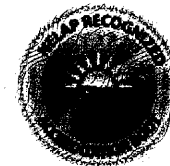




**STATE OF KANSAS**  
*DEPARTMENT OF HEALTH AND ENVIRONMENT*  
**CERTIFICATE**



*This is to certify that Certificate No. E-10385*

*PEL, A Division of Spectrum Analytical, Featuring Hanibal Technology  
8405 Benjamin Road Suite A  
Tampa, FL 33634-1211*

*has been accredited in accordance with K.S.A. 65-1,109a for performing environmental analyses for the parameters listed on the attached form. Continuous accreditation depends on successful, ongoing participation in the program. Clients are urged to verify with this agency the laboratory's certification status for particular methods and analytes.*

*EFFECTIVE DATE: 05/01/2011*

*EXPIRATION DATE: 04/30/2012*

*Secretary  
Department of Health and Environment*

*Environmental Laboratory Certification Officers*

**This certificate supersedes all previous certificates**

PEL, A Division of Spectrum Analytical,  
Featuring Hanibal Technology  
8405 Benjamin Road Suite A  
Tampa, FL 33634-1211

Certificate Number: E-10385  
Effective Date: 05/01/2011  
Expiration Date: 04/30/2012  
Reciprocity: FL

The laboratory listed above is hereby approved for environmental laboratory accreditation in accordance with K.S.A. 65-1, 109a for the following:

**\*\*DEMANDS**

Total Organic Carbon {SM 5310 B, C, or D}

**\*\*METALS - 503 Regs**

Arsenic {EPA 6010}  
Arsenic {EPA 7060}  
Cadmium {EPA 6010}  
Copper {EPA 6010}  
Lead {EPA 6010}  
Lead {EPA 7421}  
Mercury {EPA 7470}  
Molybdenum {EPA 6010}  
Nickel {EPA 6010}  
Selenium {EPA 6010}  
Selenium {EPA 7740}  
Zinc {EPA 6010}

**\*\*MINERALS**

Alkalinity {SM 2320 B}  
Chloride {EPA 300.1}  
Chloride {SM 4500-Cl E}  
Fluoride {EPA 300.1}  
Sulfate {ASTM D516-90, 02}  
Sulfate {EPA 300.1}

**\*\*MISCELLANEOUS**

Hydrogen Ion (pH) {SM 4500-H B}  
Oil & Grease {EPA 1664}

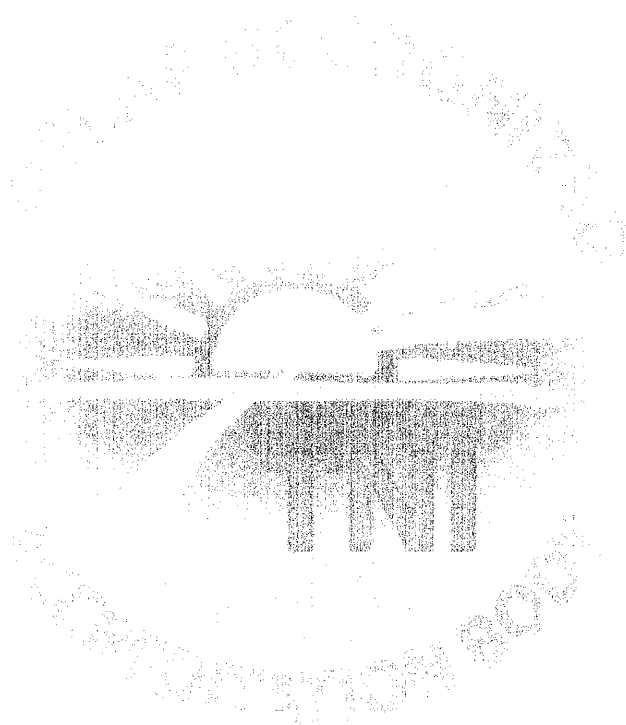
**\*\*NUTRIENTS**

Ammonia {EPA 350.1}  
Ammonia {SM 4500-NH3 G}  
K Nitrogen {EPA 351.2}  
Nitrate-Nitrite {EPA 300.1}  
Nitrate-Nitrite {EPA 353.2}  
Nitrate-Nitrite {SM 4500-NO3 F}  
Nitrate {EPA 300.1}  
Nitrate {EPA 353.2}  
Nitrite {EPA 300.1}  
Nitrite {EPA 353.2}  
Nitrite {SM 4500-NO3 F}  
Ortho-phosphate {EPA 300.1}  
Ortho-phosphate {EPA 365.1}  
Ortho-phosphate {SM 4500-P F}  
Phosphorus {EPA 365.4}

**\*\*RESIDUES**

Residue, Filterable (TDS) {SM 2540 C}  
Residue, Non Filterable (TSS) {SM 2540 D}

End of Parameter List



**This certificate supersedes all previous certificates**

PEL, A Division of Spectrum Analytical,  
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Tampa, FL 33634-1211

Certificate Number: E-10385  
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Reciprocity: FL

The laboratory listed above is hereby approved for environmental laboratory accreditation in accordance with K.S.A. 65-1, 109a for the following:

**\*\*CHARACTERISTICS**

Synthetic-Precipitation Leaching Procedure {EPA 1312}  
Toxic-Characteristic-Leaching Procedure {EPA 1311}

**\*\*DEMANDS**

Total Organic Carbon {EPA 9060}

**\*\*METALS**

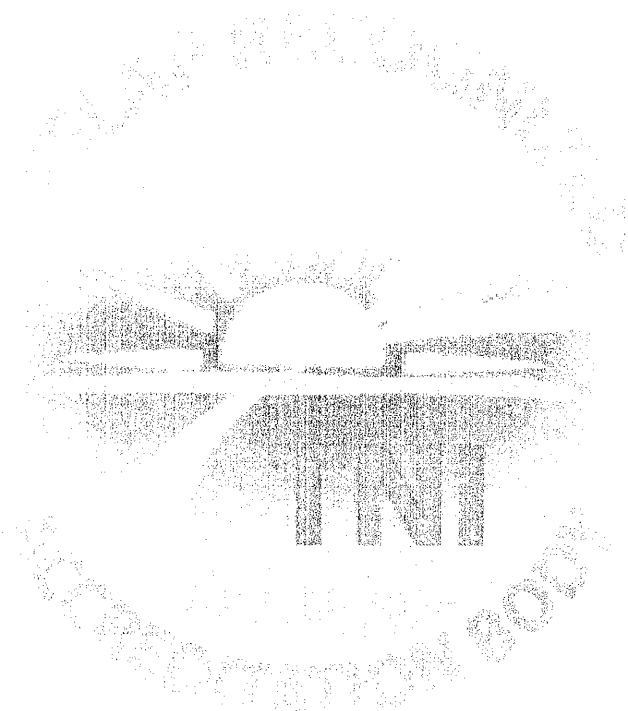
Aluminum {EPA 6010}  
Antimony {EPA 6010}  
Antimony {EPA 7041}  
Arsenic {EPA 6010}  
Arsenic {EPA 7060}  
Barium {EPA 6010}  
Beryllium {EPA 6010}  
Cadmium {EPA 6010}  
Calcium {EPA 6010}  
Chromium {EPA 6010}  
Cobalt {EPA 6010}  
Copper {EPA 6010}  
Iron {EPA 6010}  
Lead {EPA 6010}  
Lead {EPA 7421}  
Magnesium {EPA 6010}  
Manganese {EPA 6010}  
Mercury {EPA 7470}  
Mercury {EPA 7471}  
Molybdenum {EPA 6010}  
Nickel {EPA 6010}  
Potassium {EPA 6010}  
Selenium {EPA 6010}  
Selenium {EPA 7740}  
Silver {EPA 6010}  
Sodium {EPA 6010}  
Strontium {EPA 6010}  
Thallium {EPA 6010}  
Thallium {EPA 7841}  
Tin {EPA 6010}  
Titanium {EPA 6010}  
Vanadium {EPA 6010}  
Zinc {EPA 6010}

**\*\*MISCELLANEOUS**

Cyanide {EPA 9012}  
Hydrogen Ion (pH) {EPA 9045}

**\*\*ORGANIC CHEMISTRY VOLATILES (MEASUREMENT BY GC/MS)**

{EPA 8260} 1-Chlorohexane  
{EPA 8260} 1,1-Dichloroethane  
{EPA 8260} 1,1-Dichloroethene



RCRA PROGRAM - NON-POTABLE WATER AND SOLID/CHEMICAL WASTE MATRICES

{EPA 8260} 1,1-Dichloropropene  
{EPA 8260} 1,1,1-Trichloroethane  
{EPA 8260} 1,1,1,2-Tetrachloroethane  
{EPA 8260} 1,1,2-Trichloroethane  
{EPA 8260} 1,1,2,2-Tetrachloroethane  
{EPA 8260} 1,2-Dichlorobenzene  
{EPA 8260} 1,2-Dichloroethane  
{EPA 8260} 1,2-Dichloropropane  
{EPA 8260} 1,2,3-Trichlorobenzene  
{EPA 8260} 1,2,3-Trichloropropane  
{EPA 8260} 1,2,4-Trichlorobenzene  
{EPA 8260} 1,2,4-Trimethylbenzene  
{EPA 8260} 1,3-Dichlorobenzene  
{EPA 8260} 1,3-Dichloropropane  
{EPA 8260} 1,3,5-Trimethylbenzene  
{EPA 8260} 1,4-Dichlorobenzene  
{EPA 8260} 1,4-Dioxane  
{EPA 8260} 2-Chloroethyl vinyl ether  
{EPA 8260} 2-Chlorotoluene  
{EPA 8260} 2-Hexanone  
{EPA 8260} 2-Nitropropane  
{EPA 8260} 2,2-Dichloropropane  
{EPA 8260} 4-Chlorotoluene  
{EPA 8260} 4-Methyl-2-Pentanone (MIBK)  
{EPA 8260} Acetone  
{EPA 8260} Acetonitrile  
{EPA 8260} Acrolein  
{EPA 8260} Acrylonitrile  
{EPA 8260} Allyl Chloride  
{EPA 8260} Benzene  
{EPA 8260} Benzyl chloride  
{EPA 8260} Bromobenzene  
{EPA 8260} Bromochloromethane  
{EPA 8260} Bromodichloromethane  
{EPA 8260} Bromoform  
{EPA 8260} Bromomethane (Methyl bromide)  
{EPA 8260} Carbon disulfide  
{EPA 8260} Carbon tetrachloride  
{EPA 8260} Chlorobenzene  
{EPA 8260} Chloroethane  
{EPA 8260} Chloroform  
{EPA 8260} Chloromethane (Methyl chloride)  
{EPA 8260} cis-1,2-Dichloroethylene  
{EPA 8260} cis-1,3-Dichloropropene  
{EPA 8260} cis-1,4-Dichloro-2-butene  
{EPA 8260} Dibromochloromethane  
{EPA 8260} Dibromomethane  
{EPA 8260} Dichlorodifluoromethane  
{EPA 8260} Dichloromethane (Methylene chloride)  
{EPA 8260} Diethyl ether  
{EPA 8260} Ethanol  
{EPA 8260} Ethyl acetate  
{EPA 8260} Ethyl methacrylate  
{EPA 8260} Ethylbenzene  
{EPA 8260} Hexachlorobutadiene  
{EPA 8260} Iodomethane  
{EPA 8260} Isobutyl Alcohol  
{EPA 8260} Isopropylbenzene  
{EPA 8260} meta-Xylene  
{EPA 8260} Methacrylonitrile  
{EPA 8260} Methyl tert-butyl ether (MTBE)

RCRA PROGRAM - NON-POTABLE WATER AND SOLID/CHEMICAL WASTE MATRICES

{EPA 8260} Methylmethacrylate  
{EPA 8260} n-Butylbenzene  
{EPA 8260} n-Propylbenzene  
{EPA 8260} Naphthalene  
{EPA 8260} ortho-Xylene  
{EPA 8260} para-Xylene  
{EPA 8260} Propionitrile  
{EPA 8260} sec-Butylbenzene  
{EPA 8260} Styrene  
{EPA 8260} t-Butyl alcohol  
{EPA 8260} tert-Butylbenzene  
{EPA 8260} Tetrachloroethene (Perchloroethylene)  
{EPA 8260} Toluene  
{EPA 8260} trans-1,2-Dichloroethylene  
{EPA 8260} trans-1,3-Dichloropropene  
{EPA 8260} trans-1,4-Dichloro-2-butene  
{EPA 8260} Trichloroethene (Trichloroethylene)  
{EPA 8260} Trichlorofluoromethane  
{EPA 8260} Vinyl Acetate  
{EPA 8260} Vinyl chloride

**\*\*ORGANIC CHEMISTRY (MEASUREMENT BY GC)**

{EPA 8011} Dibromochloropropane (DBCP)  
{EPA 8011} Ethylene dibromide (EDB, 1,2-Dibromoethane)  
{EPA 8081} 4,4'-DDD  
{EPA 8081} 4,4'-DDE  
{EPA 8081} 4,4'-DDT  
{EPA 8081} Aldrin  
{EPA 8081} alpha-BHC (alpha-Hexachlorocyclohexane)  
{EPA 8081} alpha-Chlordane  
{EPA 8081} beta-BHC (beta-Hexachlorocyclohexane)  
{EPA 8081} Chlordane (Tech)  
{EPA 8081} delta-BHC  
{EPA 8081} Dieldrin  
{EPA 8081} Endosulfan I  
{EPA 8081} Endosulfan II  
{EPA 8081} Endosulfan Sulfate  
{EPA 8081} Endrin  
{EPA 8081} Endrin aldehyde  
{EPA 8081} Endrin ketone  
{EPA 8081} g-Chlordane  
{EPA 8081} gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)  
{EPA 8081} Heptachlor  
{EPA 8081} Heptachlor epoxide  
{EPA 8081} Methoxychlor  
{EPA 8081} Toxaphene  
{EPA 8082} PCB-1016  
{EPA 8082} PCB-1221  
{EPA 8082} PCB-1232  
{EPA 8082} PCB-1242  
{EPA 8082} PCB-1248  
{EPA 8082} PCB-1254  
{EPA 8082} PCB-1260  
{EPA 8141} Atrazine  
{EPA 8141} Azinphos-ethyl (Ethyl guthion)  
{EPA 8141} Azinphos-methyl (Guthion)  
{EPA 8141} Bolstar (Sulprofos)  
{EPA 8141} Carbophenothion  
{EPA 8141} Chlorfenvinphos  
{EPA 8141} Chlorpyrifos  
{EPA 8141} Chlorpyrifos methyl

RCRA PROGRAM - NON-POTABLE WATER AND SOLID/CHEMICAL WASTE MATRICES

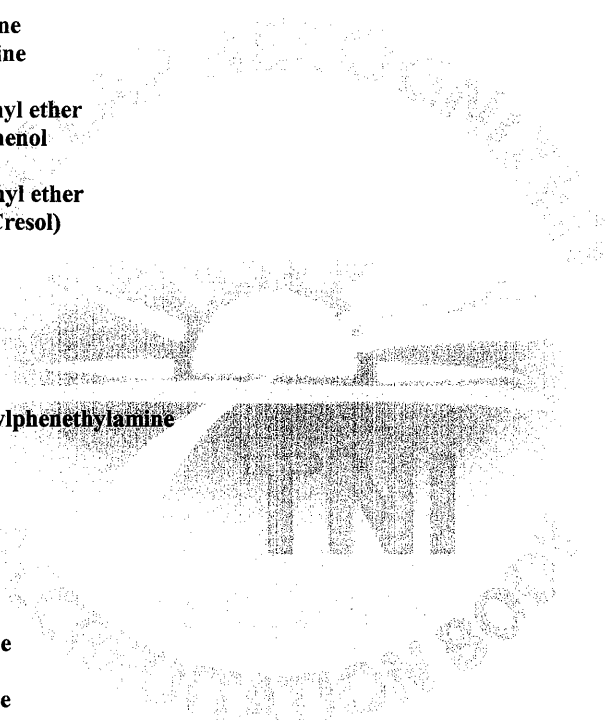
{EPA 8141} Coumaphos  
{EPA 8141} Demeton-o  
{EPA 8141} Demeton-s  
{EPA 8141} Diazinon  
{EPA 8141} Dichlorovos (DDVP, Dichlorvos)  
{EPA 8141} Dimethoate  
{EPA 8141} Disulfoton  
{EPA 8141} EPN  
{EPA 8141} Ethion  
{EPA 8141} Ethoprop  
{EPA 8141} Famphur  
{EPA 8141} Fensulfothion  
{EPA 8141} Fenthion  
{EPA 8141} Leptophos  
{EPA 8141} Malathion  
{EPA 8141} Merphos  
{EPA 8141} Mevinphos  
{EPA 8141} Naled  
{EPA 8141} Parathion ethyl  
{EPA 8141} Parathion methyl  
{EPA 8141} Phorate  
{EPA 8141} Phosmet (Imidan)  
{EPA 8141} Phosphamidon  
{EPA 8141} Ronnel  
{EPA 8141} Simazine  
{EPA 8141} Stirophos  
{EPA 8141} TEPP  
{EPA 8141} Terbufos  
{EPA 8141} Tetraethyl dithiopyrophosphate (Sulfotepp)  
{EPA 8141} Thionazine  
{EPA 8141} Tokuthion  
{EPA 8141} Trichloronate  
{EPA 8151} 2,4-D  
{EPA 8151} 2,4-DB  
{EPA 8151} 2,4,5-T  
{EPA 8151} 2,4,5-TP (Silvex)  
{EPA 8151} Dalapon  
{EPA 8151} Dicamba  
{EPA 8151} Dichlorprop  
{EPA 8151} Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)  
{EPA 8151} MCPA  
{EPA 8151} MCPP  
{EPA 8151} Pentachlorophenol  
{EPA 8151} Picloram

**\*\*ORGANIC CHEMISTRY (MEASUREMENT BY GC/MS)**

{EPA 8270} 1-Naphthylamine  
{EPA 8270} 1,2-Dichlorobenzene  
{EPA 8270} 1,2-Diphenylhydrazine  
{EPA 8270} 1,2,4-Trichlorobenzene  
{EPA 8270} 1,2,4,5-Tetrachlorobenzene  
{EPA 8270} 1,3-Dichlorobenzene  
{EPA 8270} 1,3-Dinitrobenzene  
{EPA 8270} 1,3,5-Trinitrobenzene  
{EPA 8270} 1,4-Dichlorobenzene  
{EPA 8270} 1,4-Naphthoquinone  
{EPA 8270} 1,4-Phenylenediamine  
{EPA 8270} 2-Acetylaminofluorene  
{EPA 8270} 2-Chloronaphthalene  
{EPA 8270} 2-Chlorophenol  
{EPA 8270} 2-Methyl-4,6-Dinitrophenol

RCRA PROGRAM - NON-POTABLE WATER AND SOLID/CHEMICAL WASTE MATRICES

{EPA 8270} 2-Methylnaphthalene  
 {EPA 8270} 2-Methylphenol (o-Cresol)  
 {EPA 8270} 2-Naphthylamine  
 {EPA 8270} 2-Nitroaniline  
 {EPA 8270} 2-Nitrophenol  
 {EPA 8270} 2-Picoline  
 {EPA 8270} 2,3,4,6-Tetrachlorophenol  
 {EPA 8270} 2,4-Dichlorophenol  
 {EPA 8270} 2,4-Dimethylphenol  
 {EPA 8270} 2,4-Dinitrophenol  
 {EPA 8270} 2,4-Dinitrotoluene (2,4-DNT)  
 {EPA 8270} 2,4,5-Trichlorophenol  
 {EPA 8270} 2,4,6-Trichlorophenol  
 {EPA 8270} 2,6-Dichlorophenol  
 {EPA 8270} 2,6-Dinitrotoluene  
 {EPA 8270} 3-Methylcholanthrene  
 {EPA 8270} 3-Methylphenol (m-Cresol)  
 {EPA 8270} 3-Nitroaniline  
 {EPA 8270} 3,3'-Dichlorobenzidine  
 {EPA 8270} 3,3'-Dimethylbenzidine  
 {EPA 8270} 4-Aminobiphenyl  
 {EPA 8270} 4-Bromophenyl phenyl ether  
 {EPA 8270} 4-Chloro-3-methylphenol  
 {EPA 8270} 4-Chloroaniline  
 {EPA 8270} 4-Chlorophenyl phenyl ether  
 {EPA 8270} 4-Methylphenol (p-Cresol)  
 {EPA 8270} 4-Nitroaniline  
 {EPA 8270} 4-Nitrophenol  
 {EPA 8270} 5-Nitro-o-toluidine  
 {EPA 8270} Acenaphthene  
 {EPA 8270} Acenaphthylene  
 {EPA 8270} Acetophenone  
 {EPA 8270} alpha-alpha-Dimethylphenethylamine  
 {EPA 8270} Aniline  
 {EPA 8270} Anthracene  
 {EPA 8270} Aramite  
 {EPA 8270} Benzidine  
 {EPA 8270} Benzoic acid  
 {EPA 8270} Benzo(a)anthracene  
 {EPA 8270} Benzo(a)pyrene  
 {EPA 8270} Benzo(b)fluoranthene  
 {EPA 8270} Benzo(g,h,i)perylene  
 {EPA 8270} Benzo(k)fluoranthene  
 {EPA 8270} Benzyl alcohol  
 {EPA 8270} Bis(2-chloroethoxy)methane  
 {EPA 8270} Bis(2-chloroethyl)ether  
 {EPA 8270} Bis(2-chloroisopropyl)ether  
 {EPA 8270} Bis(2-ethylhexyl)phthalate  
 {EPA 8270} Butyl benzyl phthalate  
 {EPA 8270} Chlorobenzilate  
 {EPA 8270} Chrysene  
 {EPA 8270} Di-n-butyl phthalate  
 {EPA 8270} Di-n-octyl phthalate  
 {EPA 8270} Diallate  
 {EPA 8270} Dibenzofuran  
 {EPA 8270} Dibenzo(a,h)anthracene  
 {EPA 8270} Dibenz(a,j)acridine  
 {EPA 8270} Diethyl phthalate  
 {EPA 8270} Dimethyl phthalate  
 {EPA 8270} Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)  
 {EPA 8270} Ethyl methanesulfonate



RCRA PROGRAM - NON-POTABLE WATER AND SOLID/CHEMICAL WASTE MATRICES

{EPA 8270} Fluoranthene  
 {EPA 8270} Fluorene  
 {EPA 8270} Hexachlorobenzene  
 {EPA 8270} Hexachlorobutadiene  
 {EPA 8270} Hexachlorocyclopentadiene  
 {EPA 8270} Hexachloroethane  
 {EPA 8270} Hexachloropropene  
 {EPA 8270} Indeno(1,2,3-cd) pyrene  
 {EPA 8270} Isodrin  
 {EPA 8270} Isophorone  
 {EPA 8270} Isosafrole  
 {EPA 8270} Kepone  
 {EPA 8270} Methapyrilene  
 {EPA 8270} Methylmethanesulfonate  
 {EPA 8270} N-nitroso-di-n-butylamine (NDBA)  
 {EPA 8270} N-nitroso-di-n-propylamine (NDPA)  
 {EPA 8270} N-nitrosodiethylamine (NDEA)  
 {EPA 8270} N-nitrosodimethylamine (NDMA)  
 {EPA 8270} N-Nitrosodiphenylamine  
 {EPA 8270} N-Nitrosomethylethylamine  
 {EPA 8270} N-Nitrosomorpholine  
 {EPA 8270} N-Nitrosopiperidine  
 {EPA 8270} N-Nitrosopyrrolidine  
 {EPA 8270} Naphthalene  
 {EPA 8270} Nitrobenzene  
 {EPA 8270} Nitroquinoline-1-oxide  
 {EPA 8270} o-Toluidine  
 {EPA 8270} O,O,O-Triethylphosphorothioate  
 {EPA 8270} Pentachlorobenzene  
 {EPA 8270} Pentachloronitrobenzene (PCNB)  
 {EPA 8270} Pentachlorophenol  
 {EPA 8270} Phenacetin  
 {EPA 8270} Phenanthrene  
 {EPA 8270} Pronamide (Kerb)  
 {EPA 8270} Pyrene  
 {EPA 8270} Pyridine  
 {EPA 8270} Safrole

**\*\*ORGANIC CHEMISTRY (MEASUREMENT BY HPLC)**

{EPA 8310} Acenaphthene  
 {EPA 8310} Acenaphthylene  
 {EPA 8310} Anthracene  
 {EPA 8310} Benzo(a)anthracene  
 {EPA 8310} Benzo(a)pyrene  
 {EPA 8310} Benzo(b)fluoranthene  
 {EPA 8310} Benzo(g,h,i)perylene  
 {EPA 8310} Benzo(k)fluoranthene  
 {EPA 8310} Chrysene  
 {EPA 8310} Dibenzo(a,h)anthracene  
 {EPA 8310} Fluoranthene  
 {EPA 8310} Fluorene  
 {EPA 8310} Indeno(1,2,3-cd) pyrene  
 {EPA 8310} Naphthalene  
 {EPA 8310} Phenanthrene  
 {EPA 8310} Pyrene  
 {EPA 8330} 1,3-Dinitrobenzene  
 {EPA 8330} 1,3,5-Trinitrobenzene  
 {EPA 8330} 2-Amino-4,6-dinitrotoluene  
 {EPA 8330} 2-Nitrotoluene (ortho-Nitrotoluene)  
 {EPA 8330} 2,4-Dinitrotoluene (2,4-DNT)  
 {EPA 8330} 2,4,6-Trinitrotoluene (TNT)

RCRA PROGRAM - NON-POTABLE WATER AND SOLID/CHEMICAL WASTE MATRICES

{EPA 8330} 2,6-Dinitrotoluene  
{EPA 8330} 3-Nitrotoluene (meta-Nitrotoluene)  
{EPA 8330} 4-Amino-2,6-dinitrotoluene  
{EPA 8330} 4-Nitrotoluene (para-Nitrotoluene)  
{EPA 8330} Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)  
{EPA 8330} Nitrobenzene  
{EPA 8330} Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)

**\*\*TOTAL PETROLEUM HYDROCARBONS**

{EPA 8015} DRO  
{EPA 8015} GRO

**End of Parameter List**

