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**Work Order: 16-08264**  
**Revision: 3**  
**Report Date: 14-Nov-16**  
**Order Date: 14-Oct-16**  
**P.O.: 33683**

**Release:**  
**Approved By: Tiffany Wilkus**  
**Title: ORGANIC LAB MANAGER**

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## **BALAZS™ TEST RESULTS**

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If you have any questions regarding the results, please call Dr. Hugh Gotts at (510) 624-4028

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### **Background and Summary:**

On 10/14/16, one 37.5% HCl solution was received for analysis of extractable organic compounds by GC-MS (gas chromatography mass spectrometry).

No organics were detected by this method.

### **Sample Preparation:**

Approximately 30mL of sample was extracted with 3mL of hexanes. A 0.5mL portion of the extract was spiked with a known volume of n-Hexadecane internal standard. The extract was analyzed by GC-MS.

### **GC-MS Instrumentation:**

The system used for the analysis was an HP 6890 GC (Gas Chromatograph) with a 5973 quadrupole MSD (Mass Selective Detector).

The GC was equipped with a low-polarity diphenyl dimethyl polysiloxane phase capillary column. The following temperature program was used for the GC: the oven was held at an initial temperature of 35°C for 5 minutes, ramped at a rate of 15°C/minute to 280°C and held at the final temperature for 20 minutes. The injection port temperature was 250°C. The sample injection volume was 1.0 microliter and the GC was

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operated in splitless mode.

Each compound passed down the GC column at a characteristic rate. As each compound exited the gas chromatograph, it entered the MSD where it was ionized using electron impact ionization (70 eV). The MSD collected a full mass spectrum (10-700 amu) approximately once per second.

**Results:**

No extractable organics were detected by this method. The labeled chromatogram is provided.

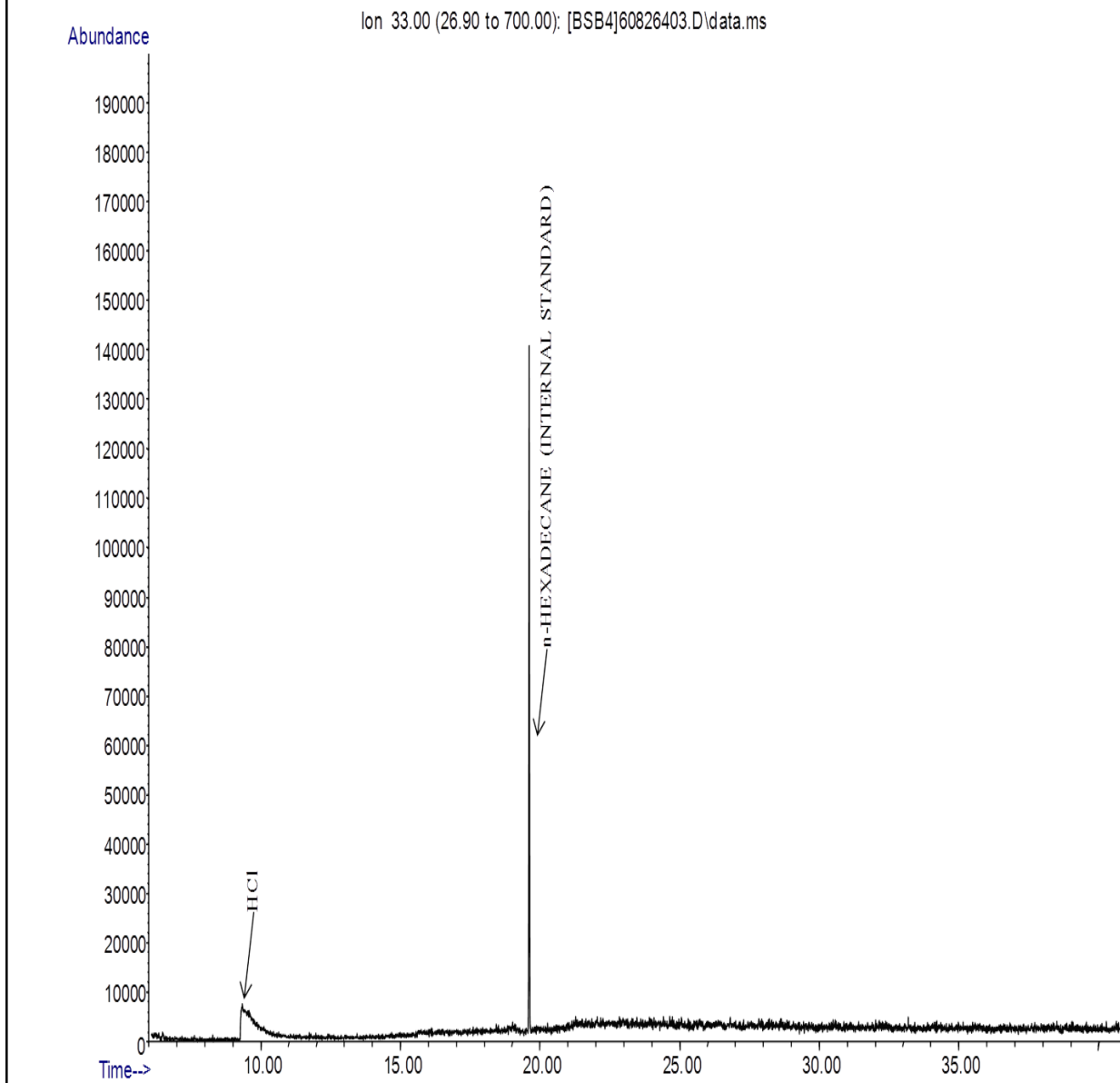
**Figure 1**

**Sample ID:** HOKX1321190816; 37.5% HCl

**Method of Analysis:** Hexane extraction followed by Liquid Injection-GC-MS (Gas Chromatography-Mass Spectrometry)

**Sampling Conditions:** Direct injection of solvent

**Balazs Work Order:** 16-08264



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