Effective Date:

Monday, March 04, 2013

New Tests and Test Updates

In our continuing effort to provide you with the highest quality toxicology laboratory services available, we have compiled important changes regarding a number of tests we perform. Listed below are the types of changes that may be included in this notification, effective Monday, March 04, 2013

New Tests - Tests recently added to the NMS Labs test menu. *New Tests are effective immediately.*

Test Changes - Tests that have had changes to the method/ CPT code, units of measurement, scope of analysis, reference comments, or specimen requirements.

Discontinued Tests - Tests being discontinued with alternate testing suggestions.

Please use this information to update your computer systems/records. These changes are important to ensure standardization of our mutual laboratory databases.

If you have any questions about the information contained in this notification, please call our Client Support Department at (866) 522-2206. Thank you for your continued support of NMS Labs and your assistance in implementing these changes.

The CPT Codes provided in this document are based on AMA guidelines and are for informational purposes only. NMS Labs does not assume responsibility for billing errors due to reliance on the CPT Codes listed in this document.

NMS LABS
3701 Welsh Road
Willow Grove, PA 19090
www.NMSLabs.com

New Tests and Test Updates

Test Code	Test Name	New Test	Test Name	Method / CPT Code	Specimen Req.	Stability	Scope	Units	Reference Comments	Discontinue
0785B	Aromatic Solvents Exposure Panel, Blood					•	•		•	
0751SP	Bromocriptine, Serum/Plasma	•								
2216B	Chlorinated Hydrocarbons, Blood (CSA)				•	•	•		•	
8103B	Environmental Exposure Screen, Blood (Forensic)								•	
2030B	Ethylbenzene, Blood		•		•	•	•		•	
6303B	Firefighter Core Baseline Profile, Blood						•		•	
2321B	Hydrocarbon and Oxygenated Volatiles Panel, Blood				•		•		•	
2321FL	Hydrocarbon and Oxygenated Volatiles Panel, Fluid				•		•			
2321TI	Hydrocarbon and Oxygenated Volatiles Panel, Tissue				•		•			
2321U	Hydrocarbon and Oxygenated Volatiles Panel, Urine				•		•			
2417B	Inhalant Intoxicants Profile, Blood				•		•			
2415B	Inhalants Panel, Blood						•			
2408B	Inhalants Panel, Blood (CSA)				•		•		•	
2414B	Inhalants Panel, Halocarbons, Blood				•		•		•	
2414TI	Inhalants Panel, Halocarbons, Tissue				•		•			
2409U	Inhalants Panel, Urine (CSA)				•	•	•			
2490B	Lead and ZPP, Blood								•	
2492B	Lead, Blood								•	
2494B	Lead, Micro and EP (Pediatric), Blood								•	
2693B	Metals/Metalloids Acute Poisoning Panel, Blood								•	
2661B	Metals/Metalloids Panel 1, Blood								•	
2663B	Metals/Metalloids Panel 3, Blood								•	
4630B	Methyl Chloroform, Blood				•	•	•			
3060U	N,N-DimethylacetamideExposure (N-Methylacetamide), Urine		•		•		•		•	
3070U	N,N-Dimethylformamide (DMF) Exposure (N-Monomethylformamide), Urine		•		•	•	•		•	
0871B	Solvent Exposure Profile, Blood					•	•		•	
4297U	Tadalafil, Urine									•
4333B	Tetrachloroethane, Blood				•	•	•			

Effective Date:

Monday, March 04, 2013

New Tests and Test Updates

Test Code	Test Name	New Test	Test Name	Method / CPT Code	Specimen Req.	Stability	Scope	Units	Reference Comments	Discontinue
4333U	Tetrachloroethane, Urine				•		•			
3430B	Tetrachloroethylene, Blood		•		•		•		•	

New Tests and Test Updates

New Tests

0751SP Bromocriptine, Serum/Plasma **Effective Immediately**

Scope of Analysis:	Bromocriptine [LC-MS/MS]
Method(s):	High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)
Purpose:	Therapeutic Drug Monitoring
Category:	Parkinsonian Agent
Specimen Requirements:	2 mL Serum or Plasma
Minimum Volume:	0.6 mL
Special Handling:	Collect sample in Lavender top tube (EDTA). Promptly centrifuge and separate Serum or Plasma into a plastic screw capped vial using approved guidelines.
Specimen Container:	Plastic container (preservative-free)
Transport Temperature:	Frozen
Light Protection:	Yes
Rejection Criteria:	Not received Light Protected. Polymer gel separation tube (SST or PST).
Stability:	Room Temperature: Undetermined Refrigerated: Undetermined Frozen (-20 °C): 1 month(s)

Method: High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)

Set-Up Days / TAT:	Wednesday 4 days (after set-up)
CPT Code:	83789

Compound Name / Alias	Units	RL	Reference Comment
Bromocriptine	pg/mL	2.0	No therapeutic reference ranges have been established due to the variability in dosage regimens, large interindividual variations in patients with fixed dosages, and differences in methodology.

New Tests and Test Updates

Test Changes

0785B Aromatic Solvents Exposure Panel, Blood

Summary of Changes:	Stability was changed. Scope of Analysis was changed. Reference Comment was changed. Ethyl Benzene was changed to Ethylbenzene
Stability:	Room Temperature: Not Stable Refrigerated: 7 day(s) Frozen (-20 °C): 5 day(s)
Scope of Analysis: Method (CPT Code)	Headspace GC (84600): Benzene, Toluene, o-Xylene, p-Xylene, m-Xylene, Ethylbenzene, Styrene

Compound Name	Units	Reference Comment
Ethylbenzene	mcg/mL	Ethylbenzene is used as a commercial solvent, fuel additive and chemical intermediate in the production of styrene. In the U.S. population, blood concentrations in non-occupationally exposed individuals are generally less than 0.001 mcg/mL. Exposure to this compound generally occurs through the pulmonary route. At air concentrations of 1000 ppm, the compound causes irritation to the eyes and nose. Higher concentrations may result in dizziness and central nervous system depression.

2216B Chlorinated Hydrocarbons, Blood (CSA)

Summary of Changes:	Specimen Requirements (Specimen Container) were changed. Stability was changed. Scope of Analysis was changed. Reference Comment was changed. Perchloroethylene was changed to Tetrachloroethylene
Specimen Requirements:	4 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate), Lavender top tube (EDTA)
Light Protection:	Not Required
Special Handling:	Ensure that container remains tightly sealed.
Rejection Criteria:	None
Stability:	Room Temperature: Undetermined Refrigerated: 10 day(s) Frozen (-20 °C): Undetermined
Scope of Analysis: Method (CPT Code)	GC (82441): p-Dichlorobenzene, m-Dichlorobenzene, o-Dichlorobenzene GC (84600): Carbon Tetrachloride, Chloroform, Tetrachloroethylene, 1,1,1-Trichloroethane, Trichloroethylene, Dichloromethane

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
Tetrachloroethylene	mcg/mL	Biological Exposure Index (ACGIH): Following workplace exposure to Tetrachlorethylene: 0.5 mcg/mL in a blood specimen collected prior to shift after at least two consecutive workdays with exposure.

8103B Environmental Exposure Screen, Blood (Forensic)

Summary of Changes: Reference Comment was changed.

Scope of Analysis:
Method (CPT Code)

MD (80101): Cyanide
Colorimetry (80101): Bromides
Headspace GC (82055): Ethanol, Blood Alcohol Concentration (BAC), Methanol, Isopropanol, Acetone
ICP/MS (83655): Lead
ICP/MS (82175): Arsenic
ICP/MS (84255): Selenium
ICP/MS (83018): Thallium
ICP/MS (83825): Mercury
GC (83921): Trichloroacetic Acid
Headspace GC (84600): Volatiles
GC (84600): Hydrocarbon Gases
GC (84600): Halocarbons
ICP/MS (83018): Bismuth
ICP/MS (83018): Barium
ICP/MS (83018): Antimony
EZA (82480): Cholinesterase
SP (80101): Carboxyhemoglobin
SP (83050): Methemoglobin, Sulfhemoglobin

Compound Name	Units	Reference Comment
Lead	mcg/dL	Reported geometric mean blood lead concentration for US population (both adults and children) is less than 2 mcg/dL (taking into account the 95% CI). The following are the reported age-based 50th and 95th percentiles (with 95% CI)*: Age 1 - 5 years: 50th Percentile: 1.43 mcg/dL (1.30 - 1.60) 95th Percentile: 4.10 mcg/dL (3.40 - 5.19) Age 6 - 11 years: 50th Percentile: 0.96 mcg/dL (0.88 - 1.07) 95th Percentile: 2.50 mcg/dL (2.10 - 2.88) Age 12 - 19 years: 50th Percentile: 0.76 mcg/dL (0.72 - 0.82) 95th Percentile: 1.90 mcg/dL (1.70 - 2.32) Age 20 years and above: 50th Percentile: 1.34 mcg/dL (1.26 - 1.42) 95th Percentile: 3.90 mcg/dL (3.68 - 4.23)

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
		*National Health and Nutrition Examination Survey, 2007-2008 data; Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, February 2012. Department of Health and Human Services, Centers for Disease Control and Prevention. The US Centers for Disease Control and Prevention (CDC) reference value based on the 97.5th percentile of the blood lead level distribution in US children aged 1-5 years is 5 mcg/dL. It is reported that blood lead levels in the range of 5 - 9 mcg/dL have been associated with adverse health effects in children aged 6 years and younger. Additionally, the following guidelines are offered by US Centers for Disease Control and Prevention, especially in respect to children: 10 - 14 mcg/dL is moderately high and may require re-screening. 20 - 44 mcg/dL is high and may require immediate medical attention. 45 - 69 mcg/dL requires urgent attention. Greater than 70 mcg/dL is a medical emergency. Refer to OSHA's website for workplace information. Various states require that blood lead concentrations above certain mandated cutoffs must be reported to the state in which the patient resides. Please contact NMS Labs if you need assistance in supplying your state with the required information.

2030B Ethylbenzene, Blood

Summary of Changes:
Test Name was changed.
Specimen Requirements (Transport Temperature) were changed.
Stability was changed.
Scope of Analysis was changed.
Reference Comment was changed.

New Tests and Test Updates

Test Changes

Specimen Requirements:	2 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate)
Light Protection:	Not Required
Special Handling:	None
Rejection Criteria:	Received Room Temperature.
Stability:	Room Temperature: 5 day(s) Refrigerated: 2 month(s) Frozen (-20 °C): 2 month(s)
Scope of Analysis: Method (CPT Code)	Headspace GC (84600): Ethylbenzene

Compound Name	Units	Reference Comment
Ethylbenzene	mcg/mL	Ethylbenzene is used as a commercial solvent, fuel additive and chemical intermediate in the production of styrene. In the U.S. population, blood concentrations in non-occupationally exposed individuals are generally less than 0.001 mcg/mL. Exposure to this compound generally occurs through the pulmonary route. At air concentrations of 1000 ppm, the compound causes irritation to the eyes and nose. Higher concentrations may result in dizziness and central nervous system depression.

6303B Firefighter Core Baseline Profile, Blood

Summary of Changes:	Scope of Analysis was changed. Reference Comment was changed. Ethyl Benzene was changed to Ethylbenzene
Scope of Analysis: Method (CPT Code)	ICP/MS (83655): Lead H (84202): ZPP Headspace GC (84600): Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Ethyl Acetate, Diethyl Ether, Methyl Acrylate, Methyl Tertiary Butyl Ether

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
Ethylbenzene	mcg/mL	Ethylbenzene is used as a commercial solvent, fuel additive and chemical intermediate in the production of styrene. In the U.S. population, blood concentrations in non-occupationally exposed individuals are generally less than 0.001 mcg/mL. Exposure to this compound generally occurs through the pulmonary route. At air concentrations of 1000 ppm, the compound causes irritation to the eyes and nose. Higher concentrations may result in dizziness and central nervous system depression.
Lead	mcg/dL	Reported geometric mean blood lead concentration for US population (both adults and children) is less than 2 mcg/dL (taking into account the 95% CI). The following are the reported age-based 50th and 95th percentiles (with 95% CI)*: Age 1 - 5 years: 50th Percentile: 1.43 mcg/dL (1.30 - 1.60) 95th Percentile: 4.10 mcg/dL (3.40 - 5.19) Age 6 - 11 years: 50th Percentile: 0.96 mcg/dL (0.88 - 1.07) 95th Percentile: 2.50 mcg/dL (2.10 - 2.88) Age 12 - 19 years: 50th Percentile: 0.76 mcg/dL (0.72 - 0.82) 95th Percentile: 1.90 mcg/dL (1.70 - 2.32) Age 20 years and above: 50th Percentile: 1.34 mcg/dL (1.26 - 1.42) 95th Percentile: 3.90 mcg/dL (3.68 - 4.23) *National Health and Nutrition Examination Survey, 2007-2008 data; Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, February 2012. Department of Health and Human Services, Centers for Disease Control and Prevention. The US Centers for Disease Control and Prevention (CDC) reference value based on the 97.5th percentile of the blood lead level distribution in US children aged 1-5 years is 5 mcg/dL. It is reported that blood lead levels in the range of 5 - 9 mcg/dL have been associated with adverse health effects in children aged 6 years and younger. Additionally, the following guidelines are offered by

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
		US Centers for Disease Control and Prevention, especially in respect to children: 10 - 14 mcg/dL is moderately high and may require re-screening. 20 - 44 mcg/dL is high and may require immediate medical attention. 45 - 69 mcg/dL requires urgent attention. Greater than 70 mcg/dL is a medical emergency. Refer to OSHA's website for workplace information. Various states require that blood lead concentrations above certain mandated cutoffs must be reported to the state in which the patient resides. Please contact NMS Labs if you need assistance in supplying your state with the required information.

2321B Hydrocarbon and Oxygenated Volatiles Panel, Blood

Summary of Changes:	Specimen Requirements (Specimen Container) were changed. Specimen Requirements (Special Handling) were changed. Scope of Analysis was changed. Reference Comment was changed. Ethyl Benzene was changed to Ethylbenzene

Specimen Requirements:	2 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate), Lavender top tube (EDTA)
Light Protection:	Not Required
Special Handling:	Collect sample using alcohol free skin preparation. Ensure that container remains tightly sealed.
Rejection Criteria:	None
Scope of Analysis: Method (CPT Code)	Headspace GC (84600): Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Ethyl Acetate, Diethyl Ether, Methyl Acrylate, Methyl Tertiary Butyl Ether

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
Ethylbenzene	mcg/mL	Ethylbenzene is used as a commercial solvent, fuel additive and chemical intermediate in the production of styrene. In the U.S. population, blood concentrations in non-occupationally exposed individuals are generally less than 0.001 mcg/mL. Exposure to this compound generally occurs through the pulmonary route. At air concentrations of 1000 ppm, the compound causes irritation to the eyes and nose. Higher concentrations may result in dizziness and central nervous system depression.

2321FL Hydrocarbon and Oxygenated Volatiles Panel, Fluid

Summary of Changes: Specimen Requirements (Transport Temperature) were changed.
Scope of Analysis was changed.
Ethyl Benzene was changed to Ethylbenzene

Specimen Requirements: 2 mL Fluid
Transport Temperature: Frozen
Specimen Container: Plastic container (preservative-free)
Light Protection: Not Required
Special Handling: Ensure that container remains tightly sealed.
Rejection Criteria: None
Scope of Analysis: Method (CPT Code): Headspace GC (84600): Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Ethyl Acetate, Diethyl Ether, Methyl Acrylate, Methyl Tertiary Butyl Ether

2321TI Hydrocarbon and Oxygenated Volatiles Panel, Tissue

Summary of Changes: Specimen Requirements (Transport Temperature) were changed.
Scope of Analysis was changed.
Ethyl Benzene was changed to Ethylbenzene

Specimen Requirements: 10 g Tissue
Transport Temperature: Frozen
Specimen Container: Plastic container (preservative-free)
Light Protection: Not Required
Special Handling: Ensure that container remains tightly sealed.
Rejection Criteria: None

New Tests and Test Updates

Test Changes

Scope of Analysis: Method (CPT Code)	Headspace GC (80103, 84600): Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Ethyl Acetate, Diethyl Ether, Methyl Acrylate, Methyl Tertiary Butyl Ether

2321U Hydrocarbon and Oxygenated Volatiles Panel, Urine

Summary of Changes:	Specimen Requirements (Transport Temperature) were changed. Scope of Analysis was changed. Ethyl Benzene was changed to Ethylbenzene
Specimen Requirements:	2 mL Urine
Transport Temperature:	Frozen
Specimen Container:	Plastic container (preservative-free)
Light Protection:	Not Required
Special Handling:	Ensure that container remains tightly sealed.
Rejection Criteria:	None
Scope of Analysis: Method (CPT Code)	Headspace GC (84600): Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Ethyl Acetate, Diethyl Ether, Methyl Acrylate, Methyl Tertiary Butyl Ether

2417B Inhalant Intoxicants Profile, Blood

Summary of Changes:	Specimen Requirements (Special Handling) were changed. Scope of Analysis was changed. Trichloroethane was changed to 1,1,1-Trichloroethane Tetrachloroethane was changed to 1,1,2,2-Tetrachloroethane
Specimen Requirements:	4 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate), Lavender top tube (EDTA)
Light Protection:	Not Required
Special Handling:	Collect sample using alcohol free skin preparation. Ensure that container remains tightly sealed.
Rejection Criteria:	None
Scope of Analysis: Method (CPT Code)	SP (82375): Carboxyhemoglobin Headspace GC (84600): Benzene, Toluene, Xylene, Acetone, Ethyl Acetate, Methyl Ethyl Ketone, Iso-Amyl Alcohol, n-Amyl Alcohol, Iso-Butyl Alcohol, n-Butyl Alcohol, Cyclopropane, Ethyl Ether, Chloromethane, Dichloromethane, Chloroform, Carbon Tetrachloride, Chloroethane, Dichloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, Trichlorofluoromethane, Dichlorodifluoromethane, Trichlorotrifluoroethane, Methanol, Ethanol, Isopropanol

2408B Inhalants Panel, Blood (CSA)

New Tests and Test Updates

Test Changes

Summary of Changes: Specimen Requirements (Special Handling) were changed.
Scope of Analysis was changed.
Reference Comment was changed.
Ethyl Benzene was changed to Ethylbenzene

Specimen Requirements: 4 mL Blood
Transport Temperature: Refrigerated
Specimen Container: Gray top tube (Sodium Fluoride / Potassium Oxalate), Lavender top tube (EDTA)
Light Protection: Not Required
Special Handling: Collect sample using alcohol free skin preparation. Ensure that container remains tightly sealed.
Rejection Criteria: None
Scope of Analysis: Method (CPT Code): Headspace GC (84600): n-Butanol, Isobutanol, Sec-Butanol, Tert-Butanol, n-Amyl Alcohol, Iso-Amyl Alcohol, Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Ethyl Acetate, Diethyl Ether, Methyl Acrylate, Methyl Tertiary Butyl Ether
GC (84600): Cyclopropane

Compound Name	Units	Reference Comment
Ethylbenzene	mcg/mL	Ethylbenzene is used as a commercial solvent, fuel additive and chemical intermediate in the production of styrene. In the U.S. population, blood concentrations in non-occupationally exposed individuals are generally less than 0.001 mcg/mL. Exposure to this compound generally occurs through the pulmonary route. At air concentrations of 1000 ppm, the compound causes irritation to the eyes and nose. Higher concentrations may result in dizziness and central nervous system depression.

2415B Inhalants Panel, Blood

Summary of Changes: Scope of Analysis was changed.
Trichloroethane was changed to 1,1,1-Trichloroethane
Tetrachloroethane was changed to 1,1,2,2-Tetrachloroethane

Scope of Analysis: Method (CPT Code): Headspace GC (84600): Benzene, Toluene, Xylene, Acetone, Ethyl Acetate, Methyl Ethyl Ketone, Iso-Amyl Alcohol, n-Amyl Alcohol, Iso-Butyl Alcohol, n-Butyl Alcohol, Cyclopropane, Ethyl Ether, Chloromethane, Dichloromethane, Chloroform, Carbon Tetrachloride, Chloroethane, Dichloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, Trichlorofluoromethane, Dichlorodifluoromethane, Trichlorotrifluoroethane, Methanol, Ethanol, Isopropanol

2414B Inhalants Panel, Halocarbons, Blood

New Tests and Test Updates

Test Changes

Summary of Changes:	Specimen Requirements (Specimen Container) were changed. Scope of Analysis was changed. Reference Comment was changed. Methyl Chloroform was changed to 1,1,1-Trichloroethane Perchloroethylene was changed to Tetrachloroethylene

Specimen Requirements:	2 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate), Lavender top tube (EDTA)
Light Protection:	Not Required
Special Handling:	Ensure that container remains tightly sealed.
Rejection Criteria:	None
Scope of Analysis: Method (CPT Code)	GC (84600): Carbon Tetrachloride, Chloroform, Dichloromethane, Trichlorofluoromethane, Dichlorodifluoromethane, Trichlorotrifluoroethane, 1,1,1-Trichloroethane, Tetrachloroethylene, Trichloroethylene

Compound Name	Units	Reference Comment
Tetrachloroethylene	mcg/mL	Biological Exposure Index (ACGIH): Following workplace exposure to Tetrachlorethylene: 0.5 mcg/mL in a blood specimen collected prior to shift after at least two consecutive workdays with exposure.

2414TI Inhalants Panel, Halocarbons, Tissue

Summary of Changes:	Specimen Requirements (Transport Temperature) were changed. Specimen Requirements (Specimen Container) were changed. Scope of Analysis was changed. Methyl Chloroform was changed to 1,1,1-Trichloroethane Perchloroethylene was changed to Tetrachloroethylene

Specimen Requirements:	10 g Tissue
Transport Temperature:	Frozen
Specimen Container:	Plastic container (preservative-free)
Light Protection:	Not Required
Special Handling:	Ensure that container remains tightly sealed.
Rejection Criteria:	None
Scope of Analysis: Method (CPT Code)	GC (80103, 84600): Carbon Tetrachloride, Chloroform, Dichloromethane, Trichlorofluoromethane, Dichlorodifluoromethane, Trichlorotrifluoroethane, 1,1,1-Trichloroethane, Tetrachloroethylene, Trichloroethylene

2409U Inhalants Panel, Urine (CSA)

New Tests and Test Updates

Test Changes

Summary of Changes: Specimen Requirements (Transport Temperature) were changed.
Specimen Requirements (Special Handling) were changed.
Stability was changed.
Scope of Analysis was changed.
Ethyl Benzene was changed to Ethylbenzene

Specimen Requirements: 5 mL Urine
Transport Temperature: Frozen
Specimen Container: Plastic container (preservative-free)
Light Protection: Not Required
Special Handling: Samples preserved with Benzoic Acid are unsuitable for analysis. Preservative-free Urine samples are recommended.
Rejection Criteria: None
Stability: Room Temperature: Undetermined
Refrigerated: Undetermined
Frozen (-20 °C): Undetermined

Acetaldehyde is an unstable compound post-collection and will both form and degrade under certain sample handling conditions. Even when extreme precautions are taken to maintain the integrity of Acetaldehyde during sample collection, transport and analysis, the results will be affected under typical collection and laboratory procedures.

Scope of Analysis: Method (CPT Code)
Headspace GC (84600): n-Butanol, Isobutanol, Sec-Butanol, Tert-Butanol, n-Amyl Alcohol, Iso-Amyl Alcohol, Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Ethyl Acetate, Diethyl Ether, Methyl Acrylate, Methyl Tertiary Butyl Ether
IC (82492): Nitrite, Nitrate
GC (84600): Phenol - Total, o-Cresol
IC (83921): Hippuric Acid, Methylhippuric Acid, Mandelic Acid

2490B Lead and ZPP, Blood

Summary of Changes: Reference Comment was changed.

Scope of Analysis: Method (CPT Code)
ICP/MS (83655): Lead
H (84202): ZPP

Compound Name	Units	Reference Comment
Lead	mcg/dL	Reported geometric mean blood lead concentration for US population (both adults and children) is less than 2 mcg/dL (taking into account the 95% CI). The following are the reported age-based 50th and 95th percentiles (with 95% CI)*: Age 1 - 5 years: 50th Percentile: 1.43 mcg/dL (1.30 - 1.60)

Test Changes

Compound Name	Units	Reference Comment
		95th Percentile: 4.10 mcg/dL (3.40 - 5.19) Age 6 - 11 years: 50th Percentile: 0.96 mcg/dL (0.88 - 1.07) 95th Percentile: 2.50 mcg/dL (2.10 - 2.88) Age 12 - 19 years: 50th Percentile: 0.76 mcg/dL (0.72 - 0.82) 95th Percentile: 1.90 mcg/dL (1.70 - 2.32) Age 20 years and above: 50th Percentile: 1.34 mcg/dL (1.26 - 1.42) 95th Percentile: 3.90 mcg/dL (3.68 - 4.23) *National Health and Nutrition Examination Survey, 2007-2008 data; Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, February 2012. Department of Health and Human Services, Centers for Disease Control and Prevention. The US Centers for Disease Control and Prevention (CDC) reference value based on the 97.5th percentile of the blood lead level distribution in US children aged 1-5 years is 5 mcg/dL. It is reported that blood lead levels in the range of 5 - 9 mcg/dL have been associated with adverse health effects in children aged 6 years and younger. Additionally, the following guidelines are offered by US Centers for Disease Control and Prevention, especially in respect to children: 10 - 14 mcg/dL is moderately high and may require re-screening. 20 - 44 mcg/dL is high and may require immediate medical attention. 45 - 69 mcg/dL requires urgent attention. Greater than 70 mcg/dL is a medical emergency. Refer to OSHA's website for workplace information. Various states require that blood lead concentrations above certain mandated cutoffs must be reported to the state in which the patient resides. Please contact NMS Labs if you need assistance in supplying your state with the required information.
2492B	**Lead, Blood**	

New Tests and Test Updates

Test Changes

Summary of Changes: Reference Comment was changed.

Scope of Analysis: ICP/MS (83655): Lead
Method (CPT Code)

Compound Name	Units	Reference Comment
Lead	mcg/dL	Reported geometric mean blood lead concentration for US population (both adults and children) is less than 2 mcg/dL (taking into account the 95% CI). The following are the reported age-based 50th and 95th percentiles (with 95% CI)*: Age 1 - 5 years: 50th Percentile: 1.43 mcg/dL (1.30 - 1.60) 95th Percentile: 4.10 mcg/dL (3.40 - 5.19) Age 6 - 11 years: 50th Percentile: 0.96 mcg/dL (0.88 - 1.07) 95th Percentile: 2.50 mcg/dL (2.10 - 2.88) Age 12 - 19 years: 50th Percentile: 0.76 mcg/dL (0.72 - 0.82) 95th Percentile: 1.90 mcg/dL (1.70 - 2.32) Age 20 years and above: 50th Percentile: 1.34 mcg/dL (1.26 - 1.42) 95th Percentile: 3.90 mcg/dL (3.68 - 4.23) *National Health and Nutrition Examination Survey, 2007-2008 data; Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, February 2012. Department of Health and Human Services, Centers for Disease Control and Prevention. The US Centers for Disease Control and Prevention (CDC) reference value based on the 97.5th percentile of the blood lead level distribution in US children aged 1-5 years is 5 mcg/dL. It is reported that blood lead levels in the range of 5 - 9 mcg/dL have been associated with adverse health effects in children aged 6 years and younger. Additionally, the following guidelines are offered by US Centers for Disease Control and Prevention, especially in respect to children: 10 - 14 mcg/dL is moderately high and may require re-screening. 20 - 44 mcg/dL is high and may require immediate medical attention. 45 - 69 mcg/dL requires urgent attention.

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
		Greater than 70 mcg/dL is a medical emergency. Refer to OSHA's website for workplace information. Various states require that blood lead concentrations above certain mandated cutoffs must be reported to the state in which the patient resides. Please contact NMS Labs if you need assistance in supplying your state with the required information.

2494B Lead, Micro and EP (Pediatric), Blood

Summary of Changes: Reference Comment was changed.

Scope of Analysis: ICP/MS (83655): Lead
Method (CPT Code) H (84202): EP Pediatric

Compound Name	Units	Reference Comment
Lead	mcg/dL	Reported geometric mean blood lead concentration for US population (both adults and children) is less than 2 mcg/dL (taking into account the 95% CI). The following are the reported age-based 50th and 95th percentiles (with 95% CI)*: Age 1 - 5 years: 50th Percentile: 1.43 mcg/dL (1.30 - 1.60) 95th Percentile: 4.10 mcg/dL (3.40 - 5.19) Age 6 - 11 years: 50th Percentile: 0.96 mcg/dL (0.88 - 1.07) 95th Percentile: 2.50 mcg/dL (2.10 - 2.88) Age 12 - 19 years: 50th Percentile: 0.76 mcg/dL (0.72 - 0.82) 95th Percentile: 1.90 mcg/dL (1.70 - 2.32) Age 20 years and above: 50th Percentile: 1.34 mcg/dL (1.26 - 1.42) 95th Percentile: 3.90 mcg/dL (3.68 - 4.23) *National Health and Nutrition Examination Survey, 2007-2008 data; Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, February 2012. Department of Health and Human Services, Centers for Disease Control and Prevention. The US Centers for Disease Control and Prevention (CDC) reference value based on the 97.5th percentile of the blood lead level distribution in US children aged 1-5 years is 5 mcg/dL.

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
		It is reported that blood lead levels in the range of 5 - 9 mcg/dL have been associated with adverse health effects in children aged 6 years and younger. Additionally, the following guidelines are offered by US Centers for Disease Control and Prevention, especially in respect to children: 10 - 14 mcg/dL is moderately high and may require re-screening. 20 - 44 mcg/dL is high and may require immediate medical attention. 45 - 69 mcg/dL requires urgent attention. Greater than 70 mcg/dL is a medical emergency. Refer to OSHA's website for workplace information. Various states require that blood lead concentrations above certain mandated cutoffs must be reported to the state in which the patient resides. Please contact NMS Labs if you need assistance in supplying your state with the required information.

2693B Metals/Metalloids Acute Poisoning Panel, Blood

Summary of Changes: Reference Comment was changed.

Scope of Analysis: ICP/MS (82175): Arsenic
Method (CPT Code) ICP/MS (83018): Bismuth
ICP/MS (83825): Mercury
ICP/MS (84255): Selenium
ICP/MS (83018): Thallium
ICP/MS (83018): Antimony
ICP/MS (83018): Barium
ICP/MS (83655): Lead

2661B Metals/Metalloids Panel 1, Blood

Summary of Changes: Reference Comment was changed.

Scope of Analysis: ICP/MS (83655): Lead
Method (CPT Code) ICP/MS (82175): Arsenic
ICP/MS (83825): Mercury

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
Lead	mcg/dL	Reported geometric mean blood lead concentration for US population (both adults and children) is less than 2 mcg/dL (taking into account the 95% CI). The following are the reported age-based 50th and 95th percentiles (with 95% CI)*: Age 1 - 5 years: 50th Percentile: 1.43 mcg/dL (1.30 - 1.60) 95th Percentile: 4.10 mcg/dL (3.40 - 5.19) Age 6 - 11 years: 50th Percentile: 0.96 mcg/dL (0.88 - 1.07) 95th Percentile: 2.50 mcg/dL (2.10 - 2.88) Age 12 - 19 years: 50th Percentile: 0.76 mcg/dL (0.72 - 0.82) 95th Percentile: 1.90 mcg/dL (1.70 - 2.32) Age 20 years and above: 50th Percentile: 1.34 mcg/dL (1.26 - 1.42) 95th Percentile: 3.90 mcg/dL (3.68 - 4.23) *National Health and Nutrition Examination Survey, 2007-2008 data; Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, February 2012. Department of Health and Human Services, Centers for Disease Control and Prevention. The US Centers for Disease Control and Prevention (CDC) reference value based on the 97.5th percentile of the blood lead level distribution in US children aged 1-5 years is 5 mcg/dL. It is reported that blood lead levels in the range of 5 - 9 mcg/dL have been associated with adverse health effects in children aged 6 years and younger. Additionally, the following guidelines are offered by US Centers for Disease Control and Prevention, especially in respect to children: 10 - 14 mcg/dL is moderately high and may require re-screening. 20 - 44 mcg/dL is high and may require immediate medical attention. 45 - 69 mcg/dL requires urgent attention. Greater than 70 mcg/dL is a medical emergency.

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
		Refer to OSHA's website for workplace information. Various states require that blood lead concentrations above certain mandated cutoffs must be reported to the state in which the patient resides. Please contact NMS Labs if you need assistance in supplying your state with the required information.

2663B Metals/Metalloids Panel 3, Blood

Summary of Changes: Reference Comment was changed.

Scope of Analysis: ICP/MS (82495): Chromium
Method (CPT Code) ICP/MS (82300): Cadmium
H (84202): ZPP
ICP/MS (83655): Lead
ICP/MS (82175): Arsenic
ICP/MS (83825): Mercury

Compound Name	Units	Reference Comment
Lead	mcg/dL	Reported geometric mean blood lead concentration for US population (both adults and children) is less than 2 mcg/dL (taking into account the 95% CI). The following are the reported age-based 50th and 95th percentiles (with 95% CI)*: Age 1 - 5 years: 50th Percentile: 1.43 mcg/dL (1.30 - 1.60) 95th Percentile: 4.10 mcg/dL (3.40 - 5.19) Age 6 - 11 years: 50th Percentile: 0.96 mcg/dL (0.88 - 1.07) 95th Percentile: 2.50 mcg/dL (2.10 - 2.88) Age 12 - 19 years: 50th Percentile: 0.76 mcg/dL (0.72 - 0.82) 95th Percentile: 1.90 mcg/dL (1.70 - 2.32) Age 20 years and above: 50th Percentile: 1.34 mcg/dL (1.26 - 1.42) 95th Percentile: 3.90 mcg/dL (3.68 - 4.23) *National Health and Nutrition Examination Survey, 2007-2008 data; Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, February 2012. Department of Health and Human Services, Centers for Disease Control and Prevention. The US Centers for Disease Control and Prevention (CDC) reference value based on the 97.5th percentile of the blood lead level distribution in US children aged

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
		1-5 years is 5 mcg/dL. It is reported that blood lead levels in the range of 5 - 9 mcg/dL have been associated with adverse health effects in children aged 6 years and younger. Additionally, the following guidelines are offered by US Centers for Disease Control and Prevention, especially in respect to children: 10 - 14 mcg/dL is moderately high and may require re-screening. 20 - 44 mcg/dL is high and may require immediate medical attention. 45 - 69 mcg/dL requires urgent attention. Greater than 70 mcg/dL is a medical emergency. Refer to OSHA's website for workplace information. Various states require that blood lead concentrations above certain mandated cutoffs must be reported to the state in which the patient resides. Please contact NMS Labs if you need assistance in supplying your state with the required information.

4630B Methyl Chloroform, Blood

Summary of Changes: Specimen Requirements (Specimen Container) were changed.
Stability was changed.
Scope of Analysis was changed.

Specimen Requirements:	2 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate)
Light Protection:	Not Required
Special Handling:	Ensure that container remains tightly sealed.
Rejection Criteria:	None
Stability:	Room Temperature: Undetermined Refrigerated: 2 month(s) Frozen (-20 °C): Undetermined
Scope of Analysis: Method (CPT Code)	GC (84600): 1,1,1-Trichloroethane

3060U N,N-DimethylacetamideExposure (N-Methylacetamide), Urine

New Tests and Test Updates

Test Changes

Summary of Changes: Test Name was changed.
Specimen Requirements (Special Handling) were changed.
Scope of Analysis was changed.
Reference Comment was changed.

Specimen Requirements: 6 mL Urine
Transport Temperature: Refrigerated
Specimen Container: Plastic container (preservative-free)
Light Protection: Not Required
Special Handling: Collect sample at end of shift at end of work week.
Avoid consumption of alcoholic beverages on the sampling day.
Rejection Criteria: None
Scope of Analysis: Colorimetry (82570): Creatinine
Method (CPT Code) GC (82491): N-Methylacetamide, N-Methylacetamide (Creatinine corrected)

Compound Name	Units	Reference Comment
N-Methylacetamide (Creatinine corrected)	mg/g Creat	Biological Exposure Index (ACGIH): Following workplace exposure to N,N-Dimethylacetamide: 30 mg N-Methylacetamide/g Creatinine measured in a urine specimen collected at end of shift at end of work week.

3070U N,N-Dimethylformamide (DMF) Exposure (N-Monomethylformamide), Urine

Summary of Changes: Test Name was changed.
Specimen Requirements (Special Handling) were changed.
Stability was changed.
Scope of Analysis was changed.
Reference Comment was changed.

Specimen Requirements: 6 mL Urine
Transport Temperature: Refrigerated
Specimen Container: Plastic container (preservative-free)
Light Protection: Not Required
Special Handling: Collect sample at end of shift.
Avoid consumption of alcoholic beverages on the sampling day.
Rejection Criteria: None
Stability: Room Temperature: Undetermined
Refrigerated: 7 day(s)
Frozen (-20 °C): Undetermined
Scope of Analysis: Colorimetry (82570): Creatinine
Method (CPT Code) GC (82491): N-Monomethylformamide

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
N-Monomethylformamide	mg/L	Biological Exposure Index (ACGIH): Following workplace exposure to N,N-Dimethylacetamide: 15 mg/L measured in a urine specimen collected at end of shift.

0871B Solvent Exposure Profile, Blood

Summary of Changes:
Stability was changed.
Scope of Analysis was changed.
Reference Comment was changed.
Ethyl Benzene was changed to Ethylbenzene
Trichloroethane was changed to 1,1,1-Trichloroethane

Stability:
Room Temperature: Undetermined
Refrigerated: 7 day(s)
Frozen (-20 °C): Undetermined

Scope of Analysis:
GC (82441): Trichloroethanol

Method (CPT Code)
Headspace GC (84600): Benzene, Toluene, o-Xylene, p-Xylene, m-Xylene, Ethylbenzene, Styrene
GC (84600): Carbon Tetrachloride, 1,1,1-Trichloroethane, Trichloroethylene, Tetrachloroethylene

Compound Name	Units	Reference Comment
Ethylbenzene	mcg/mL	Ethylbenzene is used as a commercial solvent, fuel additive and chemical intermediate in the production of styrene. In the U.S. population, blood concentrations in non-occupationally exposed individuals are generally less than 0.001 mcg/mL. Exposure to this compound generally occurs through the pulmonary route. At air concentrations of 1000 ppm, the compound causes irritation to the eyes and nose. Higher concentrations may result in dizziness and central nervous system depression.

4333B Tetrachloroethane, Blood

Summary of Changes:
Specimen Requirements (Specimen Container) were changed.
Stability was changed.
Scope of Analysis was changed.

New Tests and Test Updates

Test Changes

Specimen Requirements:	2 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate)
Light Protection:	Not Required
Special Handling:	None
Rejection Criteria:	None
Stability:	Room Temperature: Undetermined Refrigerated: 2 month(s) Frozen (-20 °C): Undetermined
Scope of Analysis: Method (CPT Code)	GC (84600): 1,1,2,2-Tetrachloroethane

4333U Tetrachloroethane, Urine

Summary of Changes:	Specimen Requirements (Transport Temperature) were changed. Specimen Requirements (Rejection Criteria) were changed. Scope of Analysis was changed.

Specimen Requirements:	2 mL Urine
Transport Temperature:	Frozen
Specimen Container:	Plastic container (preservative-free)
Light Protection:	Not Required
Special Handling:	None
Rejection Criteria:	None
Scope of Analysis: Method (CPT Code)	GC (84600): 1,1,2,2-Tetrachloroethane

3430B Tetrachloroethylene, Blood

Summary of Changes:	Test Name was changed. Specimen Requirements (Specimen Container) were changed. Specimen Requirements (Special Handling) were changed. Scope of Analysis was changed. Reference Comment was changed.

Specimen Requirements:	2 mL Blood
Transport Temperature:	Refrigerated
Specimen Container:	Gray top tube (Sodium Fluoride / Potassium Oxalate)
Light Protection:	Not Required
Special Handling:	Ensure that container remains tightly sealed.
Rejection Criteria:	Received Room Temperature.
Scope of Analysis: Method (CPT Code)	GC (84600): Tetrachloroethylene

New Tests and Test Updates

Test Changes

Compound Name	Units	Reference Comment
Tetrachloroethylene	mcg/mL	Biological Exposure Index (ACGIH): Following workplace exposure to Tetrachlorethylene: 0.5 mcg/mL in a blood specimen collected prior to shift after at least two consecutive workdays with exposure.

New Tests and Test Updates

Discontinued Tests

Test Code	Test Name	Alternative Test
4297U	Tadalafil, Urine	4297B - Tadalafil, Blood 4297SP - Tadalafil, Serum/Plasma