



## **Blood Cannabinoids Analysis**

### **Test No. 22-5662 Summary Report**

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Each sample set contained blood samples from three separate cases, where each individual is suspected of being under the influence of cannabinoids. Participants were requested to analyze the blood samples and report the presence of any cannabinoids, any quantitative data obtained (including uncertainty), and the methods used. Data were returned from 20 participants and are compiled into the following tables:

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This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

## **Manufacturer's Information**

Each sample set contained a blood sample for three separate cases where an individual is suspected of being under the influence of cannabis. Each case sample consisted of one red-top glass vial containing whole human blood. Participants were asked to analyze the blood sample and report the presence of cannabinoids and quantitative data obtained (including uncertainty).

### SAMPLE PREPARATION:

The human blood used in this test was from the same lot, which tested negative for a variety of common controlled substances prior to being obtained from a commercial supplier.

A stock solution of cannabinoids was used to spike items. These solutions were obtained in sealed ampoules and were not opened until needed for production. Items were prepared at separate times using the following procedure.

### ITEMS 1, 2, and 3 (PREPARATION):

Item preparation consisted of adding a predetermined amount of one or more cannabinoid stock solutions to human whole blood containing an appropriate amount of Sodium Fluoride. This mixture was stirred continuously. A specific volume was pipetted into each red-top vial, sealed, and inverted multiple times to mix the preservatives in the vials with the blood solution. All vials were placed in a refrigerator immediately after production and stored there until the sample sets were prepared.

### SAMPLE SET ASSEMBLY:

Each sample set contained one vial of each of the three items and placed into a Department of Transportation regulated shipping container. The sample packs were then returned to the refrigerator until shipment.

### VERIFICATION:

Predistribution testing identified the expected cannabinoids and reported concentration values that correlated with production data and consensus.

<b>Preparation Concentration</b>		
<u>Item 1 Drug (Concentration)</u>	<u>Item 2 Drug (Concentration)</u>	<u>Item 3 Drug (Concentration)</u>
Carboxy THC (22.5 ng/mL)	THC (23.7 ng/mL)	THC (82.5 ng/mL)
	Carboxy THC (161.8 ng/mL)	Carboxy THC (30.1 ng/mL)
	Hydroxy THC (12.1 ng/mL)	Hydroxy THC (6.5 ng/mL)
<p>Please note that the preparation concentration is the value used for calculations during the test preparation phase and may not necessarily represent the final concentration of the samples. It is advised to wait for the Grand Mean statistics available in the Summary and Individual Reports before evaluating performance.</p>		

## **Summary Comments**

This test was designed to allow participants to assess their proficiency in the examination for the presence and concentration of cannabinoids in blood. The sample sets provided to participants contained three vials of human whole blood, each representing a separate case. Participants were asked to analyze the blood sample and report the presence of any cannabinoids, any quantitative data obtained (including uncertainty), and the methods used (Refer to the Manufacturer's Information for preparation details).

A total of 20 participants returned results. Of these, 16 screened all three items for the presence of cannabinoids, three did not screen any items and one screened for Item 1 and did not respond for Items 2 and 3.

### Item 1

All participants that reported screening results indicated that cannabinoids were detected. A review of confirmatory testing showed that all 20 participants reported the presence of Carboxy THC.

### Item 2

All participants that reported screening results indicated that cannabinoids were detected. A review of confirmatory testing shows that all 20 participants reported the presence of THC and Carboxy THC. Seventeen (85%) participants reported the presence of Hydroxy THC.

### Item 3

All participants that reported screening results indicated that cannabinoids were detected. A review of confirmatory testing showed that all 20 participants reported the presence of THC and Carboxy THC. Sixteen (80%) participants reported the presence of Hydroxy THC.

For all three items, the most common screening method was immunoassay and for confirmatory testing, LC/MS/MS was reported most frequently to analyze the samples. The majority of the population used a single determination for their quantitative analysis reporting procedures. The raw data was used to calculate the grand mean and standard deviation for each item and are supplied to assist the participants and accrediting bodies in their performance evaluations.

# Cannabinoid Screening Results - Item 1

TABLE 1A  
Were cannabinoids detected?

WebCode	Response
2KYXMY	No screening performed
32Y6GR	Yes
8F8HZM	Yes
8YWVCQ	Yes
A7V38J	Yes
CWTUEN	No screening performed
EACVAL	Yes
ELRZ33	No screening performed
ENXBCK	Yes
EWPR2P	Yes
FPMWJG	Yes
H6UVM6	Yes
JNE9DY	Yes
KCZFGC	Yes
KVV93B	Yes
LBRMHW	Yes
NGN6QE	Yes
VEA9Z3	Yes
W4Q7ZL	Yes
WRDQC3	Yes

<b>Cannabinoid Screening Response Summary for Item 1</b>		<b>Participants: 20</b>
<b>Were cannabinoids detected in this Item?</b>		
<u>Response</u>	<u>Total</u>	
Yes	17	
No	0	
No Screening	3	
No Response	0	

# Confirmatory Results - Item 1

TABLE 1B

Item Contents and Preparation Concentration: Carboxy THC (22.5 ng/mL)

What Cannabinoids were detected in Item 1?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
2KYXMY	Carboxy THC		17		ug/L
32Y6GR	Carboxy THC		21	5.0	ng/mL
8F8HZM	Carboxy THC		13	2	ng/mL
8YWVCQ	Carboxy THC	✓			
A7V38J	Carboxy THC		12	2	ng/mL
CWTUEN	Carboxy THC		17,8	13,3%	ng/mL
EACVAL	Carboxy THC		<20 ng/mL		
ELRZ33	Carboxy THC		17.7	2.6	ng/mL
ENXBCK	Carboxy THC		18		ng/mL
EWPR2P	Carboxy THC		16	3	ng/mL
FPMWJG	Carboxy THC		16	3	ng/mL
H6UVM6	Carboxy THC	✓	Positive		
JNE9DY	Carboxy THC		16.35	4.09	ng/mL
KCZFGC	Carboxy THC		15	3	ng/mL
KW93B	Carboxy THC		15	±3	ng/mL
LBRMHW	Carboxy THC		17	2.6	ng/mL
NGN6QE	Carboxy THC		16	3.0	ng/mL
VEA9Z3	Carboxy THC		18.7	3.2	ng/mL
W4Q7ZL	Carboxy THC	✓			
WRDQC3	Carboxy THC	✓			

Confirmatory Response Summary for Item 1	Participants: 20
Carboxy THC: 20 (100.0%)	
No Drugs/Metabolites Detected Utilizing Confirmatory Methods: 0 (0.0%)	

# Raw Data - Item 1

TABLE 1C

**Item 1 Raw Data - Carboxy THC**  
**Preparation concentration: 22.5 ng/mL**

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
2KYXMY	17.180	17.280	17.230
32Y6GR	21.680	23.600	22.640
8F8HZM	12.890		12.890
A7V38J	12.340		12.340
CWTUEN	17.800		17.800
EACVAL	15.350		15.350
ELRZ33	17.750		17.750
ENXBCK	18.290		18.290
EWPR2P	16.640		16.640
FPMWJG	16.404		16.400
JNE9DY	16.353		16.350
KCZFGC	15.000		15.000
KVW93B	15.633		15.630
LBRMHW	16.930	17.290	17.110
NGN6QE	16.280	16.400	16.340
VEA9Z3	18.706		18.710

Statistical Analysis for Item 1 - Carboxy THC		
Grand Mean	<b>16.65</b>	Number of Participants Included <b>16</b>
Standard Deviation	<b>2.37</b>	Number of Participants Excluded <b>0</b>
		Number of Participants without Raw Data or Data that was not reported in ng/mL <b>0</b>

# Reporting Procedures - Item 1

TABLE 1D - Item 1

WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
2KYXMY	The mean of duplicate/several determinations.
32Y6GR	Lowest of duplicate samples, truncated
8F8HZM	A single determination.
A7V38J	A single determination.
CWTUEN	A single determination.
EACVAL	A single determination.
ELRZ33	A single determination.
ENXBCK	A single determination.
EWPR2P	A single determination.
FPMWJG	A single determination.
H6UVM6	A single determination.
JNE9DY	A single determination.
KCZFGC	A single determination.
KVW93B	A single determination.
LBRMHW	The mean of duplicate/several determinations.
NGN6QE	The lowest of the duplicates
VEA9Z3	A single determination.

Response Summary for Item 1	Participants: 17
A single determination:	13 (76.5%)
The mean of duplicate/several determinations:	2 (11.8%)
Other:	2 (11.8%)

# **Methods of Analysis - Item 1**

TABLE 1E - Item 1

<b>WebCode</b>	<b>Method</b>	<b>Screening</b>	<b>Confirmatory</b>	<b>Quantitation</b>
2KYXMY	GC/MS/MS		✓	✓
32Y6GR	Immunoassay LC/MS/MS	✓	✓	✓
8F8HZM	Immunoassay LC/MS/MS	✓	✓	✓
8YWVCQ	LC/MS/MS	✓	✓	
A7V38J	Immunoassay LC/MS/MS	✓	✓	✓
CWTUEN	GC/MS/MS		✓	✓
EACVAL	Immunoassay GC/MS	✓	✓	✓
ELRZ33	LC/MS/MS		✓	✓
ENXBCK	LC/MS/MS LC/MS/MS	✓	✓	✓
EWPR2P	Immunoassay GC/MS	✓	✓	✓
FPMWJG	Immunoassay LC/MS/MS	✓	✓	✓
H6UVM6	GC/MS/MS		✓	✓
JNE9DY	LC/MS/MS	✓	✓	
KCZFGC	Immunoassay LC/MS/MS	✓	✓	✓
KVV93B	Immunoassay LC/MS/MS	✓	✓	✓
LBRMHW	LC/MS/MS	✓	✓	✓
NGN6QE	Immunoassay LC/MS/MS	✓	✓	✓
VEA9Z3	Immunoassay LC/MS/MS	✓	✓	✓
W4Q7ZL	Immunoassay GC/MS/MS	✓	✓	
WRDQC3	Immunoassay GC/MS	✓	✓	



<b>Response Summary for Item 1 - Methods of Analysis</b>		<b>Participants: 20</b>		
	<b>Screening</b>	<b>Confirmatory</b>	<b>Quantitation</b>	
<b>Immunoassay:</b>	12	0	0	
<b>GC/MS:</b>	0	3	2	
<b>LC/MS:</b>	0	0	0	
<b>LC/MS/MS:</b>	4	13	11	
<b>Other:</b>	0	4	3	

# Additional Comments for Item 1

TABLE 1F

WebCode	Item Comments
8F8HZM	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL) Delta-9-THC 0.5 – 50, 11-hydroxy-Delta-9-THC 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 - 500. Measurement uncertainty is reported at a 95.45% level of confidence for all quantitative blood drug analyses. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Barbiturates 50, Benzodiazepines 10, Buprenorphine 1, Cannabinoids 10, Benzoyllecgonine 50, Dextromethorphan 5, Fentanyl 1, Meprobamate 100, Methadone 10, Opiates 10, Opioids 10, Phencyclidine 5, TCA 25, Tramadol 5, Zolpidem 10 *. Results within 20% of these concentrations are also reported as preliminarily positive. [Participant created a manually formatted table within the freeform text space. This special formatting was not transferrable into the final report. Data is presented as is.]
A7V38J	Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL) Delta-9-THC 0.5 – 50, 11-hydroxy-Delta-9-THC 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 – 500. Measurement uncertainty is reported at a 95.45% level of confidence for all quantitative blood drug analyses. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Barbiturates 50, Benzodiazepines 10, Buprenorphine 1, Cannabinoids 10, Benzoyllecgonine 50, Dextromethorphan 5, Fentanyl 1, Meprobamate 100, Methadone 10, Opiates 10, Opioids 10, Phencyclidine 5, TCA 25, Tramadol 5, Zolpidem 10 *. Results within 20% of these concentrations are also reported as preliminarily positive. [Participant created a manually formatted table within the freeform text space. This special formatting was not transferrable into the final report. Data is presented as is.]
ELRZ33	Our laboratory screens for cannabinoids in urine and confirms in blood. No screening was done for these items due to no urine available in proficiency test.
ENXBCK	Confirmatory/Quantitation performed on 11/21/2022
EWPR2P	Cannabinoid ELISA screening result was below the cut-off but response was elevated, confirmation was performed. THC Confirmation: Internal Standard = THC-D3, LOD = 1 ng/mL, LLOQ = 1 ng/mL, ULOQ = 25 ng/mL. Carboxy THC Confirmation: Internal Standard = Carboxy THC-D9, LOD = 4 ng/mL, LLOQ = 4 ng/mL, ULOQ = 100 ng/mL.
FPMWJG	Confirmation/quantitation of Carboxy THC using Carboxy-THC-D3 as internal standard. LOQ for Carboxy THC is 5 ng/mL. LOD for Carboxy THC is 2.5 ng/mL.
KCZFGC	Carboxy-THC: LOD/LLOQ: 2.5ng/mL, Internal Std.: Carboxy-THC-d9
KV93B	Cannabinoid confirmation panel includes: THC, carboxy-THC and hydroxy-THC. LOD for THC and hydroxy-THC is 0.5ng/ml and LOQ is 1ng/ml. LOD for carboxy-THC is 2.5ng/ml and LOQ is 5ng/ml. THC-D3, COOH-THC-D3 and 11-OH-THC-D3 used as internal standards. Sample was also run on 11/22/22, and that value was reported.
LBRMHW	second analysis date: 2022-11-14

# Cannabinoid Screening Results - Item 2

TABLE 2A  
Were cannabinoids detected?

WebCode	Response
2KYXMY	No screening performed
32Y6GR	Yes
8F8HZM	Yes
8YWVCQ	Yes
A7V38J	Yes
CWTUEN	No screening performed
EACVAL	Yes
ELRZ33	No screening performed
ENXBCK	
EWPR2P	Yes
FPMWJG	Yes
H6UVM6	Yes
JNE9DY	Yes
KCZFGC	Yes
KVV93B	Yes
LBRMHW	Yes
NGN6QE	Yes
VEA9Z3	Yes
W4Q7ZL	Yes
WRDQC3	Yes

<b>Cannabinoid Screening Response Summary for Item 2</b>		<b>Participants: 20</b>
<b>Were cannabinoids detected in this Item?</b>		
<u>Response</u>	<u>Total</u>	
Yes	16	
No	0	
No Screening	3	
No Response	1	

**Confirmatory Results - Item 2**

TABLE 2B

Item Contents and Preparation Concentration: THC (23.7 ng/mL)  
 Carboxy THC (161.8 ng/mL)  
 Hydroxy THC (12.1 ng/mL)

<b>What Cannabinoids were detected in Item 2?</b>					
<b>WebCode</b>	<b>Analytes Reported</b>	<b>Qualitative Only</b>	<b>Reported Concentration</b>	<b>Uncertainty</b>	<b>Units</b>
2KYXMY	THC		9.2		ug/L
	Carboxy THC		140		ug/L
	Hydroxy THC		6.8		ug/L
32Y6GR	THC		15	5.0	ng/mL
	Carboxy THC		160	37	ng/mL
	Hydroxy THC		8.1	2.1	ng/mL
8F8HZM	THC		8.5	1.6	ng/mL
	Carboxy THC		100	16	ng/mL
	Hydroxy THC		4.4	0.8	ng/mL
8YWVCQ	THC		13.1	2.6	ng/mL
	Carboxy THC	✓			
	Hydroxy THC		6.7	1.3	ng/mL
A7V38J	THC		8.7	1.6	ng/mL
	Carboxy THC		103	16	ng/mL
	Hydroxy THC		4.7	0.8	ng/mL
CWTUEN	THC		9,34	16,3%	ng/mL
	Carboxy THC		131	-	ng/mL
	Hydroxy THC		6,45	15,6%	ng/mL
EACVAL	THC		10 ng/mL	2	ng/mL
	Carboxy THC		128 ng/mL	38	ng/mL
	Hydroxy THC		5.0 ng/mL	0.9	ng/mL
ELRZ33	THC		12.1	1.6	ng/mL
	Carboxy THC		139.7	20.9	ng/mL
	Hydroxy THC		7.0	1.1	ng/mL
ENXBCK	THC		11	3	ng/mL
	Carboxy THC		130		ng/mL
EWPR2P	THC		10	2	ng/mL
	Carboxy THC		>100		ng/mL

TABLE 2B: Confirmatory Results - Item 2

<b>What Cannabinoids were detected in Item 2?</b>					
<b>WebCode</b>	<b>Analytes Reported</b>	<b>Qualitative Only</b>	<b>Reported Concentration</b>	<b>Uncertainty</b>	<b>Units</b>
FPMWJG	THC		11	2	ng/mL
	Carboxy THC		0.13	0.03	µg/mL
	Hydroxy THC		5.6	0.9	ng/mL
H6UVM6	THC		10	+/- 2	ng/mL
	Carboxy THC	✓	Positive		
JNE9DY	THC		12.10	3.03	ng/mL
	Carboxy THC		130.84	32.71	ng/mL
	Hydroxy THC		5.71	1.43	ng/mL
KCZFGC	THC		14	3	ng/mL
	Carboxy THC		126	25	ng/mL
	Hydroxy THC		7.4	1.5	ng/mL
KVV93B	THC		12	±2	ng/mL
	Carboxy THC		0.12	±0.02	µg/mL
	Hydroxy THC		5.4	±0.9	ng/mL
LBRMHW	THC		11	2.6	ng/mL
	Carboxy THC		138	21	ng/mL
	Hydroxy THC		6.4	0.87	ng/mL
NGN6QE	THC		13	3.0	ng/mL
	Carboxy THC		124	23	ng/mL
	Hydroxy THC		6.1	1.1	ng/mL
VEA9Z3	THC		11.9	2.4	ng/mL
	Carboxy THC		143	24	ng/mL
	Hydroxy THC		7.0	1.3	ng/mL
W4Q7ZL	THC	✓			
	Carboxy THC	✓			
	Hydroxy THC	✓			
WRDQC3	THC	✓			
	Carboxy THC	✓			
	Hydroxy THC	✓			

<b>Confirmatory Response Summary for Item 2</b>		<b>Participants: 20</b>
THC:	20 (100.0%)	
Carboxy THC:	20 (100.0%)	
Hydroxy THC:	17 (85.0%)	
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	0 (0.0%)	

# Raw Data - Item 2

TABLE 2C

**Item 2 Raw Data - THC**  
**Preparation concentration: 23.7 ng/mL**

WebCode	List of Raw Data determinations (ng/mL)			Participant Mean
2KYXMY	9.3400	9.1900		9.2650
32Y6GR	15.880	16.530		16.210
8F8HZM	8.5300			8.5300
8YWVCQ	12.900	13.700	12.700	13.100
A7V38J	8.7400			8.7400
CWTUEN	9.3400			9.3400
EACVAL	10.550			10.550
ELRZ33	12.120			12.120
ENXBCK	11.740			11.740
EWPR2P	10.670			10.670
FPMWJG	11.942			11.940
H6UVM6	10.000			10.000
JNE9DY	12.106			12.110
KCZFGC	14.000			14.000
KVV93B	12.507			12.510
LBRMHW	11.500	10.300		10.900
NGN6QE	13.610	13.860		13.740
VEA9Z3	11.906			11.910

Statistical Analysis for Item 2 - THC			
Grand Mean	<b>11.52</b>	Number of Participants Included	<b>18</b>
Standard Deviation	<b>2.01</b>	Number of Participants Excluded	<b>0</b>
		Number of Participants without Raw Data or Data that was not reported in ng/mL	
		<b>0</b>	

**TABLE 2C: Raw Data - Item 2**  
**Item 2 Raw Data - Carboxy THC**  
**Preparation concentration: 161.8 ng/mL**

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
2KYXMY	136.75	144.90	140.80
32Y6GR	160.73	168.90	164.80
8F8HZM	100.10		100.10
A7V38J	102.83		102.80
CWTUEN	131.00		131.00
EACVAL	128.30		128.30
ELRZ33	139.73		139.70
ENXBCK	131.63		131.60
EWPR2P	No results were reported for this item or results were not in requested units.		
FPMWJG	134.78		134.80
JNE9DY	130.84		130.80
KCZFGC	126.00		126.00
KVW93B	125.70		125.70
LBRMHW	141.55	134.40	138.00
NGN6QE	124.90	130.10	127.50
VEA9Z3	142.66		142.70

Statistical Analysis for Item 2 - Carboxy THC			
Grand Mean	<b>130.98</b>	Number of Participants Included	<b>15</b>
Standard Deviation	<b>15.44</b>	Number of Participants Excluded	<b>0</b>
		Number of Participants without Raw Data or Data that was not reported in ng/mL	
		<b>1</b>	



**TABLE 2C: Raw Data - Item 2**  
**Item 2 Raw Data - Hydroxy THC**  
**Preparation concentration: 12.1 ng/mL**

<b>WebCode</b>	<b>List of Raw Data determinations (ng/mL)</b>			<b>Participant Mean</b>
2KYXMY	6.7600	6.9400		6.8500
32Y6GR	8.1300	9.0400		8.5850
8F8HZM	4.4100			4.4100
8YWVCQ	5.8000	7.2000	7.1000	6.7000
A7V38J	4.7300			4.7300
CWTUEN	6.4500			6.4500
EACVAL	5.0600			5.0600
ELRZ33	7.0900			7.0900
FPMWJG	5.6980			5.6980
JNE9DY	5.7127			5.7130
KCZFGC	7.4000			7.4000
KVV93B	5.4770			5.4770
LBRMHW	6.5100	6.2500		6.3800
NGN6QE	6.1600	6.4600		6.3100
VEA9Z3	7.0460			7.0460

<b>Statistical Analysis for Item 2 - Hydroxy THC</b>			
Grand Mean	<b>6.26</b>	Number of Participants Included	<b>15</b>
Standard Deviation	<b>1.10</b>	Number of Participants Excluded	<b>0</b>
		Number of Participants without Raw Data or Data that was not reported in ng/mL	
		<b>0</b>	

## Reporting Procedures - Item 2

TABLE 2D - Item 2

WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
2KYXMY	The mean of duplicate/several determinations.
32Y6GR	Lowest of duplicate samples, truncated
8F8HZM	A single determination.
8YWVCQ	The mean of duplicate/several determinations.
A7V38J	A single determination.
CWTUEN	A single determination.
EACVAL	A single determination.
ELRZ33	A single determination.
ENXBCK	A single determination.
EWPR2P	A single determination.
FPMWJG	A single determination.
H6UVM6	A single determination.
JNE9DY	A single determination.
KCZFGC	A single determination.
KVV93B	A single determination.
LBRMHW	The mean of duplicate/several determinations.
NGN6QE	The lowest of duplicates
VEA9Z3	A single determination.

Response Summary for Item 2	Participants: 18
A single determination:	13 (72.2%)
The mean of duplicate/several determinations:	3 (16.7%)
Other:	2 (11.1%)

## Methods of Analysis - Item 2

TABLE 2E - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
2KYXMY	GC/MS/MS		✓	✓
32Y6GR	Immunoassay LC/MS/MS	✓	✓	✓
8F8HZM	Immunoassay LC/MS/MS	✓	✓	✓
8YWVCQ	LC/MS/MS	✓	✓	✓
A7V38J	Immunoassay LC/MS/MS	✓	✓	✓
CWTUEN	GC/MS/MS		✓	✓
EACVAL	Immunoassay GC/MS	✓	✓	✓
ELRZ33	LC/MS/MS		✓	✓
ENXBCK	LC/MS/MS LC/MS/MS	✓	✓	✓
EWPR2P	Immunoassay GC/MS	✓	✓	✓
FPMWJG	Immunoassay LC/MS/MS	✓	✓	✓
H6UVM6	GC/MS/MS		✓	✓
JNE9DY	LC/MS/MS	✓	✓	
KCZFGC	Immunoassay LC/MS/MS	✓	✓	✓
KVV93B	Immunoassay LC/MS/MS	✓	✓	✓
LBRMHW	LC/MS/MS	✓	✓	✓
NGN6QE	Immunoassay LC/MS/MS	✓	✓	✓
VEA9Z3	Immunoassay LC/MS/MS	✓	✓	✓
W4Q7ZL	Immunoassay GC/MS/MS	✓	✓	
WRDQC3	Immunoassay GC/MS	✓	✓	

<b>Response Summary for Item 2 - Methods of Analysis</b>		<b>Participants: 20</b>		
	<b>Screening</b>	<b>Confirmatory</b>	<b>Quantitation</b>	
<b>Immunoassay:</b>	12	0	0	
<b>GC/MS:</b>	0	3	2	
<b>LC/MS:</b>	0	0	0	
<b>LC/MS/MS:</b>	4	13	12	
<b>Other:</b>	0	4	3	

## Additional Comments for Item 2

TABLE 2F

WebCode	Item Comments
8F8HZM	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL) Delta-9-THC 0.5 – 50, 11-hydroxy-Delta-9-THC 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 - 500. Measurement uncertainty is reported at a 95.45% level of confidence for all quantitative blood drug analyses. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Barbiturates 50, Benzodiazepines 10, Buprenorphine 1, Cannabinoids 10, Benzoyllecgonine 50, Dextromethorphan 5, Fentanyl 1, Meprobamate 100, Methadone 10, Opiates 10, Opioids 10, Phencyclidine 5, TCA 25, Tramadol 5, Zolpidem 10 *. Results within 20% of these concentrations are also reported as preliminarily positive. [Participant created a manually formatted table within the freeform text space. This special formatting was not transferrable into the final report. Data is presented as is.]
A7V38J	Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL) Delta-9-THC: 0.5 – 50, 11-hydroxy-Delta-9-THC: 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 – 500. Measurement uncertainty is reported at a 95.45% level of confidence for all quantitative blood drug analyses. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Barbiturates 50, Benzodiazepines 10, Buprenorphine 1, Cannabinoids 10, Benzoyllecgonine 50, Dextromethorphan 5, Fentanyl 1, Meprobamate 100, Methadone 10, Opiates 10, Opioids 10, Phencyclidine 5, TCA 25, Tramadol 5, Zolpidem 10 *. Results within 20% of these concentrations are also reported as preliminarily positive. [Participant created a manually formatted table within the freeform text space. This special formatting was not transferrable into the final report. Data is presented as is.]
ELRZ33	(THC) tetrahydrocannabinol confirmed is the delta-9 isomer.
ENXBCK	Confirmatory/Quantitation performed on 11/15/2022
EWPR2P	Carboxy THC quantitation was greater than the highest calibrator (i.e. 100 ng/mL), result reported as >100 ng/mL, uncertainty of measurement not applicable (i.e. NA). THC Confirmation: Internal Standard = THC-D3, LOD = 1 ng/mL, LLOQ = 1 ng/mL, ULOQ = 25 ng/mL. Carboxy THC Confirmation: Internal Standard = Carboxy THC-D9, LOD = 4 ng/mL, LLOQ = 4 ng/mL, ULOQ = 100 ng/mL.
FPMWJG	Confirmation/quantitation of THC, Carboxy THC and hydroxy THC using THC-D3, Carboxy-THC-D3 and hydroxy THC-D3 as internal standards respectively. LOQ for Carboxy THC is 5 ng/mL and for THC and hydroxy THC is 1.0 ng/mL. LOD for Carboxy THC is 2.5 ng/mL and for THC and hydroxy THC is 0.5 ng/mL.
KCZFGC	Hydroxy-THC: LOD/LLOQ: 0.5ng/mL, Internal Std.: Hydroxy-THC-d3. Carboxy-THC: LOD/LLOQ: 2.5ng/mL, Internal Std.: Carboxy-THC-d9. THC: LOD/LLOQ: 0.5ng/mL, Internal Std.: THC-d3
KV93B	Cannabinoid confirmation panel includes: THC, carboxy-THC and hydroxy-THC. LOD for THC and hydroxy-THC is 0.5ng/ml and LOQ is 1ng/ml. LOD for carboxy-THC is 2.5ng/ml and LOQ is 5ng/ml. THC-D3, COOH-THC-D3 and 11-OH-THC-D3 used as internal standards.
LBRMHW	second analysis date: 2022-11-14

# Cannabinoid Screening Results - Item 3

TABLE 3A  
Were cannabinoids detected?

WebCode	Response
2KYXMY	No screening performed
32Y6GR	Yes
8F8HZM	Yes
8YWVCQ	Yes
A7V38J	Yes
CWTUEN	No screening performed
EACVAL	Yes
ELRZ33	No screening performed
ENXBCK	
EWPR2P	Yes
FPMWJG	Yes
H6UVM6	Yes
JNE9DY	Yes
KCZFGC	Yes
KVV93B	Yes
LBRMHW	Yes
NGN6QE	Yes
VEA9Z3	Yes
W4Q7ZL	Yes
WRDQC3	Yes

<b>Cannabinoid Screening Response Summary for Item 3</b>		<b>Participants: 20</b>
<b>Were cannabinoids detected in this Item?</b>		
<u>Response</u>	<u>Total</u>	
Yes	16	
No	0	
No Screening	3	
No Response	1	

**Confirmatory Results - Item 3**

TABLE 3B

Item Contents and Preparation Concentration: THC (82.5 ng/mL)  
 Carboxy THC (30.1 ng/mL)  
 Hydroxy THC (6.5 ng/mL)

<b>What Cannabinoids were detected in Item 3?</b>					
<b>WebCode</b>	<b>Analytes Reported</b>	<b>Qualitative Only</b>	<b>Reported Concentration</b>	<b>Uncertainty</b>	<b>Units</b>
2KYXMY	THC		45		ug/L
	Carboxy THC		23		ug/L
32Y6GR	THC		Present greater than 50 ng/mL		
	Carboxy THC		29	7.0	ng/mL
	Hydroxy THC		5.4	1.4	ng/mL
8F8HZM	THC		41	8	ng/mL
	Carboxy THC		18	3	ng/mL
	Hydroxy THC		2.8	0.5	ng/mL
8YWVCQ	THC		59.1	11.7	ng/mL
	Carboxy THC	✓			
	Hydroxy THC		3.2	0.6	ng/mL
A7V38J	THC		42	8	ng/mL
	Carboxy THC		19	3	ng/mL
	Hydroxy THC		2.9	0.5	ng/mL
CWTUEN	THC		45,6	11,7%	ng/mL
	Carboxy THC		26,1	13,3%	ng/mL
	Hydroxy THC		4,25	15,6%	ng/mL
EACVAL	THC		>30 ng/mL		
	Carboxy THC		24 ng/mL	7	ng/mL
	Hydroxy THC		3.2 ng/mL	0.6	ng/mL
ELRZ33	THC		61.9	8.6	ng/mL
	Carboxy THC		28.2	4.2	ng/mL
	Hydroxy THC		4.2	0.6	ng/mL
ENXBCK	THC		64	17	ng/mL
	Carboxy THC		28		ng/mL
EWPR2P	THC		>25		ng/mL
	Carboxy THC		23	3	ng/mL

TABLE 3B: Confirmatory Results - Item 3

<b>What Cannabinoids were detected in Item 3?</b>					
<b>WebCode</b>	<b>Analytes Reported</b>	<b>Qualitative Only</b>	<b>Reported Concentration</b>	<b>Uncertainty</b>	<b>Units</b>
FPMWJG	THC		57	9	ng/mL
	Carboxy THC		25	4	ng/mL
	Hydroxy THC		3.6	0.6	ng/mL
H6UVM6	THC		50	+/- 10	ng/mL
	Carboxy THC	✓	Positive		
JNE9DY	THC		64.19	16.05	ng/mL
	Carboxy THC		25.40	6.35	ng/mL
	Hydroxy THC		3.87	0.97	ng/mL
KCZFGC	THC		66	13	ng/mL
	Carboxy THC		24	5	ng/mL
	Hydroxy THC		4.4	0.9	ng/mL
KVV93B	THC		62	±10	ng/mL
	Carboxy THC		23	±4	ng/mL
	Hydroxy THC		3.5	±0.6	ng/mL
LBRMHW	THC		54	13	ng/mL
	Carboxy THC		24	3.6	ng/mL
	Hydroxy THC		3.8	0.52	ng/mL
NGN6QE	THC		Present greater than 50 ng/mL		ng/mL
	Carboxy THC		24	5.0	ng/mL
	Hydroxy THC		4.0	0.7	ng/mL
VEA9Z3	THC		>50		ng/mL
	Carboxy THC		27.7	4.7	ng/mL
	Hydroxy THC		4.40	0.84	ng/mL
W4Q7ZL	THC	✓			
	Carboxy THC	✓			
	Hydroxy THC	✓			
WRDQC3	THC	✓			
	Carboxy THC	✓			
	Hydroxy THC	✓			



<b>Confirmatory Response Summary for Item 3</b>		<b>Participants: 20</b>
THC:	20 (100.0%)	
Carboxy THC:	20 (100.0%)	
Hydroxy THC:	16 (80.0%)	
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	0 (0.0%)	

# Raw Data - Item 3

TABLE 3C

**Item 3 Raw Data - THC**  
**Preparation concentration: 82.5 ng/mL**

WebCode	List of Raw Data determinations (ng/mL)			Participant Mean
2KYXMY	45.180	45.900		45.540
32Y6GR	78.130	81.330		79.730
8F8HZM	40.890			40.890
8YWVCQ	62.000	60.300	55.000	59.100
A7V38J	42.220			42.220
CWTUEN	45.600			45.600
EACVAL	46.970			46.970
ELRZ33	61.940			61.940
ENXBCK	64.370			64.370
EWPR2P	No results were reported for this item or results were not in requested units.			
FPMWJG	57.288			57.290
H6UVM6	50.000			50.000
JNE9DY	64.197			64.200
KCZFGC	66.000			66.000
KVV93B	62.695			62.700
LBRMHW	55.280	52.520		53.900
NGN6QE	68.070	69.790		68.930
VEA9Z3	60.900			60.900

Statistical Analysis for Item 3 - THC			
Grand Mean	<b>57.07</b>	Number of Participants Included	<b>17</b>
Standard Deviation	<b>10.67</b>	Number of Participants Excluded	<b>0</b>
		Number of Participants without Raw Data or Data that was not reported in ng/mL	<b>1</b>

**TABLE 3C: Raw Data - Item 3**  
**Item 3 Raw Data - Carboxy THC**  
**Preparation concentration: 30.1 ng/mL**

<b>WebCode</b>	<b>List of Raw Data determinations (ng/mL)</b>				<b>Participant Mean</b>
2KYXMY	23.710	23.250	23.960	23.380	23.580
32Y6GR	31.550	29.430			30.490
8F8HZM	18.240				18.240
A7V38J	18.580				18.580
CWTUEN	26.100				26.100
EACVAL	24.600				24.600
ELRZ33	28.250				28.250
ENXBCK	28.730				28.730
EWPR2P	23.170				23.170
FPMWJG	25.725				25.730
JNE9DY	25.409				25.410
KCZFGC	24.000				24.000
KVW93B	23.143				23.140
LBRMHW	23.280	24.680			23.980
NGN6QE	24.530	25.300			24.920
VEA9Z3	27.728				27.730

<b>Statistical Analysis for Item 3 - Carboxy THC</b>		
Grand Mean <b>24.79</b>	Number of Participants Included <b>16</b>	Number of Participants without Raw Data or Data that was not reported in ng/mL <b>0</b>
Standard Deviation <b>3.28</b>	Number of Participants Excluded <b>0</b>	

**TABLE 3C: Raw Data - Item 3**  
**Item 3 Raw Data - Hydroxy THC**  
**Preparation concentration: 6.5 ng/mL**

<b>WebCode</b>	<b>List of Raw Data determinations (ng/mL)</b>			<b>Participant Mean</b>
32Y6GR	5.5100	5.4300		5.4700
8F8HZM	2.7900			2.7900
8YWVCQ	3.2000	3.2000	3.2000	3.2000
A7V38J	2.9400			2.9400
CWTUEN	4.2500			4.2500
EACVAL	3.2000			3.2000
ELRZ33	4.2400			4.2400
FPMWJG	3.6470			3.6470
JNE9DY	3.8753			3.8750
KCZFGC	4.4000			4.4000
KVV93B	3.5530			3.5530
LBRMHW	4.0300	3.5900		3.8100
NGN6QE	4.0700	4.3600		4.2150
VEA9Z3	4.3950			4.3950

<b>Statistical Analysis for Item 3 - Hydroxy THC</b>			
Grand Mean	<b>3.86</b>	Number of Participants Included	<b>14</b>
Standard Deviation	<b>0.71</b>	Number of Participants Excluded	<b>0</b>
		Number of Participants without Raw Data or Data that was not reported in ng/mL	
		<b>0</b>	

## Reporting Procedures - Item 3

TABLE 3D - Item 3

WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
2KYXMY	The mean of duplicate/several determinations.
32Y6GR	Lowest of duplicate samples, truncated
8F8HZM	A single determination.
8YWVCQ	The mean of duplicate/several determinations.
A7V38J	A single determination.
CWTUEN	A single determination.
EACVAL	A single determination.
ELRZ33	A single determination.
ENXBCK	A single determination.
EWPR2P	A single determination.
FPMWJG	A single determination.
H6UVM6	A single determination.
JNE9DY	A single determination.
KCZFGC	A single determination.
KVV93B	A single determination.
LBRMHW	The mean of duplicate/several determinations.
NGN6QE	The lowest of duplicates
VEA9Z3	A single determination.

Response Summary for Item 3	Participants: 18
A single determination:	13 (72.2%)
The mean of duplicate/several determinations:	3 (16.7%)
Other:	2 (11.1%)

## **Methods of Analysis - Item 3**

TABLE 3E - Item 3

<b>WebCode</b>	<b>Method</b>	<b>Screening</b>	<b>Confirmatory</b>	<b>Quantitation</b>
2KYXMY	GC/MS/MS		✓	✓
32Y6GR	Immunoassay LC/MS/MS	✓	✓	✓
8F8HZM	Immunoassay LC/MS/MS	✓	✓	✓
8YWVCQ	LC/MS/MS	✓	✓	✓
A7V38J	Immunoassay LC/MS/MS	✓	✓	✓
CWTUEN	GC/MS/MS		✓	✓
EACVAL	Immunoassay GC/MS	✓	✓	✓
ELRZ33	LC/MS/MS		✓	✓
ENXBCK	LC/MS/MS LC/MS/MS	✓	✓	✓
EWPR2P	Immunoassay GC/MS	✓	✓	✓
FPMWJG	Immunoassay LC/MS/MS	✓	✓	✓
H6UVM6	GC/MS/MS		✓	✓
JNE9DY	LC/MS/MS	✓	✓	
KCZFGC	Immunoassay LC/MS/MS	✓	✓	✓
KVV93B	Immunoassay LC/MS/MS	✓	✓	✓
LBRMHW	LC/MS/MS	✓	✓	✓
NGN6QE	Immunoassay LC/MS/MS	✓	✓	✓
VEA9Z3	Immunoassay LC/MS/MS	✓	✓	✓
W4Q7ZL	Immunoassay GC/MS/MS	✓	✓	
WRDQC3	Immunoassay GC/MS	✓	✓	

<b>Response Summary for Item 3 - Methods of Analysis</b>		<b>Participants: 20</b>		
	<b>Screening</b>	<b>Confirmatory</b>	<b>Quantitation</b>	
<b>Immunoassay:</b>	12	0	0	
<b>GC/MS:</b>	0	3	2	
<b>LC/MS:</b>	0	0	0	
<b>LC/MS/MS:</b>	4	13	12	
<b>Other:</b>	0	4	3	

## Additional Comments for Item 3

TABLE 3F

WebCode	Item Comments
2KYXMY	Original analysis date was 2022-11-04, sample was repeated at a dilution as it was above the top calibrator for THC, repeat analysis date was 2022-11-09. Sample received within a cracked vial; Contents transferred to new vial upon discovery on 04/11/2022. Hydroxy-THC also detected <LLOQ (<5.0ug/L)
32Y6GR	The upper limit of quantitation of Tetrahydrocannabinol is 50 ng/mL. Method is not validated to quantitate higher than that.
8F8HZM	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL) Delta-9-THC 0.5 – 50, 11-hydroxy-Delta-9-THC 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 - 500. Measurement uncertainty is reported at a 95.45% level of confidence for all quantitative blood drug analyses. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Barbiturates 50, Benzodiazepines 10, Buprenorphine 1, Cannabinoids 10, Benzoylecgonine 50, Dextromethorphan 5, Fentanyl 1, Meprobamate 100, Methadone 10, Opiates 10, Opioids 10, Phencyclidine 5, TCA 25, Tramadol 5, Zolpidem 10 *. Results within 20% of these concentrations are also reported as preliminarily positive. [Participant created a manually formatted table within the freeform text space. This special formatting was not transferrable into the final report. Data is presented as is.]
A7V38J	Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL) Delta-9-THC: 0.5 – 50, 11-hydroxy-Delta-9-THC: 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC: 5.0 – 500. Measurement uncertainty is reported at a 95.45% level of confidence for all quantitative blood drug analyses. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Barbiturates 50, Benzodiazepines 10, Buprenorphine 1, Cannabinoids 10, Benzoylecgonine 50, Dextromethorphan 5, Fentanyl 1, Meprobamate 100, Methadone 10, Opiates 10, Opioids 10, Phencyclidine 5, TCA 25, Tramadol 5, Zolpidem 10 *. Results within 20% of these concentrations are also reported as preliminarily positive. [Participant created a manually formatted table within the freeform text space. This special formatting was not transferrable into the final report. Data is presented as is.]
ELRZ33	(THC) tetrahydrocannabinol confirmed is the delta-9 isomer.
ENXBCK	Confirmatory/Quantitation performed on 11/14/2022
EWPR2P	THC quantitation was greater than the highest calibrator (i.e. 25 ng/mL), result reported as >25 ng/mL, uncertainty of measurement not applicable (i.e. NA). THC Confirmation: Internal Standard = THC-D3 LOD = 1 ng/mL, LLOQ = 1 ng/mL, ULOQ = 25 ng/mL. Carboxy THC Confirmation: Internal Standard = Carboxy THC-D9 LOD = 4 ng/mL, LLOQ = 4 ng/mL, ULOQ = 100 ng/mL.
FPMWJG	Confirmation/quantitation of THC, Carboxy THC and hydroxy THC using THC-D3, Carboxy-THC-D3 and hydroxy THC-D3 as internal standards respectively. LOQ for Carboxy THC is 5 ng/mL and for THC and hydroxy THC is 1.0 ng/mL. LOD for Carboxy THC is 2.5 ng/mL and for THC and hydroxy THC is 0.5 ng/mL.
KCZFGC	Hydroxy-THC: LOD/LLOQ: 0.5ng/mL, Internal Std.: Hydroxy-THC-d3. Carboxy-THC: LOD/LLOQ: 2.5ng/mL, Internal Std.: Carboxy-THC-d9. THC: LOD/LLOQ: 0.5ng/mL, Internal Std.: THC-d3.
KV93B	Cannabinoid confirmation panel includes: THC, carboxy-THC and hydroxy-THC. LOD for THC and hydroxy-THC is 0.5ng/ml and LOQ is 1ng/ml. LOD for carboxy-THC is 2.5ng/ml and LOQ is 5ng/ml. THC-D3, COOH-THC-D3 and 11-OH-THC-D3 used as internal standards. Sample was also run on 11/22/22, and that value was reported.
LBRMHW	second analysis date: 2022-11-14
NGN6QE	Our upper limit of quantitation for Tetrahydrocannabinol is 50 ng/mL. If a sample has a concentration greater than 50 ng/mL, it is not diluted and re-ran to achieve a concentration within our calibration curve. Instead, the result is reported as Present greater than 50 ng/mL.



# **Additional Comments**

TABLE 4

<b>WebCode</b>	<b>Additional Comments</b>
----------------	----------------------------

No Additional Comments

-End of Report-  
(Appendix may follow)

## Test No. 22-5662: Blood Cannabinoids Analysis

DATA MUST BE SUBMITTED BY **Jan. 03, 2023, 11:59 p.m. EST** TO BE INCLUDED IN THE REPORT

Participant Code: U1234E

WebCode: JQ9WWU

**Scenario:**

Investigators have submitted three tubes of blood from separate cases to be examined; each was taken from a person suspected of being under the influence of cannabinoids. Using your laboratory's procedures, analyze each tube and report the concentration of any cannabinoid(s) present.

*-Samples may contain methanol and ethanol as artifacts from production.*

**Items Submitted (Sample Pack BCAN):**

Item 1: One vial of blood from Case 1

Item 2: One vial of blood from Case 2

Item 3: One vial of blood from Case 3

**Screening Results for Item 1:**

- 1-1). Were cannabinoids detected for Item 1?
- No screening was performed for this item.
  - No, cannabinoids were not detected.
  - Yes, cannabinoids were detected.

**Confirmatory Results and Quantitative Analysis for Item 1:**

- 1-2). Was confirmatory analysis performed for this item?  Yes  No
- 1-3). What cannabinoid(s) were detected in Item 1? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.
- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input style="width: 80%;" type="text"/>	<input style="width: 80%;" type="text"/>	( <input style="width: 40%;" type="text"/> )
<b>Raw Data (ng/mL):</b>				
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>

- 1-4). If quantitative analysis was performed, are the reported concentrations above
- A single determination?  The mean of duplicate / several determinations?
  - Other? (Specify):
- 1-5). For quantitative analysis, select the date analysis was performed (if analyzed across multiple days, report the first analysis date here and include additional dates in the Additional Comments section below).
- 

**Methods of Analysis for Item 1:**

- 1-6). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Additional Comments for Item 1:**

1-7). Please include any relevant information such as internal standard(s) used, limits of detection, etc.

***Please note:** Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

**Screening Results for Item 2:**

- 2-1). Were cannabinoids detected for Item 2?
- No screening was performed for this item.
  - No, cannabinoids were not detected.
  - Yes, cannabinoids were detected.

**Confirmatory Results and Quantitative Analysis for Item 2:**

- 2-2). Was confirmatory analysis performed for this item?  Yes  No
- 2-3). What cannabinoid(s) were detected in Item 2? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.
- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input style="width: 80%;" type="text"/>	<input style="width: 80%;" type="text"/>	( <input style="width: 40%;" type="text"/> )
<b>Raw Data (ng/mL):</b>				
<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>

- 2-4). If quantitative analysis was performed, are the reported concentrations above
- A single determination?  The mean of duplicate / several determinations?
  - Other? (Specify):
- 2-5). For quantitative analysis, select the date analysis was performed (if analyzed across multiple days, report the first analysis date here and include additional dates in the Additional Comments section below).
- 

**Methods of Analysis for Item 2:**

- 2-6). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Additional Comments for Item 2:**

2-7). Please include any relevant information such as internal standard(s) used, limits of detection, etc.

*Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

**Screening Results for Item 3:**

- 3-1). Were cannabinoids detected for Item 3?
- No screening was performed for this item.
  - No, cannabinoids were not detected.
  - Yes, cannabinoids were detected.

**Confirmatory Results and Quantitative Analysis for Item 3:**

- 3-2). Was confirmatory analysis performed for this item?  Yes  No
- 3-3). What cannabinoid(s) were detected in Item 3? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.
- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input style="width: 80%;" type="text"/>	<input style="width: 80%;" type="text"/>	( <input style="width: 40%;" type="text"/> )
<b>Raw Data (ng/mL):</b>				
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>

- 3-4). If quantitative analysis was performed, are the reported concentrations above
- A single determination?  The mean of duplicate / several determinations?
  - Other? (Specify):
- 3-5). For quantitative analysis, select the date analysis was performed (if analyzed across multiple days, report the first analysis date here and include additional dates in the Additional Comments section below).
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**Methods of Analysis for Item 3:**

- 3-6). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Additional Comments for Item 3:**

3-7). Please include any relevant information such as internal standard(s) used, limits of detection, etc.

***Please note:** Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*



Test No. 22-5662 Data Sheet, continued

Participant Code: U1234E  
WebCode: JQ9WWU

Date Samples Received:

**Additional Comments on Test**

*Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

## RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section below must be completed.)
- This participant's data is not intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

Have the laboratory's designated individual complete the following steps **only if your laboratory is accredited in this testing/calibration discipline** by one or more of the following Accreditation Bodies.

**Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory.**

ANAB Certificate No.   
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

**Step 2: Complete the Laboratory Identifying Information in its entirety.**

Authorized Contact Person and Title

Laboratory Name

Location (City/State)