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CONFIDENTIAL

Demo Report

Report Issued 08/15/2022 09:50

To: **88888**
Forensic Example Report
Attn: Example Reports
200 Welsh Road
Horsham, PA 19044

Patient Name	8052TI-POS
Patient ID	8052TI-POS
Chain	21002048
DOB	Not Given
Sex	Not Given
Workorder	21002048

Positive Findings:

Analyte	Result	Units	Matrix Source
Ethanol	**340**	**mg/100 g**	**002 - Abdominal Tissue**
Alprazolam	**200**	**ng/g**	**002 - Abdominal Tissue**
Delta-9 THC	**Positive**	**ng/g**	**002 - Abdominal Tissue**
Cocaine	**200**	**ng/g**	**002 - Abdominal Tissue**
Morphine - Total	**1000**	**ng/g**	**002 - Abdominal Tissue**
Gabapentin	**20**	**mcg/g**	**002 - Abdominal Tissue**
Fentanyl	**200**	**ng/g**	**002 - Abdominal Tissue**

See Detailed Findings section for additional information

Testing Requested:

Test	Test Name
8052TI	Postmortem, Expanded, Tissue (Forensic)

Specimens Received:

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Labeled As
001	Clear vial	Not Given	Not Given	Abdominal Tissue	Not Applicable
002	Clear vial	Not Given	Not Given	Abdominal Tissue	Not Applicable

All sample volumes/weights are approximations.

Specimens received on 12/16/2021.

Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Ethanol	340	mg/100 g	40	002 - Abdominal Tissue	Headspace GC
Alprazolam	200	ng/g	20	002 - Abdominal Tissue	LC-MS/MS
Delta-9 THC	Positive	ng/g	2.0	002 - Abdominal Tissue	LC-MS/MS
Cocaine	200	ng/g	80	002 - Abdominal Tissue	GC/MS
Morphine - Total	1000	ng/g	100	002 - Abdominal Tissue	LC-MS/MS
Gabapentin	20	mcg/g	0.40	002 - Abdominal Tissue	LC-MS/MS
Ethanol	Confirmed	mg/100 g	40	002 - Abdominal Tissue	Headspace GC
Methanol	Confirmed	mg/100 g	40	002 - Abdominal Tissue	Headspace GC
Fentanyl	200	ng/g	2.0	002 - Abdominal Tissue	LC-MS/MS

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Alprazolam (Xanax®) - Abdominal Tissue:

   Alprazolam is a DEA Schedule IV second-generation benzodiazepine, which is effective at very low doses. It shares the actions of other benzodiazepines in the management of anxiety disorders and short-term relief of anxiety associated with depressive symptoms. Alpha-hydroxyalprazolam is an active metabolite of alprazolam. Common CNS-depressant side effects of alprazolam include drowsiness and fatigue. For anxiety, daily doses of 0.8 to 4 mg are effective whereas for phobic and panic disorders, 6 to 9 mg daily is recommended.

2. Cocaine - Abdominal Tissue:

   Cocaine is a DEA Schedule II controlled central nervous stimulant drug. Effects following cocaine use can include euphoria, excitement, restlessness, risk taking, sleep disturbance, and aggression. A period of mental and physical fatigue and somnolence follow the use of cocaine after the excitant-stimulant effects wear off. Cocaine is metabolized to the inactive compounds benzoylecgonine, ecgonine methyl ester, and ecgonine. Benzoylecgonine and ecgonine methyl ester can form from cocaine breakdown after death and even after sample collection. (See also Benzoylecgonine).

3. Delta-9 THC (Active Ingredient of Marijuana) - Abdominal Tissue:

   Delta-9-THC is the principle psychoactive ingredient of marijuana/hashish. Delta-9-carboxy-THC (THCC) is the inactive metabolite of THC.

4. Ethanol (Ethyl Alcohol) - Abdominal Tissue:

   Ethyl alcohol (ethanol, drinking alcohol) is a central nervous system depressant and can cause effects such as impaired judgment, reduced alertness and impaired muscular coordination. Ethanol can also be a product of decomposition or degradation of biological samples.

5. Fentanyl (Duragesic®; Sublimaze®) - Abdominal Tissue:

   Fentanyl is a DEA Schedule II synthetic morphine substitute anesthetic/analgesic. It is reported to be 80 to 200 times as potent as morphine and has a rapid onset of action as well as addictive properties.

   Signs associated with fentanyl toxicity include severe respiratory depression, seizures, hypotension, coma and death.

   Substance(s) known to interfere with the identity and/or quantity of the reported result: 4-methylphenethyl acetyl fentanyl

Reference Comments:

6. Morphine - Total - Abdominal Tissue:

Morphine is a DEA Schedule II narcotic analgesic. In analgesic therapy, it is usually encountered as the parent compound, however, it is also commonly found as the metabolite of codeine and heroin. In illicit preparations from which morphine may arise, codeine may be present as a contaminant. A large portion of the morphine is bound to the blood proteins or is conjugated; that which is not bound or conjugated is termed 'free morphine'. Hydromorphone is a reported metabolite of morphine.

In general, free morphine is the active biologic agent. Morphine has diverse effects that may include analgesia, drowsiness, nausea and respiratory depression. 6-monoacetylmorphine (6-MAM) is the 6-monoacetylated form of morphine, which is pharmacologically active. It is commonly found as the result of heroin use.

Sample Comments:

001 Tissue specimen required homogenization: 21002048-001

002 NMS Labs generated homogenized Tissue sample: 21002048-002

Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Test 50012TI - Benzodiazepines Confirmation, Tissue - Abdominal Tissue

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

Analyte	Rpt. Limit	Analyte	Rpt. Limit
7-Amino Clonazepam	20 ng/g	Flurazepam	8.0 ng/g
Alpha-Hydroxyalprazolam	20 ng/g	Hydroxyethylflurazepam	20 ng/g
Alprazolam	20 ng/g	Hydroxytriazolam	20 ng/g
Chlordiazepoxide	80 ng/g	Lorazepam	20 ng/g
Clobazam	80 ng/g	Midazolam	20 ng/g
Clonazepam	8.0 ng/g	Nordiazepam	80 ng/g
Desalkylflurazepam	20 ng/g	Oxazepam	80 ng/g
Diazepam	80 ng/g	Temazepam	80 ng/g
Estazolam	20 ng/g	Triazolam	8.0 ng/g

Test 50013TI - Cannabinoids Confirmation (Qualitative), Tissue - Abdominal Tissue

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

Analyte	Rpt. Limit	Analyte	Rpt. Limit
11-Hydroxy Delta-9 THC	4.0 ng/g	Delta-9 THC	2.0 ng/g
Delta-9 Carboxy THC	20 ng/g		

Test 50014TI - Cocaine and Metabolites Confirmation, Tissue - Abdominal Tissue

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Benzoylecgonine	200 ng/g	Cocaine	80 ng/g
Cocaethylene	80 ng/g		

Test 50016TI - Opiates - Total (Conjugated/Unconjugated) Confirmation, Tissue - Abdominal Tissue

Analysis Summary and Reporting Limits:

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

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Codeine - Total	100 ng/g	Morphine - Total	100 ng/g
Dihydrocodeine / Hydrocodol - Total	100 ng/g	Oxycodone - Total	100 ng/g
Hydrocodone - Total	100 ng/g	Oxymorphone - Total	20 ng/g
Hydromorphone - Total	20 ng/g		

Test 52144TI - Gabapentin Confirmation, Tissue - Abdominal Tissue

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

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Gabapentin	0.40 mcg/g		

Test 52250TI - Alcohols and Acetone Confirmation, Tissue - Abdominal Tissue

-Analysis by Headspace Gas Chromatography (GC) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Acetone	20 mg/100 g	Isopropanol	20 mg/100 g
Ethanol	40 mg/100 g	Methanol	40 mg/100 g

Test 52484TI - Fentanyl and Acetyl Fentanyl Confirmation, Tissue - Abdominal Tissue

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

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Acetyl Fentanyl	2.0 ng/g	Norfentanyl	4.0 ng/g
Fentanyl	2.0 ng/g		

Test 8052TI - Postmortem, Expanded, Tissue (Forensic) - Abdominal Tissue

-Analysis by Colorimetry (C) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Salicylates	800 mcg/g		

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Benzodiazepines	400 ng/g	Cocaine / Metabolites	80 ng/g
Buprenorphine / Metabolite	2.0 ng/g	Opiates	80 ng/g
Cannabinoids	40 ng/g	Oxycodone / Oxymorphone	40 ng/g

Analysis Summary and Reporting Limits:

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for: The following is a general list of analyte classes included in the Gas Chromatographic screen. The detection of any specific analyte is concentration-dependent. Note, not all known analytes included in each specified class are included. Some specific analytes outside of these classes are also included. For a detailed list of all analytes and reporting limits included in this screen, please contact NMS Labs. Amphetamines, Analgesics (opioid and non-opioid), Anorectics, Antiarrhythmics, Anticholinergics, Anticonvulsants, Antidepressants, Antihistamines, Antiparkinsonians, Antipsychotics, Antitussives, Antivirals, Cardiovascular Agents (non-digitalis), Muscle Relaxants and Stimulants (Amphetamine-like and others).

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for: The following is a general list of analyte classes included in the Gas Chromatographic screen. The detection of any specific analyte is concentration-dependent. Note, not all known analytes included in each specified class are included. Some specific analytes outside of these classes are also included. For a detailed list of all analytes and reporting limits included in this screen, please contact NMS Labs. Amphetamines, Analgesics (opioid and non-opioid), Anorectics, Antiarrhythmics, Anticholinergics, Anticonvulsants, Antidepressants, Antihistamines, Antiparkinsonians, Antipsychotics, Antitussives, Antivirals, Cardiovascular Agents (non-digitalis), Muscle Relaxants and Stimulants (Amphetamine-like and others).

-Analysis by Headspace Gas Chromatography (GC) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Acetone	20 mg/100 g	Isopropanol	20 mg/100 g
Ethanol	40 mg/100 g	Methanol	40 mg/100 g