

Kansas Bureau of Investigation Forensic Science Laboratory
Toxicology Section Scope of Testing and Reporting Information

Volatiles Analysis				
Compound	Screen Method	Confirmation Method	Blood Reporting	Urine Reporting
1,1-difluoroethane	HSGC/FID/MS	HSGC/FID/MS	Positive ≥ ~10 µg/mL	Positive ≥ ~10 µg/mL
acetone	HSGC/FID/MS	HSGC/FID/MS	Positive	Not part of routine testing
ethanol	HSGC/FID/MS	HSGC/FID/MS	Quantitative ≥ 0.01 g/100 mL	Positive ≥ 0.01 g/100 mL ³
isopropanol	HSGC/FID/MS	HSGC/FID/MS	Positive	Not part of routine testing
methanol	HSGC/FID/MS	HSGC/FID/MS	Positive	Not part of routine testing
toluene ¹	HSGC/FID/MS	HSGC/FID/MS	Positive	Not part of routine testing

Immunoassay Analysis (Screen)				
Drug/Drug Class	Method	Cutoff (blood / urine)	Blood Reporting	Urine Reporting
barbiturates	ELISA	100 ng/mL / 100 ng/mL	Positive	Positive
benzodiazepines ²	ELISA	10 ng/mL / 50 ng/mL	Positive	Positive
cannabinoids	ELISA	10 ng/mL / 20 ng/mL	Positive	Positive
cocaine metabolites ²	ELISA	50 ng/mL / 150 ng/mL	Positive	Positive
methamphetamine/MDMA ²	ELISA	20 ng/mL / 200 ng/mL	Positive	Positive
opiates ²	ELISA	10 ng/mL / 200 ng/mL	Positive	Positive
oxycodone ²	ELISA	10 ng/mL / 100 ng/mL	Positive	Positive
phencyclidine (PCP) ²	ELISA	10 ng/mL / 25 ng/mL	Positive	Positive

Drug Analysis

Drugs outside of this scope may be reported as positive if they meet the analytical criteria for positive reporting as defined by the KBI Forensic Science Laboratory Toxicology Section.

Cannabinoids	Screen Method	Confirmation Method	Blood Reporting	Urine Reporting
delta-9 THC	ELISA screen for Delta-9 Carboxy THC	LC/MS-MS	Quantitative ≥ 1.0 ng/mL	Not part of routine testing
delta-9 THC, 11-hydroxy	ELISA screen for Delta-9 Carboxy THC	LC/MS-MS	Quantitative ≥ 1.0 ng/mL	Not part of routine testing
delta-9 THC, carboxy THC	ELISA	LC/MS-MS (blood), GC/MS (urine)	Quantitative ≥ 5.0 ng/mL	Positive
delta-8 THC	ELISA screen for Delta-9 Carboxy THC	LC/MS-MS	Quantitative ≥ 1.0 ng/mL	Not part of routine testing

General Drug Analysis	Screen Method	Confirmation Method	Blood Reporting	Urine Reporting
6-monoacetylmorphine (6-MAM)	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~5 ng/mL
alprazolam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~10 ng/mL
amitriptyline	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive

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amphetamine	LC/QTOF-MS, LC/MS-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
benzoylcegonine	LC/QTOF-MS, GC/MS, or ELISA	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
buprenorphine	LC/QTOF-MS or LC/MS-MS	LC/MS-MS	Positive ≥ 0.50 ng/mL	Positive ≥ ~1 ng/mL
buprenorphine, nor	LC/QTOF-MS or LC/MS-MS	LC/MS-MS	Positive ≥ 0.50 ng/mL	Positive ≥ ~1 ng/mL
bupropion	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
bupropion, hydroxy	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
butalbital	GC/MS or ELISA	GC/MS	Positive	Positive
bromazolam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 1.0 ng/mL	Positive ≥ ~1 ng/mL
carbamazepine	LC/QTOF-MS or GC/MS	LC/MS-MS	Positive ≥ 1,000 ng/mL	unable to confirm
carisoprodol	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 0.50 mg/L	Positive
cetirizine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
chlordiazepoxide	LC/QTOF-MS or LC/MS-MS	LC/MS-MS	Positive ≥ 500 ng/mL	Positive ≥ ~10 ng/mL
chlorpheniramine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
citalopram/escitalopram	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
clonazepam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~10 ng/mL
clonazepam, 7-amino	LC/QTOF-MS or LC/MS-MS	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~10 ng/mL
clonazolam, 8-amino	LC/QTOF-MS or LC/MS-MS	LC/MS-MS	Positive ≥ 1.0 ng/mL	Positive ≥ ~1 ng/mL
cocaethylene	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS or GC/MS	Positive ≥ 5.0 ng/mL	Positive
cocaine	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS or GC/MS	Positive ≥ 5.0 ng/mL	Positive
codeine	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~10 ng/mL
cyclobenzaprine	LC/QTOF-MS or GC/MS	GC/MS	Positive ≥ 10 ng/mL	Positive
desipramine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
diazepam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~10 ng/mL
diazepam, nor	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~10 ng/mL
diphenhydramine	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
doxylamine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
etizolam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 1.0 ng/mL	Positive ≥ ~10 ng/mL
fentanyl	LC/QTOF-MS or LC/MS-MS	LC/MS-MS	Positive ≥ 0.50 ng/mL	Positive ≥ ~1 ng/mL
fentanyl, nor	LC/QTOF-MS or LC/MS-MS	LC/MS-MS	Positive ≥ 1.0 ng/mL	Positive ≥ ~5 ng/mL
flualprazolam	LC/QTOF-MS, LC/MS-MS or ELISA	LC/MS-MS	Positive ≥ 1.0 ng/mL	Positive ≥ ~10 ng/mL
flubromazolam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ ~ 10 ng/mL	Positive ≥ ~ 10 ng/mL
flunitrazepam, 7-amino	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ ~ 10 ng/mL	Positive ≥ ~ 10 ng/mL
fluoxetine	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
gabapentin	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 1,000 ng/mL	Positive
GHB ³	GC/MS	unable to confirm	Positive ≥ 2 µg/mL (screen only)	Positive ≥ 10 µg/mL (screen only)
hydrocodone	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~ 10 ng/mL
hydromorphone	LC/QTOF-MS, LC/MS-MS, GC/MS or ELISA	LC/MS-MS	Positive ≥ 1.0 ng/mL	Positive ≥ ~ 10 ng/mL
hydroxyzine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive

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imipramine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
ketamine	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
ketamine, nor	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
lamotrigine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
levetiracetam	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
lorazepam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~ 10 ng/mL
MDA	LC/QTOF-MS, LC/MS-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
MDMA	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
meprobamate	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 0.50 mg/L	Positive
methadone	LC/QTOF-MS, LC/MS-MS, or GC/MS	LC/MS-MS	Positive ≥ 10 ng/mL	Positive ≥ ~ 20 ng/mL
methamphetamine	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
methorphan	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
methylphenidate	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
midazolam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ ~ 10 ng/mL	Positive ≥ ~ 10 ng/mL
mirtazapine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
mitragynine	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
morphine	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~ 10 ng/mL
nortriptyline	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
olanzapine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
oxazepam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~ 10 ng/mL
oxcarbazepine	LC/QTOF-MS or GC/MS	LC/MS-MS	Positive ≥ 1,000 ng/mL	unable to confirm
oxycodone	LC/QTOF-MS, LC/MS-MS, GC/MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~ 10 ng/mL
oxymorphone	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 1.0 ng/mL	Positive ≥ ~ 5 ng/mL
paroxetine	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
phencyclidine (PCP)	LC/QTOF-MS, GC/MS, or ELISA	LC/MS-MS or GC/MS	Positive ≥ 5.0 ng/mL	Positive
phenobarbital	GC/MS or ELISA	GC/MS	Positive	Positive
phentermine	LC/QTOF-MS, LC/MS-MS, or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 50 ng/mL	Positive
promethazine	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
propofol	GC/MS	GC/MS	Positive	Positive
quetiapine	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
quetiapine, nor	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
sertraline	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive
temazepam	LC/QTOF-MS, LC/MS-MS, or ELISA	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~ 10 ng/mL
tianeptine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
topiramate	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
tramadol	LC/QTOF-MS, LC/MS-MS, or GC/MS	LC/MS-MS	Positive ≥ 5.0 ng/mL	Positive ≥ ~ 10 ng/mL
tramadol, o-desmethyl	LC/QTOF-MS, LC/MS-MS, or GC/MS	LC/MS-MS	Positive ≥ 50 ng/mL	Positive ≥ ~ 10 ng/mL
trazodone	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 10 ng/mL	Positive

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valproic acid	GC/MS	GC/MS	Positive	Positive
venlafaxine	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive
zolpidem	LC/QTOF-MS or GC/MS	LC/MS-MS or GC/MS	Positive ≥ 5.0 ng/mL	Positive
zopiclone	LC/QTOF-MS or GC/MS	GC/MS	Positive	Positive

Routinely Requested Drugs Outside of Scope – Do Not Offer Testing

aripiprazole
lithium
LSD
nitrous oxide
psilocin
stimulant, hallucinogen, and opioid novel psychoactive substances (NPS)
synthetic cannabinoids (“K2”, “spice”)

¹Only when requested.

²Only for urine testing and when LC/QTOF-MS blood screening is not performed.

³Only for drug-facilitated crimes, upon request, or based on case information.

Key

ELISA: Enzyme-Linked ImmunoSorbent Assay

GC/MS: Gas Chromatography/Mass Spectrometry

HSGC/FID/MS: Headspace Gas Chromatography/Flame Ionization Detection/Mass Spectrometry

LC/MS-MS: Liquid Chromatography/Tandem Mass Spectrometry

LC/QTOF-MS: Liquid Chromatography/Quadrupole Time-of Flight-Mass Spectrometry