



DUID, Marijuana, & Oral Fluid

AL DUI Drug Trends (5 years: 2013-2017)

Drug	Negative	0.01-0.079%	0.08-0.149%	>0.15%
Alprazolam	27	21	10	6
Carboxy-THC	24	34	27	20
Amphetamine	20	8	7	3
Methamphetamine	17	5	4	2
Hydrocodone	14	12	7	6
Delta-9-THC	13	21	14	9
11-Hydroxy-THC	10	15	10	9
Nordiazepam	9	9	4	5
Clonazepam	9	8	3	2
Diazepam	8	7	4	3
Oxycodone	7	3	2	1
Morphine	6	4	5	2
Meprobamate	6	2	1	1
Benzoyllecgonine	5	11	7	5
Cocaine	2	5	2	2
Methadone	5	3	1	1
Carisoprodol	5	2	1	0
Zolpidem	4	4	3	1



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Chief Toxicologist- Alabama
Department of Forensic Sciences
(ADFS)



Standard Field Sobriety Tests
Instructor

Drug Recognition Expert
Instructor

Why Oral Fluid?

Reflects recent intake

Ease of collection

Non-invasive

Gender neutral

Observed

Low cost

Effective drug detection



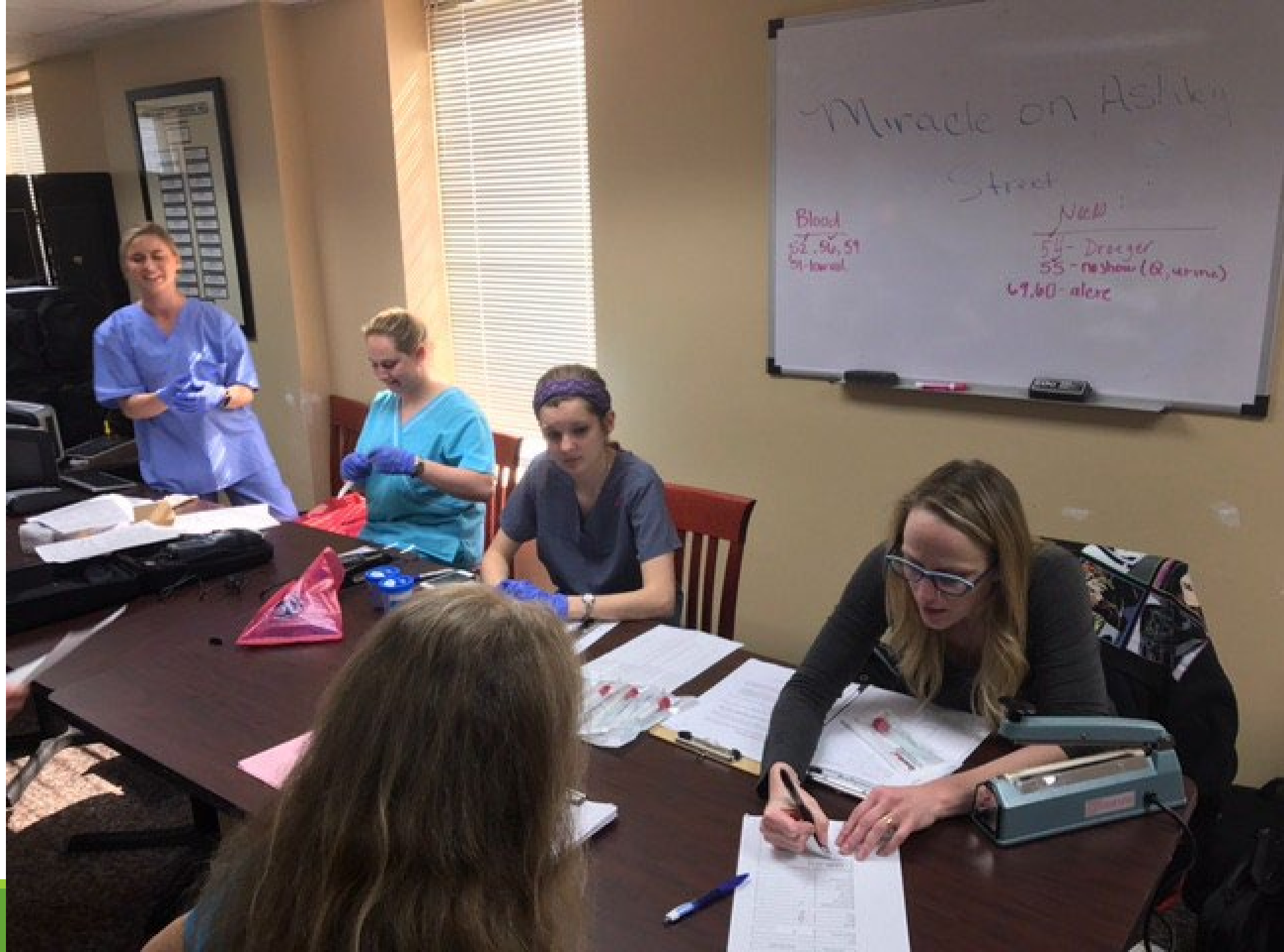
Phase 1 & 2 Validation

Clara White Mission – Jacksonville, FL
June 2016 & March 2017 – DRE Field Certifications
Approximately 100 subjects

DUI Field Study
Huntsville DUI Task Force









Oral Fluid Screening Devices

Summary of Roadside Device Performance

		Abbott SoToxa*	Draeger DT5000	Randox Multi-STAT
Cocaine, THC, Meth, Opiates, Methadone*	Specificity	>80	>80	>80
	PPV	>80	>80	>80
	NPV	>80	>80	>80
	Sensitivity	>80	>80	>80
	Accuracy	>80	>80	>80

Benzodiazepines	Specificity	98	100	100
	PPV	75	100	100
	NPV	98	97	100
	Sensitivity	75	57	100
	Accuracy	96	97	100

Confirmation - Quantisal



Quantisal

Amphetamine

Oxycodone

Barbiturates

Tricyclic

Cocaine

Vivitrol

Demerol

Ethanol

Opiates

Soma

PCP

Cannabinoids

Benzodiazepines

Methadone

Antidepressants

Darvocet

Fentanyl

Ambien

Cotinine

Tramadol

The list of field sobriety alcohol screening devices approved for use in Alabama can be found by following the link on the Department's web page at www.adfs.alabama.gov.

Author: Dale A. Carpenter, Mark A. Pevey, Curt E. Harper, and Gregory L. Turner
Statutory Authority: §32-6-49.13 Code of Alabama, 1975 as amended.

History: Amended: Filed May 19, 2003; adopted July 7, 2003; effective August 11, 2003. Amended: Filed May 10th, 2018; effective June 24th, 2018.

370-1-1-.06 Field Sobriety Drug Screening Devices

(1) Purpose.

This rule lists the approved "FIELD BREATHALYZER or OTHER APPROVED DEVICE" as referred to by §32-6-49.13 Code of Alabama, 1975 as amended. Additionally, this rule describes training requirements and minimal operational criteria necessary for accurate and reliable results from oral fluid drug screening devices.

(2) Definitions and Abbreviations:

- (a) *Drug.* Any substance, when taken into the human body, which can impair the ability of a person to operate a vehicle safely.
- (b) *Negative Result.* A negative result indicates the samples are drug-free for the tested targets or below the cutoff level of the test.
- (c) *Observation.* For the purpose of this rule, use of the term observation shall mean to watch. Prior to the administration of a field sobriety screening test employing an approved field sobriety drug screening device a subject must be under the observation of the operator of the device or other law enforcement officer for a period of not less than ten minutes.
- (d) *Oral Fluid.* A clear, tasteless fluid comprised of saliva produced by multiple salivary glands, and other constituents inside the mouth.
- (e) *Positive Result.* A positive result indicates presence of the drug, its metabolites, or cross-reacting substance but does not indicate level of intoxication, administration route or concentration in the oral fluid. A positive test result should be confirmed by a second test method such as GC/MS (gas chromatography-mass spectrometry) or LC/MS (liquid chromatography-mass spectrometry).

(3) *Approved Training.* Training afforded by the manufacturer of an approved device and/or training received from the Alabama Department of Forensic Sciences shall constitute approved training.

(4) Operation of Devices.

- (a) Officers shall use the device according to the manufacturer's operational procedure.
 - (b) Every subject must be under observation by an officer for a period of ten minutes before the screening device test is administered.
 - (c) The subject should not eat, drink, or smoke ten minutes prior to giving a sample.
- #### (5) Quality Control Tests and Maintenance.
- (a) Quality control (QC) tests and annual maintenance shall be conducted per manufacturer's operational procedure.
 - (b) The device is working properly if the QC test(s) pass.
 - (c) QC test(s) should be conducted at the time of testing or within 24 hours of the subject test.

(6) *Training and Maintenance Records.* It shall be the responsibility of each law enforcement agency to maintain permanent records documenting the training of each officer in the use of approved field sobriety screening devices and the annual maintenance results on each device in use by the law enforcement agency.

(7) Approved Field Sobriety Drug Screening Device List.

NOTE: For the purpose of this rule, variations or enhancements that do not have any bearing on the drug detecting capability of the instrument, such as the addition of a modem, external printer or passive sampling systems are approved.

The list of field sobriety drug screening devices approved for use in Alabama can be found by following the link on the Department's web page at www.adfs.alabama.gov.

Author: Curt E. Harper

Statutory Authority: §32-6-49.13 Code of Alabama, 1975 as amended.

History: Filed May 10th, 2018; effective June 24th, 2018.



Use of Oral Fluid to Detect Drugged Drivers



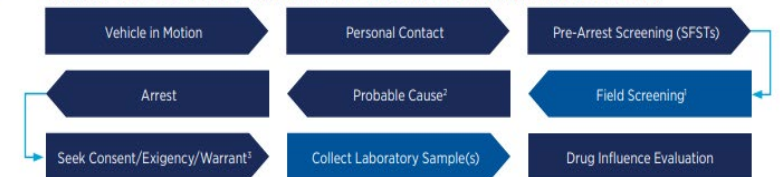
ORAL FLUID FIELD SCREENING (OFFS)

- Portable & handheld options available
- Easy & fast collection
- Minimally invasive, similar to breath test
- Gender neutral collections
- Rapid results (≤ 10 minutes)
- Demonstrated accuracy, sensitivity & specificity
- Used in conjunction with other evidence to build probable cause for arrest decision
- Quickly identifies potential polydrug impaired drivers (regardless of BAC level)
- Results may support search warrant requests for additional biological samples
- Follow manufacturer instructions/guidelines
- Admissible in hearings like those on probable cause

LABORATORY TESTING

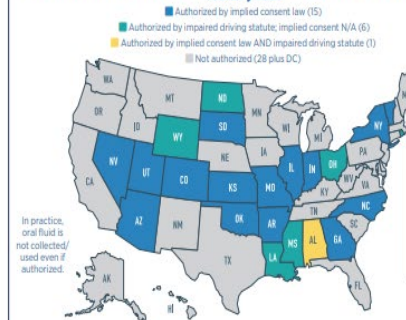
- Easy & fast collection
- Less invasive compared to blood & urine collection
- Collection close to the time of driving (e.g., at roadside)
- Gender neutral collections
- Less expensive to collect than blood
- Likely represents recent drug use
- Often increased detectability of drugs with rapid elimination from blood
- Difficult to adulterate
- Detects pharmacologically active, or impairing drugs (e.g., THC, cocaine)
- Laboratories use validated and accepted analytical techniques and instruments
- Admissible in all court proceedings; evidentiary

WHEN TO COLLECT ORAL FLUID DURING AN INVESTIGATION



ORAL FLUID AUTHORIZED TO DETECT DRUGS?

February 2022



Interested in starting a program in your state?

Stakeholders to consult:

- Law Enforcement
- Toxicology Personnel
- Traffic Safety Resource Prosecutor(s)
- SFST & DRE State Coordinators
- Judiciary Representatives
- Device Manufacturers
- Local Impaired Driving Groups
- Researchers and/or Data Analysts
- State Highway Safety Office
- Probation Personnel
- State Public Health Agency
- Driver Licensing Officials

Pilot Project guidelines:

soft-tox.org/files/2014_OF_Pilot.pdf

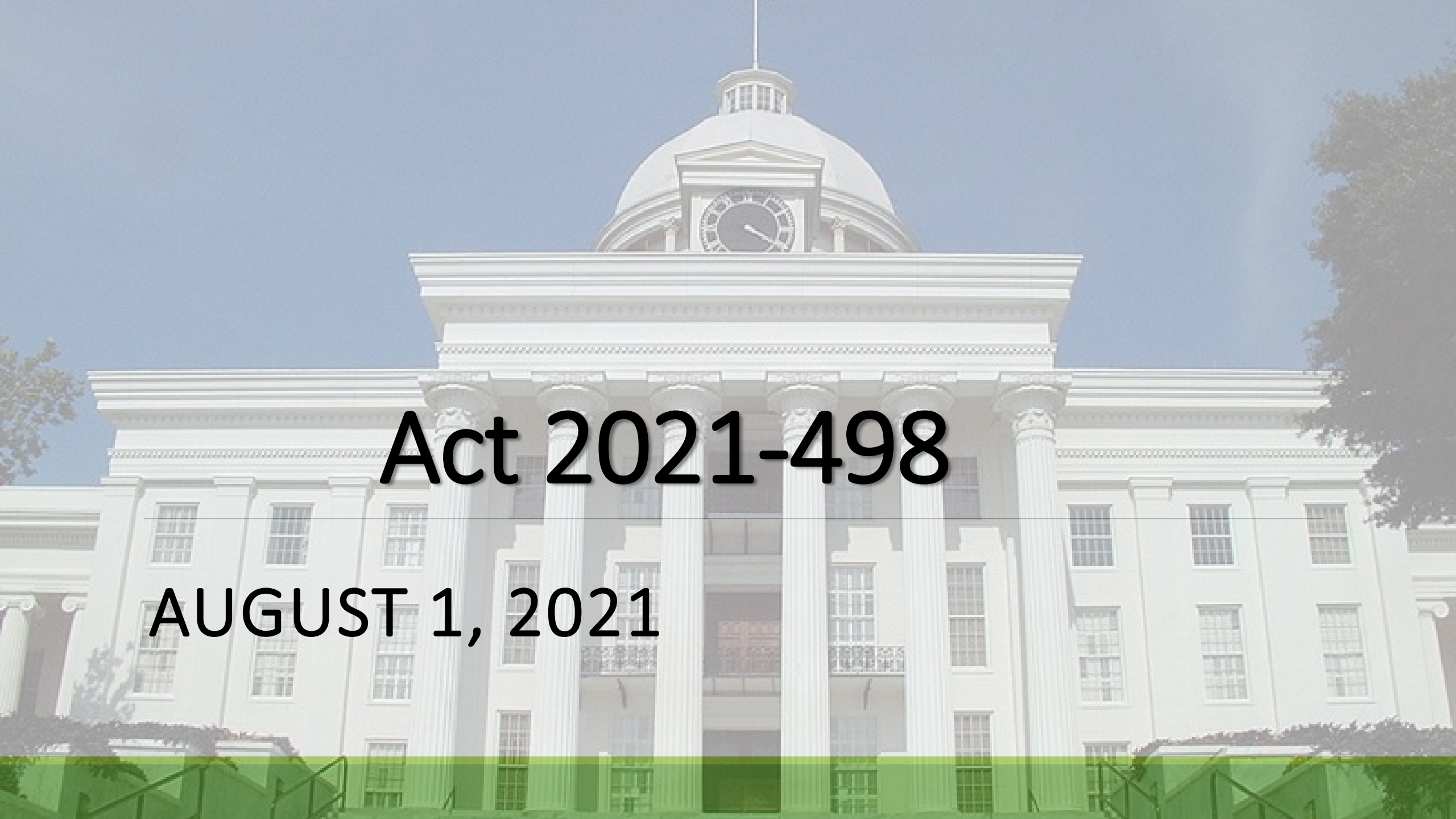
ADDITIONAL RESOURCES

- AAA Foundation for Traffic Safety | www.aaafoundation.org
- Alabama Department of Forensic Sciences | www.adfs.alabama.gov/services/tox/toxicology-oral-testing-program
- DRE Program | www.theiacp.org/projects/the-international-drug-evaluation-classification-program
- National Safety Council | www.nsc.org/work-safety/get-involved/divisions/alcohol-drugs-and-impairment
- Traffic Safety Resource Prosecutor List | ndaa.org/programs/ntlc/commercial-drivers-license/traffic-safety-resource-prosecutor-list
- Society of Forensic Toxicology FAQs | www.soft-tox.org/files/2018%20OF_FAQ_FINAL.pdf

¹ Oral fluid field screening (OFFS) and preliminary breath test, if applicable.

² Based on totality of investigation.

³ First seek consent. If no consent, are there exigent circumstances? If none, can you apply for a warrant?



Act 2021-498

AUGUST 1, 2021

32-5-192

Any person who operates a motor vehicle on the highways of this state shall be deemed to have given his consent...to a chemical test of tests of his or her blood, breath, or oral fluid for the purpose of the determining the content of any impairing substance or substances within a person's system, if lawfully arrested for an offense arising out of acts alleged to have been committed while the person was driving a motor vehicle on the public highways of this state in violation of Section 32-5A-191.

32-5A-194

Any person who operates a motor vehicle on the highways of this state shall be deemed to have given his consent...to a chemical test of tests of his or her blood, breath, or oral fluid for the purpose of the determining the content of any impairing substance or substances within a person's system, if lawfully arrested for an offense arising out of acts alleged to have been committed while the person was driving a motor vehicle on the public highways of this state in violation of Section 32-5A-191.

ADFS DUI & DUID Investigation Workflow (2018-Current)

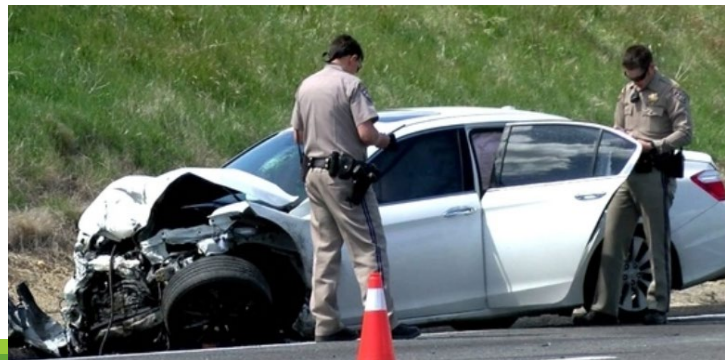
DUI – Traffic Stops



<0.08%,
Suspected DUI/D



DUI – Traffic Crashes





Alabama Department of Forensic Sciences
Toxicological Analysis Request

Hoover/Birmingham Regional Laboratory
2026 Valleydale Road, Hoover, AL 35244
Tel (205)-982-9292 Fax (205) 403-2025
<http://www.adfs.alabama.gov/>

Form DFS-590

This kit and form are intended for ONE subject or suspect.

ADFS
Case No: _____

NAME: _____ Subject ☐ Suspect ☐

Race: _____ Sex: _____ DOB or Age: _____

Date/time of incident: _____ County: _____

Date/time of collection: _____

Type of case or charge: _____ Traffic homicide? No ☐ Yes ☐

List current prescriptions (include dose): _____

List medications or treatment given after the incident: _____

Is there a history of substance abuse? No ☐ Yes ☐ Substance(s): _____ Last use (day/time)? _____

Describe the incident to include reason for stop, behavior, and signs/indicators of impairment. (Continued on the back ☐)

IF TRAFFIC-RELATED, ALSO COMPLETE THE FOLLOWING:

Subject/suspect type: Driver ☐ Passenger ☐ Pedestrian ☐ Bicyclist ☐ Other: _____

SFST clues of impairment HGN ☐ Number of Clues: _____

(Check all that apply) One-leg Stand ☐ Number of Clues: _____

Walk-and-Turn ☐ Number of Clues: _____

Roadside Oral Fluid Screen: Abbott SoToxa ☐ Draeger DT5000 ☐ Randox MultiSTAT ☐ Results: _____

DRE Opinion: Depressant ☐ Stimulant ☐ Hallucinogen ☐ Dissociative ☐ Narcotic ☐ Inhalant ☐ Cannabis ☐

(Only fill out if a Drug Recognition Expert Evaluation was performed; Submit FACE sheet) Anesthetic ☐ Analgesic ☐

SPECIMEN(S) SUBMITTED: Blood ☐ Oral Fluid ☐ [Quantisal Indicator Turned Blue: Yes ☐ No ☐

INVESTIGATING OFFICER (if different from submitter): _____

EXAMINATION(S) REQUESTED: _____

SUBMITTED BY: _____

(Title/Name)

(Signature of Submitter)

(Date)

(Agency)

(Telephone)

(Email)

(Street Address)

(Agency Case No.)

(City, State, Zip)

(Agency Property No.)

NOTICE: Evidence is processed in accordance with ADFS standard procedures. As a condition for submission of evidence to be worked by ADFS, the submitter accepts the agreement that deviation from test or calibration methods may occur when determined by ADFS to be technically justified, and that evidence may be processed at any ADFS facility or by a competent ADFS subcontractor.

KIT SHIPPING SEAL

DATE SEALED: _____

SEALED BY: _____ signature

CAT. NO. BSK101

REDUCER NO. 8404 NDC 10819-2883-1
PDI Povidone-Iodine Prep Pad **MEDIUM**
Broad spectrum antiseptic for patient preoperative skin preparation
Non-Sterile Substrate
Sterile Packaging When in Sterile Kit For Professional and Hospital Use
Drug Facts
Active ingredient: Povidone-Iodine USP, 10% w/w (equivalent to 1% available iodine) **Purpose**: Antiseptic
Use: A broad-spectrum antiseptic for topical application for preparation of skin prior to surgery. First aid antiseptic to help prevent skin infection.
Warnings: For external use only. Keep out of reach of children. If swallowed, get medical help or contact a Poison Control Center. Do not use in the eyes, nose or mouth on individuals who are allergic or sensitive to iodine or over large areas of the body longer than 1 week unless directed by a doctor.
1 Prep Pad (2.0 x 2.5 in (5.1 x 6.4 cm))

Quantisal®
Oral Fluid Collection Device
with Volume Adequacy Indicator

Sample ID: _____
Collection Date: _____
Lot: E31537 Exp: AUG19
DO NOT INGEST LIQUID

SPECIMEN SECURITY SEAL
BIOHAZARD
PLACE OVER BOTTLE CAP/BLOOD TUBE STOPPER
BIOHAZARD
PLACE OVER BOTTLE CAP/BLOOD TUBE STOPPER
BIOHAZARD
PLACE OVER BOTTLE CAP/BLOOD TUBE STOPPER

ORAL FLUID SPECIMEN COLLECTION

1. Initiate Quantisal oral fluid sample collection in the following order of timing preference:
 - a. At the roadside (after 10 minute observation period)
 - b. Prior to DRE evaluation (if applicable)
 - c. After DRE evaluation (if applicable)

Do's:

2.
 - a) Practice officer safety at all times.
 - b) Ensure deprivation period of 10 minutes before oral fluid collection.
 - c) Use gloves during sample collection for hygienic purposes.
 - d) Collect both oral fluid and blood (seek warrant if necessary).
 - e) Hand-deliver or ship samples to laboratory as soon as possible.
 - f) Store unused collectors at room temperature. Avoid prolonged exposure to heat/sunlight.

Don'ts:

7.
 - a) Ensure subject does not chew or suck on pad, talk, or remove collector from mouth.
 - b) Do not stand open tube on table. Do not spill or empty liquid from tube.
 - c) Do not consume buffer in the tube or place collector into mouth after it has been in buffer.
 - d) Collector and subject should not touch the absorbent pad with fingers or physical environment.

9. Remove collector (oral absorbent swab) from subject's mouth, place into the uncapped transport tube.
10. Snap cap firmly into tube for transport.
11. Mix saturated collector (oral absorbent pad) with the blue liquid by gently shaking tube.
12. Seal top of collector with specimen security seal (or evidence tape). Initial and date seal.

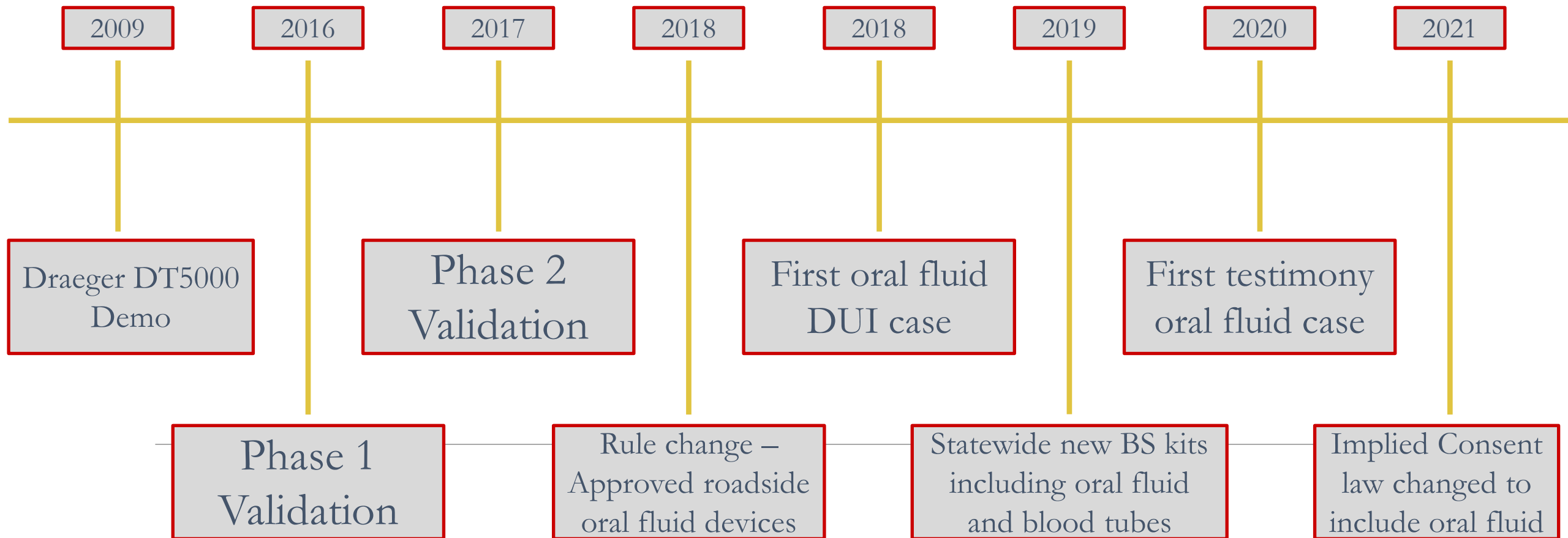
Agilent 6460/70 QQQ LC/MS/MS: OF Confirmation

2 Confirmation Methods at ADFS:

1. (19) Drugs of Abuse
(Qual)
2. (6) Cannabinoids (Quant)

25 Total Targets







Avenues of Admissibility

Frye / Daubert



4th Amendment

Missouri v. McNeely, 133 S.Ct. 1552 (2013)

Birchfield v. North Dakota, 136 S.Ct. 2160 (2016)

Maryland v. King, 133 S.Ct. 1958 (2013)

People v. Salas, Junior

“The Court finds that the Correct Scientific Procedures were used in this case. The Court further finds that there is sufficient reliable evidence of the drug screening test administered on October 13, 2013...”

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- *Sara Jablonski*

AL DRE Program

Abbott, Draeger, Radox

Jacksonville Clara White Mission



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