



Effective Date:

Monday, October 29, 2012

## New Tests and Test Updates

### Immediate Action

Modified Date: 10/24/2012

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, October 29, 2012

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**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.

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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.



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## New Tests and Test Updates

Test Code	Test Name	New Test	Test Name	Method / CPT Code	Specimen Req.	Stability	Scope	Units	Reference Comments	Discontinue
0711R	Boron, RBCs									•
0938R	Calcium - Total, RBCs			•		•			•	
0936R	Calcium Unwashed - Total, RBCs			•		•				
9401U	Chloral Hydrate Screen, Urine			•	•	•			•	
1330R	Copper, RBCs			•		•			•	
2416U	Inhalants Metabolites Panel, Urine			•	•				•	
2426U	Inhalants and Metabolites Panel, Urine			•	•				•	
2430R	Iron, RBCs									•
2520R	Lithium, RBCs			•	•	•			•	
2551R	Magnesium - Total, RBCs			•	•	•			•	
6153R	Metals Panel 1, RBCs			•	•	•			•	
3069R	Mineral Profile (7), RBCs			•					•	
3066R	Mineral Profile, RBCs			•		•			•	
3432U	Perchloroethylene Exposure, Urine			•	•	•			•	
3765R	Phosphorus - Total, RBCs									•
3784R	Potassium - Total, RBCs			•	•	•			•	
4190R	Silicon, RBCs									•
0872U	Solvent Profile, Urine			•			•		•	
4627U	Trichloroacetic Acid, Urine			•	•	•	•		•	
4658U	Trichloroethylene Exposure, Urine			•	•	•	•		•	
4844R	Zinc, RBCs			•		•			•	



# New Tests and Test Updates

## Test Changes

### 0938R Calcium - Total, RBCs

Summary of Changes: Stability was changed.  
Reference Comment was changed.  
Methods/CPT Codes were changed [ICP/OES (82310)]

Stability: Room Temperature: Not Stable  
Refrigerated: 30 day(s)  
Frozen (-20 °C): 30 day(s)

Scope of Analysis: ICP/OES (82310): Calcium  
Method (CPT Code)

Compound Name	Units	Reference Comment
Calcium	mg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is <RL to 2.3 mg/dL (n=1091). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mg/dL units. Not for clinical diagnostic purposes.

### 0936R Calcium Unwashed - Total, RBCs

Summary of Changes: Stability was changed.  
Methods/CPT Codes were changed [ICP/OES (82310)]

Stability: Room Temperature: Not Stable  
Refrigerated: 30 day(s)  
Frozen (-20 °C): 30 day(s)

Scope of Analysis: ICP/OES (82310): Calcium  
Method (CPT Code)

### 9401U Chloral Hydrate Screen, Urine

Summary of Changes: Specimen Requirements were changed.  
Specimen Requirements (Specimen Container) were changed.  
Stability was changed.  
Reference Comment was changed.  
Methods/CPT Codes were changed [GC (83921)]

Specimen Requirements: 3 mL Urine  
Transport Temperature: Refrigerated  
Specimen Container: Plastic container (preservative-free)  
Light Protection: Not Required  
Special Handling: None  
Rejection Criteria: None  
Stability: Room Temperature: 14 day(s)  
Refrigerated: 14 day(s)  
Frozen (-20 °C): 14 day(s)



# New Tests and Test Updates

## Test Changes

Scope of Analysis: GC (83921): Trichloroacetic Acid  
Method (CPT Code)

Compound Name	Units	Reference Comment
Trichloroacetic Acid	mg/L	Trichloroacetic Acid is a major urinary metabolite of Chloral Hydrate that is slowly excreted over several days.

### 1330R Copper, RBCs

Summary of Changes: Stability was changed.  
Reference Comment was changed.  
Methods/CPT Codes were changed [ICP/OES (82525)]

Stability: Room Temperature: Not Stable  
Refrigerated: 14 day(s)  
Frozen (-20 °C): 14 day(s)

Scope of Analysis: ICP/OES (82525): Copper  
Method (CPT Code)

Compound Name	Units	Reference Comment
Copper	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 59 - 91 mcg/dL (n=1999). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.

### 2416U Inhalants Metabolites Panel, Urine

Summary of Changes: Specimen Requirements were changed.  
Reference Comment was changed.  
Methods/CPT Codes were changed [GC (83921)]

Specimen Requirements: 4 mL Urine  
Transport Temperature: Refrigerated  
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  
Scope of Analysis: GC (84600): Phenol - Total, o-Cresol  
Method (CPT Code) IC (83921): Hippuric Acid, Methylhippuric Acid, Mandelic Acid, Phenylglyoxylic Acid  
GC (83921): Trichloroacetic Acid



# New Tests and Test Updates

## Test Changes

Compound Name	Units	Reference Comment
Trichloroacetic Acid	mg/L	Biological Exposure Index (ACGIH): Following workplace exposure to Methyl Chloroform: 10 mg/L measured in an end of workweek urine specimen.  Following workplace exposure to Trichloroethylene: 15 mg/L measured in an end of shift at end of workweek urine specimen.

### 2426U Inhalants and Metabolites Panel, Urine

Summary of Changes: Specimen Requirements were changed.  
Specimen Requirements (Transport Temperature) were changed.  
Specimen Requirements (Specimen Container) were changed.  
Reference Comment was changed.  
**Methods/CPT Codes were changed [GC (83921)]**

Specimen Requirements: 6 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  
Scope of Analysis: GC (84600): Phenol - Total, o-Cresol  
Method (CPT Code) Headspace GC (84600): Acetone, Ethanol, Isopropanol, Methanol, Methyl Ethyl Ketone, Methyl Isobutyl Ketone  
IC (83921): Hippuric Acid, Methylhippuric Acid, Mandelic Acid, Phenylglyoxylic Acid  
GC (83921): Trichloroacetic Acid

Compound Name	Units	Reference Comment
Trichloroacetic Acid	mg/L	Biological Exposure Index (ACGIH): Following workplace exposure to Methyl Chloroform: 10 mg/L measured in an end of workweek urine specimen.  Following workplace exposure to Trichloroethylene: 15 mg/L measured in an end of shift at end of workweek urine specimen.

### 2520R Lithium, RBCs

Summary of Changes: Specimen Requirements were changed.  
Stability was changed.  
Reference Comment was changed.  
Methods/CPT Codes were changed [ICP/OES (80178)]



# New Tests and Test Updates

## Test Changes

Specimen Requirements: 2 mL RBCs  
 Transport Temperature: Refrigerated  
 Specimen Container: Royal Blue top tube (Trace metal-free; EDTA)  
 Light Protection: Not Required  
 Special Handling: Submit in container with a non-Lithium based anticoagulant. Tubes containing Lithium based anticoagulants are not acceptable. Centrifuge and separate RBCs into an acid washed screw capped vial within two hours of collection.  
 Rejection Criteria: Received Room Temperature. Light Green top tube (Lithium Heparin).  
 Stability: Room Temperature: Not Stable  
 Refrigerated: Undetermined  
 Frozen (-20 °C): Undetermined  
 Scope of Analysis: ICP/OES (80178): Lithium  
 Method (CPT Code)

Compound Name	Units	Reference Comment
Lithium	mEq/L	Generally: 0.02 - 0.80 mEq/L. Not for clinical diagnostic purposes.

### 2551R Magnesium - Total, RBCs

Summary of Changes: Specimen Requirements were changed.  
 Stability was changed.  
 Reference Comment was changed.  
 Methods/CPT Codes were changed [ICP/OES (83735)]

Specimen Requirements: 2 mL RBCs  
 Transport Temperature: Refrigerated  
 Specimen Container: Green top tube (Sodium Heparin)  
 Light Protection: Not Required  
 Special Handling: Centrifuge and separate RBCs into an acid washed plastic screw capped vial within two hours of collection.  
 Rejection Criteria: Received Room Temperature. Light Blue top tube (Sodium Citrate). Gray top tube (Sodium Fluoride / Potassium Oxalate). Yellow top tube (ACD - Acid Citrate Dextrose).  
 Stability: Room Temperature: Not Stable  
 Refrigerated: 30 day(s)  
 Frozen (-20 °C): 30 day(s)  
 Scope of Analysis: ICP/OES (83735): Magnesium  
 Method (CPT Code)



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## Test Changes

Compound Name	Units	Reference Comment
Magnesium	mg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 4.2 - 5.9 mg/dL (n=2812). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mg/dL units. Not for clinical diagnostic purposes.

### 6153R Metals Panel 1, RBCs

Summary of Changes: Specimen Requirements were changed.  
Stability was changed.  
Reference Comment was changed.  
Methods/CPT Codes were changed [ICP/OES (84630), ICP/OES (82525), ICP/OES (84132), ICP/OES (83735), ICP/OES (82310)]

Specimen Requirements: 8 mL RBCs  
 Transport Temperature: Refrigerated  
 Specimen Container: Green top tube (Sodium Heparin), Light Green top tube (Lithium Heparin), Royal Blue top tube (Trace metal-free; EDTA)  
 Light Protection: Not Required  
 Special Handling: Submit in container with a non-Potassium based preservative/anticoagulant. Tubes containing Potassium based preservatives/anticoagulants are not acceptable. Centrifuge and separate RBCs into an acid washed plastic screw capped vial within two hours of collection.  
 Rejection Criteria: Received Frozen. Light Blue top tube (Sodium Citrate). Gray top tube (Sodium Fluoride / Potassium Oxalate). Lavender top tube (EDTA). Yellow top tube (ACD - Acid Citrate Dextrose).  
 Stability: Room Temperature: Undetermined  
 Refrigerated: Undetermined  
 Frozen (-20 °C): Not Stable  
 Scope of Analysis: ICP/MS (82495): Chromium  
 Method (CPT Code) ICP/OES (84630): Zinc  
 ICP/OES (82525): Copper  
 ICP/OES (84132): Potassium  
 ICP/OES (83735): Magnesium  
 ICP/OES (82310): Calcium

Compound Name	Units	Reference Comment
Calcium	mg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is <RL to 2.3 mg/dL (n=1091). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mg/dL units. Not for clinical diagnostic purposes.



# New Tests and Test Updates

## Test Changes

Compound Name	Units	Reference Comment
Copper	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 59 - 91 mcg/dL (n=1999). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.
Magnesium	mg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 4.2 - 5.9 mg/dL (n=2812). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mg/dL units. Not for clinical diagnostic purposes.
Potassium	mEq/L	NMS Labs derived data for 2.5th - 97.5th percentile range is 82 - 100 mEq/L (n=541). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mEq/L units. Not for clinical diagnostic purposes.
Zinc	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 794 - 1470 mcg/dL (n=2940). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.

### 3069R Mineral Profile (7), RBCs

Summary of Changes: Reference Comment was changed.  
Methods/CPT Codes were changed [ICP/OES (84630), ICP/OES (82525)]

Scope of Analysis: ICP/MS (82495): Chromium, Cobalt  
Method (CPT Code) ICP/MS (84255): Selenium  
ICP/MS (83018): Molybdenum  
ICP/MS (83785): Manganese  
ICP/OES (84630): Zinc  
ICP/OES (82525): Copper

Compound Name	Units	Reference Comment
Copper	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 59 - 91 mcg/dL (n=1999). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.





## New Tests and Test Updates

### Test Changes

Compound Name	Units	Reference Comment
Zinc	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 794 - 1470 mcg/dL (n=2940). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.

#### 3066R Mineral Profile, RBCs

Summary of Changes: Stability was changed.  
Reference Comment was changed.  
Methods/CPT Codes were changed [ICP/OES (84630), ICP/OES (82525), ICP/OES (83735)]

Stability: Room Temperature: Undetermined  
Refrigerated: Undetermined  
Frozen (-20 °C): Not Stable

Scope of Analysis: ICP/MS (84255): Selenium  
Method (CPT Code) ICP/MS (83018): Molybdenum  
ICP/MS (83785): Manganese  
ICP/MS (83018): Cobalt, Chromium  
ICP/OES (84630): Zinc  
ICP/OES (82525): Copper  
ICP/OES (83735): Magnesium

Compound Name	Units	Reference Comment
Copper	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 59 - 91 mcg/dL (n=1999). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.
Magnesium	mg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 4.2 - 5.9 mg/dL (n=2812). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mg/dL units. Not for clinical diagnostic purposes.
Zinc	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 794 - 1470 mcg/dL (n=2940). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.

#### 3432U Perchloroethylene Exposure, Urine



# New Tests and Test Updates

## Test Changes

Summary of Changes: Specimen Requirements were changed.  
 Specimen Requirements (Specimen Container) were changed.  
 Stability was changed.  
 Reference Comment was changed.  
**Methods/CPT Codes were changed [GC (83921)]**

Specimen Requirements: 1 mL Urine  
 Transport Temperature: Refrigerated  
 Specimen Container: Plastic container (preservative-free)  
 Light Protection: Not Required  
 Special Handling: None  
 Rejection Criteria: None  
 Stability: Room Temperature: 14 day(s)  
 Refrigerated: 14 day(s)  
 Frozen (-20 °C): 14 day(s)  
 Scope of Analysis: GC (83921): Trichloroacetic Acid  
 Method (CPT Code)

Compound Name	Units	Reference Comment
Trichloroacetic Acid	mg/L	Trichloroacetic Acid concentration in non-occupationally exposed populations is usually less than 5 mg/L.

**3784R Potassium - Total, RBCs**

Summary of Changes: Specimen Requirements were changed.  
 Stability was changed.  
 Reference Comment was changed.  
 Methods/CPT Codes were changed [ICP/OES (84132)]

Specimen Requirements: 2 mL RBCs  
 Transport Temperature: Refrigerated  
 Specimen Container: Light Green top tube (Lithium Heparin)  
 Light Protection: Not Required  
 Special Handling: Submit in container with a non-Potassium based preservative/anticoagulant. Tubes containing Potassium based preservatives/anticoagulants are not acceptable. Centrifuge and separate RBCs into an acid washed plastic screw capped vial within two hours of collection.  
 Rejection Criteria: Received Room Temperature. Light Blue top tube (Sodium Citrate). Gray top tube (Sodium Fluoride / Potassium Oxalate). Yellow top tube (ACD - Acid Citrate Dextrose).  
 Stability: Room Temperature: Not Stable  
 Refrigerated: 30 day(s)  
 Frozen (-20 °C): 30 day(s)



# New Tests and Test Updates

## Test Changes

Scope of Analysis: ICP/OES (84132): Potassium  
Method (CPT Code)

Compound Name	Units	Reference Comment
Potassium	mEq/L	NMS Labs derived data for 2.5th - 97.5th percentile range is 82 - 100 mEq/L (n=541). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mEq/L units. Not for clinical diagnostic purposes.

### 0872U Solvent Profile, Urine

Summary of Changes: Scope of Analysis was changed.  
Reference Comment was changed.  
**Methods/CPT Codes were changed [GC (83921)]**  
Trichloroacetic Acid (Creatinine corrected) was removed.

Scope of Analysis: GC (83921): Trichloroacetic Acid  
Method (CPT Code) Colorimetry (82570): Creatinine  
GC (82441): Trichloroethanol - Total  
GC (84600): o-Cresol, p-and/or m-Cresol, Phenol - Total, Phenol - Total (Creatinine corrected)  
IC (83921): Hippuric Acid, Hippuric Acid (Creatinine corrected), Mandelic Acid, Mandelic Acid (Creatinine corrected), Phenylglyoxylic Acid, Phenylglyoxylic Acid (Creatinine corrected), Methylhippuric Acid, Methylhippuric Acid (Creatinine corrected)  
LC-MS/MS (83789): S-Phenylmercapturic Acid, S-Phenylmercapturic Acid (Creatinine corrected), t,t-Muconic Acid, t,t-Muconic Acid (Creatinine corrected)

Compound Name	Units	Reference Comment
Hippuric Acid	g/L	Normal in an unexposed population up to 1.6 g Hippuric Acid/L urine.
Trichloroethanol - Total	mg/L	Biological Exposure Index (ACGIH): 30 mg Trichloroethanol total/L measured in a urine specimen collected at end of shift at end of workweek.
Trichloroacetic Acid	mg/L	Biological Exposure Index (ACGIH): Following workplace exposure to Methyl Chloroform: 10 mg/L measured in an end of workweek urine specimen.  Following workplace exposure to Trichloroethylene: 15 mg/L measured in an end of shift at end of workweek urine specimen.

### 4627U Trichloroacetic Acid, Urine



# New Tests and Test Updates

## Test Changes

Summary of Changes: Specimen Requirements were changed.  
 Specimen Requirements (Specimen Container) were changed.  
 Stability was changed.  
 Scope of Analysis was changed.  
 Reference Comment was changed.  
**Methods/CPT Codes were changed [GC (83921)]**

Specimen Requirements: 1 mL Urine  
 Transport Temperature: Refrigerated  
 Specimen Container: Plastic container (preservative-free)  
 Light Protection: Not Required  
 Special Handling: None  
 Rejection Criteria: None  
 Stability: Room Temperature: 14 day(s)  
 Refrigerated: 14 day(s)  
 Frozen (-20 °C): 14 day(s)  
 Scope of Analysis: GC (83921): Trichloroacetic Acid  
 Method (CPT Code)

Compound Name	Units	Reference Comment
Trichloroacetic Acid	mg/L	Biological Exposure Index (ACGIH): Following workplace exposure to Methyl Chloroform: 10 mg/L measured in an end of workweek urine specimen.  Following workplace exposure to Trichloroethylene: 15 mg/L measured in an end of shift at end of workweek urine specimen.

### 4658U Trichloroethylene Exposure, Urine

Summary of Changes: Specimen Requirements were changed.  
 Specimen Requirements (Specimen Container) were changed.  
 Stability was changed.  
 Scope of Analysis was changed.  
 Reference Comment was changed.  
**Methods/CPT Codes were changed [GC (83921)]**  
 Creatinine, Trichloroacetic Acid (Creatinine corrected), Trichloroethanol and  
 Trichloroethanol (Creatinine corrected) were removed.



## New Tests and Test Updates

### Test Changes

Specimen Requirements: 1 mL Urine  
 Transport Temperature: Refrigerated  
 Specimen Container: Plastic container (preservative-free)  
 Light Protection: Not Required  
 Special Handling: None  
 Rejection Criteria: None  
 Stability: Room Temperature: 14 day(s)  
 Refrigerated: 14 day(s)  
 Frozen (-20 °C): 14 day(s)  
 Scope of Analysis: GC (83921): Trichloroacetic Acid  
 Method (CPT Code)

Compound Name	Units	Reference Comment
Trichloroacetic Acid	mg/L	Biological Exposure Index (ACGIH): Following workplace exposure to Trichloroethylene: 15 mg/L measured in an end of shift at end of workweek urine specimen.

#### 4844R Zinc, RBCs

Summary of Changes: Stability was changed.  
 Reference Comment was changed.  
 Methods/CPT Codes were changed [ICP/OES (84630)]

Stability: Room Temperature: Not Stable  
 Refrigerated: 30 day(s)  
 Frozen (-20 °C): 30 day(s)  
 Scope of Analysis: ICP/OES (84630): Zinc  
 Method (CPT Code)

Compound Name	Units	Reference Comment
Zinc	mcg/dL	NMS Labs derived data for 2.5th - 97.5th percentile range is 794 - 1470 mcg/dL (n=2940). The RBC sample used for analysis was measured by weight and multiplied by the density of human RBC (1.10 g/mL) to obtain mcg/dL units. Not for clinical diagnostic purposes.



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## New Tests and Test Updates

### Discontinued Tests

Test Code	Test Name	Alternative Test
0711R	Boron, RBCs	No Alternate Tests Available
2430R	Iron, RBCs	No Alternate Tests Available
3765R	Phosphorus - Total, RBCs	No Alternate Tests Available
4190R	Silicon, RBCs	No Alternate Tests Available