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Jacqueline Swank, President

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TABLE OF CONTENTS

Absolute Standards has updated and expanded its UST section. We now offer a more extensive list of current state specific methods, as well as petrochemical mixes. Keep in mind that we can also formualte your own custom designed mix under the auspices of our ISO certifications.

GASOLINE COMPONENT MIX #1

2000 ug/mL in Methanol

(1) 2-Methylbutane
(2) m-Xylene
(3) 2,2,4-Trimethylpentane
(4) Toluene
(5) 2-Methylpentane
(6) 1,2,4-Trimethylbenzene
(7) n-Pentane
(8) 2,3,4-Trimethylpentane
(9) 2,3,3-Trimethylpentane
(10) 3-Methylpentane
(11) o-Xylene
(12) Ethylbenzene
(13) Benzene
(14) p-Xylene
(15) 2,3-Dimethylbutane
(16) n-Hexane
(17) 1-Methyl-3-ethylbenzene
(18) 1-Methyl-4-ethylbenzene
(19) 3-Methylhexane

Part # 90222 1 mL

GASOLINE COMPONENT MIX #2

Varied concentrations in Methanol

Component		*Conc. (ug/mL)*
(1)	2-Methylpentane	1500
(2)	2,2,4-Trimethylpentane	1500
(3)	Heptane	500
(4)	Benzene	500
(5)	Toluene	1500
(6)	Ethylbenzene	500
(7)	m-Xylene	1000
(8)	p-Xylene	1000
(9)	o-Xylene	1000
(10)	1,2,4-Trimethylbenzene	1000

Part # 90221 1 mL

BTEX

200 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) o-Xylene
(5) m-Xylene
(6) p-Xylene
(7) MTBE

Part # 90728 1 mL

BTEX IN GASOLINE 87 OCTANE

20 mg/mL in Methanol

Part # 51146 1 mL

GASOLINE COMPONENT & HYDROCARBON MIXTURES

HYDROCARBON MIX #1

2000 ug/mL in Methanol

C_6 - C_{15} n-Hydrocarbons

Part # 90137 1 mL

HYDROCARBON MIX #2

2000 ug/mL in Methylene chloride

C_6 - C_{28} n-Hydrocarbons

Part # 90814 1 mL

HYDROCARBON MIX #3

1000 ug/mL in Methylene Chloride

C_8 - C_{20} n-Hydrocarbons

Part # 90967 1 mL

HYDROCARBON MIX #4

2000 ug/mL in Methylene chloride

C_6 - C_{32} n-Hydrocarbons

Part # 91259 1 mL

DIESEL STANDARD

2000 ug/mL in Hexane

C_{10} - C_{28} n-Hydrocarbons, Excluding C_{27}

Part # 90138 1 mL

VOLATILE GRO MIX

2000 ug/mL in Methanol

(1) Benzene
(2) n-Decane
(3) Ethyl benzene
(4) n-Heptane
(5) n-Hexane
(6) n-Nonane
(7) n-Octane
(8) n-Pentane
(9) Toluene
(10) 1,2,4-Trimethylbenzene
(11) 1,3,5-Trimethylbenzene
(12) o-Xylene
(13) m-Xylene
(14) p-Xylene

Part # 92555 1 mL

GASOLINE ADDITIVES MIXTURE

1000 ug/mL in Methylene chloride

(1) Dibromomethane
(2) 1,2-Dichloroethane
(3) Ethylene dibromide
(4) Methyl tert-butyl ether

Part # 51173 1 mL

UST
PETRO-CHEMICALS

INTERNAL STANDARDS AND SURROGATES APPLICALBE TO UST METHODOLOGIES

	Gasoline Range	Part #	ug/mL	Solvent
(1)	4-Bromofluorobenzene	70048	1000	Methanol
(2)	4-Bromofluorobenzene	90804	20000	Methanol
(3)	a,a,a-Trifluorotoluene	70299	1000	Methanol
(4)	a,a,a-Trifluorotoluene	19297	20000	Methanol
(5)	1-Chlorooctane	72087	1000	Methanol
(6)	1-Chloro-4-fluorobenzene	70905	1000	Methanol

	Diesel Range	Part #	ug/mL	Solvent
(1)	p-Terphenyl	71227	1000	$MeCl_2$
(2)	p-Terphenyl	91296	4000	$MeCl_2$
(3)	o-Terphenyl	71225	1000	Methanol
(4)	o-Terphenyl	91720	10000	Methanol
(5)	o-Terphenyl	91738	5000	$MeCl_2$
(6)	2-Fluorobiphenyl	70187	1000	Methanol
(7)	2-Fluorobiphenyl	12009	4000	$MeCl_2$
(8)	5-a-Androstane	70372	1000	Methanol
(9)	5-a-Androstane	91740	4000	$MeCl_2$
(10)	1-Chlorooctadecane	71604	1000	Acetone

RETENTION TIME MARKER SOLUTIONS

2000 ug/mL in Methylene chloride

(1) n-Hexane
(2) n-Decane
(3) n-Dodecane

Part # 51172 1 mL

2000 ug/mL in Methylene chloride

(1) n-Decane
(2) n-Pentacosane
(3) n-Hexatriacontane

Part # 51183 1 mL

LUST RETENTION TIME STANDARD

2000 ug/mL in Methylene chloride

(1) n-Hexane
(2) n-Decane
(3) n-Dodecane
(4) n-Tetracosane
(5) n-Octacosane
(6) n-Triacontane
(7) n-Tetracontane

Part # 51184 1 mL

GASOLINE, DIESEL, JET, HOUSEHOLD, INDUSTRIAL SOLVENTS

MOTOR FUELS AND OILS $25/ 1 mL

Part #	Compound	Solvent	Conc. (mg/mL)
51001	Unleaded Gasoline 93 Octane	in methanol	20
51010	Unleaded Gasoline 87 Octane	in methanol	20
51006	#2 Fuel Oil Diesel	in methylene chloride	20
51016	#2 Fuel Oil Diesel	in methanol	20
51030	SAE 30 W motor oil	in methylene chloride	20
51040	SAE 40 W motor oil	in methylene chloride	20
51050	SAE 50 W motor oil	in methylene chloride	20
51094	Motor Oil Composite Standard	in methylene chloride	50

Heating Fuels and Oils

51020	#2 Fuel Oil Home Heating	in methylene chloride	20
51022	Kerosene K2	in methylene chloride	20

Aviation Fuels and Oils

51023	Jet A Fuel (Aviation)	in methylene chloride	20
51003	JP-4 Fuel	in methylene chloride	20
51004	JP-5 Fuel	in methylene chloride	20
51007	JP-8 Fuel	in methylene chloride	20
51011	JP-TS	in methylene chloride	20
51014	Hydraulic oil	in methylene chloride	20

Household & Industrial Solvents

51015	Lacquer thinner	in methylene chloride	20
51018	Mineral spirits	in methylene chloride	20
51019	Naphtha	in methylene chloride	20
51024	Turpentine	in methylene chloride	20
51025	Stoddard	in methylene chloride	20

All solutions are 1mL

OIL ANALYSIS STANDARD

100 ug/mL in Hexane/Methylene Chloride (9:1)

(1) n-Decane
(2) n-Undecane
(3) n-Dodecane
(4) n-Tridecane
(5) n-Tetradecane
(6) n-Pentadecane
(7) n-Hexadecane
(8) n-Heptadecane
(9) n-Octadecane
(10) n-Nonadecane
(11) n-Eicosane
(12) n-Heneicosane
(13) n-Docosane
(14) n-Tricosane
(15) n-Tetracosane
(16) n-Pentacosane
(17) n-Hexacosane
(18) n-Heptacosane
(19) n-Octacosane
(20) n-Nonacosane
(21) n-Triacontane
(22) n-Hentriacontane
(23) n-Dotriacontane
(24) n-Tritriacontane
(25) n-Tetratriacontane
(26) n-Pentatriacontane
(27) Naphthalene
(28) Fluorene
(29) Dibenzothiophene
(30) Phenanthrene
(31) Fluoranthene
(32) Pyrene
(33) Chrysene
(34) Benzo(b)fluoranthene
(35) Benzo(k)fluoranthene
(36) Benzo(e)pyrene
(37) Benzo(a)pyrene
(38) Perylene
(39) Indeno(1,2,3 cd)pyrene
(40) Dibenzo(a,h)anthracene
(41) Benzo (g,h,i)perylene
(42) Pristane
(43) Phytane
(44) Anthracene

Part # 90311 1 mL

ALIPHATIC OIL ANALYSIS - MIX #1

200 ug/mL in Methylene Chloride

(1) n-Decane
(2) n-Undecane
(3) n-Dodecane
(4) n-Tridecane
(5) n-Tetradecane
(6) n-Pentadecane
(7) n-Hexadecane
(8) n-Heptadecane
(9) n-Octadecane
(10) n-Nonadecane
(11) n-Eicosane
(12) n-Heneicosane
(13) n-Docosane
(14) n-Tricosane
(15) n-Tetracosane
(16) n-Pentacosane
(17) n-Hexacosane
(18) n-Heptacosane
(19) n-Octacosane
(20) n-Nonacosane
(21) n-Triacontane
(22) n-Hentriacontane
(23) n-Dotriacontane
(24) n-Tritriacontane
(25) n-Tetratriacontane
(26) n-Pentatriacontane
(27) Pristane
(28) Phytane

Part # 91942 1 mL

FUEL OIL DEGRADATION MIXTURE

2000 ug/mL in Methylene chloride

(1) n-Heptadecane
(2) n-Octadecane
(3) Pristane
(4) Phytane

Part # 51147 1 mL

OIL & GREASE / TOTAL PETROLEUM HYDROCARBONS (TPH)

OIL & GREASE
EPA METHOD 1664

8 mg/mL (Total) in Acetone

(1) n-Hexadecane
(2) Stearic acid

Part # 91958 100 mL

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 418.1

(1) 2,2,4-Trimethylpentane (Iso-octane) (31.4%)
(2) n-Hexadecane (35.1%)
(2) Chlorobenzene (33.5%)

Part # 71127 5 mL

OIL & GREASE- EPA METHOD 413

1 mg/mL (Total) in n-Propanol / Glycerol

(1) Paraffin Oil
(2) Cooking oil (Soy)

Part # 54135 100 mL

VOLATILES

200 ug/mL in Methanol/Water [9:1]

(1) Benzene
(2) Carbon disulphide
(3) Chlorobenzene
(4) Chloroform
(5) 1,2-Dichloroethane
(6) 1,1-Dichloroethane
(7) 1,4-Dioxane
(8) Methyl tert-butyl ether
(9) Ethylbenzene
(10) Ethylene dibromide
(11) Methyl ethyl ketone
(12) Styrene
(13) Toluene
(14) Tetrachloroethene
(15) 1,1,1-Trichloroethane
(16) Trichloroethene
(17) Xylenes (total)

Part # 60054 1 mL

SEMI-VOLATILES
BASE/NEUTRALS EXTRACTABLES

200 ug/mL in Methylene chloride

(1) Anthracene
(2) Benzo(a)anthracene
(3) Benzo(b)fluoranthene
(4) Benzo(j)fluoranthene
(5) Benzo(k)fluoranthene
(6) Benzo(a)pyrene
(7) Bis(2-ethylhexyl)phthalate
(8) Butyl benzyl phthalate
(9) Chrysene
(10) Dibenzo(a,h)acridine
(11) Dibenzo(a,h)anthracene
(12) 1,2-Dichlorobenzene
(13) 1,3-Dichlorobenzene
(14) 1,4-Dichlorobenzene
(15) Diethyl phthalate
(16) 7,12-Dimethylbenzo(a)anthracene
(17) Dimethyl phthalate
(18) Di-n-butyl phthalate
(19) Di-n-octyl phthalate
(20) Indene
(21) Fluoranthene
(22) 6-Methyl chrysene
(23) 1-Methylnaphthalene
(24) Naphthalene
(25) Phenanthrene
(26) Pyrene
(27) Pyridine
(28) Quinoline

Part # 60003 1 mL

ACID EXTRACTABLES

200 ug/mL in Methylene chloride

(1) o-Cresol
(2) m-Cresol
(3) p-Cresol
(4) 2,4-Dimethylphenol
(5) 2,4-Dinitrophenol
(6) 4-Nitrophenol
(7) Phenol
(8) Thiophenol

Part # 60004 1 mL

ALASKA METHOD 101- GRO IN WATER AND SOIL

The Alaska 101 method is designed to measure the concentration of gasoline range organics, (GRO) in water and soil. In particular, this method is applicable to n-alkanes ranging from the beginning of C6 to the beginning of C10 in volatile petroleum products with analysis using capillary column GC-FID or PID/FID.

GRO STANDARD C6-C10

2000 ug/mL in Methylene Chloride

(1) n-Hexane
(2) n-Heptane
(3) n-Octane
(4) n-Nonane
(5) n-Decane

Part # 51134 1 mL

BTEX

200 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) o-Xylene
(5) m-Xylene
(6) p-Xylene
(7) MTBE

Part # 90728 1 mL

UNLEADED GASOLINE 87 OCTANE

20 mg/mL in Methylene chloride

Part # 51028 1 mL

UNLEADED GASOLINE 93 OCTANE

20 mg/mL in Methylene chloride

Part # 51035 1 mL

AK101 RETENTION TIME VERIFICATION STANDARD

2000 ug/mL in Methylene chloride

(1) n-Hexane
(2) n-Decane

Part # 51171 1 mL

AK101 INTERNAL STANDARD

1000 ug/mL in Methanol

1-Chloro-4-fluorobenzene

Part # 70905 1 mL

AK101 SURROGATE STANDARD

20 mg/mL in Methanol

4-Bromofluorobenzene

Part # 90804 1 mL

AK101 SURROGATE STANDARD

20 mg/mL in Methanol

a,a,a-Trifluorotoluene

Part # 19297 1 mL

ALASKA METHOD 102-
DRO IN WATER AND SOIL

The Alaska 102 method is designed to measure the concentration of diesel range organics, (DRO) C10-C25, in water and soil. In particular, this method is applicable to semi-volatile petroleum products with analysis using capillary column GC-FID.

AK-102
DRO STANDARD
C10-C25

2000 ug/mL in Methylene Chloride

(1) n-Decane
(2) n-Undecane
(3) n-Dodecane
(4) n-Tridecane
(5) n-Tetradecane
(6) n-Pentadecane
(7) n-Hexadecane
(8) n-Heptadecane
(9) n-Octacosane
(10) n-Nonadecane
(11) n-Eicosane
(12) n-Heneicosane
(13) n-Docosane
(14) n-Tricosane
(15) n-Tetracosane
(16) n-Pentacosane

Part # 51175 1 mL

AK-102 DRO
DIESEL STANDARD

20 mg/mL in Methylene chloride

#2 Diesel Fuel

Part # 51006 1 mL

AK-102 DRO
KEROSENE STANDARD

20 mg/mL in Methylene chloride

Kerosene K2

Part # 51022 1 mL

AK102 DRO
RETENTION TIME
WINDOW STANDARD

2000 ug/mL in Methylene chloride

(1) n-Decane
(2) n-Pentacosane

Part # 51174 1 mL

AK-102 DRO
SURROGATE STANDARD

2000 ug/mL in Methanol

o-Terphenyl

Part # 91125 1 mL

AK-102 DRO
INTERNAL STANDARD

1000 ug/mL in Methanol

5-alpha-androstane

Part # 70372 1 mL

ALASKA METHOD 103-
RRO IN SOIL

The Alaska 103 method is designed to measure the concentration of residual range organics, (RRO) C25-C36, in soil. In particular, this method is applicable to heavy petroleum products including lubricating and motor oils. Analysis employs capillary column GC-FID.

AK-103
RRO STANDARD
C25-C36

1000 ug/mL in Methylene Chloride

(1) n-Pentacosane
(2) n-Hexacosane
(3) n-Heptacosane
(4) n-Octacosane
(5) n-Nonacosane
(6) n-Triacontane
(7) n-Hentriacontane
(8) n-Dotriacontane
(9) n-Tritriacontane
(10) n-Tetratriacontane
(11) n-Pentatriacontane
(12) n-Hexatriacontane

Part # 51176 1 mL

AK-103 RRO
RETENTION TIME WINDOW
SOLUTION

2000 ug/mL in Methylene chloride

(1) n-Pentacosane
(2) n-Hexatriacontane

Part # 51177 1 mL

AK-103 RRO
CALIBRATION STANDARD

Equal weight%

30W Motor Oil/ 40W Motor Oil [1:1]

Part # 51178 1 mL

AK-103 RRO
SURROGATE STANDARD

2000 ug/mL in Methylene chloride

n-Triacontane-d_{62}

Part # 51180 1 mL

UST STATE METHODS

ARIZONA 8015AZ

GRO STANDARD C6-C10

2000 ug/mL in Methylene Chloride

(1) n-Hexane
(2) n-Heptane
(3) n-Octane
(4) n-Nonane
(5) n-Decane

Part # 51134 1 mL

SURROGATE STANDARD

1000 ug/mL in Methanol

o-Terphenyl

Part # 71225 1 mL

RETENTION TIME Verification Standard

2000 ug/mL in Methylene chloride

(1) n-Decane
(2) n-Docosane
(3) n-Dotriacontane

Part # 51136 1 mL

DRO & ORO STANDARD C10-C32

2000 ug/mL in Methylene Chloride

(1) n-Decane
(2) n-Undecane
(3) n-Dodecane
(4) n-Tridecane
(5) n-Tetradecane
(6) n-Pentadecane
(7) n-Hexadecane
(8) n-Heptadecane
(9) n-Octacosane
(10) n-Nonadecane
(11) n-Eicosane
(12) n-Heneicosane
(13) n-Docosane
(14) n-Tricosane
(15) n-Tetracosane
(16) n-Pentacosane
(17) n-Hexacosane
(18) n-Heptacosane
(19) n-Octacosane
(20) n-Nonacosane
(21) n-Triacontane
(22) n-Hentriacontane
(23) n-Dotriacontane

Part # 51135 1 mL

8015AZ CALIBRATION STANDARD

10 mg/mL in Methylene chloride

(1) #2 Diesel
(2) 10W 30 Motor Oil

Part # 51096 1 mL

CALIFORNIA PVOC/ WIP

STATE OF CALIFORNIA PVOC METHOD

2000 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethylbenzene
(4) Methyl-t-butyl ether
(5) o-Xylene
(6) m-Xylene
(7) p-Xylene

Part # 90326 1 mL

OXYGENATES IN GASOLINE MIX #1

2500 ug/mL in Methanol

(1) tert-Amyl methyl ether
(2) tert-Butyl ethyl ether
(3) Di-isopropyl ether
(4) Methyl tert-butyl ether (MTBE)

Part # 92005 1 mL

OXYGENATES IN GASOLINE MIX #2

2000 ug/mL in Methanol*

(1) tert-Amyl methyl ether
(2) tert-Butyl ethyl ether
(3) Di-isopropyl ether
(4) Methyl tert-butyl ether (MTBE)
(5) * tert-Butanol @ [20,000 ug/mL]

Part # 92450 1 mL

METHANOL

10 mg/mL in Water

Part # 91684 1 mL

ETHANOL

10 mg/mL in Water

Part # 91683 1 mL

GLYCOLS STANDARD

5000 ug/mL in Water

(1) Ethylene glycol
(2) Propylene glycol

Part # 91766 1 mL

PURGEABLE AROMATICS LOS ANGELES COUNTY WELL INVESTIGATION PROGRAM (WIP)

(1) Benzene
(2) Chlorobenzene
(3) Ethylbenzene
(4) 1,2-Dichlorobenzene
(5) 1,3-Dichlorobenzene
(6) 1,4-Dichlorobenzene
(7) Methyl tert-butyl ether
(8) Toluene
(9) o-Xylene
(10) m-Xylene
(11) p-Xylene

Part # 19098 200 ug/mL in Methanol. 1 mL Part # 19198 2000 ug/mL in Methanol. 1 mL

CONNECTICUT
n-HYDROCARBONS (EPH)

2000 ug/mL in Hexane

(1) n-Nonane
(2) n-Decane
(3) n-Dodecane
(4) n-Tetradecane
(5) n-Hexadecane
(6) n-Octadecane
(7) n-Nonadecane
(8) n-Eicosane
(9) n-Docosane
(10) n-Tetracosane
(11) n-Hexacosane
(12) n-Octacosane
(13) n-Triacontane
(14) n-Hexatriacontane

Part # 91488 1 mL

FLORIDA TPH

FLORIDA-PRO -TOTAL PETROLEUM HYDROCARBONS

100 ug/mL in Methylene chloride

C_8 - C_{40} n-Hydrocarbons (Even # Carbons)

Part # 91407 1 mL

FL TPH
RETENTION TIME MARKER SOLUTION

2000 ug/mL in Methylene chloride

(1) n-Hexane
(2) n-Decane
(3) n-Dodecane

Part # 51172 1 mL

FL TPH
SURROGATE STANDARD

1000 ug/mL in Toluene

n-Nonatriacontane

Part # 71407 1 mL

See Massachusetts UST section (p.23-26) for other applicable mixes.

UST STATE METHODS

IOWA OA-1

IOWA- OA-1 is applicable for the determination of volatile petroleum hydrocarbons found in gasoline in water and soil. Such volatile organic constituents are analyzed by purge and trap gas chromatography with detection by FID or FID/PID.

IOWA OA-1 RETENTION TIME MARKER SOLUTION

2000 ug/mL in Methylene chloride

(1) n-Hexane
(2) n-Decane
(3) n-Dodecane

Part # 51172 1 mL

UNLEADED GASOLINE 87 OCTANE

20 mg/mL in Methylene chloride

Part # 51028 1 mL

UNLEADED GASOLINE 93 OCTANE

20 mg/mL in Methylene chloride

Part # 51035 1 mL

IOWA BTEX MIX

2000 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) MTBE
(5) Naphthalene
(6) Isopropylbenzene
(7) o-Xylene
(8) m-Xylene
(9) p-Xylene

Part # 51181 1 mL

IOWA OA-2

IOWA- OA-2 is applicable for the gas chromatographic determination of low volatile petroleum products and related organic constituents found in water and solid matrices. Identity may be determined using GC/MS and chromatographic overlaying is acceptable.

Part #	Compound	Solvent	mg/mL
51006	#2 Fuel Oil Diesel	in methylene chloride	20
51016	#2 Fuel Oil Diesel	in methanol	20
51030	SAE 30 W motor oil	in methylene chloride	20
51040	SAE 40 W motor oil	in methylene chloride	20
51050	SAE 50 W motor oil	in methylene chloride	20
51094	Motor Oil Composite Standard	in methylene chloride	50
51020	#2 Fuel Oil Home Heating	in methylene chloride	20
51022	Kerosene K2	in methylene chloride	20
51014	Hydraulic oil	in methylene chloride	20
51015	Lacquer thinner	in methylene chloride	20
51018	Mineral spirits	in methylene chloride	20
51019	Naphtha	in methylene chloride	20
51024	Turpentine	in methylene chloride	20
51025	Stoddard	in methylene chloride	20

All Petroleum products- 1mL

IOWA OA-2
RETENTION TIME MARKER SOLUTION

2000 ug/mL in Methylene chloride

(1) n-Decane
(2) n-Pentacosane
(3) n-Hexatriacontane

Part # 51183 1 mL

UST
STATE METHODS

MAINE
GRO & DRO

GRO ANALYTES
1000 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) o-Xylene
(5) m-Xylene
(6) p-Xylene
(7) 1,2,4-Trimethylbenzene
(8) 1,3,5-Trimethylbenzene
(9) MTBE
(10) Napthalene

Part # 90379 1 mL

DRO ANALYTES
in Hexane

(1) Decane
(2) Dodecane
(3) Tetradecane
(4) Hexadecane
(5) Octadecane
(6) Eicosane
(7) Docosane
(8) Tetracosane
(9) Hexacosane
(10) Octacosane

Part # 90322 @ 2000 ug/mL 1 mL
Part # 91034 @ 10000 mg/mL 1 mL

GASOLINE COMPONENTS
Varied Concentrations in Methanol

	Component	*(ug/mL)*
(1)	Benzene	500
(2)	Toluene	1500
(3)	Ethyl benzene	500
(4)	o-Xylene	1000
(5)	m-Xylene	1000
(6)	p-Xylene	1000
(7)	1,2,4-Trimethylbenzene	1000
(8)	2,2,4-Trimethylpentane	1500
(9)	Heptane	500
(10)	2-Methylpentane	1500

Part # 90221 1 mL

SURROGATE STANDARDS

DRO	o-Terphenyl	71225	1000	Methanol
DRO	o-Terphenyl	91125	2000	Methanol
DRO	p-Terphenyl	71227	1000	$MeCl_2$
DRO	5-alpha-androstane	70372	1000	Methanol
GRO	4-Bromofluorobenzene	70048	1000	Methanol
GRO	4-Bromofluorobenzene	19267	2000	Methanol
*GRO	a,a,a-Trifluorotoluene	70299	1000	Methanol

** (Soil Matrix)*

MASSACHUSETTS EPH
REV 1.1

Aromatic Hydrocarbons (EPH)

2000 ug/mL in Methylene chloride

(1) Acenaphthene
(2) Acenaphthylene
(3) Anthracene
(4) Benzo(a)anthracene
(5) Benzo(a)pyrene
(6) Benzo(b)fluoranthene
(7) Benzo(k)fluoranthene
(8) Benzo(g,h,i)perylene
(9) Chrysene
(10) Dibenzo(a,h)anthracene
(11) Fluoranthene
(12) Fluorene
(13) Indeno(1,2,3-cd)pyrene
(14) 2-Methylnaphthalene
(15) Naphthalene
(16) Phenanthrene
(17) Pyrene

Part # 51073 1 mL
Part # 50003 5 mL

n-Hydrocarbons (EPH)

2000 ug/mL in Hexane

(1) n-Nonane
(2) n-Decane
(3) n-Dodecane
(4) n-Tetradecane
(5) n-Hexadecane
(6) n-Octadecane
(7) n-Nonadecane
(8) n-Eicosane
(9) n-Docosane
(10) n-Tetracosane
(11) n-Hexacosane
(12) n-Octacosane
(13) n-Triacontane
(14) n-Hexatriacontane

Part # 91488 1 mL
Part # 93459 5 mL

LABORATORY METHOD BLANKS (LMB)

Water Blank LMB (VPH)

40 mL in VOA Vial

Part # 51091 40 mL

Soil LMB (Organics)

10 g in VOA Vial

Part # 91915 10 g

Matrix Spike (EPH)

200 ug/mL in Hexane:Methylene chloride[9:1]

(1) Acenaphthene
(2) Acenaphthylene
(3) Anthracene
(4) Benzo(a)anthracene
(5) Benzo(a)pyrene
(6) Benzo(b)fluoranthene
(7) Benzo(k)fluoranthene
(8) Benzo(g,h,i)perylene
(9) Chrysene
(10) Dibenzo(a,h)anthracene
(11) Fluoranthene
(12) Fluorene
(13) Indeno(1,2,3-cd)pyrene
(14) 2-Methylnaphthalene
(15) Naphthalene
(16) Phenanthrene
(17) Pyrene
(18) n-Nonane
(19) n-Decane
(20) n-Dodecane
(21) n-Tetradecane
(22) n-Hexadecane
(23) n-Octadecane
(24) n-Nonadecane
(25) n-Eicosane
(26) n-Docosane
(27) n-Tetracosane
(28) n-Hexacosane
(29) n-Octacosane
(30) n-Triacontane
(31) n-Hexatriacontane

Part # 51074 1 mL

Matrix Spike (EPH)

2000 ug/mL in Methylene chloride

(1) n-Nonane
(2) n-Tetradecane
(3) n-Nonadecane
(4) n-Eicosane
(5) n-Octacosane
(6) Acenaphthene
(7) Anthracene
(8) Chrysene
(9) Naphthalene
(10) Pyrene

Part # 91489 1 mL

Fractionation Surrogate (EPH)

2000 ug/mL in Hexane

(1) 2-Fluorobiphenyl
(2) 2-Bromonaphthalene

Part # 51089 1 mL

Surrogate Spike (EPH)

2000 ug/mL in Acetone

(1) o-Terphenyl
(2) 1-Chlorooctadecane

Part # 51075 1 mL

Petroleum Reference Standard

#2 Fuel Oil Diesel (EPH)

1 mg/mL in Hexane

Part # 51092 1 mL

VPH Primary Calibration Spike

Varied ug/mL in Methanol

(1)	Benzene	500
(2)	Toluene	1500
(3)	Ethyl benzene	500
(4)	o-Xylene	1000
(5)	m-Xylene	1000
(6)	p-Xylene	1000
(7)	1,2,4-Trimethylbenzene	1000
(8)	Methyl tert-butyl ether	1500
(9)	Naphthalene	1000
(10)	n-Pentane	1000
(11)	2-Methylpentane	1500
(12)	2,2,4-Trimethylpentane	1500
(13)	n-Nonane	1000
(14)	2,5-Dibromotoluene	1000
(15)	n-Decane	1000
(16)	n-Butylcyclohexane	1000

Part # 51166 1 mL

VPH Primary Calibration

2000 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) o-Xylene
(5) m-Xylene
(6) p-Xylene
(7) 1,2,4-Trimethylbenzene
(8) Methyl tert-butyl ether (MTBE)
(9) Naphthalene
(10) n-Pentane
(11) 2-Methylpentane
(12) 2,2,4-Trimethylpentane
(13) n-Nonane
(14) n-Decane
(15) n-Butylcyclohexane

Part # 51167 1 mL

VPH Matrix Spike

50 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) o-Xylene
(5) m-Xylene
(6) p-Xylene
(7) 1,2,4-Trimethylbenzene
(8) Methyl tert-butyl ether
(9) Naphthalene
(10) n-Pentane
(11) 2-Methylpentane
(12) 2,2,4-Trimethylpentane
(13) n-Nonane
(14) 2,5-Dibromotoluene
(15) n-Decane
(16) n-Butylcyclohexane

Part # 93624 1 mL

VPH Surrogate Spike

5000 ug/mL in Methanol

2,5-Dibromotoluene

Part # 91771 1 mL

LABORATORY METHOD BLANKS (LMB)

Water Blank LMB (VPH)

40 mL in VOA Vial

Part # 51091 40 mL

Soil LMB (Organics)

10 g in VOA Vial

Part # 91915 10 g

MICHIGAN GRO MIX

14 components @ 2000 ug/mL in Methanol

(1) Benzene
(2) 1,2-Dibromoethane
(3) 1,2-Dichloroethane
(4) Ethylbenzene
(5) Isopropylbenzene
(6) 2-Methylnaphthalene
(7) Methyl tert-butyl ether
(8) Naphthalene
(9) Toluene
(10) 1,2,4-Trimethylbenzene
(11) 1,3,5-Trimethylbenzene
(12) o-Xylene
(13) m-Xylene
(14) p-Xylene

Part # 51182 ***1 mL***

MISSISSIPPI
GRO & DRO

GRO Standard

Varied ug/mL in Methanol

(1)	Benzene	5000
(2)	Toluene	15000
(3)	Ethyl benzene	5000
(4)	o-Xylene	10000
(5)	m-Xylene	10000
(6)	p-Xylene	10000
(7)	1,2,4-Trimethylbenzene	10000
(8)	2-Methylpentane	15000
(9)	2,2,4-Trimethylpentane	15000
(10)	n-Heptane	5000

Part # 51179 1 mL

Tennessee / Mississippi Diesel Standard

***C10-C28**

**does not include C27*

2000 ug/mL in Hexane

(1) Decane
(2) Undecane
(3) Dodecane
(4) Tridecane
(5) Tetradecane
(6) Pentadecane
(7) Hexadecane
(8) Heptadecane
(9) Octadecane
(10) Nonadecane
(11) Eicosane
(12) Heneicosane
(13) Docosane
(14) Tricosane
(15) Tetracosane
(16) Pentacosane
(17) Hexacosane
(18) Octacosane

Part # 90138 1 mL

NEW JERSEY & NEW YORK

NJ-TRPH

200 ug/mL in Methylene Chloride

(1) n-Decane
(2) n-Undecane
(3) n-Dodecane
(4) n-Tridecane
(5) n-Tetradecane
(6) n-Pentadecane
(7) n-Hexadecane
(8) n-Heptadecane
(9) n-Octadecane
(10) n-Nonadecane
(11) n-Eicosane
(12) n-Heneicosane
(13) n-Docosane
(14) n-Tricosane
(15) n-Tetracosane
(16) n-Pentacosane
(17) n-Hexacosane
(18) n-Heptacosane
(19) n-Octacosane
(20) n-Nonacosane
(21) n-Triacontane
(22) n-Hentriacontane
(23) n-Dotriacontane
(24) n-Tritriacontane
(25) n-Tetratriacontane
(26) n-Pentatriacontane
(27) Pristane
(28) Phytane

Part # 91942 1 mL

NJ TRPH SURROGATE STANDARD

1000 ug/mL in Methylene chloride

Tetracosane-d_{50}

Part # 72072 1 mL

NYSDEC STARS VOA

16 components @ 2000 ug/mL in Methanol

(1) Benzene
(2) n-Butylbenzene
(3) sec-Butylbenzene
(4) tert-Butylbenzene
(5) Ethylbenzene
(6) Isopropylbenzene
(7) 4-Isopropyltoluene
(8) Methyl t-butyl ether
(9) Naphthalene
(10) n-Propylbenzene
(11) Toluene
(12) 1,2,4-Trimethylbenzene
(13) 1,3,5-Trimethylbenzene
(14) o-Xylene
(15) m-Xylene
(16) p-Xylene

Part # 92028 1 mL

NYSDEC STARS PAH

16 components @ 2000 ug/mL in Methylene chloride

(1) Naphthalene
(2) Anthracene
(3) Fluorene
(4) Phenanthrene
(5) Pyrene
(6) Acenaphthene
(7) Benzo(a)anthracene
(8) Fluoranthene
(9) Benzo(b)fluoranthene
(10) Benzo(k)fluoranthene
(11) Chrysene
(12) Benzo(a)pyrene
(13) Benzo(g,h,i)perylene
(14) Indeno(1,2,3-cd)perylene
(15) Dibenz(a,h)anthracene
(16) *Acenaphthylene(*additional analyte)

Part # 10007 1 mL

NORTHWEST REGION TPH METHODS

NWTPH-HCIDis a screening method for the qualification of the presence of petroleum producers. Upon this determination, method NWTPH-Gx and/or method NWTPH-Dx may be employed for the quantification of gasoline and diesel, respectively.

NWTPH-HCID
Retention Time Mix

2500 ug/mL in Methylene chloride

(1) n-Dodecane
(2) n-Tetracosane
(3) Toluene

Part # 51137 1 mL

NWTPH-HCID
Surrogate Mix

5000 ug/mL in Methylene chloride

(1) 4-Bromofluorobenzene
(2) n-Pentacosane

Part # 51138 1 mL

NWTPH-Gx
Surrogate Mix

2500 ug/mL in Methylene chloride

(1) 4-Bromofluorobenzene
(2) 1,4-Difluorobenzene

Part # 51139 1 mL

NWTPH-Dx Surrogates	Part #	ug/mL	Solvent
(1) 2-Fluorobiphenyl	12009	4000	$MeCl_2$
(2) o-Terphenyl	91738	5000	$MeCl_2$
(3) p-Terphenyl	91296	4000	$MeCl_2$
(4) n-Pentacosane	70977	1000	$MeCl_2$

Pennsylvania PVOC Method

2000 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) o-Xylene
(5) m-Xylene
(6) p-Xylene
(7) Methyl tert-butyl ether (MTBE)
(8) Naphthalene
(9) Isopropyl benzene
(10) 1,2-Dibromoethane
(11) 1,2-Dichloroethane

Part # 92061 1 mL

TENNESSEE GRO

The TN GRO method measures the concentration of C6-C12 n-alkanes in water and soil. Analysis of such gasoline range organics is performed by purge and trap GC-FID or FID/ PID for the measurement of BTEX.

Tennessee GRO Standard

Varied ug/mL in Methanol

(1)	Benzene	5000
(2)	Toluene	15000
(3)	Ethyl benzene	5000
(4)	o-Xylene	10000
(5)	m-Xylene	10000
(6)	p-Xylene	10000
(7)	1,2,4-Trimethylbenzene	10000
(8)	2-Methylpentane	15000
(9)	2,2,4-Trimethylpentane	15000
(10)	n-Heptane	5000

Part # 51179 1 mL

Gasoline Standard

20 mg/mL in Methanol

87 Octane Unleaded Gasoline

Part # 51010 1 mL

TN GRO
Surrogate Spike

20 mg/mL in Methanol

Isopropyltoluene

Part # 32341 1 mL

TENNESSEE EPH

The TN EPH method measures the amount of Extractable Petroleum Hydrocarbons in water and soil. Analysis of n-alkanes C12-C40 in the mid to late range petroleum products is performed by GC-FID.

Tennessee / Mississippi Diesel Standard

***C10-C28**

**does not include C27*

2000 ug/mL in Hexane

(1) Decane
(2) Undecane
(3) Dodecane
(4) Tridecane
(5) Tetradecane
(6) Pentadecane
(7) Hexadecane
(8) Heptadecane
(9) Octadecane
(10) Nonadecane
(11) Eicosane
(12) Heneicosane
(13) Docosane
(14) Tricosane
(15) Tetracosane
(16) Pentacosane
(17) Hexacosane
(18) Octacosane

Part # 90138 1 mL

n-Hydrocarbon Mix

100 ug/mL in Methylene chloride

C_8 - C_{40} n-Hydrocarbons (Even # Carbons)

Part # 91407 / 1 mL

TN EPH by GC/FID

10 mg/mL in Methylene chloride

10W 30 Oil/ #2 Diesel Fuel [1:1]

Part # 51096 1 mL

TN EPH Laboratory Control Sample

20 mg/mL in Methylene chloride

#2 Fuel Oil Diesel

Part # 51006 1 mL

TN EPH Surrogate Spike

2000 ug/mL in Methanol

o-Terphenyl

Part # 91125 1 mL

TN EPH Internal Standard

1000 ug/mL in Methanol

5-alpha-androstane

Part # 70372 1 mL

TX1005 Retention Marker Mix

500 ug/mL in n-Pentane

(1) n-Hexane
(2) n-Decane
(3) n-Dodecane
(4) n-Octacosane
(5) n-Pentatriacontane

Part # 92934 1 mL

TNRCC 1005 TPH as Petroleum Hydrocarbons

2000 ug/mL in Methylene chloride

C6-C28 inclusive

Part # 90814 1 mL

TX1005 Surrogate Mix

10 mg/mL in n-Pentane

(1) 1-Chlorooctadecane
(2) 1-Chlorooctane

Part # 51043 5 mL

TX1005/ 1006 TPH Calibration Standard

in n-Pentane

(1) #2 Fuel Oil (Diesel)
(2) Unleaded Gasoline 87 Octane

Part # 93035 20 mg/mL 1 mL Part # 92804 10 mg/mL 1 mL

TX 1005 Surrogate Spike C6-C12 Range

1000 ug/mL in Acetone

1-Chlorooctadecane

Part # 71674 1 mL

TX 1005 Surrogate Spike C6-C12 Range

1000 ug/mL in Methanol

a,a,a-Trifluorotoluene

Part # 70299 1 mL

TX 1005 Surrogate Spike >C12 Range

1000 ug/mL in Methanol

o-Terphenyl

Part # 71225 1 mL

TX 1005 Surrogate Spike >C12 Range

1000 ug/mL in Methanol

2-Fluorobiphenyl

Part # 70187 1 mL

WASHINGTON VPH

WA VPH Standard

1000 ug/mL in Methanol

(1) Benzene
(2) n-Decane
(3) n-Dodecane
(4) Ethylbenzene
(5) n-Hexane
(6) 1-Methylnaphthalene
(7) Methyl tert-butyl ether (MTBE)
(8) Naphthalene
(9) n-Octane
(10) n-Pentane
(11) Toluene
(12) 1,2,3-Trimethylbenzene
(13) m-Xylene
(14) o-Xylene
(15) p-Xylene

Part # 51140 1 mL

WA VPH Marker Standard

1000 ug/mL in Methanol

(1) n-Decane
(2) n-Dodecane
(3) n-Hexane
(4) 1-Methylnaphthalene
(5) Naphthalene
(6) n-Octane
(7) n-Pentane
(8) Toluene

Part # 51141 1 mL

WA VPH SURROGATE STANDARD

5000 ug/mL in Methanol

2,5-Dibromotoluene

Part # 91771 1 mL

WA EPH Aromatic Hydrocarbons

1000 ug/mL in Methylene Chloride

(1) Acenaphthene
(2) Benzo(g,h,i)perylene
(3) Naphthalene
(4) Pyrene
(5) Toluene
(6) 1,2,3-Trimethylbenzene

Part # 51142 1 mL

WA EPH Aliphatic Hydrocarbons

1000 ug/mL in Hexane

(1) n-Octane
(2) n-Decane
(3) n-Dodecane
(4) n-Hexadecane
(5) n-Heneicosane
(6) n-Tetratriacontane

Part # 51143 1 mL

WA EPH Fractionation Check Mix

25 ug/mL in Hexane

(1) n-Octane
(2) n-Decane
(3) n-Dodecane
(4) n-Hexadecane
(5) n-Heneicosane
(6) n-Tetratriacontane
(7) Acenaphthene
(8) Acenaphthylene
(9) Anthracene
(10) Benzo(a)anthracene
(11) Benzo(b)fluoranthene
(12) Benzo(k)fluoranthene
(13) Benzo(g,h,i)perylene
(14) Chrysene
(15) Dibenzo(a,h)anthracene
(16) Fluoranthene
(17) Fluorene
(18) Indeno(1,2,3-cd)pyrene
(19) Naphthalene
(20) Phenanthrene
(21) Pyrene
(22) Benzo(a)pyrene

Part # 51144 1 mL

WA EPH Matrix Spike Mix

250 ug/mL in Acetone

(1) n-Decane
(2) n-Dodecane
(3) n-Hexadecane
(4) n-Heneicosane
(5) Acenaphthene
(6) Anthracene
(7) Benzo(a)pyrene
(8) Benzo(g,h,i)perylene
(9) Naphthalene
(10) Pyrene

Part # 51145 1 mL

WA EPH Surrogate mix

2000 ug/mL in Acetone

(1) o-Terphenyl
(2) 1-Chlorooctadecane

Part # 51075 1 mL

Internal Standard 1,2,3-Trimethylbenzene

1000 ug/mL in Methanol ***Part # 70944 1 mL***

WISCONSIN
GRO & DRO

GRO ANALYTES
1000 ug/mL in Methanol

(1) Benzene
(2) Toluene
(3) Ethyl benzene
(4) o-Xylene
(5) m-Xylene
(6) p-Xylene
(7) 1,2,4-Trimethylbenzene
(8) 1,3,5-Trimethylbenzene
(9) MTBE
(10) Napthalene

Part # 90379 1 mL

DRO ANALYTES
in Hexane

(1) Decane
(2) Dodecane
(3) Tetradecane
(4) Hexadecane
(5) Octadecane
(6) Eicosane
(7) Docosane
(8) Tetracosane
(9) Hexacosane
(10) Octacosane

Part # 90322 @ 2000ug/mL 1 mL
Part # 91034 @ 10 mg/mL 1 mL

GASOLINE COMPONENTS
Varied Concentrations in Methanol

	Component	*(ug/mL)*
(1)	Benzene	500
(2)	Toluene	1500
(3)	Ethyl benzene	500
(4)	o-Xylene	1000
(5)	m-Xylene	1000
(6)	p-Xylene	1000
(7)	1,2,4-Trimethylbenzene	1000
(8)	2,2,4-Trimethylpentane	1500
(9)	Heptane	500
(10)	2-Methylpentane	1500

Part # 90221 1 mL

SURROGATE STANDARDS

DRO	o-Terphenyl	71225	$22	1000	Methanol
DRO	o-Terphenyl	91125	$25	2000	Methanol
DRO	p-Terphenyl	71227	$22	1000	$MeCl_2$
DRO	5-alpha-androstane	70372	$22	1000	Methanol
GRO	4-Bromofluorobenzene	70048	$22	1000	Methanol
GRO	4-Bromofluorobenzene	19267	$25	2000	Methanol
*GRO	a,a,a-Trifluorotoluene	70299	$22	1000	Methanol

** (Soil Matrix)*

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PRODUCT NUMBER CROSS REFERENCE INDEX

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CUSTOM STANDARD
QUOTATION REQUEST FORM

Rev #: 1, Date Revised: 01/01/02 - Catalog.

Photocopy at 125 % For Future Use

Fax To: Page_____ of _____ Date:_____/_____/____

Company Contact: _____

Company Name: _____

Company Address: _____

Company Phone: _____

Company Fax/Email: _____

Product Description: _____

Solvent: _____

Analysis Required - additional charge - (circle one): yes no

Date Required: _____/_____/_____

Requested Quantity (circle one): ORGANIC 5 x 1 mL 10 x 1 mL Other x mL

INORGANIC 1 x 100 mL 1 x 500 mL Other x mL

#	Component(s)	CAS # (optional)	Conc. (ug/mL)
(1)	_____	_____	_____
(2)	_____	_____	_____
(3)	_____	_____	_____
(4)	_____	_____	_____
(5)	_____	_____	_____
(6)	_____	_____	_____
(7)	_____	_____	_____
(8)	_____	_____	_____
(9)	_____	_____	_____
(10)	_____	_____	_____