



NMS Labs

CONFIDENTIAL

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

Demo Report

Report Issued 04/21/2022 19:38
Last Report Issued 02/22/2022 14:22

88888
Clinical Example Report
Attn: Example Reports
200 Welsh Road
Horsham, PA 19044

Patient Name 8756SP-POS
Patient ID 8756SP-POS
Chain 22000223
DOB Not Given
Sex Not Given
Workorder 22000223
Received 01/24/2022

Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS
Container Type Clear vial

Collect Dt/Tm Not Given
Source Not Given

Approx Vol/Weight Not Given

Receipt Notes Not frozen as required

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

8756SP Novel Psychoactive Substances (NPS)
Screen 1, Serum/Plasma

Analysis by High Performance Liquid Chromatography/Time of Flight-Mass Spectrometry (LC/TOF-MS)

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains rows for 2-Furanylfentanyl, 3-Fluorophenmetrazine, and 3-MeO-PCP.

Results for sample 22000223-001 are continued on next page



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

Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include 3-Methoxyphencyclidine (3-MeO-PCP), 4-ANPP, 4-MeO-PCP, 25B-NBOMe, 25C-NBOMe, 25H-NBOMe, 25I-NBOMe, and Acetyl Fentanyl.

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
<p>Acryl Fentanyl</p>	See Comment	ng/mL	0.10	
<p>Synonym(s): Acryloylfentanyl</p>				
<p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
<p>Alpha-Hydroxyetizolam</p>	See Comment	ng/mL	5.0	
<p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>Alpha-hydroxyetizolam is a major metabolite of etizolam, a benzodiazepine that is prescribed in certain Asian and European countries. Etizolam is not approved for use in the United States, and is typically encountered as a novel psychoactive substance. Alpha-hydroxyetizolam has pharmacological activity nearly equal to that of etizolam and accumulates in plasma due to its longer elimination half-life, approximately twice that of its parent.</p>				
<p>alpha-PVP</p>	See Comment	ng/mL	2.0	
<p>Synonym(s): alpha-pyrrolidinopentiophenone; alpha-pyrrolidinopentiophenone</p>				
<p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>Alpha-PVP is a novel psychoactive stimulant. Alpha-PVP is known to have limited stability in serum and plasma which may be dependent upon pH, collection tube, and storage temperature. Results should be interpreted with caution.</p>				
<p>Bromazepam</p>	See Comment	ng/mL	10	
<p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>Bromazepam is a benzodiazepine drug that is used as a novel psychoactive substance. It is reported to have CNS depressant properties and shares anticonvulsant, muscle relaxant, hypnotic, anxiolytic and sedative effects with other benzodiazepines. It is not approved for use in the United States, but is available in some other countries.</p>				

Results for sample 22000223-001 are continued on next page



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Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include Butylone, Butyrylfentanyl, BZP, and Carfentanil with detailed comments and reporting limits.

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include Carfentanil, cis-3-Methylfentanyl, Clephedrone, Clonazepam, Cyclopropylfentanyl, and Delorazepam.

Results for sample 22000223-001 are continued on next page



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Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Delorazepam is a benzodiazepine drug that is used as a novel psychoactive substance; it is also the metabolite of diclazepam, another novel benzodiazepine. It is not approved for use in the United States, but is available in some other countries.</p>				
Deschloroetizolam	See Comment	ng/mL	2.0	
Comment:	Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).			
Dibutylone	See Comment	ng/mL	10	
Synonym(s):	bk-DMBDB			
Comment:	Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).			
Dibutylone is a novel psychoactive stimulant.				
Diclazepam	See Comment	ng/mL	20	
Comment:	Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).			
<p>Diclazepam is a benzodiazepine drug that is used as a novel psychoactive substance. Delorazepam is a metabolite of Diclazepam.</p>				
Ethylone	See Comment	ng/mL	10	
Comment:	Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).			
Ethylone is a novel psychoactive stimulant.				
Etizolam	See Comment	ng/mL	10	
Comment:	Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).			
<p>Etizolam is a benzodiazepine drug that is used as a novel psychoactive substance. It is not approved for use in the United States, but is available in some other countries.</p>				
Flubromazepam	See Comment	ng/mL	20	
Comment:	Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).			
Flubromazepam is a benzodiazepine drug that is used as a novel psychoactive substance.				
Flubromazolam	See Comment	ng/mL	5.0	

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include Isobutyrylfentanyl and MDPV with associated comments and reporting limits.

Results for sample 22000223-001 are continued on next page



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Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains entries for Meclonazepam, Mephedrone, meta-Methylmethoxyacetylfentanyl, and Methoxetamine.

Results for sample 22000223-001 are continued on next page



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Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains entries for Methoxetamine, Methoxyphenidine, Methoxyacetylfentanyl, and Methylone.

Results for sample 22000223-001 are continued on next page



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Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Methylone is a methylenedioxy beta keto amphetamine, or cathinone stimulant drug. It is the beta-keto analog of MDMA. Its use has been linked to the popular 'Designer Drug' movement, and may be present in products sold as 'Legal High' or 'Bath Salts' for recreational purposes. Methylone acts as an inhibitor of dopamine, norepinephrine, and serotonin reuptake and may have stimulating effects on the central nervous system. The drug is usually taken orally, but can also be insufflated or vaporized.</p> <p>Euphoria, agitation, sweating, nausea, vomiting, dilated pupils, seizures, hyponatremia and confusion were reported in two cases after the use of bath salt products found to contain methylone. Other substances may have been present.</p> <p>Four fatalities attributed to this drug had methylone heart blood concentrations of 60-1100 ng/mL; concentrations in femoral blood in three fatalities were 560, 840, and 3300 ng/mL.</p> <p>Methylone is known to have limited stability in serum and plasma which may be dependent upon pH, collection tube, and storage temperature; results should be interpreted with caution.</p> <p>The ratio of whole blood concentration to serum or plasma concentration is unknown for this analyte.</p>				
Mitragynine	See Comment	ng/mL	10	
<p>Synonym(s): Kratom</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
MPHP	See Comment	ng/mL	10	
<p>Synonym(s): 4'-methyl-alpha-Pyrrolidinohexiophenone</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
N-Ethyl Pentylone	See Comment	ng/mL	10	
<p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>N-ethyl Pentylone is a novel psychoactive stimulant.</p>				
ortho-Fluorofentanyl	See Comment	ng/mL	0.10	

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>Ortho-Fluorofentanyl is a novel non-prescription synthetic opioid.</p>	See Comment	ng/mL	0.10	
<p>para-Fluorobutyrylfentanyl</p> <p>Synonym(s): 4F-butyryl fentanyl</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>	See Comment	ng/mL	0.10	
<p>para-Fluorofentanyl</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>Para-Fluorofentanyl is a novel non-prescription synthetic opioid.</p>	See Comment	ng/mL	0.10	
<p>para-Fluoroisobutyrylfentanyl</p> <p>Synonym(s): 4F-Isobutyrylfentanyl; FIBF</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>FIBF is a novel non-prescription synthetic opioid.</p>	See Comment	ng/mL	0.10	
<p>para-Methylmethoxyacetylfentanyl</p> <p>Synonym(s): 4-Methylmethoxyacetylfentanyl</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>	See Comment	ng/mL	0.50	
<p>Pentadrone</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>Pentadrone is a beta keto amphetamine or cathinone that is chemically related to mephedrone. It is a stimulant drug that was first reported in 2010. The drug is usually taken orally, but can also be insufflated or vaporized.</p> <p>Pentadrone is known to have limited stability which may be dependent upon pH, collection tube, and storage temperature. Results should be interpreted with caution.</p>	See Comment	ng/mL	2.0	
<p>Pentylone</p>	See Comment	ng/mL	10	

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include Phenazepam, Pyrazolam, TFMPP, THF-F, trans-3-Methylfentanyl, and U-47700 with detailed comments and reporting limits.

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains screening results for U-49900, U-51754, and Valeryl Fentanyl.

Sample receipt condition is inappropriate for test code: Not frozen as required

This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.

52320SP Hallucinogens and Stimulants
Confirmation 2 (Qualitative), Serum/Plasma

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

Table with 4 columns: Name, Result, Units, Reporting Limit. Lists 3-Fluorophenmetrazine and 3-MeO-PCP.

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include 3-Methoxyphencyclidine (3-MeO-PCP), 4-MeO-PCP, Clephedrone, and Methoxphenidine.

Sample receipt condition is inappropriate for test code: Not frozen as required

This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
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52326SP Piperazine Designer Drugs Confirmation, Serum/Plasma

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

BZP	50	ng/mL	10	
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Synonym(s): 1-Benzylpiperazine

There is little information concerning blood or plasma concentrations of N-BZP. In one study, the mean peak plasma concentration was 262 ng/mL at 75 minutes after oral ingestion of a 200 mg dose of N-BZP in 7 adult volunteers. In one autopsy case, a sample of femoral blood was found to contain 1700 ng/mL of N-BZP, together with MDMA and its metabolite, MDA, and cannabinoids.

The whole blood to plasma ratio has not been reported for this drug.

TFMPP	50	ng/mL	10	
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Synonym(s): 3-Trifluoromethylphenylpiperazine

TFMPP is a synthetic piperazine derivative categorized as a 'designer drug'. TFMPP is available in tablet and capsule forms and is commonly only present in products that contain N-Benzylpiperazine (BZP). TFMPP is often mixed with BZP in order to mimic the psychoactive effects of methylenedioxyamphetamine (MDMA) and methylenedioxyamphetamine (MDA).

This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.

52327SP Pyrrolidinophenone Confirmation, Serum/Plasma

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

MPHP	50	ng/mL	5.0	
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Synonym(s): 4'-methyl-alpha-Pyrrolidinohephenone

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
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MPHP is a psychoactive stimulant of the pyrrolidinophenone series that is structurally related to pyrovalerone and alpha PVP. In general, psychoactive stimulants have temporary effects on the psychoneurotic system. In addition, they seem to have a much higher tendency to cause side effects such as paranoia, hallucinations, and schizophrenic or psychosis like symptoms.

A 27 year old man who was admitted to the hospital with agitation and concomitant foot fractures from jumping out a window had reportedly snorted a powder believed to be cocaine; MPHP was found to be present in the serum at approximately 100 ng/mL.

Some pyrrolidinophenones are known to have limited stability in biological specimens related to pH, collection tube, and storage temperature. Results are those obtained at the time of analysis. Negative results should be interpreted with caution.

Sample receipt condition is inappropriate for test code: Not frozen as required

This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.

52328SP Substituted Cathinone Panel Confirmation, Serum/Plasma

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

Ethylone	50	ng/mL	10	
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Ethylone is a substituted cathinone that is sold recreationally as a novel psychoactive substance. Ethylone is a stimulant type drug, with effects similar to that of cocaine, with some additional activity at serotonin receptors. Synthetic cathinone users report psychological, cardiovascular, and neurological sympathomimetic symptoms, with effects ranging from tachycardia, vasoconstriction, seizures, agitation, aggression, and psychosis. Ethylone is increasingly being detected in a range of

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>forensic toxicology cases, including both human performance and postmortem cases. In nine postmortem cases, ethylone blood concentrations ranged from 38 to >2,500 ng/mL; almost all cases involved additional findings. Ratio of whole blood concentrations to serum or plasma concentrations is unknown for this analyte.</p>	50	ng/mL	10	
Butylone				
<p>Butylone is a substituted cathinone that is sold recreationally as a novel psychoactive substance. Butylone is a stimulant type drug, with effects similar to that of cocaine, with some additional activity at serotonin receptors. Synthetic cathinone users report psychological, cardiovascular, and neurological sympathomimetic symptoms, with effects ranging from tachycardia, vasoconstriction, seizures, agitation, aggression, and psychosis. Synthetic cathinones, including butylone, are increasingly being detected in a range of forensic toxicology cases, including both human performance and postmortem cases. There is one case report of a 24 year old female who died after ingesting a combination of methylone and butylone which was sold to her as 'Ecstasy'; she died of multi-organ failure stemming from serotonin syndrome.</p>				
Pentylone	50	ng/mL	10	
<p>Pentylone is a substituted cathinone that is sold recreationally as a novel psychoactive substance. Pentylone is a stimulant type drug, with effects similar to that of cocaine, with some additional activity at serotonin receptors. Synthetic cathinone users report psychological, cardiovascular, and neurological sympathomimetic symptoms, with effects ranging from tachycardia, vasoconstriction, seizures, agitation, aggression, and psychosis. Synthetic cathinones, including pentylone, are increasingly being detected in a range of forensic toxicology cases, including both human performance and postmortem cases. Pentylone has been qualitatively identified in a couple of postmortem cases; other drugs were identified as well.</p>				
N-Ethyl Pentylone	50	ng/mL	10	

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
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N-Ethyl Pentylone is a substituted cathinone structurally similar to pentylone. It is sold as a novel psychoactive substance. Due to its structural similarities to pentylone, N-Ethyl Pentylone is expected to have stimulant type effects. N-Ethyl Pentylone was reported as the sole intoxicant in a fatality where an individual was agitated and displayed erratic behavior followed by cardiac arrest; other symptoms included rhabdomyolysis, hypoglycemia, hepatic and renal injury, respiratory failure, and disseminated intravascular coagulation.

Dibutylone	50	ng/mL	10	
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Synonym(s): bk-DMBDB

Dibutylone is a substituted cathinone that is sold recreationally as a novel psychoactive substance. Butylone may be present due to being a potential metabolite of dibutylone; butylone itself is also considered a novel psychoactive substance. It has been identified in some 'bath salt' or 'research chemical' type products for euphoric and empathogenic effects. The drug is usually taken orally, but can also be insufflated or vaporized.

This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.

52366SP Bath Salts Confirmation, Serum/Plasma

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

Mephedrone	50	ng/mL	10	
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Synonym(s): 4-methylmethcathinone

Mephedrone is a psychoactive phenethylamine derivative that is structurally related to methcathinone and amphetamine. It is abused for its perceived 'ecstasy like' effects of euphoria, excitement, and alertness.

Reported adverse effects include peripheral vasoconstriction resulting in a bruised appearance on the arms and legs, loss of appetite, poor

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains data for MDPV and Methylone.

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains rows for alpha-PVP, Pentedrone, and Methoxetamine with detailed analysis and comments.

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

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

as 'Legal Highs' or 'Bath Salts' for recreational purposes.

Plasma concentrations of 90-450 ng/mL have been reported following acute ingestion of methoxetamine.

Methoxetamine is known to have limited stability in serum and plasma which may be dependent upon pH, collection tube, and storage temperature; results should be interpreted with caution.

This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.

52387SP NBOMe Confirmation (Qualitative), Serum/Plasma

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

25I-NBOMe Positive ng/mL 0.50

Synonym(s): 2C-I-NBOMe

25I-NBOMe is a novel substituted phenethylamine with hallucinogenic and stimulant properties. Clinical features include seizures, aggression, self-harm and agitation, distortions in space and time, psychosis-like symptoms, tachycardia, hyperpyrexia, and rhabdomyolysis. Case reports of NBOMe use have included hospitalizations and deaths which indicate a substantial risk of toxicity after ingestion or insufflation of limited quantities of this substance.

25C-NBOMe Positive ng/mL 0.50

Synonym(s): 2C-C-NBOMe

25C-NBOMe is a novel substituted phenethylamine with hallucinogenic and stimulant properties. Clinical features include seizures, aggression, self-harm and agitation, distortions in space and time, psychosis-like symptoms, tachycardia, hyperpyrexia, and rhabdomyolysis. Case reports of NBOMe use have included hospitalizations and deaths which indicate a substantial risk of toxicity after ingestion or insufflation of limited quantities of this substance.

25H-NBOMe Positive ng/mL 0.50

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
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Synonym(s): 2C-H-NBOMe

25H-NBOMe is a novel substituted phenethylamine with hallucinogenic and stimulant properties. Clinical features include seizures, aggression, self-harm and agitation, distortions in space and time, psychosis-like symptoms, tachycardia, hyperpyrexia, and rhabdomyolysis. Case reports of NBOMe use have included hospitalizations and deaths which indicate a substantial risk of toxicity after ingestion or insufflation of limited quantities of this substance.

25B-NBOMe	Positive	ng/mL	0.50	
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Synonym(s): 2C-B-NBOMe

25B-NBOMe is a novel substituted phenethylamine with hallucinogenic and stimulant properties. Clinical features include seizures, aggression, self-harm and agitation, distortions in space and time, psychosis-like symptoms, tachycardia, hyperpyrexia, and rhabdomyolysis. Case reports of NBOMe use have included hospitalizations and deaths which indicate a substantial risk of toxicity after ingestion or insufflation of limited quantities of this substance.

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52486SP Acetyl Fentanyl Confirmation, Serum/Plasma

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

Acetyl Fentanyl	5.0	ng/mL	0.10	
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Acetyl Fentanyl is a novel non-prescription synthetic opioid that has been implicated in several deaths.

This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.

52488SP Designer Opioids Confirmation (2019 Scope), Serum/Plasma

Results for sample 22000223-001 are continued on next page



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Lab ID 22000223-001
Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)				
Methoxyacetylfentanyl Methoxyacetylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
4-ANPP Synonym(s): Despropionyl fentanyl 4-ANPP (despropionylfentanyl) is a precursor chemical used in the production of fentanyl/fentanyl related analytes and is also a fentanyl metabolite and may be a metabolite of other fentanyl-related analytes. It is considered to be pharmacologically weak.	5.0	ng/mL	0.10	
THF-F Synonym(s): Tetrahydrofuran fentanyl THF-F is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
meta-Methylmethoxyacetylfentanyl Synonym(s): 3-Methylmethoxyacetylfentanyl Meta-Methylmethoxyacetylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
para-Methylmethoxyacetylfentanyl Synonym(s): 4-Methylmethoxyacetylfentanyl Para-Methylmethoxyacetylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
Acryl Fentanyl Synonym(s): Acryloylfentanyl Acrylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
para-Fluorofentanyl Synonym(s): 4-Fluorofentanyl Para-Fluorofentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
ortho-Fluorofentanyl Synonym(s): 2-Fluorofentanyl	5.0	ng/mL	0.050	

Results for sample 22000223-001 are continued on next page



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Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Ortho-Fluorofentanyl is a novel non-prescription synthetic opioid.				
2-Furanylfentanyl Synonym(s): Furanylfentanyl; Fu-F 2-Furanylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
U-47700 Synonym(s): U-4 U-47700 is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
U-49900 U-49900 is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
U-51754 U-51754 is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
Carfentanil Synonym(s): Carfantanyl; Wildnil® Carfentanil is an opioid analgesic used to immobilize large animals.	5.0	ng/mL	0.050	
Cyclopropylfentanyl Cyclopropylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
trans-3-Methylfentanyl Trans-3-Methylfentanyl is a novel non-prescription synthetic opioid. Trans-3-methylfentanyl is typically found in combination with its isomer, cis-3-methylfentanyl.	5.0	ng/mL	0.050	
cis-3-Methylfentanyl Cis-3-Methylfentanyl is a novel non-prescription synthetic opioid. Cis-3-methylfentanyl is typically found in combination with its isomer, trans-3-methylfentanyl.	5.0	ng/mL	0.050	
Isobutyrylfentanyl Synonym(s): Isobutyrfentanyl	5.0	ng/mL	0.050	

Results for sample 22000223-001 are continued on next page



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Matrix Serum or Plasma
Patient Name 8756SP-POS
Patient ID 8756SP-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Isobutyrylfentanyl is a novel non-prescription synthetic opioid.				
Butyrylfentanyl Synonym(s): Butyrfentanyl Butyrylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
para-Fluoroisobutyrylfentanyl Synonym(s): FIBF; 4F-Isobutyrylfentanyl FIBF is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
para-Fluorobutyrylfentanyl Synonym(s): 4F-butyrylfentanyl Para-fluorobutyrylfentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	
Valeryl Fentanyl Synonym(s): Pentylfentanyl Valeryl fentanyl is a novel non-prescription synthetic opioid.	5.0	ng/mL	0.050	

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52489SP Mitragynine Confirmation, Serum/Plasma

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

Mitragynine Synonym(s): Kratom Mitragynine is an alkaloid found in the plant Kratom which originates from Asia and is considered an atypical opioid agonist.	50	ng/mL	5.0	
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Results for sample 22000223-001 are continued on next page



Lab ID 22000223-001
 Matrix Serum or Plasma
 Patient Name 8756SP-POS
 Patient ID 8756SP-POS

Collect Dt/Tm Not Given
 Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
52502SP Designer Benzodiazepines Confirmation 1, Serum/Plasma				
Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)				
Bromazepam	50	ng/mL	5.0	
<p>Bromazepam is a benzodiazepine drug that is used as a novel psychoactive substance. It is reported to have CNS depressant properties and shares anticonvulsant, muscle relaxant, hypnotic, anxiolytic and sedative effects with other benzodiazepines. It is not approved for use in the United States, but is available in some other countries.</p> <p>Average peak plasma concentrations following a single 3 mg, 6 mg and 12 mg dose were reported to be 10 ng/mL at 8 hours, 83 ng/mL at 2 hours and 130 ng/mL at 1-4 hours after dosing, respectively. Chronic oral administration of 9 mg daily resulted in an steady-state plasma concentrations of 81-150 ng/mL (Average = 120 ng/mL). Reported half-lives are 12 - 27 hours.</p> <p>The blood to serum/plasma ratio is not known.</p>				
Clonazolam	50	ng/mL	5.0	
<p>Clonazolam is a benzodiazepine drug that is used as a novel psychoactive substance.</p>				
Flubromazepam	50	ng/mL	20	
<p>Flubromazepam is a benzodiazepine drug that is used as a novel psychoactive substance.</p>				
Etizolam	50	ng/mL	2.0	
<p>Etizolam is a benzodiazepine drug that is used as a novel psychoactive substance. It is not approved for use in the United States, but is available in some other countries.</p>				
Flubromazolam	50	ng/mL	2.0	
<p>Flubromazolam is a benzodiazepine drug that is used as a novel psychoactive substance.</p>				
Delorazepam	50	ng/mL	5.0	

Results for sample 22000223-001 are continued on next page



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Patient Name 8756SP-POS
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Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Synonym(s): Cloxazolam metabolite; Chlordesmethyldiazepam</p> <p>Delorazepam is a benzodiazepine drug that is used as a novel psychoactive substance; it is also the metabolite of diclazepam, another novel benzodiazepine. It is not approved for use in the United States, but is available in some other countries.</p>				
Alpha-Hydroxyetizolam	50	ng/mL	2.0	
<p>Alpha-hydroxyetizolam is a major metabolite of etizolam, a benzodiazepine that is prescribed in certain Asian and European countries. Etizolam is not approved for use in the United States, and is typically encountered as a novel psychoactive substance. Alpha-hydroxyetizolam has pharmacological activity nearly equal to that of etizolam and accumulates in plasma due to its longer elimination half-life, approximately twice that of its parent.</p>				
Phenazepam	50	ng/mL	20	
<p>Phenazepam is a benzodiazepine drug that is used as a novel psychoactive substance. It is not approved for use in the United States, but is available in some other countries.</p>				
Diclazepam	50	ng/mL	5.0	
<p>Diclazepam is a benzodiazepine drug that is used as a novel psychoactive substance. Delorazepam is a metabolite of Diclazepam.</p>				
<p>Sample receipt condition is inappropriate for test code: Not frozen as required</p> <p>This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.</p>				
<p>52503SP Designer Benzodiazepines Confirmation 2, Serum/Plasma</p> <p>Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)</p>				
Pyrazolam	50	ng/mL	5.0	

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Patient Name 8756SP-POS
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Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Pyrazolam is a benzodiazepine that is used as a novel psychoactive substance. It is reported to have CNS depressant properties and shares anticonvulsant, muscle relaxant, hypnotic, anxiolytic and sedative effects with other benzodiazepines. It is not marketed for use as a pharmaceutical product in any country.</p> <p>The peak serum concentration following a single 1 mg oral dose was reported to be approximately 50 ng/mL at 3 hours. Pyrazolam may be detected in serum for at least 4 days after use. The reported half-life is 17 hours.</p> <p>The blood to serum/plasma ratio is not known.</p>				
<p>Meclonazepam</p> <p>Meclonazepam is a benzodiazepine that is used as a novel psychoactive substance. It is reported to have CNS depressant properties and shares anticonvulsant, muscle relaxant, hypnotic, anxiolytic and sedative effects with other benzodiazepines.</p> <p>Meclonazepam is known to have limited stability in serum/plasma which may be dependent upon pH, collection tube, and storage temperature. Negative results should be interpreted with caution.</p>	50	ng/mL	5.0	
<p>Deschloroetizolam</p> <p>Deschloroetizolam is a benzodiazepine that is used as a novel psychoactive substance. It is reported to have CNS depressant properties and shares anticonvulsant, muscle relaxant, hypnotic, anxiolytic and sedative effects with other benzodiazepines. It is not marketed for use as a pharmaceutical product in any country.</p>	50	ng/mL	2.0	

Sample receipt condition is inappropriate for test code: Not frozen as required

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