total GC/FID	31	70
			C <sub>9</sub> -C <sub>10</sub> Aromatics	24	80
water	17	81	C <sub>5</sub> -C <sub>8</sub> Aliphatics	31	71
			C <sub>9</sub> -C <sub>12</sub> Aliphatics	44	47
			Total GC/FID	24	76
			C <sub>9</sub> -C <sub>10</sub> Aromatics	20	82

Laboratory and method performance were believed to have been adversely impacted by the use of multiple chromatographic columns, which may have significantly altered the placement of aliphatic hydrocarbons into either the C<sub>5</sub> - C<sub>8</sub> or C<sub>9</sub> - C<sub>12</sub> Aliphatic Hydrocarbon fractions. Better performance was noted for the aromatic fraction and Total GC/FID data. Improvements incorporated into this final method are expected to significantly improve overall method performance.

- 1.11 This method is one way to quantify collective concentrations of volatile aliphatic and aromatic petroleum hydrocarbons within specified carbon-number-ranges. It has been designed in a manner that attempts to strike a reasonable balance between analytical method performance and utility. In this manner, assumptions and biases have been structured into the method to help ensure protective, though not overly conservative data.

As an example, the Department recognizes that branched alkanes have lower boiling points than their n-alkane counterpart, while many of the cycloalkane constituents of gasoline range volatile organics have higher boiling points than their n-alkane counterpart. As a consequence:

- (1) Depending upon the specific chromatographic column used, most branched C<sub>9</sub> alkanes are expected to elute before n-nonane, the beginning marker compound for the C<sub>9</sub> through C<sub>12</sub> aliphatic hydrocarbon range, and will be conservatively counted in the more toxic C<sub>5</sub> through C<sub>8</sub> aliphatic hydrocarbon range;
- (2) Depending upon the specific chromatographic column used, most branched C<sub>5</sub> alkanes will elute before n-pentane, the beginning marker compound for the C<sub>5</sub> through C<sub>8</sub> aliphatic hydrocarbon range, and will not be counted at all in the C<sub>5</sub> through C<sub>8</sub> aliphatic hydrocarbon range; and
- (3) Depending upon the specific chromatographic column used, most cycloalkanes within the C<sub>5</sub> through C<sub>8</sub> and C<sub>9</sub> through C<sub>12</sub> aliphatic hydrocarbon ranges will be counted within their proper range with the exception of some C<sub>12</sub> cycloalkanes which will elute after naphthalene, the end marker compound for the C<sub>9</sub> through C<sub>12</sub> aliphatic hydrocarbon range.

Based on the nature of petroleum releases encountered in the environment, the collective concentrations of the volatile aliphatic ranges as measured by the VPH Method are considered to be suitable for the evaluation of the risks posed by these releases, consistent with the toxicological approach developed by the Department to evaluate human health hazards that may result from exposure to petroleum hydrocarbons (MADEP, 1994 and MADEP, 2003).

- 1.12 There may be better, more accurate, and/or less conservative ways to produce VPH target and range data. MADEP encourages methodological innovations that (a) better achieve method and/or data quality objectives, (b) increase analytical precision and accuracy, (c) reduce analytical uncertainties and expenses, and/or (d) reduce the use of toxic solvents and generation of hazardous wastes. For

example, GC/MS has shown promise as an alternative analytical system to produce both acceptable range and target VPH data.

All significant modifications to this method, however, must be disclosed and described on the data report form, as detailed in Section 11.3 and the MADEP MCP Analytical Method Report Certification Form (See Appendix 3, Exhibit 2, Question D). Laboratories who make such modifications, and or develop and utilize alternative approaches and methods, are further required to demonstrate:

- That such modifications or methodologies adequately quantify the petroleum hydrocarbon target ranges, as defined in Sections 3.4 through 3.6 of this document, ensuring that any methodological uncertainties or biases are addressed in a manner that ensures protective (i.e., conservative) results and data (e.g., over, not under-quantification of the more toxic ranges);
- That such modifications and/or methodologies employ and document initial and continuing Quality Assurance/ Quality Control procedures consistent with similar approaches detailed in the MADEP Compendium of Analytical Methods; and
- That such methods and procedures are fully documented in a detailed Standard Operating Procedure.

1.13 Additional information and details on the MADEP VPH/EPH approach, and on the results of inter-laboratory "Round Robin" evaluations of this method, are available on the World Wide Web at <http://www.magnet.state.ma.us/dep/bwsc/pubs.htm>.

1.14 This method is intended to be used in conjunction with the current version of CAM IV A, "Quality Assurance and Quality Control Requirements for the Method For The Determination of Volatile Petroleum Hydrocarbons (VPH)". CAM IV A was developed by the Department to complement the MADEP VPH Method and to provide more detailed guidance regarding compliance with the quality control requirements and performance standards of the VPH Method.

## 2.0 SUMMARY OF METHOD

- 2.1 Samples are analyzed using purge-and-trap sample concentration. The gas chromatograph is temperature programmed to facilitate separation of organic compounds. Detection is achieved by a photoionization detector (PID) and flame ionization detector (FID) in series. Quantitation is based on comparing the PID and FID response of a sample to a standard comprised of aromatic and aliphatic hydrocarbons. The PID chromatogram is used to determine the individual concentrations of Target Analytes (BTEX/MTBE/naphthalene) and collective concentration of aromatic hydrocarbons within the C<sub>9</sub> through C<sub>10</sub> range. The FID chromatogram is used to determine the collective concentration of aliphatic hydrocarbons within the C<sub>5</sub> through C<sub>8</sub> and C<sub>9</sub> through C<sub>12</sub> ranges.
- 2.2 This method is suitable for the analysis of waters, soils, sediments, wastes, sludges, and non-aqueous phase liquid (NAPL) samples. However, it should be noted that the method was validated only for soil and water matrices. Water samples may be analyzed directly for volatile petroleum hydrocarbons by purge-and-trap concentration and gas chromatography. Soil/sediment samples are dispersed in methanol to dissolve the volatile organic constituents. An aliquot of the methanol extract is then analyzed by purge-and-trap GC.
- 2.3 This method is based on (1) USEPA Methods 5030B, 5035A, 8000B, 8021B, and 8015B, SW-846, "Test Methods for Evaluating Solid Wastes", (2) Draft "Method for Determination of Gasoline Range Organics", EPA UST Workgroup, November, 1990; and (3) "Modified GRO Method for Determining Gasoline Range Organics", Wisconsin Department of Natural Resources, PUBL-SW-140, 1992.

**MAINE WASTE DISCHARGE LICENSE**

**FACT SHEET**

**Date: May 20, 2011**

PERMIT COMPLIANCE SYSTEM TRACKING NUMBER: **MEU508234**

LICENSE NUMBER: **W-008234-5S-C-R**

NAME AND MAILING ADDRESS OF APPLICANT:

**HERMON CAR WASH  
Attn: Steve Thomas  
Thomas Property Management  
585 Blackstream Road  
Hermon, Maine 04401**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**HERMON CAR WASH  
State Route 2  
Hermon, Maine**

COUNTY WHERE FACILITY DISCHARGE OCCURS: **Penobscot County**

RECEIVING WATER/ CLASSIFICATION: **Groundwater/Class GW-A**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Steve Thomas  
(207) 848-3381  
e-mail: thomas70ss@yahoo.com**

**1. APPLICATION SUMMARY**

- a. Application: The licensee has filed a timely and complete application with the Department to renew Maine Waste Discharge License (WDL) #W008234-5S-A-N issued by the Department on June 26, 2006 and is due to expire on June 26, 2011. The June 26, 2006 WDL authorized the HCW to operate a sub-surface wastewater disposal system that is designed to treat 1,000 gallons of wastewater per day generated from a commercial car wash facility on a 3.55 acre parcel located on the northerly side of Route 2 in the Town of Hermon. See **Attachment A** of this Fact Sheet for a location map.

## 1. APPLICATION SUMMARY (cont'd)

- b. Source Description: The subsurface wastewater disposal system receives wastewater generated from four manual car wash bays. The system does not receive sanitary wastewater from any bathroom/lavatory facilities (no public restroom facilities are provided). Maintenance includes periodic inspections of the system components, evaluation of the collection system for leaks or malfunctions, pump-out of the septic tank to prevent the migration of solids to the leachfield area, and daily evaluation of the flow rate to the system.
- c. Wastewater Treatment: Wastewater generated by the car wash facility is directed to a oil-water separator. From the oil-water separator, waste water is directed to a storage tank with a 1,000 gallon capacity, then directed to a septic tank with a 1,500 gallon capacity that includes an internal pump with a flow capacity of 2 gallons per minute (gpm). Waste water is then directed to a BHI-Bag filter where particulates are removed from the flow. The treatment system then directs waste water flow past a monitoring port (that is not required to be sampled as part of this licensing action at this time, but is available for the licensee to utilize to compare pre-treatment versus post-treatment waste water constituents and the efficiency of the treatment process) located prior to the first of two clay filters. After treatment by the two clay filters, waste water is directed past another monitoring port (outfall #001) where compliance with the effluent limitations will be determined. Finally, waste water is vectored to a distribution box that distributes the waste water flow to the subsurface waste water disposal system. The subsurface system includes 64 weight bearing concrete chambers arrayed in a 32 foot wide by 64 foot long cluster configuration.

Maintenance and inspections of the system and of the components must be retained by the applicant and made available to the Department upon request.

## 2. LICENSE SUMMARY

This licensing action is carrying forward all the terms and conditions of the previous licensing action except that this license;

- a. Eliminates the limitations and monitoring requirements for diesel range organics (DRO) and gasoline range organics (GRO) and replaces them with limitations and monitoring requirements for extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) compounds based on a December 2009 guidance document prepared by the Department's Bureau of Remediation and Waste Management.
- b. Eliminates the limitations and or monitoring requirements for methyl-tertiary-butyl-ether (MTBE), toluene, ethylbenzene, xylene zinc, chromium and lead as test results for the previous five-year period indicate results have been reported anywhere from one to three orders of magnitude below the limitations in the previous license.

## 2. LICENSE SUMMARY (cont'd)

- b. History: The most recent licensing actions include the following:

*June 26, 2006* – The Department issued Waste Discharge License (WDL) #W008234-5S-A-N, for a five-year term. The WDL authorized the disposal of waste water generated by a car wash facility to a sub-surface waste water disposal system.

*January 31, 2008* – The Department issued a modification (W008234-5S-B-M) of the 6/26/06 WDL. The modification reduced the frequency of monitoring for seven of the parameters limited in the license from 1/Quarter to 1/Year.

*May 3, 2011*- The licensee filed an application with the Department to renew the June 26, 2006, license.

## 3. CONDITIONS OF LICENSE:

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with applicable state law, and ensure that the receiving waters attain the State water quality standards as described in Maine's Water Classification System.

## 4. RECEIVING WATER QUALITY STANDARDS:

Maine law, 38 M.R.S.A., Section 470 indicates that groundwater at the point of discharge is classified as Class GW-A receiving waters. Maine law, 38 M.R.S.A., Section 465-C, describes the standards for waters classified as Class GW-A as the highest classification of groundwater and shall be of such quality that it can be used for public water supplies. These waters shall be free of radioactive matter or any matter that imparts color, turbidity, taste or odor which would impair usage of these waters, other than that occurring from natural phenomena.

## 5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Flow: The monthly average flow limitation of 1,000 gallons per day is being carried forward in this licensing action. The limitation was established in the previous licensing action (original) based on an expected 50 cars washed and the average use of 15 gallons per car washed or 750 gallons per day. The system is sized sufficiently large enough to accommodate peak loads and expansion of the use of the system in the future. The manufacturer's maintenance recommendations include provisions for: pumping the settling tanks on an annual basis, daily cleaning the filtration screens, and daily inspections of the proprietary recycling system components. The licensee has installed a flow meter to measure the quantity of waste water discharged.

**5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

A review of the DMR data for the period March 2007 – October 2010 indicates values have been reported as follows:

**Flow (DMRs=16)**

Value	Limit (gpd)	Range (gpd)	Mean (gpd)	#Excursions
Monthly average	1,000	670 -1,450	928	3

- b. Specific Conductance and Temperature- The previous licensing action established monthly average “report” only requirements for both parameters that are being carried forward in this licensing action. These parameters are considered to be “field” parameters meaning that they are measured directly in the field via instrumentation and do not require laboratory analysis. Specific conductance is considered as surveillance level monitoring parameter and is used as an early-warning indicator of potential contamination when there exists a trend in the data or sudden spikes from previous levels). Temperature data is important in calibrating the conductance measurements.

A review of the DMR data for the period March 2007 – October 2010 indicates values have been reported s follows:

**Specific conductance (DMRs=14)**

Value	Limit (uhmos/cm)	Range (uhmos/cm)	Mean (uhmos/cm)	#Excursions
Monthly average	Report	570 -2,760	969	n/a

**Temperature (DMRs=13)**

Value	Limit (°F)	Range (°F)	Mean (°F)	#Excursions
Monthly average	Report	42 - 54	48	n/a

- c. Methyl-tertiary-butyl-ether (MTBE), Benzene, Toluene, Ethylbenzene, Xylene, Diesel range Organics (DRO), and Gasoline Range Organics (GRO): These volatile/semi-volatile organic compounds are typically found in vehicle fuels. These materials may leak from vehicles or be produced by the fuel combustion process and be found in car wash waste water after washing vehicles at the car wash. Some of these compounds are health hazards and have maximum concentration levels (MCL) as promulgated by the U.S. Environmental Protection Agency (EPA). The previous licensing action established monthly average concentration limits of 35 micrograms (ug)/L for MTBE, 5 ug/L for Benzene, 1,000 ug/L for Toluene, 700 ug/L for Ethylbenzene, 10,000 ug/L for Xylene, 50 ug/L for DRO and 50 ug/L for GRO which are consistent with the maximum contamination levels (MCLs) established by EPA.

**5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

A review of the DMR data for the period March 2007 – October 2010 indicates values have been reported as follows:

**MTBE (DMRs=15)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	35	1 – 5	2.7	0

**Benzene (DMRs=15)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	5	1 – 5	2.3	0

**Toluene (DMRs=12)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	1,000	1 – 5	2.7	0

**Ethylbenzene (DMRs=12)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	700	0 – 5	1.6	0

**Xylene (DMRs=12)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	10,000	0 – 14	3.2	0

**DRO (DMRs=15)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	50	120 – 5,120	961	15

**GRO (DMRs=15)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	50	10 – 117	3.2	7

The parameters extractible petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) are replacing the DRO and GRO parameters in the previous licensing action. DRO and GRO analyses generate results that cover a broad spectrum of compounds that make-up gasoline and diesel. The EPH and VPH analyses provide more specific information on the lighter weight and heavier weight fractions of the compounds making up gasoline and diesel thereby enabling the regulatory agencies to better assess the risks of contamination associated with each fraction. A monitoring frequency of 2/Year is being established for EPH and VPH.

**5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

- d. Lead, Chlorides, Zinc, Chromium—The previous licensing action established monthly average concentration limits of 15 ug/L for lead, 250 mg/L for chlorides, 5 mg/L for zinc and 100 ug/L for chromium. The numeric limits are based on Drinking Water Standards. These parameters were assumed to be found in car wash waste water after vehicles are washed.

A review of the DMR data for the period March 2007 – October 2010 indicates values have been reported s follows:

**Lead (DMRs=12)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	15	0 – 4.4	1.4	0

**Chlorides (DMRs=12)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	250	0 - 921	132	2

**Zinc (DMRs=12)**

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)	#Excursions
Monthly average	5	0 – 0.24	0.062	0

**Chromium (DMRs=12)**

Value	Limit (ug/L)	Range (ug/L)	Mean (ug/L)	#Excursions
Monthly average	100	0 – 16	4.3	0

Based on the historical data cited above, the Department is making a best professional judgment that continuing to monitor for lead, zinc and chromium has little value and are therefore being eliminated in this licensing action. As for chlorides, the data demonstrates that chlorides are only a concern for the winter season December – March. Therefore, this licensing action is reducing the monitoring frequency from 1/Quarter to 2/Year during the months on December – March.

- e. Groundwater Monitoring Wells

The Department generally requires the installation of ground water monitoring wells for monitoring the impact (or lack thereof) of non-domestic like waste water disposal via sub-surface waste water disposal systems. One well is typically installed upgradient from the source to monitor ambient groundwater conditions, and two wells installed downgradient from the source to monitor ground-water conditions or system malfunctions. The previous licensing action did not require the licensee to install monitoring wells as part of the monitoring program associated with the system. The Department made the determination that the treatment system was designed to attenuate pollutant load to the ground water, that consistent discharge effluent was anticipated and the sizing of the proprietary filter systems and leachfield area were satisfactory in

## **5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**

minimizing impacts to the environment. In the event that effluent monitoring detects potential contamination, or is significantly variable, the licensee may be required to conduct additional testing, evaluate other parameters, develop and sample monitoring wells associated with the system, or other measures that the Department determines to be appropriate.

## **6. DISCHARGE IMPACT ON RECEIVING WATER QUALITY**

As licensed, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the groundwater to meet standards for Class GW-A classification.

## **7. PUBLIC COMMENTS**

Public notice of this application was made in the Bangor Daily News newspaper on or about April 26, 2011. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

## **8. DEPARTMENT CONTACTS**

Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood  
Division of Water Quality Management  
Bureau of Land and Water Quality  
Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017                      Telephone (207) 287-7693  
e-mail: [gregg.wood@maine.gov](mailto:gregg.wood@maine.gov)

## **9. RESPONSE TO COMMENTS**

During the period of May 20, 2011, through the issuance date of this license, the Department solicited comments on the proposed draft license to be issued for the discharge(s) from the licensee's facility. The Department did not receive comments from the licensee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the license. Therefore, the Department has not prepared a Response to Comments.

# ATTACHMENT A

