



NMS Labs

CONFIDENTIAL

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Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Demo Report

Report Issued 09/29/2017 13:13
Last Report Issued 09/22/2017 10:07

88888
Clinical Example Report
Attn: IT Department
200 Welsh Road
Horsham, PA 19044-2208

Patient Name 1858SP-POS
Patient ID 1858SP-POS
Chain 17001833
Age Not Given DOB Not Given
Gender Not Given
Workorder 17001833
Received 09/21/2017 11:18

Sample ID 17001833-001
Matrix Serum or Plasma
Patient Name 1858SP-POS
Patient ID 1858SP-POS
Container Type Clear vial

Collect Dt/Tm Not Given
Source Not Given

Approx Vol/Weight Not Given

Receipt Notes None Entered

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes

1858SP Drugs of Abuse (10 Panel) and Alcohol Screen, Serum/Plasma

Analysis by Headspace Gas Chromatography (GC)

Table row for Ethanol: Result 85, Units mg/dL, Reporting Limit 10. Includes synonym Ethyl Alcohol and a detailed description of its effects.

Analysis by Enzyme-Linked Immunosorbent Assay (ELISA)

Table rows for Opiates, Cocaine / Metabolites, and Benzodiazepines, all with 'See Comment' results and a reporting limit of 20 or 100 ng/mL.

Results for sample 17001833-001 are continued on next page



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Sample ID 17001833-001
Matrix Serum or Plasma
Patient Name 1858SP-POS
Patient ID 1858SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include Cannabinoids, Amphetamines, Barbiturates, Methadone / Metabolite, Phencyclidine, Methamphetamine / MDMA, Oxycodone / Oxymorphone.

53251SP Ethanol Confirmation, Serum/Plasma

Analysis by Headspace Gas Chromatography (GC)

Table row for Ethanol: Confirmed, mg/dL, 10. Includes synonym(s): Ethyl Alcohol.

5637SP Cocaine and Metabolites Confirmation, Serum/Plasma

Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)

Results for sample 17001833-001 are continued on next page



**Sample ID** 17001833-001  
**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Cocaine Following oral or nasal intake of 2 mg/kg: Up to 200 ng/mL.	500	ng/mL	20	
Cocaethylene Synonym(s): Cocaine/Ethanol By-Product	500	ng/mL	20	
Benzoylecgonine Synonym(s): Cocaine Degradation Product	500	ng/mL	50	

**5641SP Benzodiazepines Confirmation, Serum/Plasma**

Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)

Diazepam Synonym(s): Valium® Therapeutic range: 100 - 1000 ng/mL.	50	ng/mL	20	
Nordiazepam Therapeutic range: 100 - 1000 ng/mL.	50	ng/mL	20	
Oxazepam Synonym(s): Serax® When used as a drug, the therapeutic plasma concentration: 200 - 1400 ng/mL. Potentially toxic greater than 2000 ng/mL.  As a metabolite of Diazepam, low concentrations may be observed. In one study, following chronic daily doses of about 70 mg of Diazepam, the steady-state serum concentrations were 50 - 400 ng Oxazepam/mL.	50	ng/mL	20	
Temazepam Synonym(s): Normison®; Restoril® When used as a drug, peak plasma concentrations range from 200 - 1100 ng/mL within 1.5 hours post-dose.  As a metabolite of Diazepam, low concentrations may be observed. In one study, following chronic daily doses of about 70 mg of Diazepam, the steady-state serum concentrations were 100 - 600 ng Temazepam/mL.	50	ng/mL	20	

Results for sample 17001833-001 are continued on next page



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**Sample ID** 17001833-001  
**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Clobazam Synonym(s): Frisium®; Urbanyl® Following a single 20 mg oral dose, the mean peak plasma concentration: 465 ng/mL (range, 220 - 710 ng/mL) after 1.7 hours.  Following a single 40 mg oral dose, the mean peak plasma concentration: 730 ng/mL at 2.5 hours. The plasma concentration decreased to 360 ng/mL at 12 hours, 180 ng/mL at 48 hours and 17 ng/mL at 96 hours.	50	ng/mL	20	
Chlordiazepoxide Synonym(s): Librium® Therapeutic range: 400 - 2000 ng/mL.	50	ng/mL	20	
Lorazepam Synonym(s): Ativan® Therapeutic range: 50 - 240 ng/mL.	50	ng/mL	5.0	
Clonazepam Synonym(s): Klonopin® Therapeutic range: 10 - 75 ng/mL. Toxic: Greater than 100 ng/mL.	50	ng/mL	2.0	
7-Amino Clonazepam Synonym(s): Clonazepam Metabolite Plasma concentrations following chronic therapy with 6 mg/day of Clonazepam: 20 - 140 ng/mL.	50	ng/mL	5.0	
Alprazolam Synonym(s): Xanax® Therapeutic range: 10 - 100 ng/mL. Potentially toxic at greater than 100 ng/mL.	50	ng/mL	5.0	
Alpha-Hydroxyalprazolam Synonym(s): Alprazolam Metabolite Alpha-Hydroxyalprazolam has approximately 66% of the pharmacological activity of Alprazolam.	50	ng/mL	5.0	
Midazolam Synonym(s): Versed®	50	ng/mL	5.0	

Results for sample 17001833-001 are continued on next page



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Sample ID 17001833-001
Matrix Serum or Plasma
Patient Name 1858SP-POS
Patient ID 1858SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains data for Triazolam, Hydroxytriazolam, Hydroxyethylflurazepam, Desalkylflurazepam, Flurazepam, and Estazolam.

Results for sample 17001833-001 are continued on next page



**Sample ID** 17001833-001  
**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Synonym(s): ProSom® The mean peak plasma concentration following a 1 mg oral dose was 55 ng/mL (range, 40 - 70 ng/mL). The mean peak plasma concentration following a 2 mg oral dose was 98 ng/mL (range, 75 - 140 ng/mL).				
<b>5645SP Opiates - Free (Unconjugated) Confirmation, Serum/Plasma</b>				
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)				
Dihydrocodeine / Hydrocodol - Free Adult therapeutic range: 72-150 ng/mL.	50	ng/mL	5.0	
Codeine - Free Adult therapeutic range: 20-210 ng/mL.	50	ng/mL	5.0	
Morphine - Free Adult therapeutic range: <73 ng/mL.	50	ng/mL	5.0	
Hydrocodone - Free Synonym(s): Vicodin®; Zohydro® Adult therapeutic range: 6-29 ng/mL.	50	ng/mL	5.0	
6-MAM - Free Synonym(s): 6-Monoacetylmorphine; Heroin Metabolite 6-Monoacetylmorphine is a metabolite of heroin.	50	ng/mL	1.0	
Hydromorphone - Free Synonym(s): Dilaudid®; Hydrocodone Metabolite Adult therapeutic range: 5-20 ng/mL.	50	ng/mL	1.0	
Oxycodone - Free Synonym(s): OxyContin®; Roxicodone® Adult therapeutic range: 13-120 ng/mL.	50	ng/mL	5.0	
Oxymorphone - Free Synonym(s): Numorphan®; Opana®; Oxycodone Metabolite Adult therapeutic range: 3-8 ng/mL.	50	ng/mL	1.0	

Results for sample 17001833-001 are continued on next page



**Sample ID** 17001833-001  
**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<b>5646SP Cannabinoids Confirmation, Serum/Plasma</b>				
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)				
11-Hydroxy Delta-9 THC Synonym(s): Active Metabolite 11-Hydroxy Delta-9 THC is an active intermediate metabolite of tetrahydrocannabinol (THC) the active component of marijuana. Usual peak levels: Less than 10% of THC levels after smoking.	50	ng/mL	1.0	
Delta-9 Carboxy THC Synonym(s): Inactive Metabolite Usual peak levels in serum for 1.75% or 3.55% THC marijuana cigarettes: 10 - 101 ng/mL about 32 to 240 minutes after beginning smoking, with a slow decline. Usually not detectable after passive inhalation.	50	ng/mL	5.0	
Delta-9 THC Synonym(s): Active Ingredient of Marijuana Usual peak levels in serum for 1.75% or 3.55% THC marijuana cigarettes: 50 - 270 ng/mL at 6 to 9 minutes after beginning smoking, decreasing to less than 5 ng/mL by 2 hrs.	50	ng/mL	0.50	

**5651SP Barbiturates Confirmation, Serum/Plasma**

Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)

Butabarbital Synonym(s): Butisol Sodium Plasma concentrations of 2 - 3 mcg/mL produce sedation and plasma concentrations of 25 mcg/mL produce sleep in most patients. Plasma concentrations of greater than 30 mcg/mL may produce coma and plasma concentrations in excess of 50 mcg/mL are potentially lethal.	50	mcg/mL	0.20	
Butalbital	50	mcg/mL	0.20	

Results for sample 17001833-001 are continued on next page



**Sample ID** 17001833-001  
**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>A single oral 100 mg dose resulted in a mean peak blood concentration of 2.1 mcg/mL (range, 1.7 - 2.6 mcg/mL) at 2 hours, with a decline to 1.5 mcg/mL (range, 1.3 - 1.7 mcg/mL) by 24 hours. Potentially toxic at plasma concentrations greater than 10 mcg/mL.</p>				
Amobarbital	50	mcg/mL	0.20	
<p>Following a single oral administration of 120 mg, serum concentrations peaked at about 1.8 mcg/mL at 2 hours, and declined slowly thereafter with a half-life of approximately 24 hours. Potentially toxic at plasma concentrations greater than 9 mcg/mL.</p>				
Pentobarbital	50	mcg/mL	0.20	
<p>Peak serum concentrations of 1.2 - 3.1 mcg/mL were produced 0.5 - 2.0 hours after a 100 mg oral dose and peak serum concentrations of 3 mcg/mL were produced 6 min. following a 100 mg IV dose. Potentially toxic at blood concentrations greater than 10 mcg/mL.</p>				
Secobarbital	50	mcg/mL	0.20	
<p>Synonym(s): Seconal®</p> <p>A 3.3 mg/kg oral dose (approx. 230 mg/70 kg) produced a mean peak blood concentration of 2.0 mcg/mL (range, 1.8 - 2.2 mcg/mL) at 3 hours, diminishing to 1.3 mcg/mL by 20 hours and 0.8 mcg/mL by 40 hours. Potentially toxic at blood concentrations greater than 8 mcg/mL.</p>				
Phenobarbital	50	mcg/mL	0.20	ELEVATED
<p>Synonym(s): Luminal®</p> <p>Serum/plasma concentrations of 10 - 30 mcg/mL are generally considered desirable when given as an anticonvulsant.</p>				
<p><b>5657SP Phencyclidine Confirmation, Serum/Plasma</b></p> <p>Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)</p>				
Phencyclidine	500	ng/mL	5.0	
<p>Synonym(s): Angel Dust; PCP; Sherm</p>				

Results for sample 17001833-001 are continued on next page





**Sample ID** 17001833-001  
**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<b>5682SP Methadone and Metabolite Confirmation, Serum/Plasma</b>				
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)				
Methadone	500	ng/mL	20	
Synonym(s): Dolophine®; Dolophine® Usual narcotic stabilization range: 50 - 1000 ng/mL.				
EDDP	500	ng/mL	20	
Synonym(s): Methadone Metabolite				
<b>5684SP Amphetamines Confirmation, Serum/Plasma</b>				
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)				
Ephedrine	50	ng/mL	5.0	
A single 24 mg oral dose resulted in a peak plasma concentration of approximately 100 ng/mL.  During chronic daily oral therapy with 15 mg (3 times daily), a plasma level of 95 ng/mL was reported at 4 hours, and 65 ng/mL at 6 hours after one 15 mg dose.				
Pseudoephedrine	50	ng/mL	5.0	
Following a 60 mg oral dose (immediate-release tablet or syrup), mean peak plasma concentrations of 180 to 360 ng/mL were reported at 3 hours.  Following a 120 mg oral dose (controlled-release capsule), mean peak plasma concentrations of 265 to 315 ng/mL were reported.  Chronic administration of 360 mg/day (of a controlled-release preparation) resulted in mean steady-state plasma concentrations between 500 and 640 ng/mL over a 10-day period.				
Phenylpropanolamine	50	ng/mL	5.0	
Synonym(s): Norephedrine; PPA				

Results for sample 17001833-001 are continued on next page



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**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Phenylpropanolamine is a drug as well as the metabolite of Ephedrine.</p> <p>Following a single 50 mg oral dose (immediate-release tablet), the mean peak plasma concentration was 180 ng/mL at 1 to 2 hours.</p> <p>Following a single 150 mg oral dose (sustained-release preparation), the mean peak plasma concentration was 280 ng/mL at 6 hours.</p>				
<p>Norpseudoephedrine</p> <p>Synonym(s): Cathine</p> <p>Norpseudoephedrine is a metabolite of Pseudoephedrine.</p>	50	ng/mL	5.0	
<p>Amphetamine</p> <p>Amphetamine is a drug as well as the metabolite of Methamphetamine.</p> <p>Therapeutic Range (treatment of Narcolepsy or Attention Deficit Disorder) with doses between 10 and 30 mg daily: Mean peak plasma concentrations between 35 and 110 ng/mL.</p>	50	ng/mL	5.0	
<p>Phentermine</p> <p>Synonym(s): Adipex-P®; Ionamin®; Pro-Fast®</p> <p>A single 26 mg/70 kg oral dose produced a mean peak blood concentration of 90 ng/mL at 4 hours, declining to 30 ng/mL after 40 hours.</p> <p>Adults receiving 30 mg daily oral doses for 2 weeks achieved a mean steady-state plasma concentration of 360 ng/mL (range 180 to 510 ng/mL).</p>	50	ng/mL	5.0	
<p>Methamphetamine</p>	50	ng/mL	5.0	

Results for sample 17001833-001 are continued on next page



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**Matrix** Serum or Plasma  
**Patient Name** 1858SP-POS  
**Patient ID** 1858SP-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Therapeutic Range (treatment of Obesity and Attention Deficit Disorder) following a 12.5 mg oral dose:            Mean peak blood concentrations were 20 ng/mL at 2.5 hours.</p> <p>This test reports Methamphetamine as the total of the undifferentiated d and l enantiomers. The ratio of these enantiomers is important in determining whether the source of Methamphetamine is from over the counter medications, prescribed medication or controlled substances.            Call lab for further information on d to l enantiomer ratio determination.</p>				
MDA	50	ng/mL	5.0	
<p>Synonym(s): 3,4-Methylenedioxyamphetamine; Adam; MDMA Metabolite</p> <p>MDA is a metabolite of MDMA and methylenedioxyethylamphetamine (MDEA) and is abused for its central nervous system stimulant and hallucinogenic properties.            The peak concentration of the MDA metabolite following a 110 mg dose of MDMA was reported as 28 ng/mL at 4 hours.</p>				
MDMA	50	ng/mL	5.0	
<p>Synonym(s): 3,4-Methylenedioxymethamphetamine; Ecstasy</p> <p>Following a single 50 mg oral dose, the mean peak plasma concentration was 110 ng/mL at 2 hours.</p>				
MDEA	50	ng/mL	5.0	
<p>Synonym(s): 3,4-methylenedioxyethamphetamine; Eve</p> <p>A single oral 140 mg dose given to 6 adults produced peak plasma concentrations that averaged 260 ng/mL at 2.2 hours.</p>				