



Report No.: J-123456
Date: March 1, 2016
P.O. No.: PO 1234A

GC/MS Analysis Laboratory Report

Prepared for:
Mr. Customer Name
Company Name, Inc.
123 First St.
Your City, State

Prepared by:
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Scientist I
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Introduction

This report summarizes the analysis of * samples submitted by * of Company Name, Inc. The samples consisted of ...and analyzed by GC/MS Headspace. The purpose of the analysis was to determine if contaminants will be off-gassed during bake. The headspace oven temperature was set to 250°C with one hour equilibration, per Mr. Customer name's request.

Sample Preparation

A portion of the sample was transferred with forceps to a tared 20 mL headspace vial, then weighed and sealed with a High Performance septum. The mass of sample * analyzed was *** g and the mass of sample ** analyzed was ***g.

Analytical Conditions

Instrument: Agilent 7697A Headspace Autosampler coupled to an Agilent 7890A GC/ 5975C Mass Spectrometer operated in negative EI mode. Helium carrier gas is used for all systems. Headspace analysis was performed with an oven temperature of 250° C with 60 minutes equilibration. MS scan range was 35 to 550 amu. The lower MS scan range is set to 35 amu in order to avoid interferences from atmospheric air, including (N₂ Nitrogen (m/z 28), O₂ Oxygen (m/z 32), moisture (m/z 18), etc). Due to the lower MS scan range, components with m/z <35 are not detected (including methanol, formaldehyde, etc).

Results

The ten major compounds detected during the analysis are summarized on page 3. Concentrations are based on relative area percentages. Units reported are "Relative %/gram", which is the relative % concentration as compared to other components detected, divided by the mass of sample analyzed. As such, results are semi-quantitative only and should be considered rough estimates. The tentatively identified compounds listed are those which can be identified with a high degree of certainty. Any unknowns listed are those which cannot be identified with a certainty of >80%. In some instances compounds are tentatively identified with <80% certainty. Those identifications should be considered less confident due to low concentration and background interferences, but were identified based on analyst experience. Chromatograms of the Control Blank and samples, and overlays of any detected discrepancies, are included on pages 4 through 6.

GC/MS Analysis Tentatively Identified Compounds

Client Name: Company Name, Inc. **ORS Project Number:** J-123456
Client Sample ID: Sample 1 Lot12345 **ORS Sample ID:** J123456-1
Date Received: 2/8/2012 **Date Analyzed:** 2/9/2012
Analysis Method: (Headspace, Direct Injection, Ampulization) Headspace
D.I. Solvent:(if applicable) NA **Ampulized in:(Vacuum, Nitrogen, Air)** NA
Sample wt/vol: 0.0460 g
Date Prepared: 2/9/2012 **Prepared By:** BJC
Ampule Pre-bake:(if applicable) Temp: NA °C **Time:** NA
Headspace parameters:(if applicable) Oven temp: 250 °C **Equilib time:** 1 Hour
Number TICS found: 51 **Result Units:** Relative %/ gram

Tentatively Identified Compounds

Ret. Time	Compound Name	CAS #	Est. Conc.	Q Value
1.78	coelution of Acrolein and Acetone	107-02-8/67-64-1	265.6	94/35
2.04	Allyl Alcohol	107-18-6	28.4	86
2.34	Acetic Acid *	64-19-7	130.2	86
3.53	Unknown HC	NA	8.87	NA
3.78	Unknown HC (possibly Methyl Cellosolve Acetate)	110-49-6	11.3	NA
5.27	Methyl Isobutyl Ketone	108-10-1	21.5	82
12.45	2-methyl-p-Benzoquinone	553-97-9	74.3	93
13.62	-Cresol (isomer)	NA	16.5	NA
19.63	coelution of Alkane and unknown HC	NA	30.8	NA
21.58	Hexamethylcyclotrisiloxane	541-05-9	59.9	93

NA = Not Applicable

HC = Hydrocarbon

* Compound also detected in Control Blank at lower concentration.

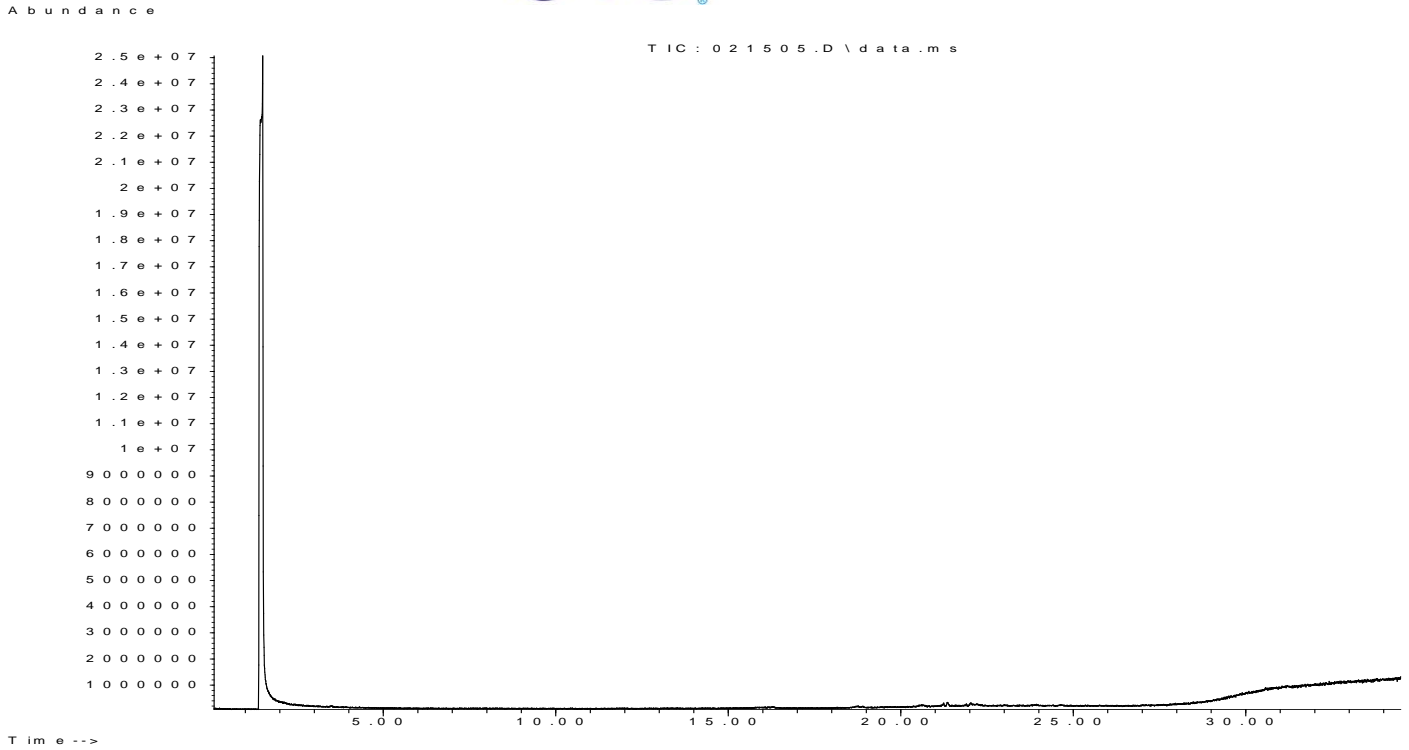


Figure 1: Chromatogram of Control Blank. Peak at 1.4 minutes is room air.

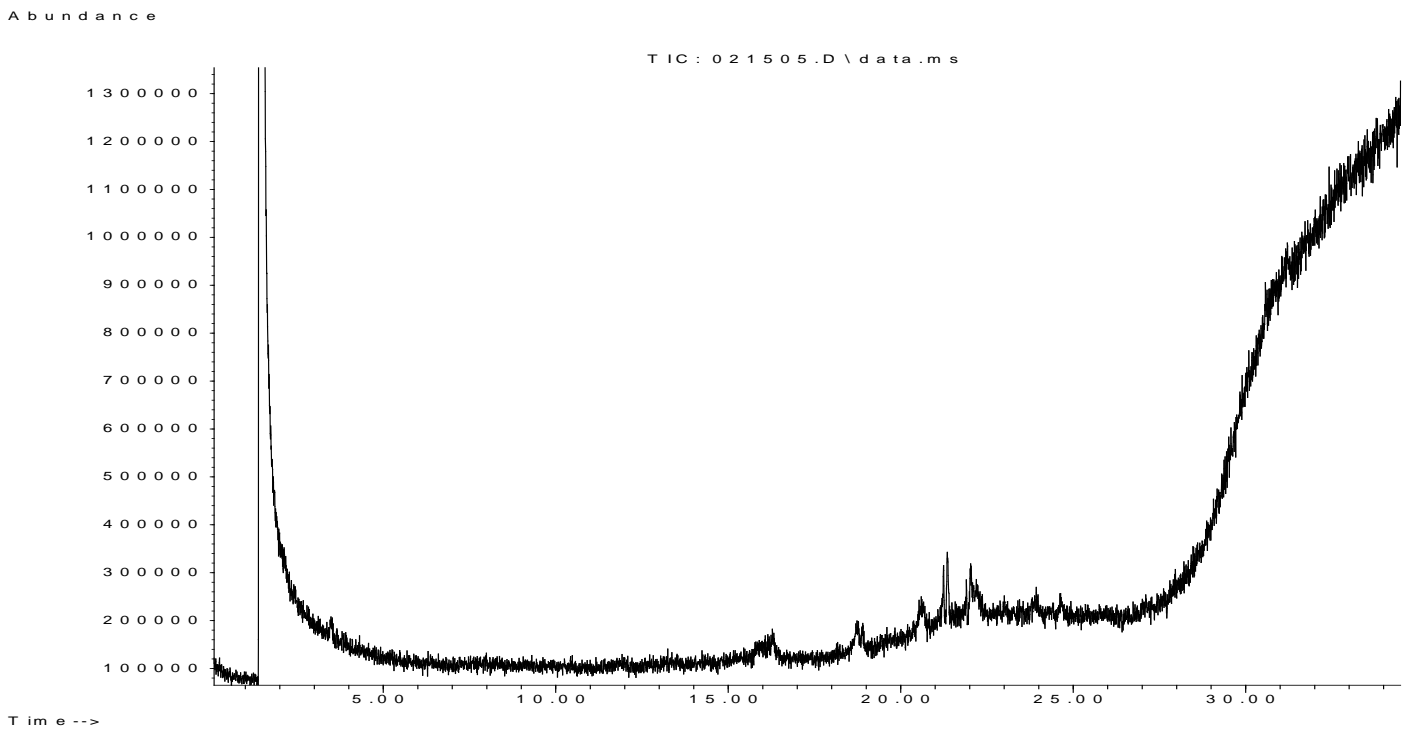


Figure 2: Control Blank chromatogram magnified for definition. Extraneous peaks are chromatographic artifacts that are not of interest and not included in sample results.

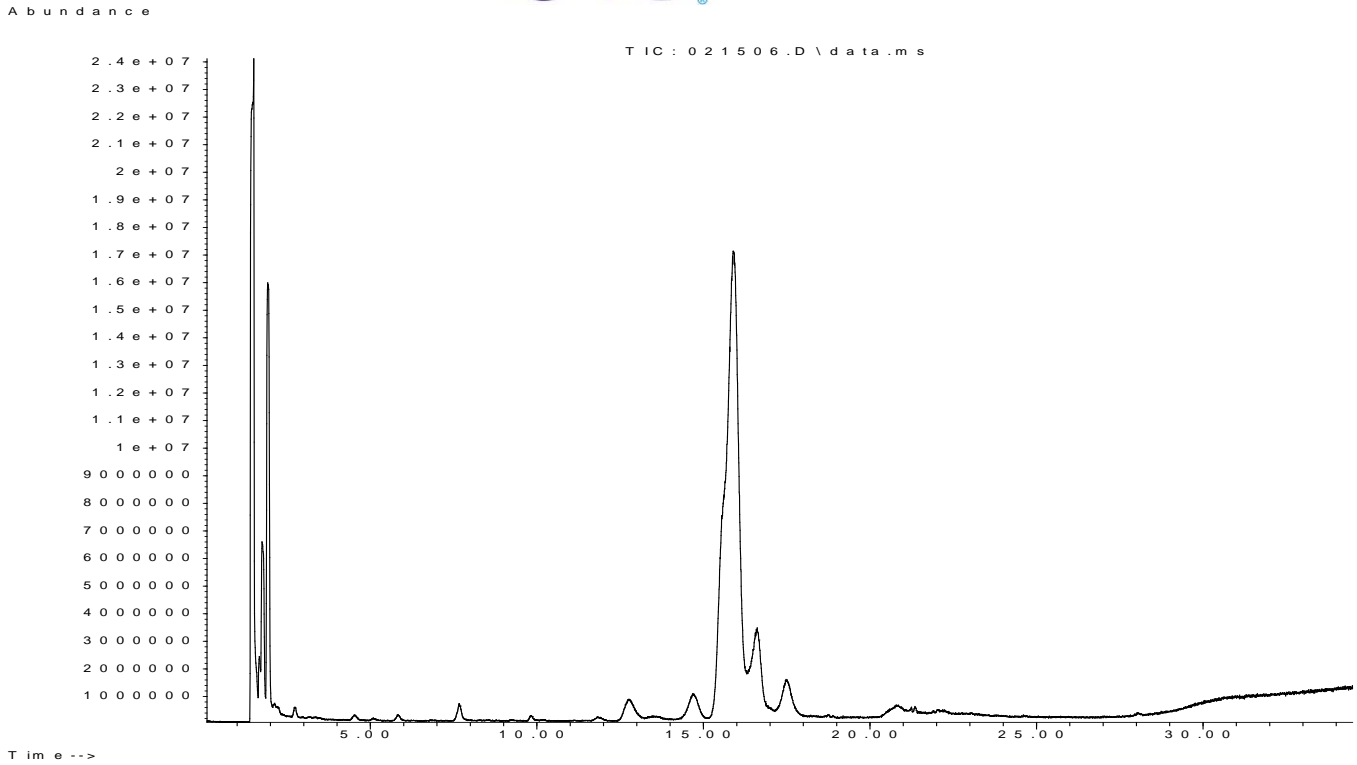


Figure 3: Chromatogram of sample J123456-1, client ID "Sample 1 Lot 12345".

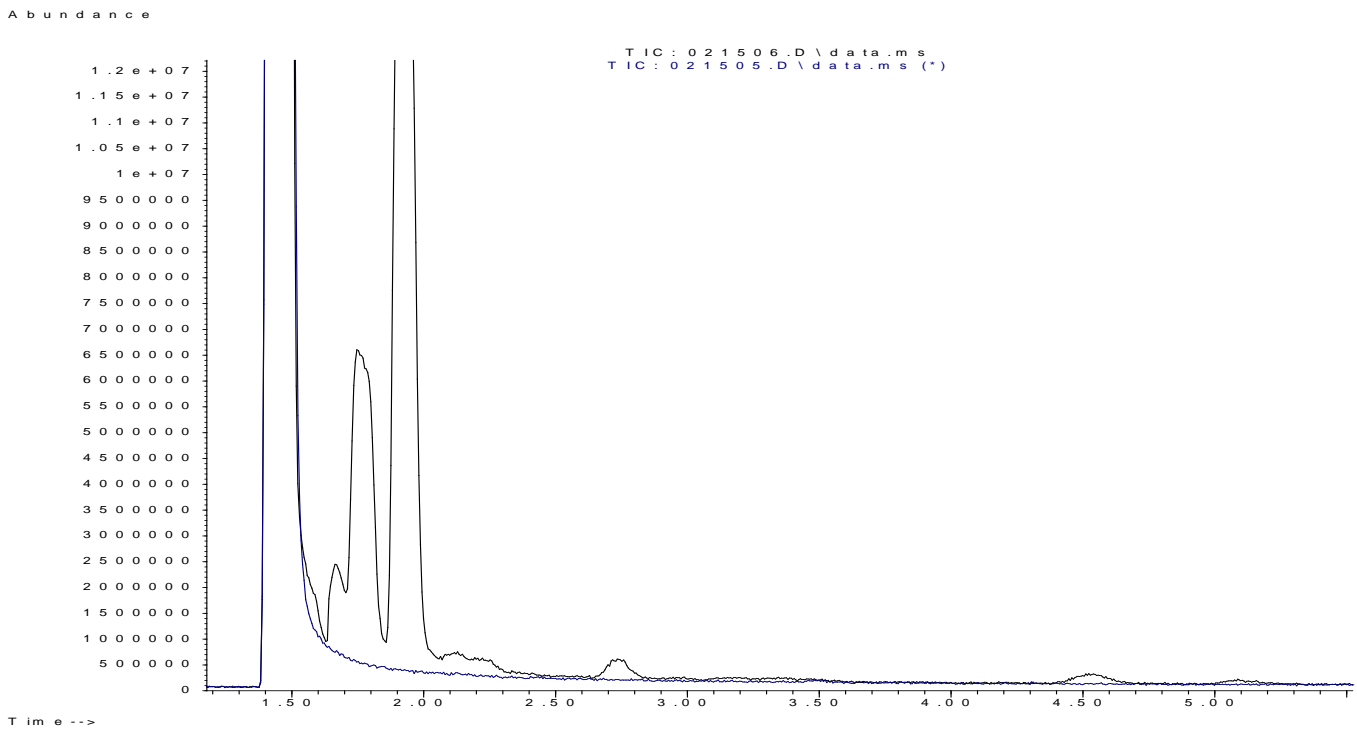


Figure 4: Magnified overlay of chromatograms for Control Blank (blue ink) and "Sample 1 Lot 12345" (black ink) from 1.0 to 5.0 minutes indicating multiple components detected.

Abundance

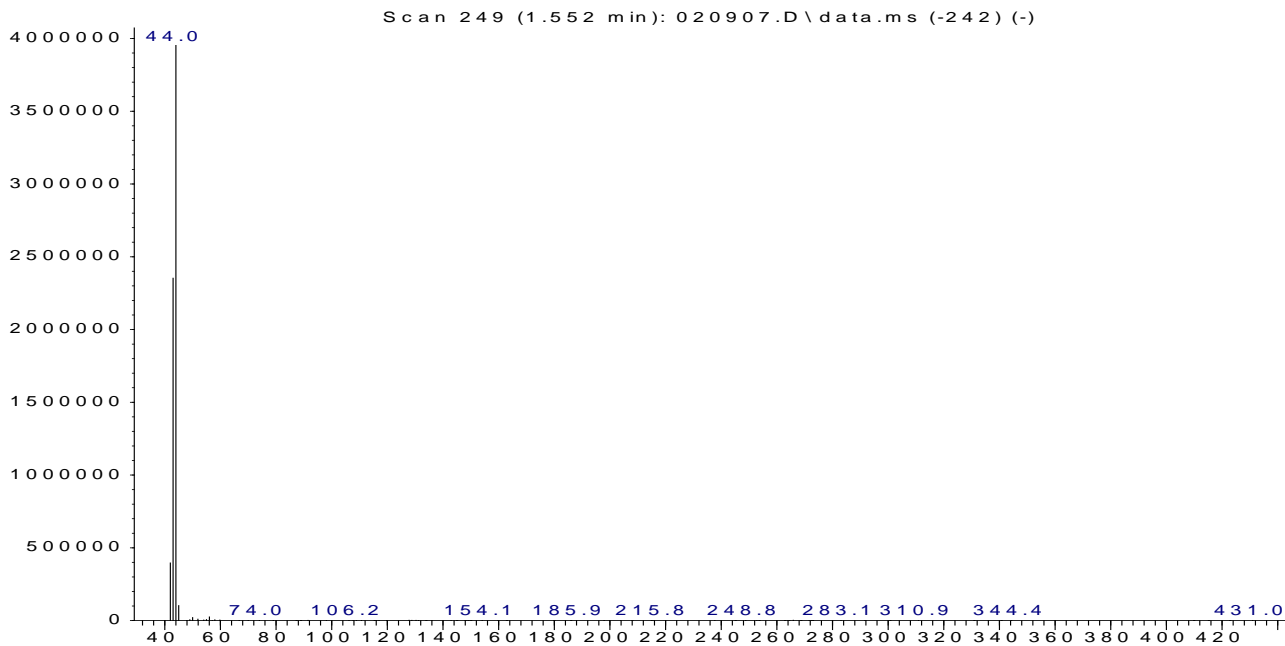


Figure 5: Mass spectrum of “Sample 1 Lot 12345” peak at 1.55 minutes indicating Acetaldehyde.

Abundance

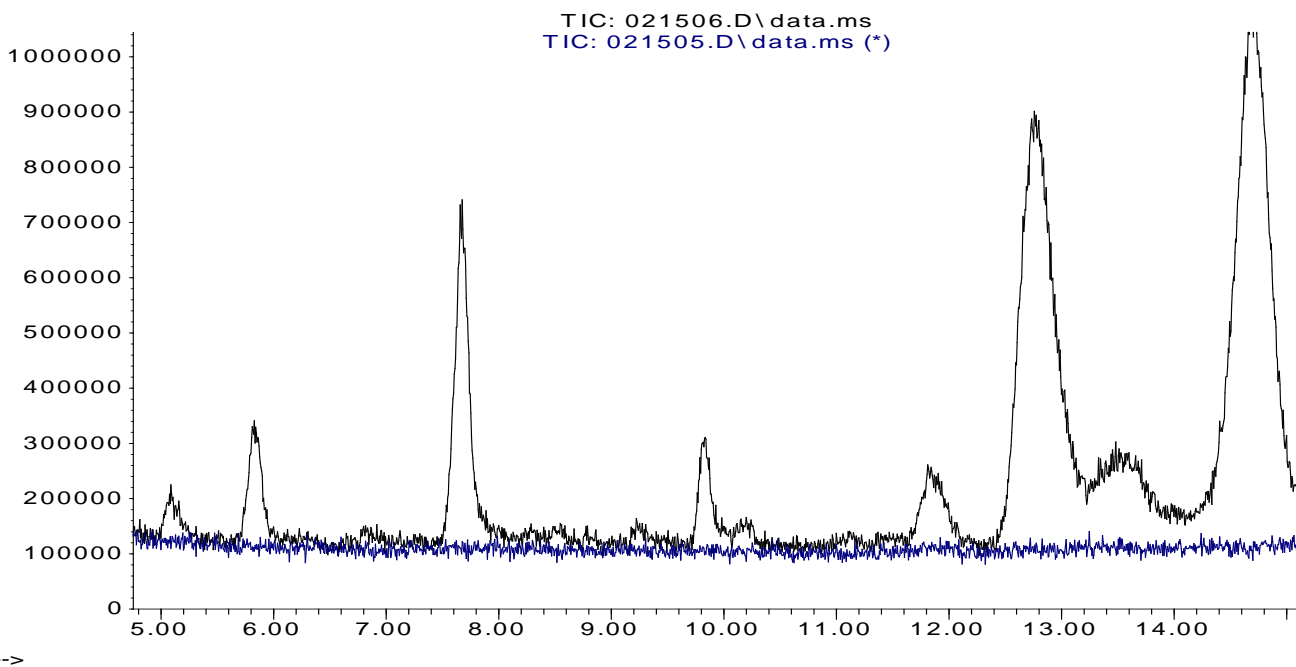


Figure 6: Magnified overlay of chromatograms for Control Blank (blue ink) and “Sample 1 Lot 12345” (black ink) from 5.0 to 15.0 minutes indicating multiple components detected.