eurofins | Environment Testing America

# ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-100174-1
Client Project/Site: CTO20F0164 Hotel Pier (PN: 60640529)

For:
AECOM Technical Services Inc.
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813

Attn: John Fong

(b) (6)

*Authorized for release by:*
*1/13/2021 3:27:42 PM*
Kristine Allen, Client Service Manager
(253)248-4970
Kristine.Allen@Eurofinset.com

Designee for

Elaine Walker, Project Manager II
(253)248-4972
m.elaine.walker@eurofinset.com

# Table of Contents

## Job ID: 580-100174-1

### Laboratory: Eurofins TestAmerica, Seattle

**Narrative**

**Job Narrative**
**580-100174-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 12/31/2020 9:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8º C.

**Subcontract Work**
Method Fuel Fingerprint ASTM D2887: This method will be subcontracted to Apex Laboratory-Tigard, OR. The subcontract laboratory certification is different from that of the facility issuing the final report.

# Definitions/Glossary

Client: AECOM Technical Services Inc. Job ID: 580-100174-1
Project/Site: CTO20F0164 Hotel Pier (PN: 60640529)

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Sample Summary

Client: AECOM Technical Services Inc.
Job ID: 580-100174-1
Project/Site: CTO20F0164 Hotel Pier (PN: 60640529)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---|---|---|---|---|---|
| 580-100174-1 | JS038 | Waste | 12/23/20 10:10 | 12/31/20 09:30 | |
| 580-100174-2 | JS039 | Waste | 12/16/20 10:56 | 12/31/20 09:30 | |
| 580-100174-3 | JS040 | Waste | 12/23/20 10:44 | 12/31/20 09:30 | |
| 580-100174-4 | JS041 | Waste | 12/14/20 10:30 | 12/31/20 09:30 | |
| 580-100174-5 | JS042 | Waste | 12/14/20 11:05 | 12/31/20 09:30 | |
| 580-100174-6 | JS043 | Waste | 12/14/20 11:40 | 12/31/20 09:30 | |
| 580-100174-7 | JS044 | Waste | 12/14/20 11:50 | 12/31/20 09:30 | |
| 580-100174-8 | JS045 | Waste | 12/15/20 00:01 | 12/31/20 09:30 | |

January 13, 2021

Elaine M. Walker
Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424

Dear Ms. Walker:

Included are the results from the characterization of the product samples for your CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701 project. The samples JS038, JS039, JS040, JS041, JS042, JS043, JS044, and JS045 were submitted in good condition to Apex Forensics on January 5, 2021. The samples were assigned work order number A1A0133 and placed in a refrigerator maintained at 6°C until removed for sample processing. The focus of this investigation was to provide identification and characterization of the samples using the American Society for Testing and Materials (ASTM) Method D2887-14.

The ASTM Method 2887-14 was completed in order to determine the boiling range and chemical composition of the fuel or fuels present in the samples JS038, JS039, JS040, JS041, JS042, JS043, JS044, and JS045. An aliquot of each sample was diluted with carbon disulfide and analyzed using an Agilent 6890 Gas Chromatograph (GC) fitted with a Flame Ionization Detector (FID). The GC/FID traces generated for the samples are enclosed. GC/FID traces of the method blank associated with the analytical batch as well as reference standards are also provided.

The GC/FID traces of the samples yielded detailed information on the boiling range and general chemical composition of the material that elutes under the ASTM Method 2887-14 GC/FID conditions between 36°C and 545°C. Detailed summaries characterizing the material identified in the samples JS038, JS039, JS040, JS041, JS042, JS043, JS044, and JS045 are enclosed.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided or if you would like to arrange for long term storage of the samples. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Respectfully

(b) (6)

Kurt Johnson, Senior Chemist
Director of Forensic Services
Apex Laboratories, LLC
Enclosures

Date of Report: 01/13/21
Date Received: 01/05/21
Project: CTO20F0164 Hotel Pier (PN: 60640529), Job# 580-100174-1, Project# 58015701
Date Extracted: 01/07/21
Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) BY ASTM METHOD D2887-14**

| Sample ID | GC Characterization |
|---|---|
| JS038<br>A1A0133-01 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-$C_8$ to *n*-$C_{24}$ showing a maximum near *n*-$C_{13}$. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

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Date Extracted: 01/07/21
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| Sample ID | GC Characterization |
|---|---|
| JS039<br>A1A0133-02 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-$C_8$ to *n*-$C_{24}$ showing a maximum near *n*-$C_{12}$. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 216°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

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| Sample ID | GC Characterization |
|---|---|
| JS040<br>A1A0133-03 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-$C_8$ to *n*-$C_{24}$ showing a maximum near *n*-$C_{12}$. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 216°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

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| Sample ID | GC Characterization |
|---|---|
| JS041<br>A1A0133-04 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-$C_8$ to *n*-$C_{24}$ showing a maximum near *n*-$C_{13}$. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

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Date Analyzed: 01/07/21

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) BY ASTM METHOD D2887-14**

| Sample ID | GC Characterization |
|---|---|
| JS042<br>A1A0133-05 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-$C_9$ to *n*-$C_{24}$ showing a maximum near *n*-$C_{13}$. This correlates with a temperature range of approximately 151°C to 391°C with a maximum near 235°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone significant evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

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| Sample ID | GC Characterization |
|---|---|
| JS043<br>A1A0133-06 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-$C_8$ to *n*-$C_{24}$ showing a maximum near *n*-$C_{13}$. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

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| Sample ID | GC Characterization |
|---|---|
| JS044<br>A1A0133-07 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from $n$-$C_{10}$ to $n$-$C_{24}$ showing a maximum near $n$-$C_{13}$. This correlates with a temperature range of approximately 174°C to 391°C with a maximum near 235°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone significant evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

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**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) BY ASTM METHOD D2887-14**

| Sample ID | GC Characterization |
|---|---|
| JS045<br>A1A0133-08 | The GC trace using the flame ionization detector (FID) showed the presence of medium boiling compounds. The patterns displayed by these peaks are indicative of a mixture of kerosene/Jet A with a lesser amount of diesel fuel #2 or similar middle distillates.<br><br>The medium boiling compounds appear as a regular pattern of peaks on top of a broad hump or unresolved complex mixture (UCM). This material elutes from *n*-$C_8$ to *n*-$C_{24}$ showing a maximum near *n*-$C_{13}$. This correlates with a temperature range of approximately 126°C to 391°C with a maximum near 235°C.<br><br>Within this range, the dominant peaks present are indicative of normal alkanes. Secondary peaks are also present which are indicative of the isoprenoids including norpristane, pristane, and phytane. The relative abundance of the normal alkanes and isoprenoids indicates that little to no biological degradation has occurred to the middle distillates present. The kerosene/Jet A present may have undergone some evaporative weathering.<br><br>The large peak seen near 25.2 minutes on the GC trace is pentacosane, added as a retention time marker and quality assurance check for this GC analysis. The peak at 1.6 minutes corresponds to the extraction solvent, carbon disulfide. |

AIA0133

**Eurofins TestAmerica, Seattle**
5755 8th Street East
Tacoma, WA 98424
Phone: 253-922-2310 Fax: 253-922-5047

# Chain of Custody Record

eurofins | Environment Testing America

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Walker, Elaine M | Carrier Tracking No(s): | COC No: 580-85628.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: m.elaine.walker@eurofinset.com | State of Origin: Hawaii | Page: Page 1 of 1 |
| Company: Apex Laboratories LLC | | Accreditations Required (See note): Dept. of Defense ELAP - ANAB; NELAP - Oregon | | Job #: 580-100174-1 |
| Address: 6700 SW Sandburg St., , | Due Date Requested: 1/8/2021 | | | |
| City: Tigard | TAT Requested (days): | | | |
| State, Zip: OR, 97223 | | | | |
| Phone: | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CTO20F0164 Hotel Pier (PN: 60640529) | Project #: 58015701 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:

| Sample Identification - Client ID | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SUB (Fuel Fingerprint ASTM D2887) | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| JS038 | 12/23/20 | 10:10 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| JS039 | 12/16/20 | 10:56 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| JS040 | 12/23/20 | 10:44 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| JS041 | 12/14/20 | 10:30 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| JS042 | 12/14/20 | 11:05 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| JS043 | 12/14/20 | 11:40 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| JS044 | 12/14/20 | 11:50 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| JS045 | 12/15/20 | 00:01 Hawaiian | | Waste | | | X | 1 | $290 plus 17% surcharge |
| | | | | | | | | | |

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished by: (b) (6) | Date/Time: 1/4/21 | Company TA Sea | (b) (6) Susan Treat | Date/Time: 1/5/21 1126 | Company Apex |
| Relinquished by: | Date/Time: | Company | | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 11/01/2020



1/13/2021

**APEX LABS COOLER RECEIPT FORM**

**Client:** Eurofins TestAmerica, Seattle Element WO#: A1 A01333

**Project/Project #:** CT020FB164 Hotel Pier (PN: 60640529)

**Delivery Info:**

Date/time received: 1/5/21 @ 1126 By: (b) (6)

Delivered by: Apex___Client___ESS___FedEx X UPS___Swift___Senvoy___SDS___Other___

**Cooler Inspection** Date/time inspected: 1/5/21 @ 1126 By: (b) (6)

Chain of Custody included? Yes Y No ___ Custody seals? Yes X No___

Signed/dated by client? Yes Y No ___

Signed/dated by Apex? Yes X No ___

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 3.5 | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | N | | | | | | |
| Ice type: (Gel/Real/Other) | gel | | | | | | |
| Condition: | good | | | | | | |

Cooler out of temp? (Y/(N)) Possible reason why:

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

**Sample Inspection:** Date/time inspected: 1/6/21 @ 1518 By: AKK

All samples intact? Yes Y No ___ Comments:

Bottle labels/COCs agree? Yes ___ No Y Comments: IDs on Conts. read J5038, J5039, J5040, J5041, J5042, J5043, J5044, J5045.

COC/container discrepancies form initiated? Yes ___ No Y

Containers/volumes received appropriate for analysis? Yes Y No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No ___ NA Y

Comments

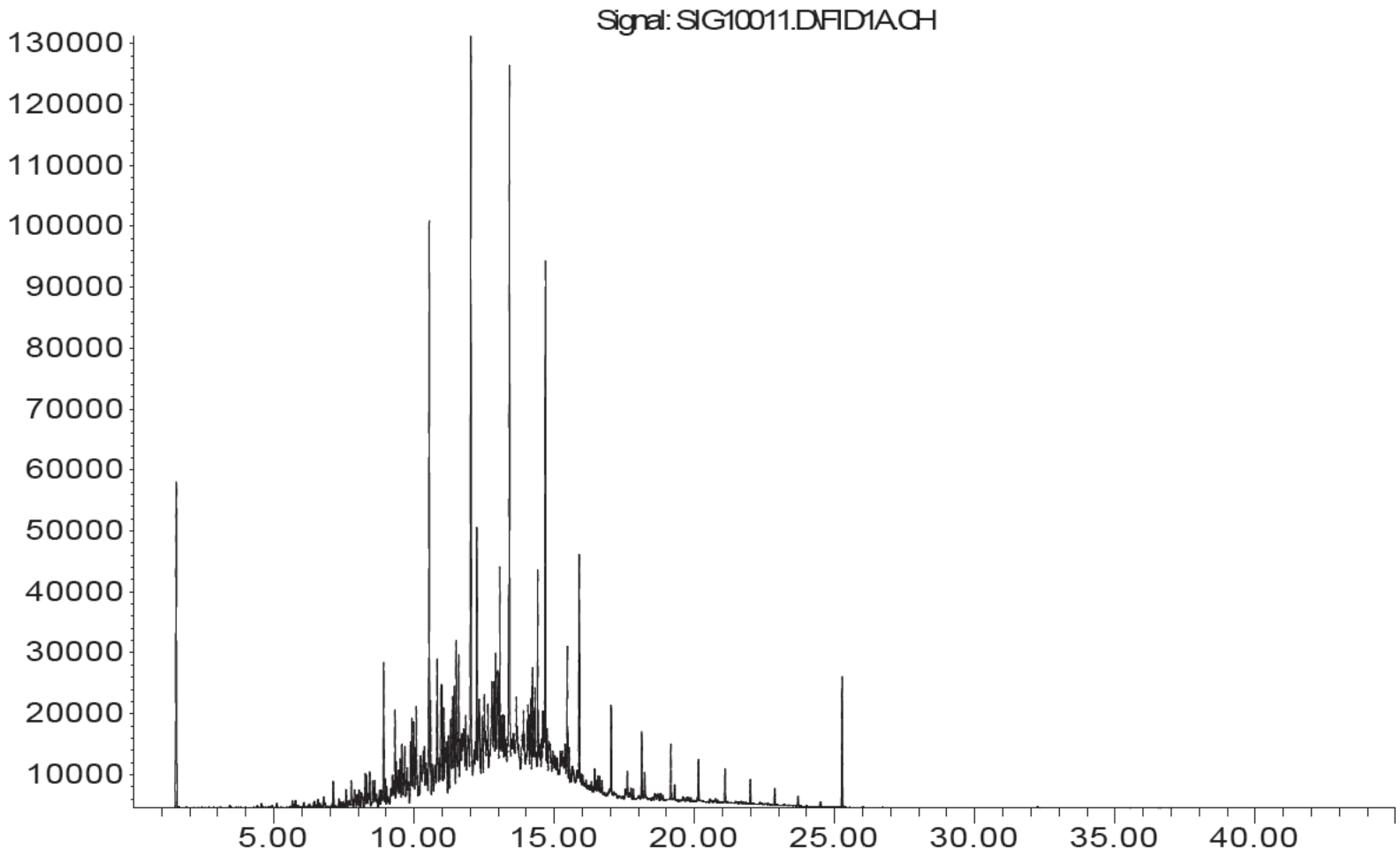
Water samples: pH checked: Yes___No___NA Y pH appropriate? Yes___No___NA Y

Comments:

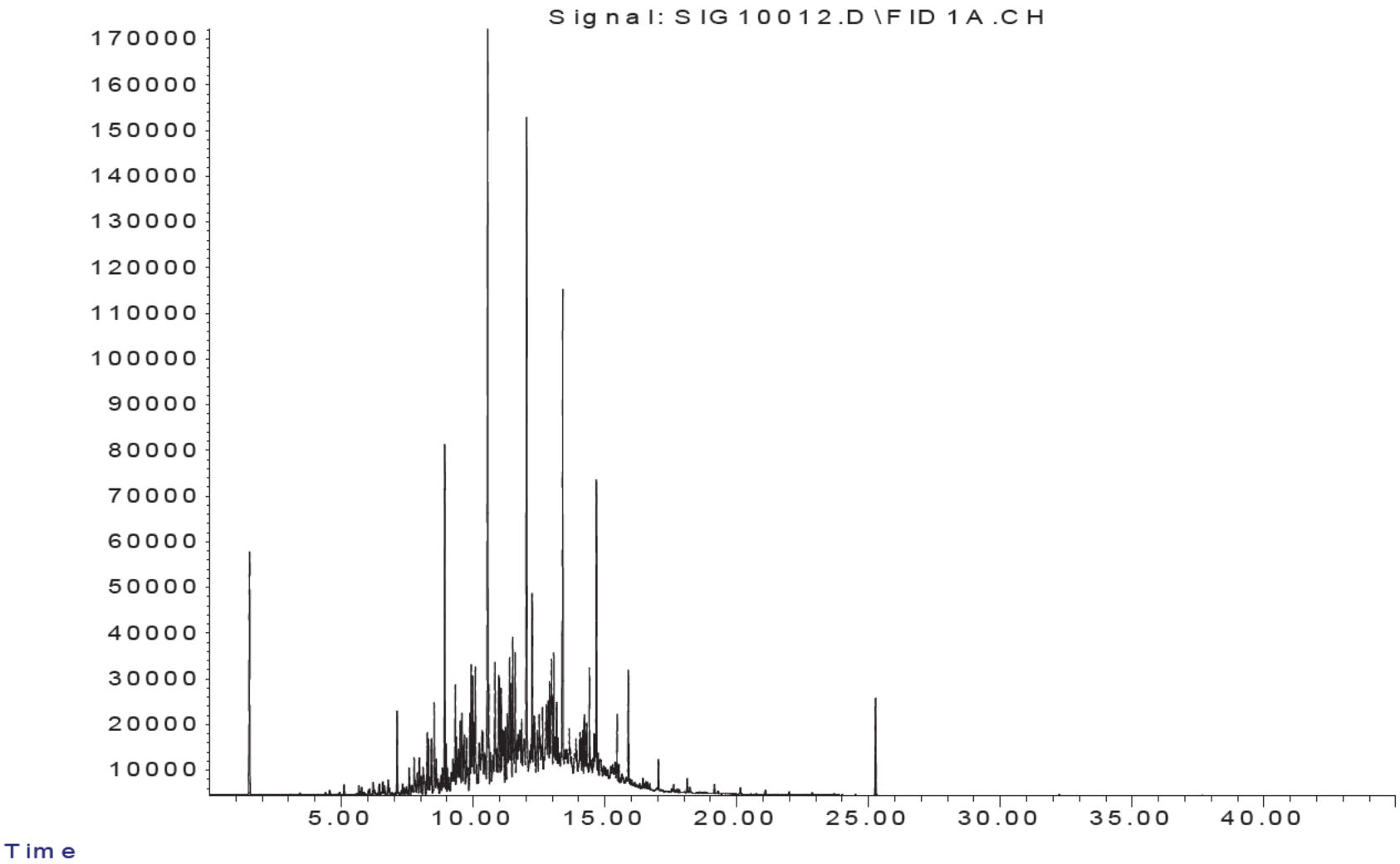
Additional information: Tracking # 9384 4931 0948

Labeled by: AKK Witness: AM Cooler Inspected by: AKK

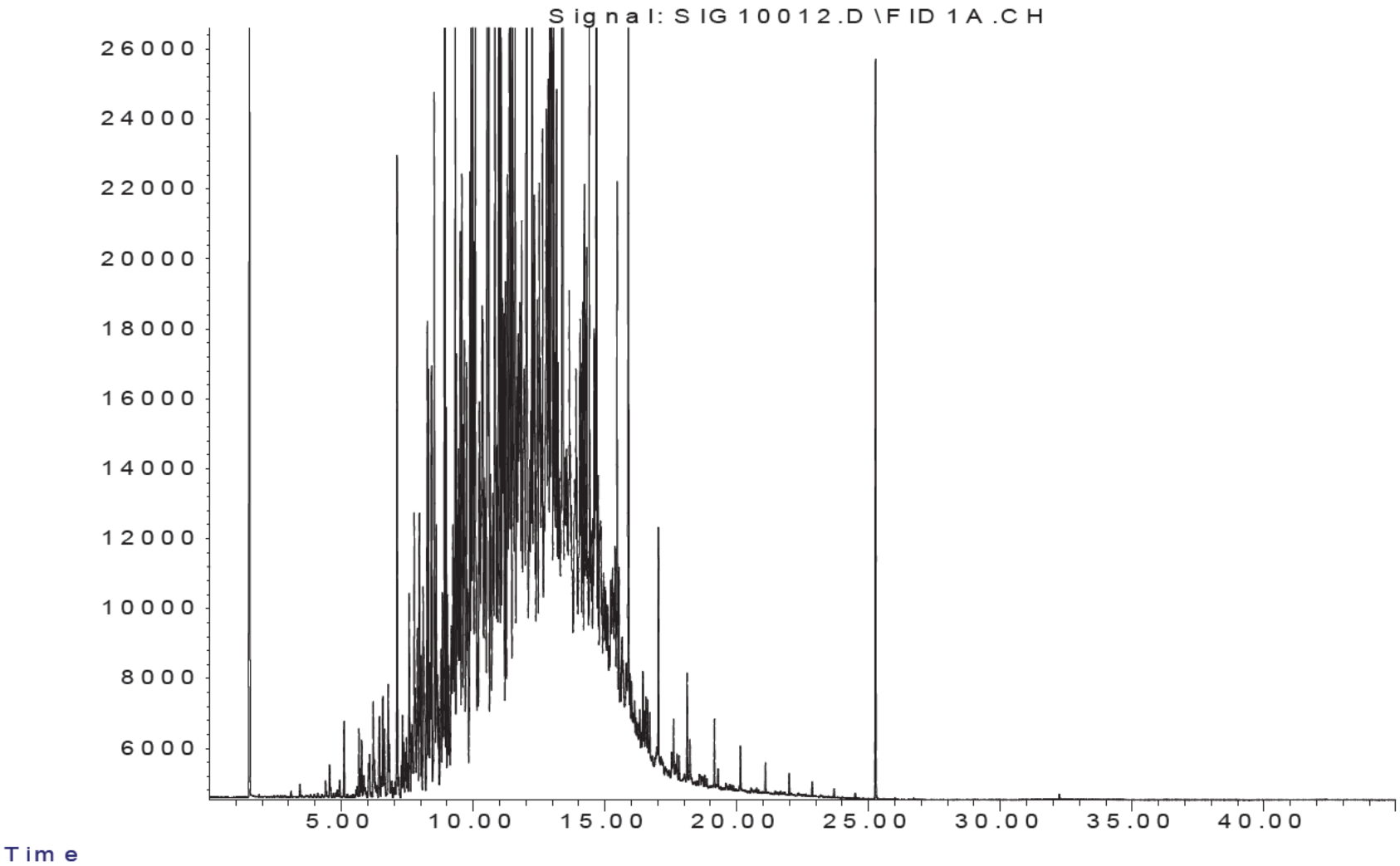
# Liquid Sample: JS038 (A1A0133-01)
## Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
## Sequence Date: January 7, 2021



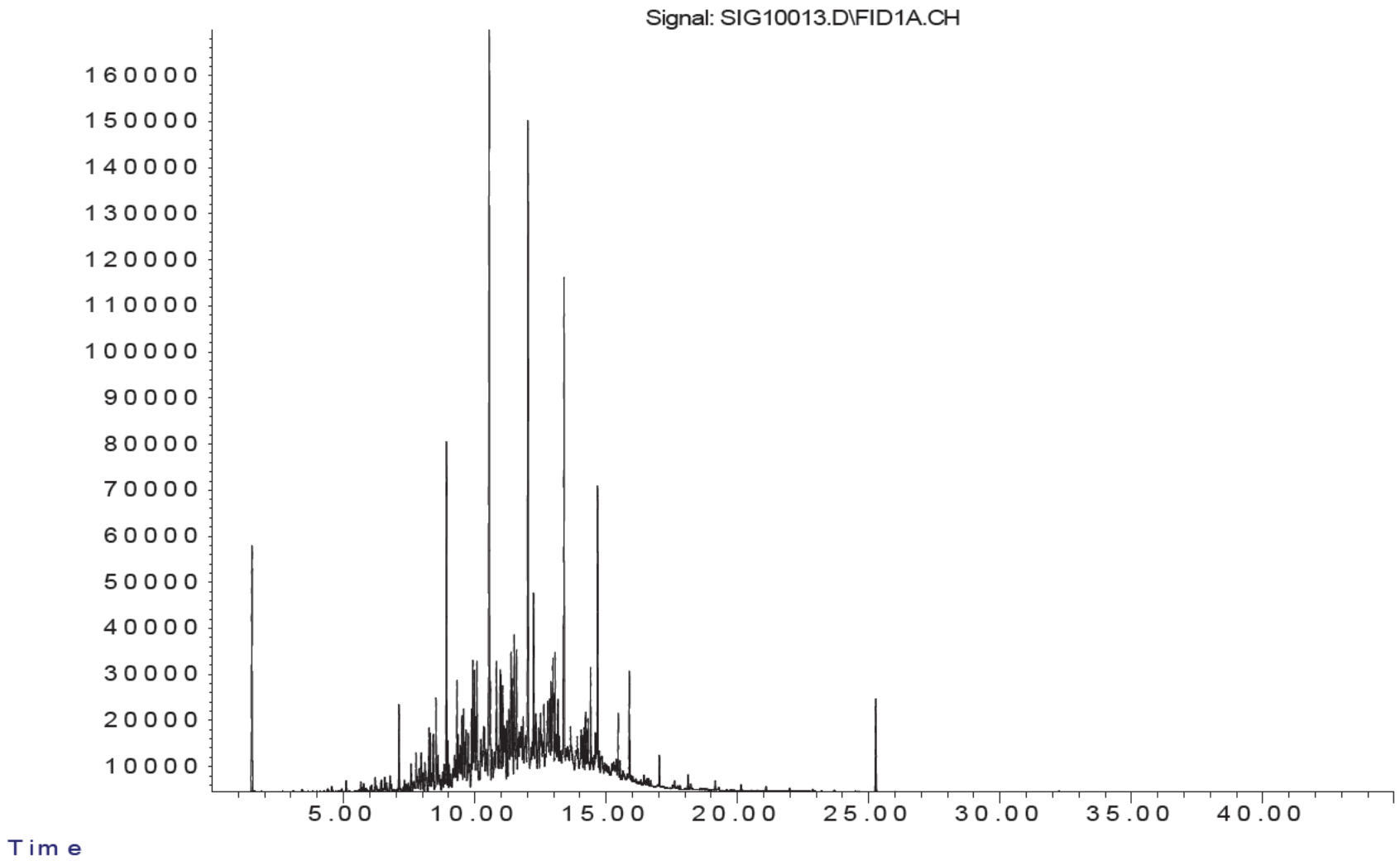
# Liquid Sample: JS039 (A1A0133-02)
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



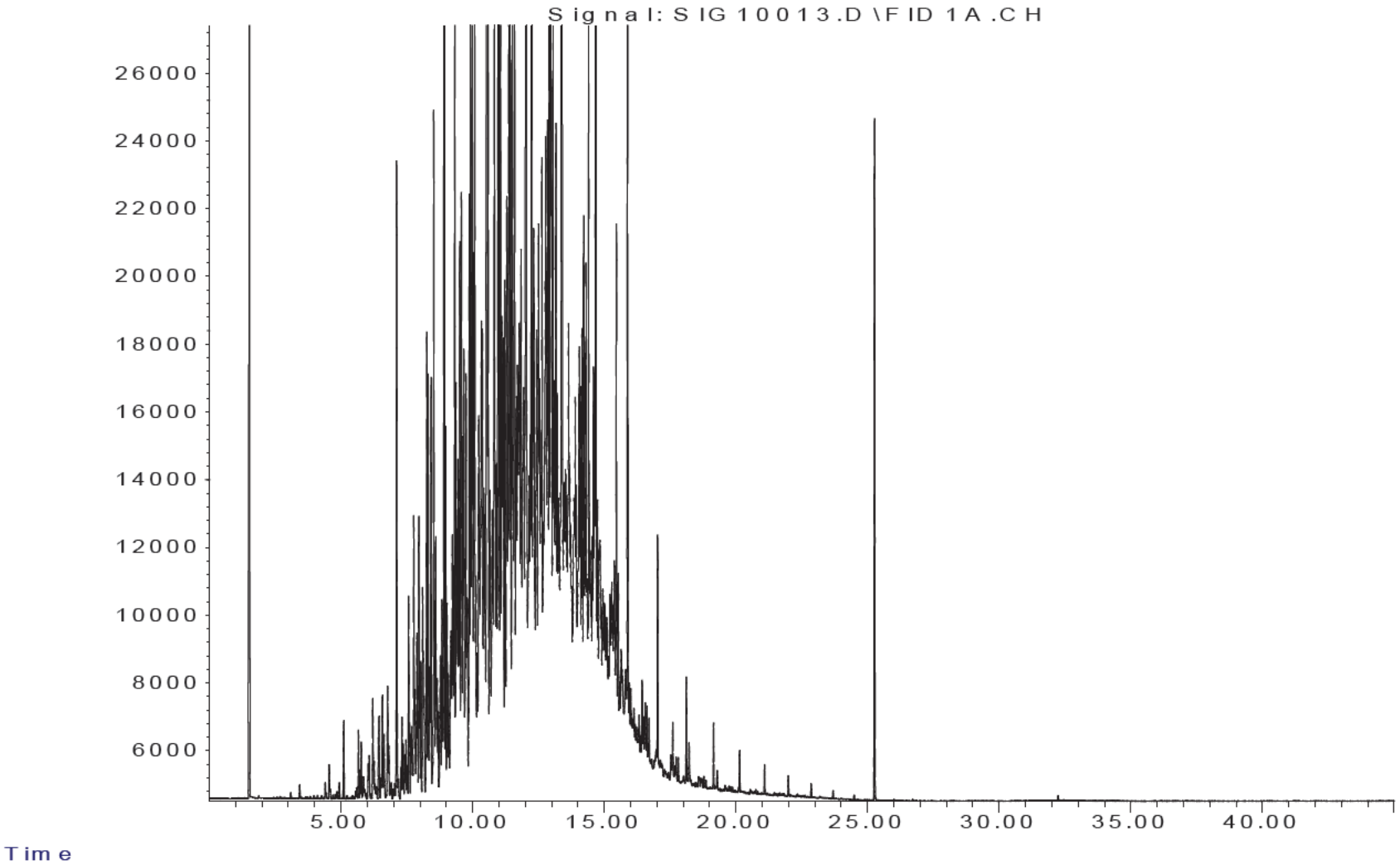
# Liquid Sample: JS039 (A1A0133-02) DETAIL
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



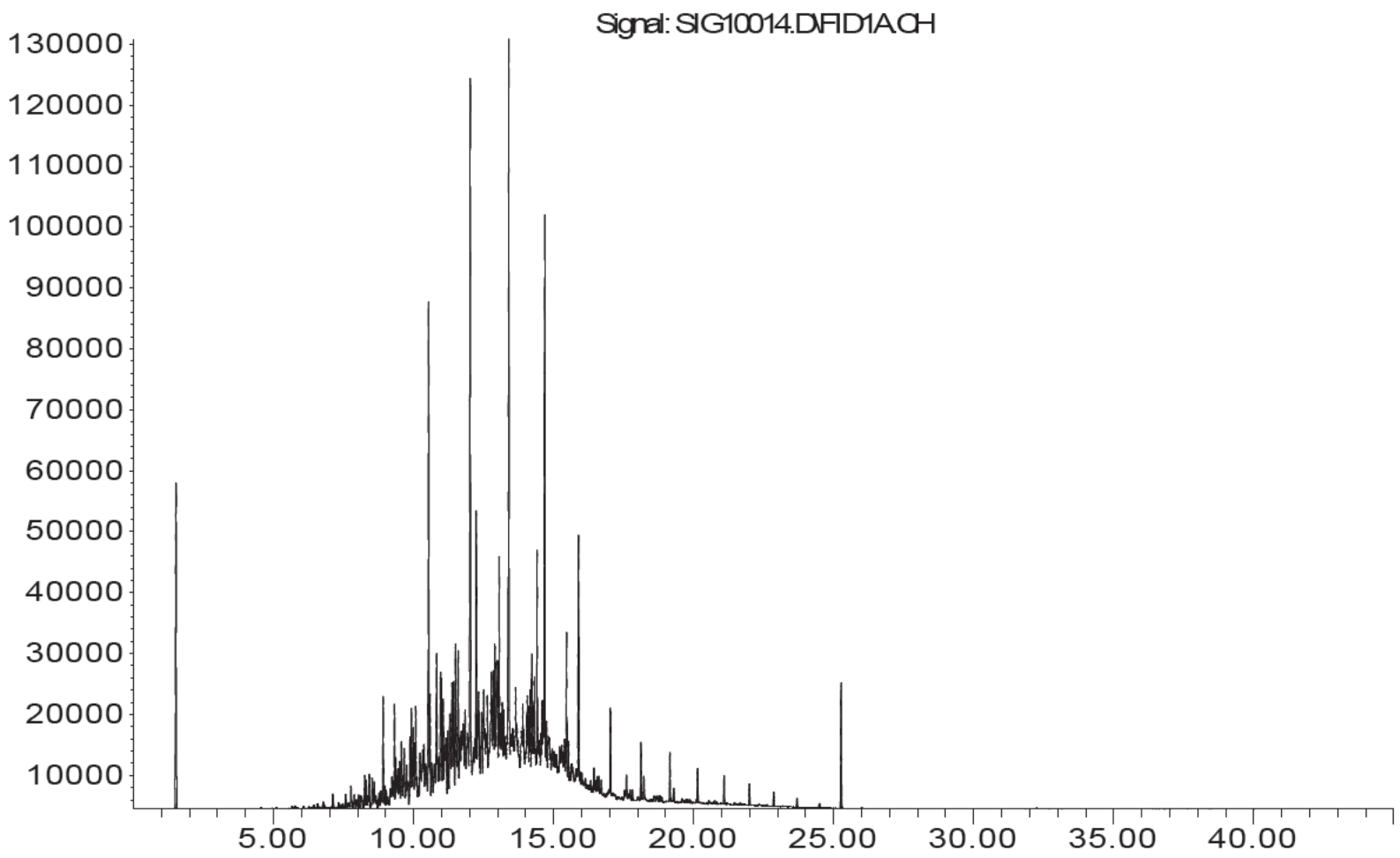
# Liquid Sample: JS040 (A1A0133-03)
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



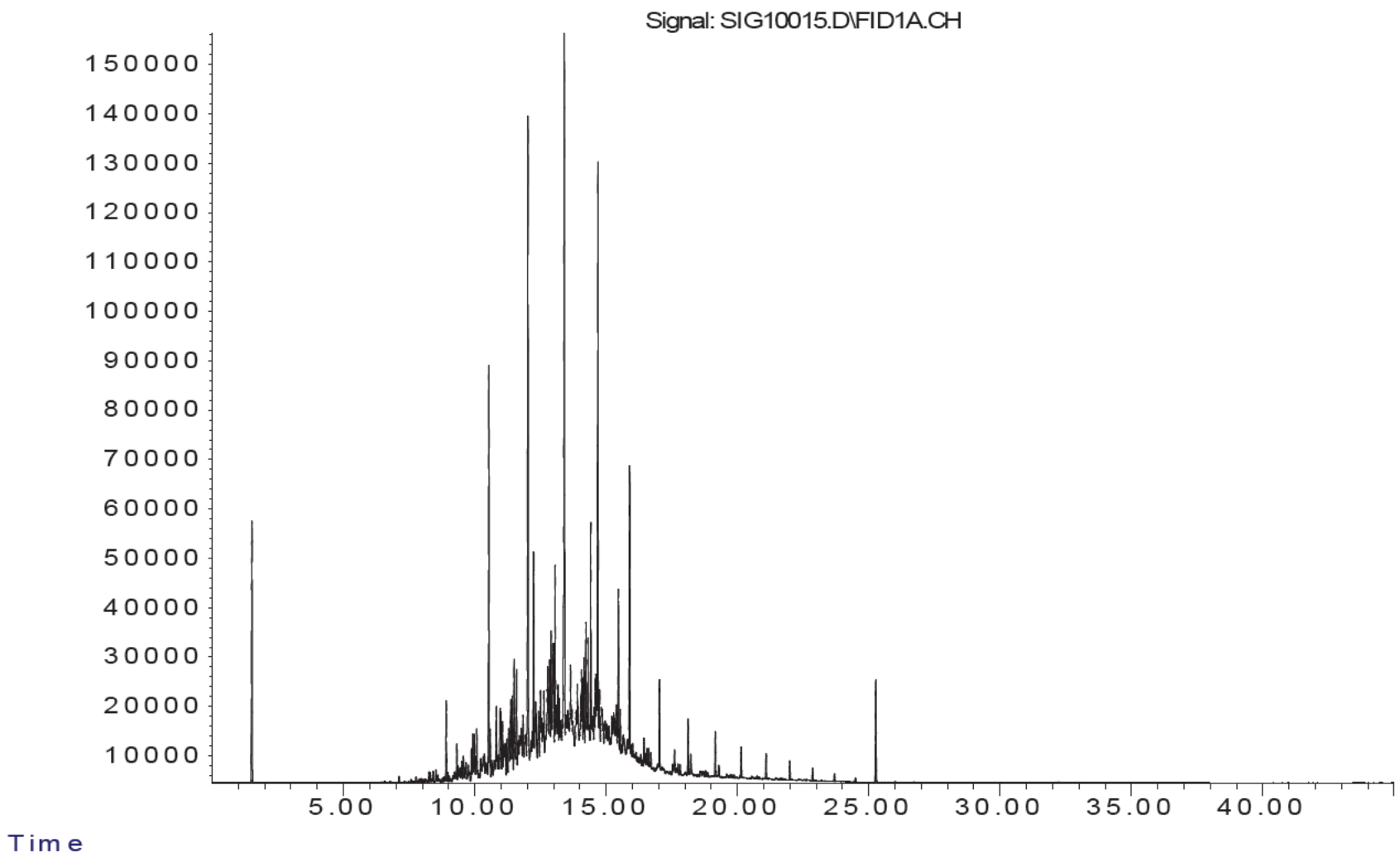
# Liquid Sample: JS040 (A1A0133-03) DETAIL
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



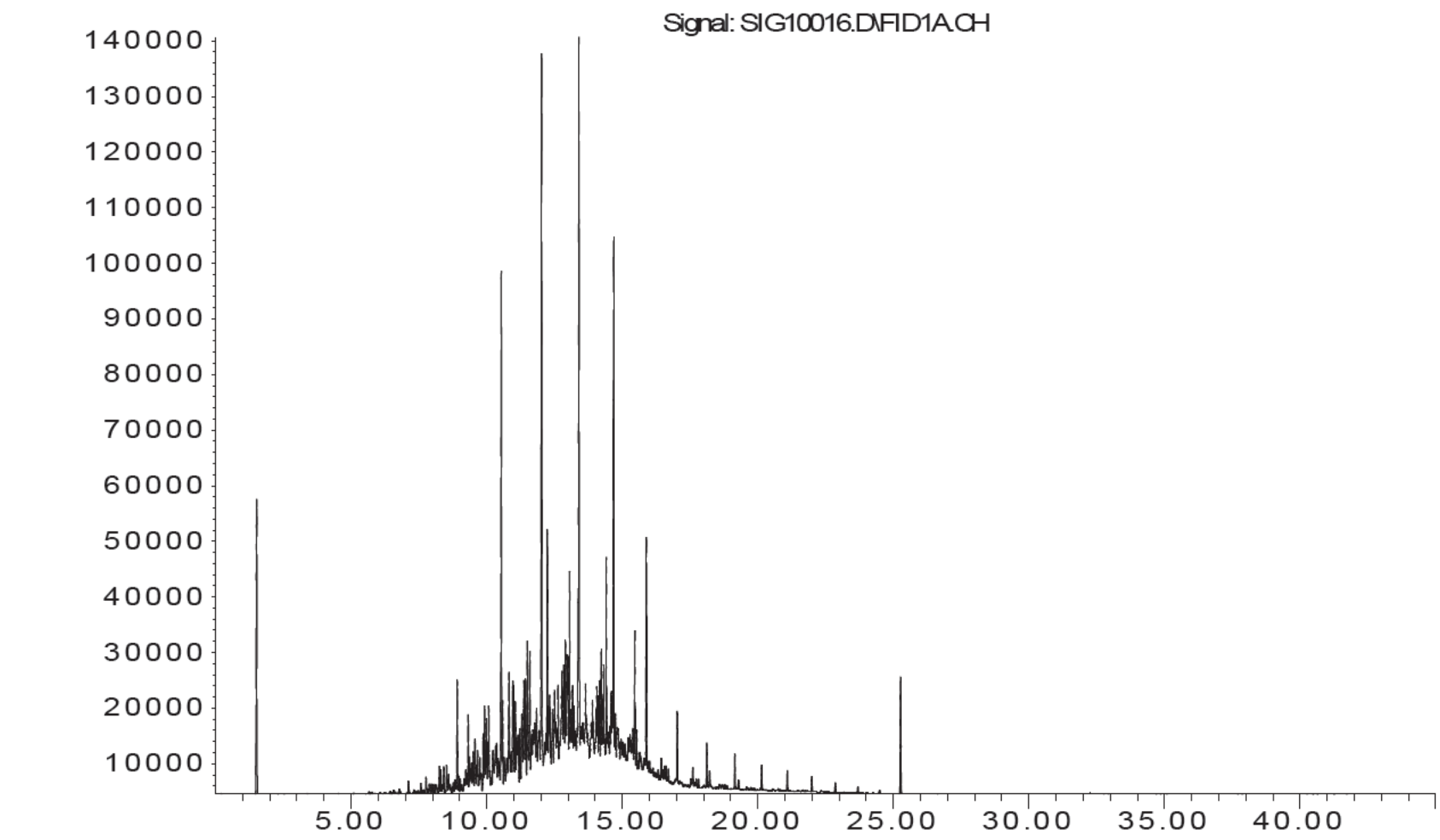
# Liquid Sample: JS041 (A1A0133-04)
## Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
## Sequence Date: January 7, 2021



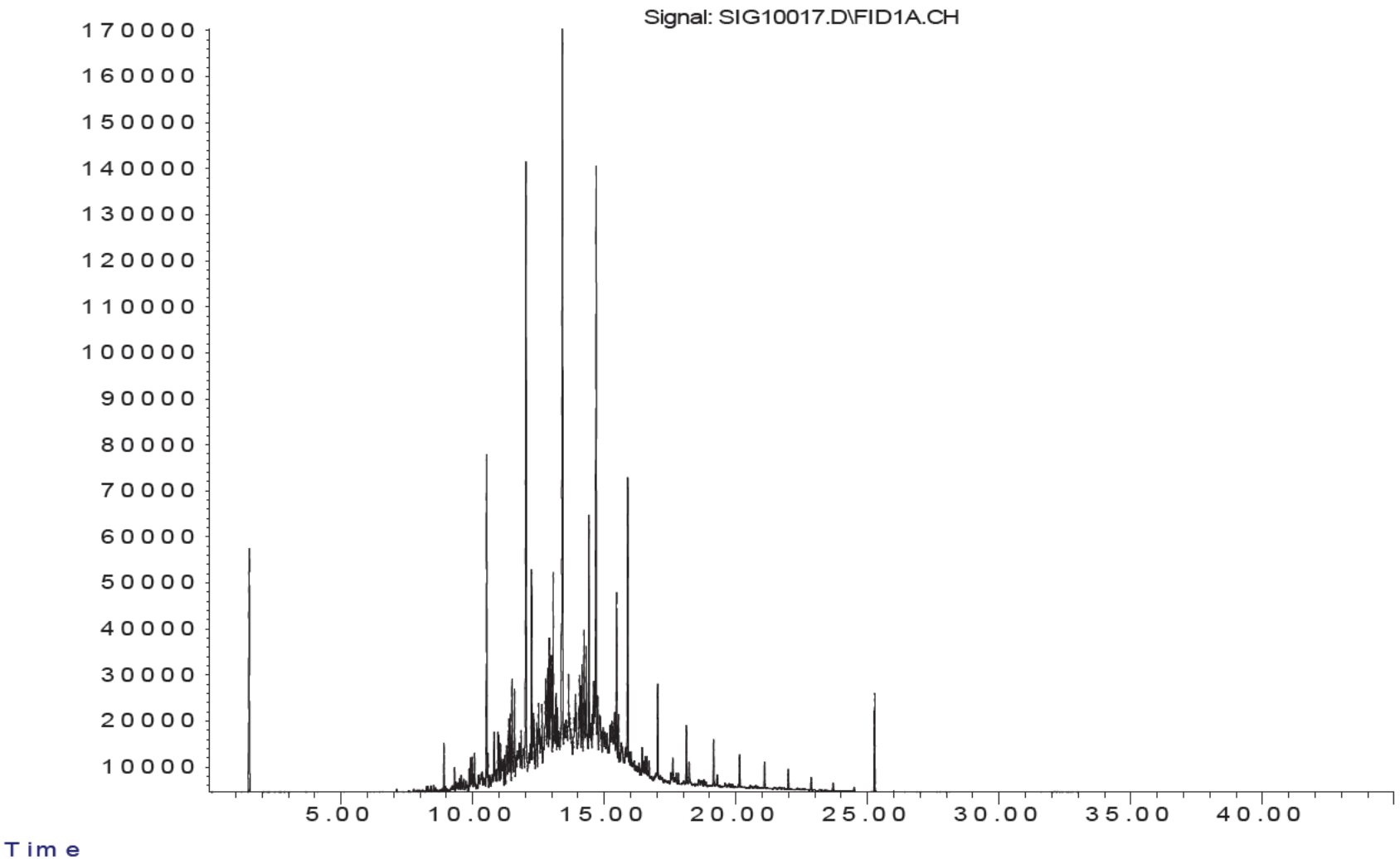
# Liquid Sample: JS042 (A1A0133-05)
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



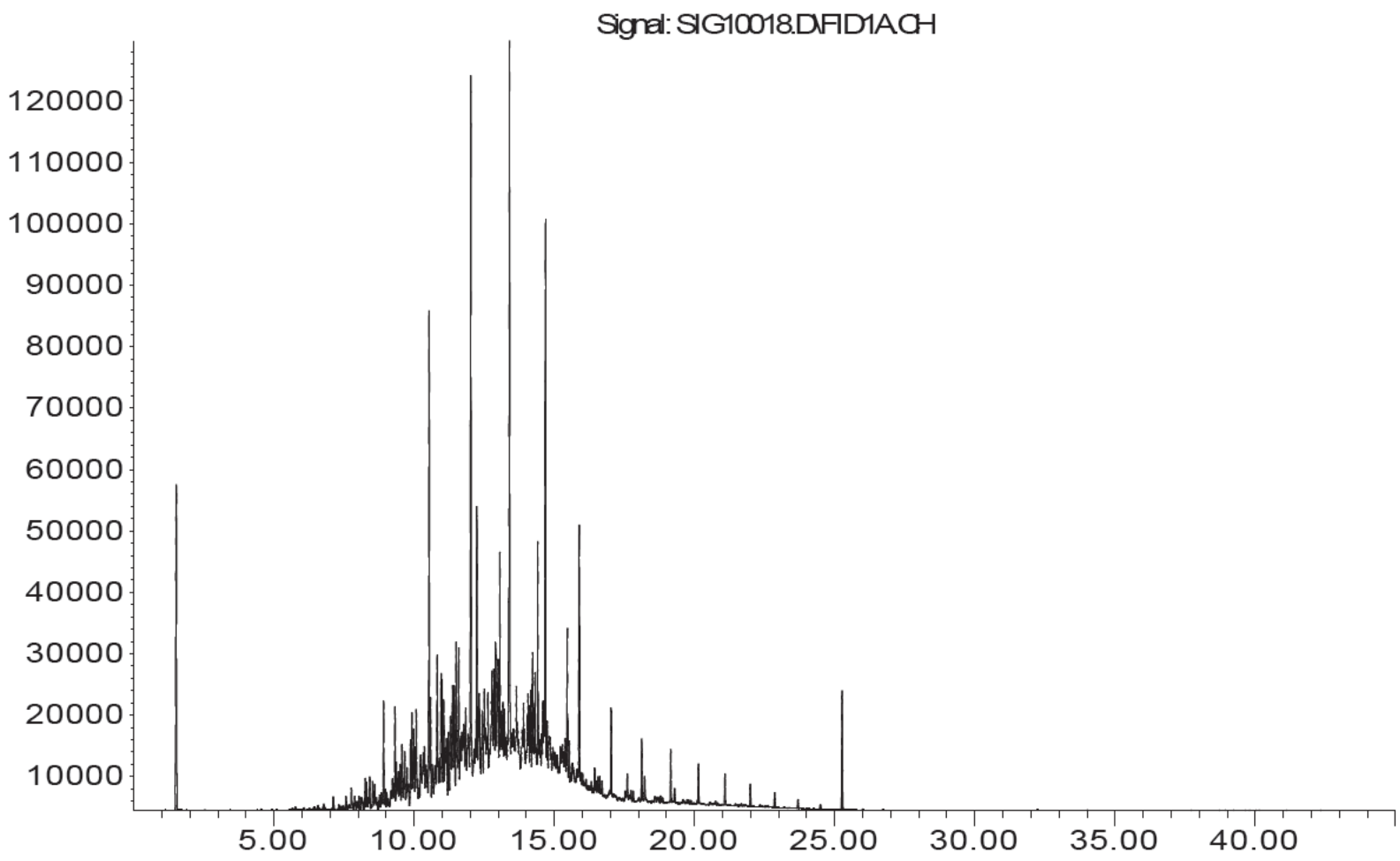
# Liquid Sample: JS043 (A1A0133-06)
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



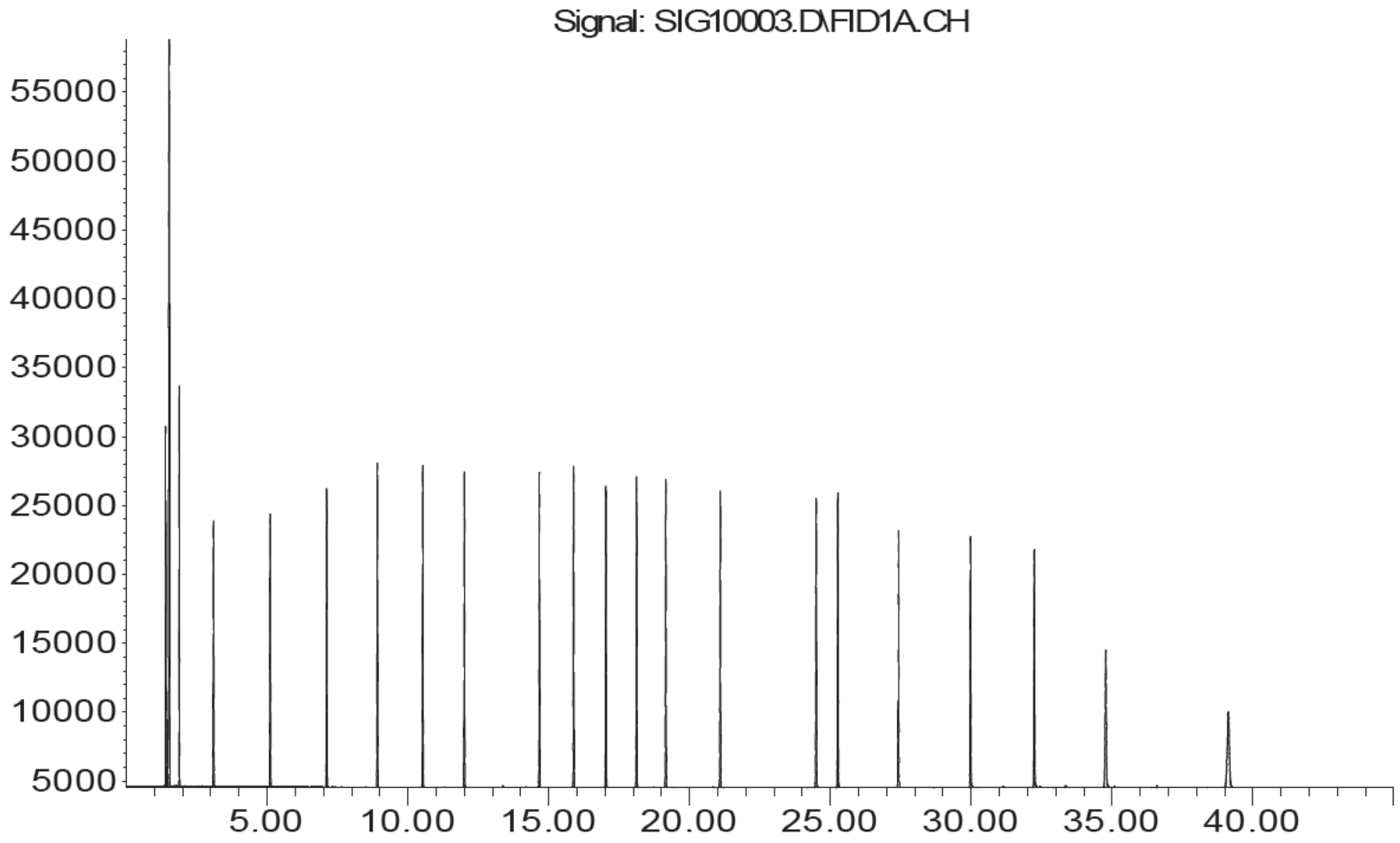
# Liquid Sample: JS044 (A1A0133-07)
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



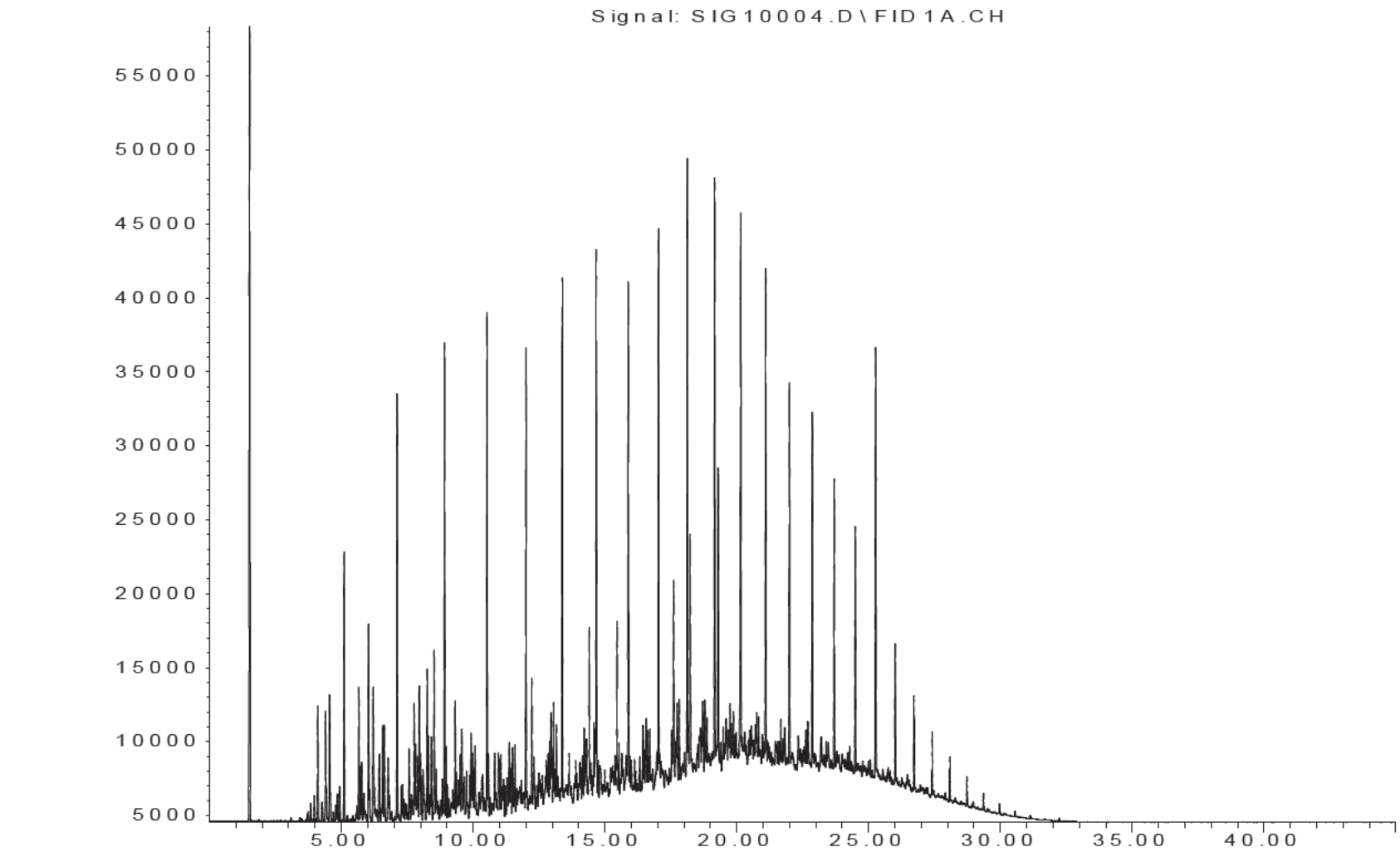
# Liquid Sample: JS045 (A1A0133-08)
# Eurofins TestAmerica - CTO20F0164 Hotel Pier (PN:60640529)
# Sequence Date: January 7, 2021



# ASTM Reference Sample: 2887 Alk A
## Eurofins TestAmerica - Hotel Pier Project
## Sequence Date: January 7, 2021

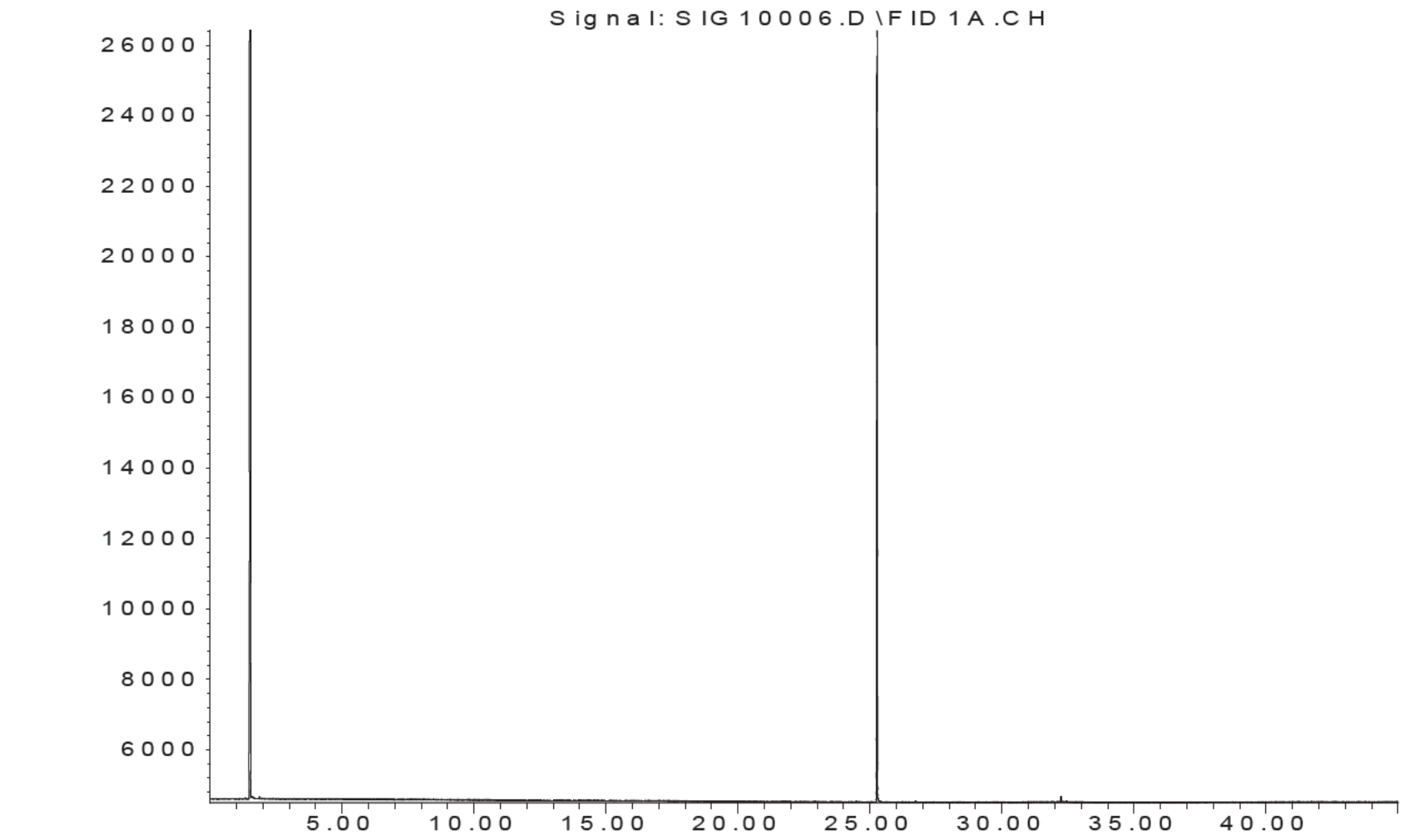


# ASTM Reference Sample: 2887 Gas/Oil A
# Eurofins TestAmerica - Hotel Pier Project
# Sequence Date: January 7, 2021




Apex Forensics

# QC Sample: Method Blank
## Eurofins TestAmerica - Hotel Pier Project
## Sequence Date: January 7, 2021



Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424-1317
phone 253.922.2310 fax 253.922.5047

# Chain of Custody Record

eurofins Environment Testing Northwest

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: CRCLA

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

| Client Contact | Project Manager: Robin Boyd | Site Contact: Dustin Goto | Date: 12/30/20 | COC No: |
|---|---|---|---|---|
| AECOM | Tel/Fax: 1-540-254-1292 | Lab Contact: Elaine Walker | Carrier: FedEx | of COCs |
| 1001 Bishop Street Suite 1600 | Analysis Turnaround Time | | | Sampler: Alethea Ramos |
| Honolulu, HI 96813 | ☐ CALENDAR DAYS ☒ WORKING DAYS | | | For Lab Use Only: |
| 808356-356-5304 | TAT if different from Below ____ | | | Walk-in Client: |
| (xxx) xxx-xxxx FAX | ☐ 2 weeks ☑ 1 week ☐ 2 days ☐ 1 day | | | Lab Sampling: |
| Project Name: CTO20F0164 Hotel Pier (PN: 60640529) | | | | Job / SDG No.: |
| Site: Hotel Pier, JBPPH | | | | |
| P O # 128642 | | | | |

Loc: 580
100174

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | TPH-DRO/LRO by 8015C | PCBs by 8082A | Fuel Fingerprint | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JS038-manhole #4 | 12/23/20 | 10:10 | G | aqueous | 1 | | | | | X | |
| JS039-(sewer left 16) | 12/16/20 | 10:56 | G | aqueous | 1 | | | | | X | |
| JS040 (sewer left 16) | 12/23/20 | 10:44 | G | aqueous | 1 | | | | | X | |
| JS041 (excavation #1) | 12/14/20 | 10:30 | G | aqueous | 1 | | | | | X | |
| JS042 (Hotel Pier 4) | 12/14/20 | 11:05 | G | aqueous | 1 | | | | | X | |
| JS043 (Hotel Pier 5) | 12/14/20 | 11:40 | G | aqueous | 1 | | | | | X | |
| JS044 (Hotel Pier 6) | 12/14/20 | 11:50 | G | aqueous | 1 | | | | | X | |
| JS045 (Ex Pit) | 12/15/20 | | G | Bulk | 1 | | | | | X | |
| | | | | | Pipe | | | | | | |

580-100174 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal** ( A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

**Special Instructions/QC Requirements & Comments:** Please send invoices to USAPImaging@aecom.com.

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____ |
|---|---|---|
| Relinquished by: Jeffrey Klein (b) (6) | Company: NAVFAC HI | Date/Time: 12/30/20 1225 |
| Relinquished by: Alethea Ramos | Company: AECOM | Date/Time: 12/30/20 1400 |
| Relinquished by: | Company: | Date/Time: |

| Received by: Alethea Ramos (b) (6) | Company: AECOM | Date/Time: 12/30/20 12:25 |
|---|---|---|
| (b) (6) | Company: FedEx | Date/Time: 12-31-20 0930 |
| | | Date/Time: |

Therm. ID: IR8 Cor: 4.8 ° Unc: 5.0 °
Cooler Dsc: SR
Packing: ____ FedEx: P.O
Cust. Seal: Yes ____ No ____ UPS: ____
Blue Ice, Wet, Dry, None Lab Cour: ____
Other: ____

# Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 580-100174-1

**Login Number: 100174** **List Source: Eurofins TestAmerica, Seattle**
**List Number: 1**
**Creator: Hobbs, Kenneth F**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |