



NMS Labs

CONFIDENTIAL

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

Demo Report

Report Issued 08/15/2022 09:46
Last Report Issued 12/21/2021 12:28

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

Patient Name 8756B-POS
Patient ID 8756B-POS
Chain 21002020
DOB Not Given
Sex Not Given
Workorder 21002020
Received 12/14/2021

Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-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

8756B Novel Psychoactive Substances (NPS)
Screen 1, Blood

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

Table with 4 columns: Substance Name, Result, Units, Reporting Limit. Includes rows for 2-fluoro Deschloroketamine, 2-Furanylfentanyl, 3-hydroxy-PCP, 3-MeO-PCP, and 4-ANPP with associated comments.

Results for sample 21002020-001 are continued on next page



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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Acetyl Fentanyl Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).	See Comment	ng/mL	0.50	
Acrylfentanyl Synonym(s): Acryloylfentanyl Acryl fentanyl is known to have limited stability in blood which may be dependent upon pH, collection tube, and storage temperature. Negative results should be interpreted with caution.	None Detected	ng/mL	0.10	
Alpha-Hydroxyetizolam	None Detected	ng/mL	5.0	
alpha-PHP / alpha-PiHP Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).	See Comment	ng/mL	5.0	
alpha-PVP Synonym(s): alpha-Pyrrolidinovalerophenone; alpha-pyrrolidinopentiophenone Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).	See Comment	ng/mL	2.0	
Benzylone Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).	See Comment	ng/mL	5.0	
Bromazepam	None Detected	ng/mL	10	
Butylone	None Detected	ng/mL	10	
Butyrylfentanyl Synonym(s): Butyrfentanyl	None Detected	ng/mL	0.10	
Carfentanil Synonym(s): Carfentanyl; Wildnil®	None Detected	ng/mL	0.10	
cis-3-Methylfentanyl	None Detected	ng/mL	0.10	
Clonazolam	None Detected	ng/mL	5.0	
Cyclopropylfentanyl	None Detected	ng/mL	0.50	
Delorazepam Synonym(s): Chlordesmethyl diazepam; Cloxazolam metabolite	None Detected	ng/mL	5.0	
Deschloroketamine	See Comment	ng/mL	5.0	

Results for sample 21002020-001 are continued on next page



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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
Dibutylone	None Detected	ng/mL	10	
Synonym(s): bk-DMBDB				
Diclozepam	None Detected	ng/mL	20	
Ethylone	See Comment	ng/mL	10	
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
Etizolam	None Detected	ng/mL	10	
Eutylone	See Comment	ng/mL	5.0	
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
Fentanyl	See Comment	ng/mL	1.0	
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
Flualprazolam	See Comment	ng/mL	0.50	
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
Flubromazepam	None Detected	ng/mL	20	
Flubromazolam	None Detected	ng/mL	5.0	
Isobutyrylfentanyl	None Detected	ng/mL	0.10	
Methoxyacetylfentanyl	None Detected	ng/mL	0.50	
Mitragynine	None Detected	ng/mL	10	
Synonym(s): Kratom				
N-butyl Pentylone	See Comment	ng/mL	5.0	
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
N-ethyl Pentylone	None Detected	ng/mL	10	
Norfentanyl	See Comment	ng/mL	1.0	
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
ortho-Fluorofentanyl	None Detected	ng/mL	0.10	
para-Fluorofentanyl	None Detected	ng/mL	0.10	

Results for sample 21002020-001 are continued on next page



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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include para-Fluoroisobutyrylfentanyl, Pentylone, Phenazepam, trans-3-Methylfentanyl, U-47700, 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.

52306B 3-MeO-PCP and 3-hydroxy-PCP Confirmation (Qualitative), Blood

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

Table with 4 columns: Analysis and Comments, Result, Units, Reporting Limit. Rows for 3-hydroxy-PCP and 3-MeO-PCP with detailed descriptions.

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 21002020-001 are continued on next page



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Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

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

52307B Eutylone Confirmation, Blood

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

Eutylone 50 ng/mL 5.0

Synonym(s): N-ethylbutylone; beta-keto-Ethylbenzodioxolylbutanamine; bk-EBDB

Eutylone is classified as a synthetic stimulant and belongs to the beta-keto methylenedioxyamphetamine subclass, which includes synthetic stimulants methylone, butylone, ethylone, and N-ethylpentylone.

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.

52308B NPS Stimulants Confirmation (Qualitative), Blood

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

alpha-PHP / alpha-PiHP Positive ng/mL 5.0

Synonym(s): PV-7; a-PHP; a-PiHP; alpha-Pyrrolidinohexanophenone; alpha-Pyrrolidinohexiophenone; alpha-Pyrrolidinoisohexanophenone

Alpha-PHP and alpha-PiHP (alpha-Pyrrolidinohexiophenone, alpha-Pyrrolidinohexanophenone, alpha-Pyrrolidinoisohexanophenone) are psychoactive stimulants of the pyrrolidinophenone series that are structurally related to alpha-PVP. These compounds have been sold as novel psychoactive substances (NPS) for their stimulating and empathogenic effects and are used as alternatives to amphetamine, MDMA, and/or cocaine. Alpha-PHP and its isomer alpha-PiHP are not differentiated. If additional testing is needed, please contact the laboratory.

Benzylone Positive ng/mL 5.0

Synonym(s): 3,4-Methylenedioxy-N-benzylcathinone; BMDP; N-benzyl methylone; N-benzyl-3,4-methylenedioxycathinone

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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

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

Benzylone is classified as a synthetic stimulant and belongs to the beta-keto-methylenedioxyamphetamine subclass, which includes synthetic stimulants methylone, butylone, ethylone, and N-ethylpentylone.

N-butyl Pentylone Positive ng/mL 5.0

Synonym(s): N-butylpentylone; bk-BBDP; bk-Butyl-K

N-butyl Pentylone is classified as a synthetic stimulant and belongs to the beta-keto-methylenedioxyamphetamine subclass, which includes synthetic stimulants methylone, butylone, ethylone, and N-ethylpentylone.

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.

52309B Alpha-PVP Confirmation, Blood

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

alpha-PVP 5.0 ng/mL 2.0

Synonym(s): alpha-Pyrrolidinovalerophenone; alpha-pyrrolidinopentiophenone

Alpha-PVP is a novel psychoactive stimulant.

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.

52328B Substituted Cathinone Panel Confirmation, Blood

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

Ethylone None Detected ng/mL 10

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,

Results for sample 21002020-001 are continued on next page



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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>aggression, and psychosis. Ethylone is increasingly being detected in a range of 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.</p>				
<p>Butylone</p> <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>	None Detected	ng/mL	10	
<p>Pentylone</p> <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.</p>	None Detected	ng/mL	10	
<p>N-Ethyl Pentylone</p>	50	ng/mL	10	

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Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

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

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 None Detected ng/mL 10

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.

52486B Fentanyl and 4-ANPP Confirmation, Blood

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

Fentanyl 10 ng/mL 0.10

Synonym(s): Duragesic®, Sublimaze®

Immediately following a single 2 mcg/kg I.V. dose: Up to 11 ng/mL, declining to 1 ng/mL after one hour. Following the application of a 100 mcg/hour transdermal patch, serum levels (after an initial lag time of approximately six hours) of 0.8 - 2.6 ng/mL were maintained for more than 24 hours after application. Peak plasma levels following a single oral transmucosal dose (Fentanyl Oralet) of 15 mcg/kg to children: 2 - 4 ng/mL at 20 minutes.

Norfentanyl None Detected ng/mL 0.20

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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Synonym(s): Fentanyl Metabolite				
4-ANPP	10	ng/mL	0.10	
Synonym(s): Despropionyl fentanyl				
4-ANPP (despropionylfentanyl) is a precursor chemical used in the production of fentanyl/fentanyl related compounds and is also a fentanyl metabolite and may be a metabolite of other fentanyl-related compounds. It is considered to be pharmacologically weak.				
Acetyl Fentanyl	None Detected	ng/mL	0.10	
Acetyl fentanyl is a novel non-prescription synthetic opioid that has been implicated in several deaths. This fentanyl analog was previously undocumented in illicit drug use and is estimated to be five times more potent than heroin. Several state agencies have issued public health warnings. The Centers for Disease Control (CDC) has recommended increased vigilance by public health agencies, emergency departments, state laboratories, medical examiners, and coroners for patients with symptoms consistent with opioid overdose. It is also recommended that if a fentanyl immunoassay (e.g., ELISA) produces a positive result additional confirmation testing be performed and that this testing should include fentanyl and its analogs, including acetyl fentanyl.				

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.

52502B Designer Benzodiazepines Confirmation 1, Blood

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

Bromazepam	None Detected	ng/mL	5.0	
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.				

Results for sample 21002020-001 are continued on next page



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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains data for Clonazepam, Flualprazolam, Flubromazolam, Alpha-Hydroxyetizolam, Etizolam, Flubromazepam, and Delorazepam.

Results for sample 21002020-001 are continued on next page



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Lab ID 21002020-001
Matrix Blood
Patient Name 8756B-POS
Patient ID 8756B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
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.				
Phenazepam	None Detected	ng/mL	20	
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.				
Diclazepam	None Detected	ng/mL	5.0	
Diclazepam is a benzodiazepine drug that is used as a novel psychoactive substance. Delorazepam is a metabolite of diclazepam.				

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

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