



WSPM GROUP

EMPTY PACKS SURVEY

USA-NY Q1 2024

April 2024

Prepared for **ALTRIA**

CONTENTS

EMPTY PACK SURVEY RESULTS Q1 2024:
NEW YORK



01.



EXECUTIVE SUMMARY



02.



METHODOLOGY



03.



KEY RESULTS – E-VAPOR



04.



APPENDIX



01.

EXECUTIVE SUMMARY

QUARTER 1, 2024



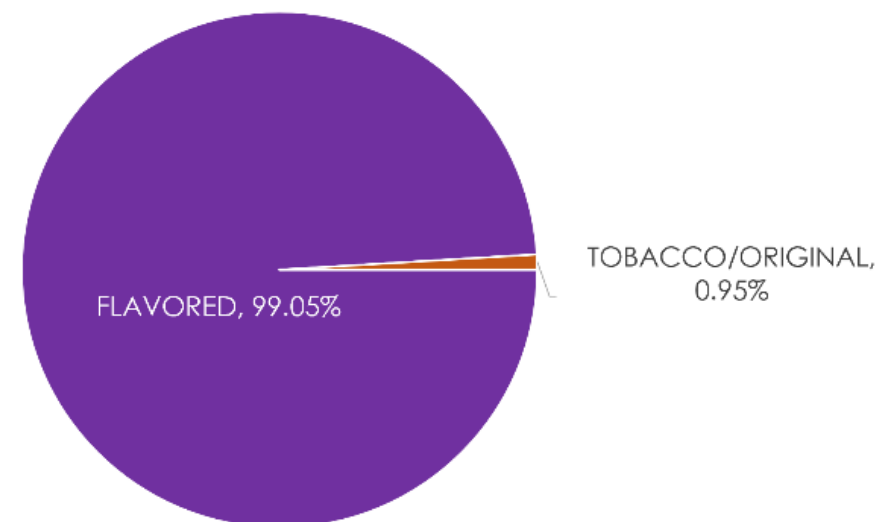
BACKGROUND

- Since May 2020, New York State has banned the sale of all flavored e-vapor products (except tobacco flavor).
- In January 2024, Altria contracted WSPM Group to conduct a study of discarded e-vapor product packaging across the five boroughs of New York City to see how this policy impacted the legal and illicit marketplace.
- 2,000 e-vapor product packs were collected Feb. 1 - Mar. 21, 2024.

EXECUTIVE SUMMARY: KEY FINDINGS

E-VAPOR

- **Sample share: Electronic Vapors** assessed at **100% (n=2,000)**.
- **98.6%** of packaging and product found are **CHINA EXPORTED**, and **1.5%** are **US DOMESTIC**.
- **Flavor products incidence** assessed at **99.05%** of all e-vapor packs collected.
- **Main product brands** found were:
 - **AIR BAR** with **50.2%** of all packs collected.
 - **EBCREATE** with **6.8%**.
 - **BREEZE SMOKE** with **5.3%**.
 - **LAVA PLUS** with **4.6%**.
 - **MYLE** with **3.9%**.



02.

METHODOLOGY

QUARTER 1, 2024



OBJECTIVES, PROVISIONS, LIMITATIONS

OBJECTIVES

Provide an indication on the incidence of brands and flavors of e-vapor products consumed in NEW YORK CITY:

- Gain information related to e-vapor by: Manufacturer, brand family, market variant, flavor indicator, nicotine content

PROVISIONS

- Participating companies: ALTRIA
- Participating companies provided financial support for this study. WSPM Group conducted the empty pack collection independently. The market variant of all collected packs and the authenticity of the collected packs bearing their packs trademarks were examined by WSPM.
- WSPM Group assumed limited responsibility for the report findings and conclusion. The objectives and limitations of the report are set out on this page. Should any party choose to rely on the report, they do so at their own risk.

LIMITATIONS

- Private residences and workplaces are not covered
- No information on counterfeit incidence of non-participating companies
- The survey is designed to focus on trends rather than incidence at a single point in time

THE WSPM GROUP

COMPANY OVERVIEW

Founded in 2002, WSPM Group strives to provide Diagnostic Market Surveys and International IP Infringement Investigations.

Our services are available globally and we work with major defense, energy, accounting, consulting, and tobacco companies as well as inter-governmental organizations around the world.

We place great importance on how we achieve our results as well as the results themselves. Our commitment to ethical conduct and integrity in all our interactions is of utmost importance to us.

WSPM operates under EU regulations and adheres to strict ethics policies. As a member of ESOMAR, the world organization for enabling better research into markets, consumers, and societies, we uphold high standards.

EMPTY DISCARDED PACKS SURVEYS EXPERIENCE

WSPM's Team EDP experience in numbers **from 2002 to date:**

- 82** Countries where EDP surveys have been performed.
- 1,466+** EDP market surveys and reports conducted to date.
- 1,792+** Cities worldwide where EDP surveys have taken place.
- 400,000+** Cigarette packs per year collected and identified
- 3,920,000+** Cigarette packs collected and identified so far.



RESEARCH APPROACH – E-VAPOR

METHOD

Empty Discarded Packs (EDP)

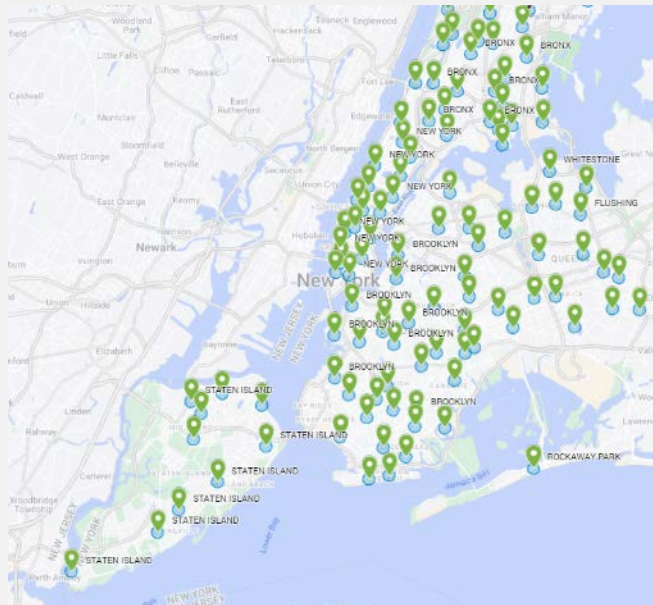
Random collection from streets & public bins. Any brand, Any market variant. Samples in each city were collected based on Combined Statistical Areas (“CSAs”) geographical areas are based on population. A quota of EDP or OTP must come from each designated neighborhood or area.

TIMINGS

Fieldwork:
01 Feb – 21 Mar, 2024

GEOGRAPHY

- NY 5 BOROUGHES (24 cities)
- 82 ZIPs and 106 collection locations



Metro / City	OTP's Sampling	ZIPs to collect per city	Locations to collect (neighborhoods)	Average Packs per Location
BROOKLYN	612	22	30	20
NEW YORK	380	16	19	20
BRONX	368	14	23	16
STATEN ISLAND	150	8	10	15
FLUSHING	80	3	4	20
JAMAICA	40	2	2	20
SUNNYSIDE	25	1	1	25
ASTORIA	25	1	1	25
QUEENS VILLAGE	20	1	1	20
BAYSIDE	20	1	1	20
+ 14 Other Cities	280	14	14	20
Total Selected Cities	2,000	82	106	20

THE EDP METHODOLOGY

EDP METHODOLOGY, SAMPLING PLAN AND LOCATIONS DESIGN

The current EPS (Empty Packs Survey) methodology consists in the collection of empty packs of cigarettes (and of other products, as agreed by the parties) thrown away by consumers in the streets or easy access bins of the main cities of a given market.

Each pack/product is individually recorded in a datasheet and analyzed by Industry experts, who assess its origin, flavor attributes, whether it is a domestic or non-domestic pack and whether it is a genuine or counterfeit pack. Data is consolidated and reports are issued.

The Sampling Plan details the number of packs to be collected by city for each survey, and then is detailed down to a location level (collection cell), in order to produce a representative statistical sample of the geographic location being examined as part of the survey (city, state level).

The EPS collection routes follow the same rules worldwide:

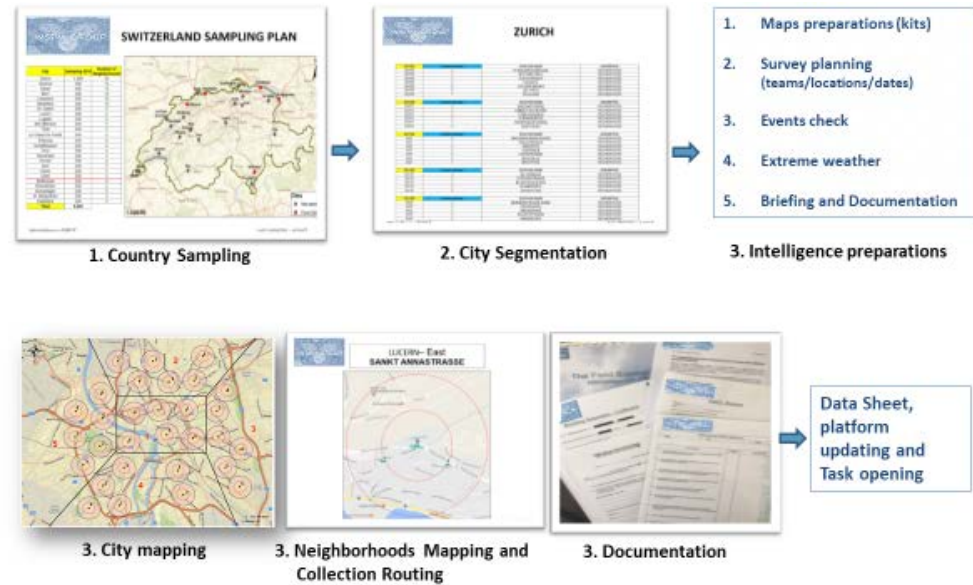
- Each city is defined according to its administrative limits (no aggregation).
- Each city is divided into 5 sectors of the equivalent surface.
- In each sector, a certain number of “neighborhoods” or “locations” is determined. The “neighborhood” or “location” is the statistical sampling unit in which the packs will be collected. It always consists in a circle of 250m radius, inside which the collector’s route is to be designed. Usually, a minimum of 30 packs are collected by neighborhood.
- Each collector should be given neighborhood maps or phone App, gloves and bags to perform their collection (one bag for EDPs and one for other products).
- The collectors must not be made aware of the real quota of the survey. Their physical and sanitary security must be ensured, as well as any activities in relation to this project must be compliant with local legislation.
- A collector is not aware of the number of packs they have to collect by neighborhood. They simply collect all the empty packs of cigarettes (of any brand, any manufacturer, any market variant) that they can find on their way. Once the collector’s route within the neighborhood has been visited, the collector communicates the number of packs actually collected to their supervisor. If this number equals or exceeds the target, the neighborhood is considered as completed. If this number is not sufficient, the collector is asked to enlarge the collection to a larger circle and / or to come back the following day(s) to the same neighborhood.

EMPTY PACK SURVEY Q1 2024: NEW YORK

EDP SURVEY WORKFLOW



PREPARATIONS



OPERATIONS





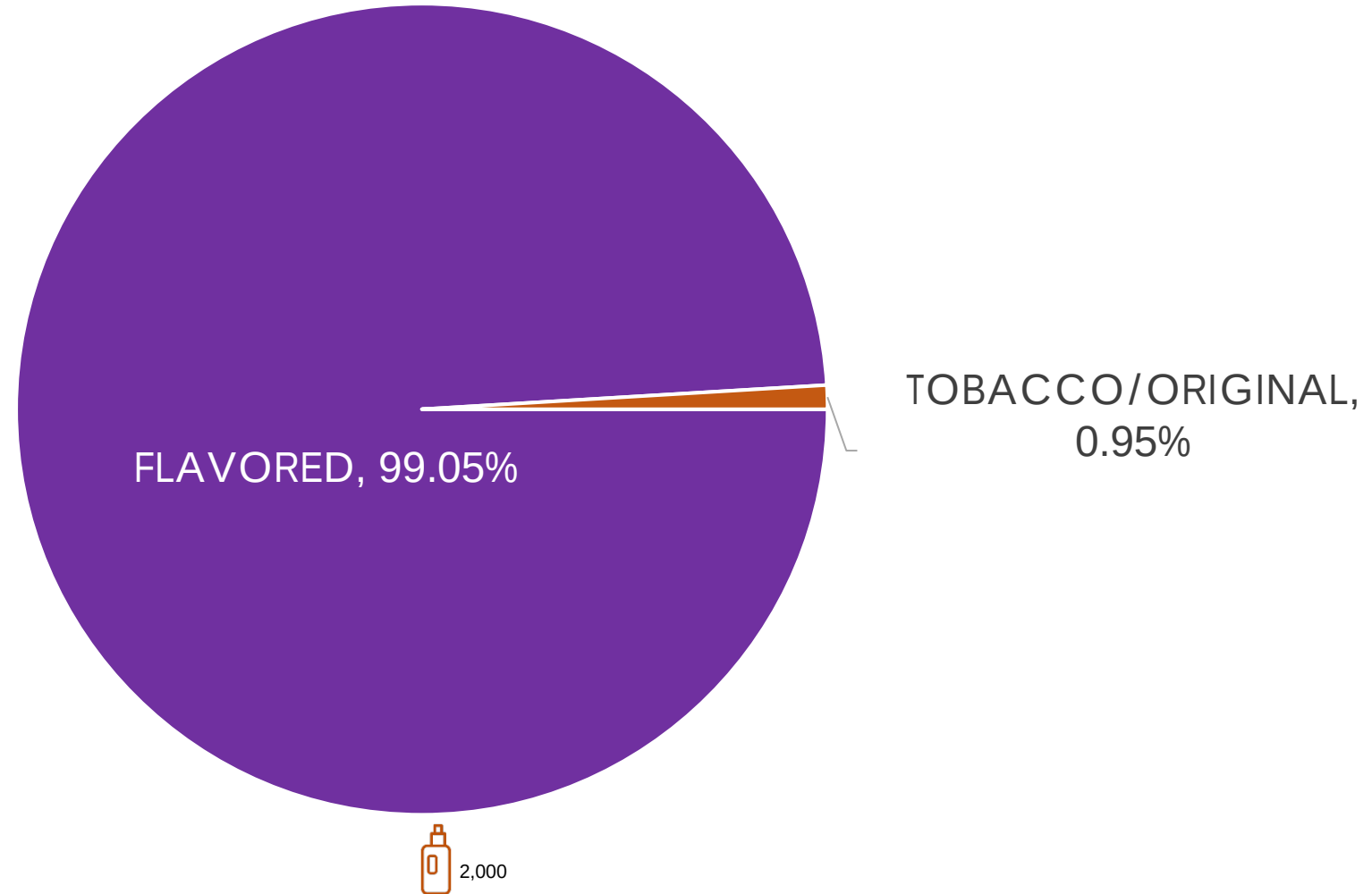
03.

KEY RESULTS - E-VAPOR

QUARTER 1, 2024

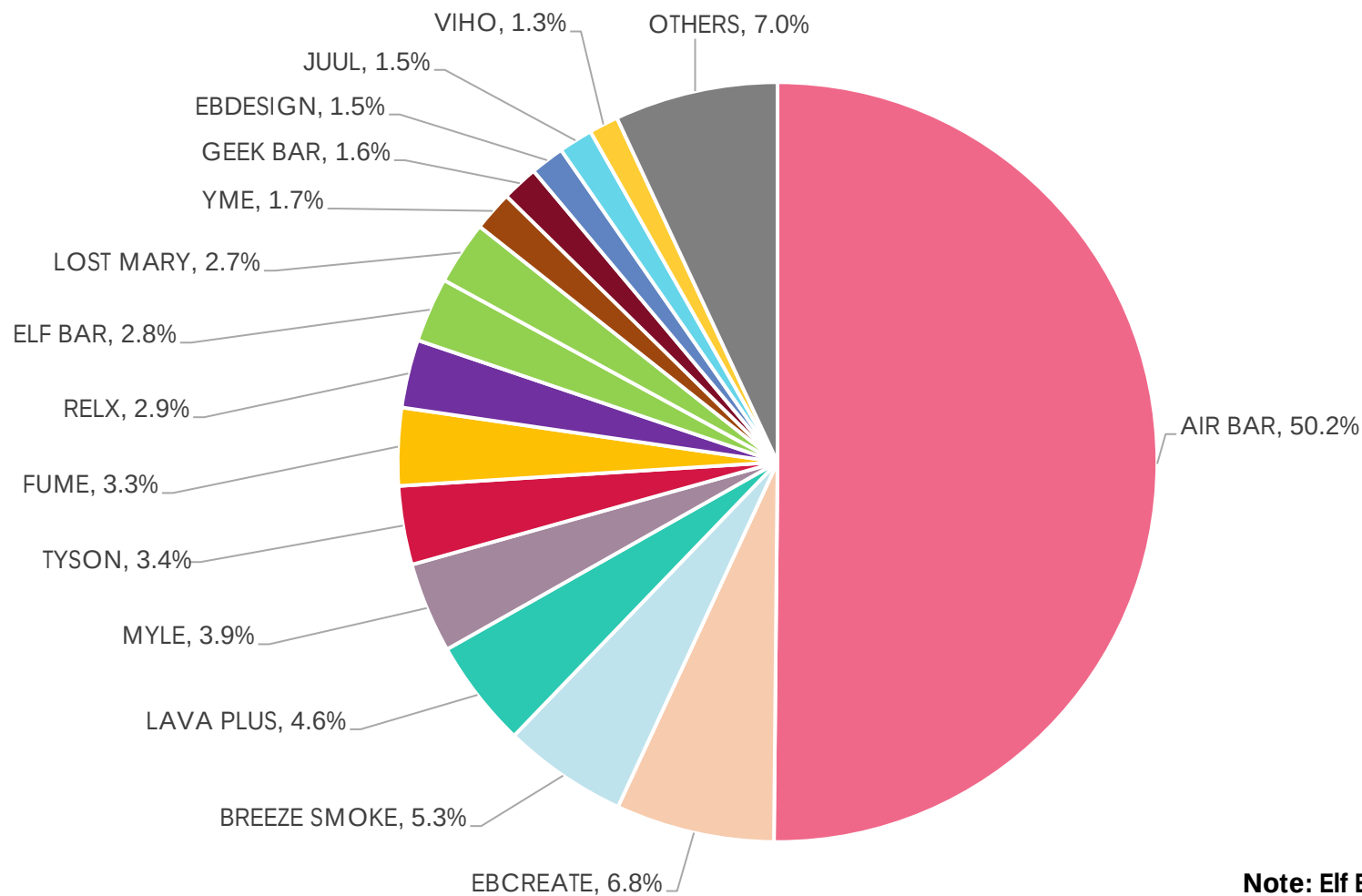
SAMPLE COMPOSITION: SHARE OF E-VAPOR FLAVORED PRODUCTS

E-Vapor Flavor Attribute, % of Total E-Vapor
Sample (n=2,000)



SAMPLE COMPOSITION: SHARE BY COMPANY/BRAND

Brand Name, % of Total Sample (n=2,000)



Note: Elf Bar, Lost Mary, EBDesign, and Truly Bar are similar products, all manufactured by the company **Shenzhen iMiracle Technology**.

TOP FLAVORS BREAKDOWN BY TOP 6 BRANDS (1/2)

% OF TOTAL SAMPLE Based on number of packs



AIR BAR DIAMOND	29.0%
COOL MINT	3.6%
BLUEBERRY ICE	2.2%
WATERMELON ICE	2.2%
STRAWBERRY ICE	1.1%
LOVE STORY	1.1%
BLUEBERRY KIWI ICE	1.1%
CRANBERRY LEMONADE ICE	1.0%
PINK LEMONADE	0.9%
BLUEBERRY RASPBERRY	0.9%
BLUE RAZZ ICE	0.8%
CLEAR	0.8%
CHERRY COLA	0.7%
STRAWBERRY WATERMELON	0.6%
BLUE BERRY CUSTARD	0.6%
MIAMI MINT	0.6%
PEACH MANGO	0.5%
STRAWBERRY BANANA	0.5%
ENERGY DRINKS	0.5%
STRAWBERRY KIWI	0.5%
BANANA ICE	0.5%
OTHERS	8.6%



AIR BAR NEX 6500	8.2%
COOL MINT	1.6%
PEACH ICE	0.7%
BLACKBERRY ICE	0.7%
CLEAR	0.7%
BLUE RAZZ ICE	0.6%
PEACH MANGO WATERMELON	0.6%
STRAWBERRY WATERMELON	0.6%
SPEARMINT	0.5%
LOVE STORY	0.4%
PINEAPPLE COCONUT	0.4%
STRAWBERRY PINA COLADA	0.4%
PINEAPPLE MANGO	0.4%
STRAWBERRY MANGO	0.2%
MEXICAN MANGO	0.2%
STRAWBERRY MELON PEACH	0.1%
ENERGY DRINKS	0.1%
KIWI LIME	0.1%
STRAWBERRY YOGURT	0.1%
BLUEBERRY WATERMELON	0.1%
MELON KIWI	0.1%
OTHERS	0.2%



EBCREATE BC5000 US EDITION	6.5%
MIAMI MINT	1.1%
BLUE RAZZ ICE	0.7%
WATERMELON ICE	0.5%
PEACH ICE	0.5%
STRAWBERRY ICE	0.4%
STRAWBERRY WATERMELON	0.3%
TRIPLE BERRY ICE	0.3%
PEACH BERRY	0.3%
CLEAR	0.2%
LEMON MINT	0.2%
STRAWBERRY KIWI	0.2%
SNOOW ICE	0.2%
PEACH MANGO WATERMELON	0.2%
STRAWMELON ICE	0.2%
MIXED FRUITY	0.2%
SNOOW GRAPE	0.1%
STRAWBERRY PINA COLADA	0.1%
STRAWBERRY MANGO	0.1%
BLUEBERRY TOBACCO	0.1%
CHERRY LEMON MINT	0.1%
OTHERS	0.7%

TOP FLAVORS BREAKDOWN BY TOP 6 BRANDS (2/2)

% OF TOTAL SAMPLE Based on number of packs



AIR BAR NEX	5.3%
STRAWBERRY KIWI	1.2%
BLUEBERRY ICE	1.1%
MIAMI MINT	1.0%
WATERMELON ICE	0.9%
BLUEBERRY GRAPE MINT	0.5%
GRAPE ICE	0.4%
BLUEBERRY DRAGONFRUIT	0.3%
WATERMELON CANTALOUPE	0.1%
HONEYDEW	0.1%



BREEZE SMOKE 2000	4.7%
CHERRY LEMON	1.1%
BLUEBERRY WATERMELON	0.5%
RASPBERRY LEMON	0.5%
BLUE RASPBERRY	0.4%
BLUEBERRY MINT	0.4%
PINEAPPLE COCONUT	0.3%
CHERRY COLA	0.3%
LEMON MINT	0.3%
STRAWBERRY KIWI	0.2%
BLUEBERRY BANANA	0.2%
MINT	0.2%
GRAPE	0.1%
POMEGRANATE BERRY MINT	0.1%
STRAWBERRY CREAM	0.1%
WATERMELON MINT	0.1%
BANANA MINT	0.1%
CITRUS	0.1%
ORANGE MANGO	0.1%
WATERMELON	0.1%
SPEARMINT	0.1%



LAVA PLUS 2600	4.6%
CLEAR ICE	0.6%
COOL MINT	0.6%
SPEARMINT	0.4%
GUAVA ICE	0.4%
SKITTLES	0.3%
PEACH ICE	0.3%
BERRY MIST	0.2%
ICE GRAPE	0.2%
STRAWBERRY LEMON MINT	0.2%
BLUEBERRY RASPBERRY LEMON	0.2%
SPLASH ICE	0.2%
LEMON WITH MINT	0.2%
WATERMELON WITH MINT	0.2%
CLEAR	0.2%
PEACH MANGO WATERMELON	0.1%
STRAWBERRY WATERMELON BUBBLE GUM	0.1%
STRAWBERRY MILKSHAKE	0.1%
STRAWBERRY BANANA	0.1%
STRAWBERRY ICE	0.1%
SOUR APPLE ICE	0.1%
OTHERS	0.3%



04.

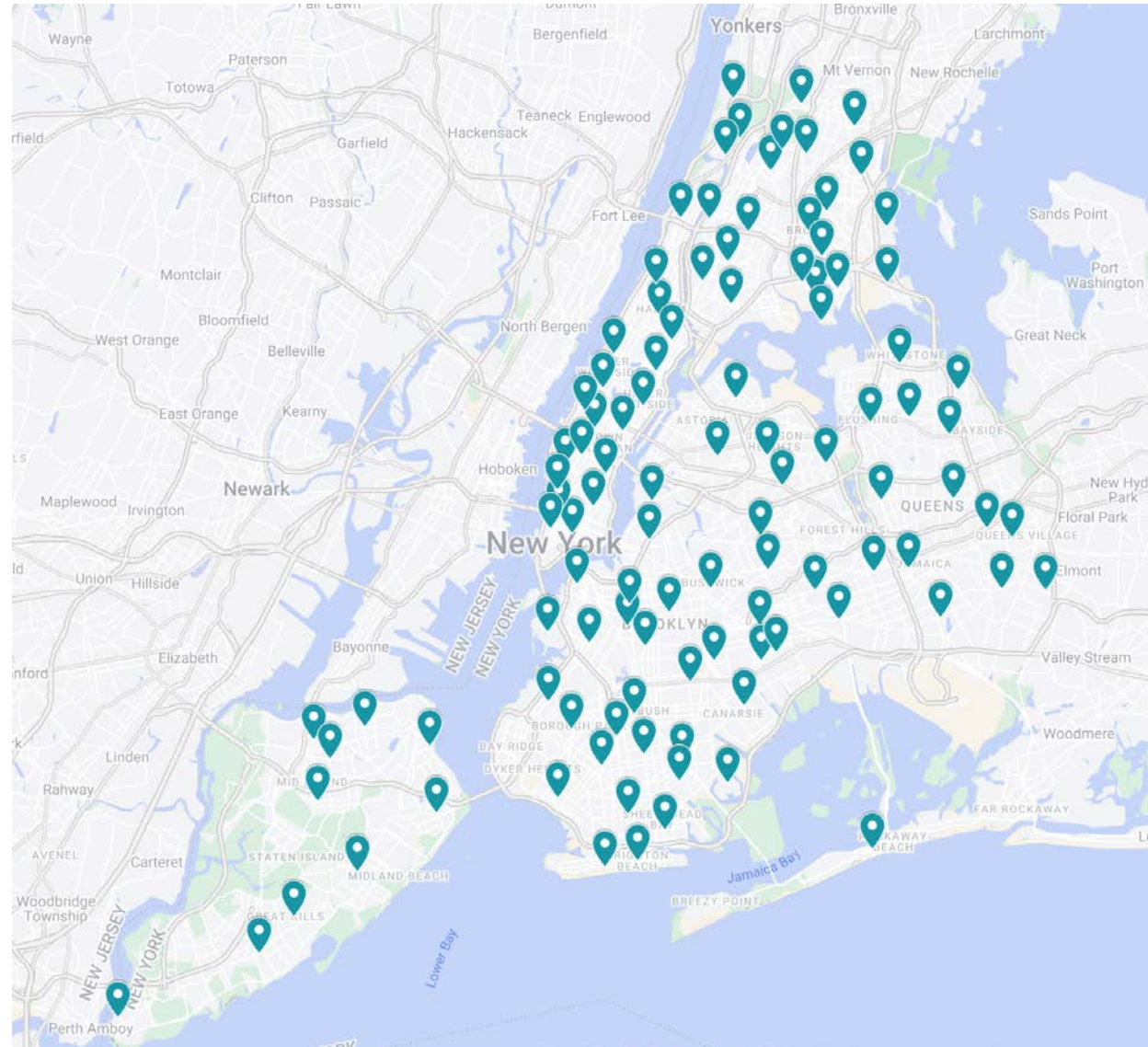
APPENDIX (DETAILED SAMPLING PLAN)

QUARTER 1, 2024

FULL SAMPLING PLAN – NEW YORK CITY



Microsoft Excel
Worksheet





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THANK YOU

www.wspm-group.com