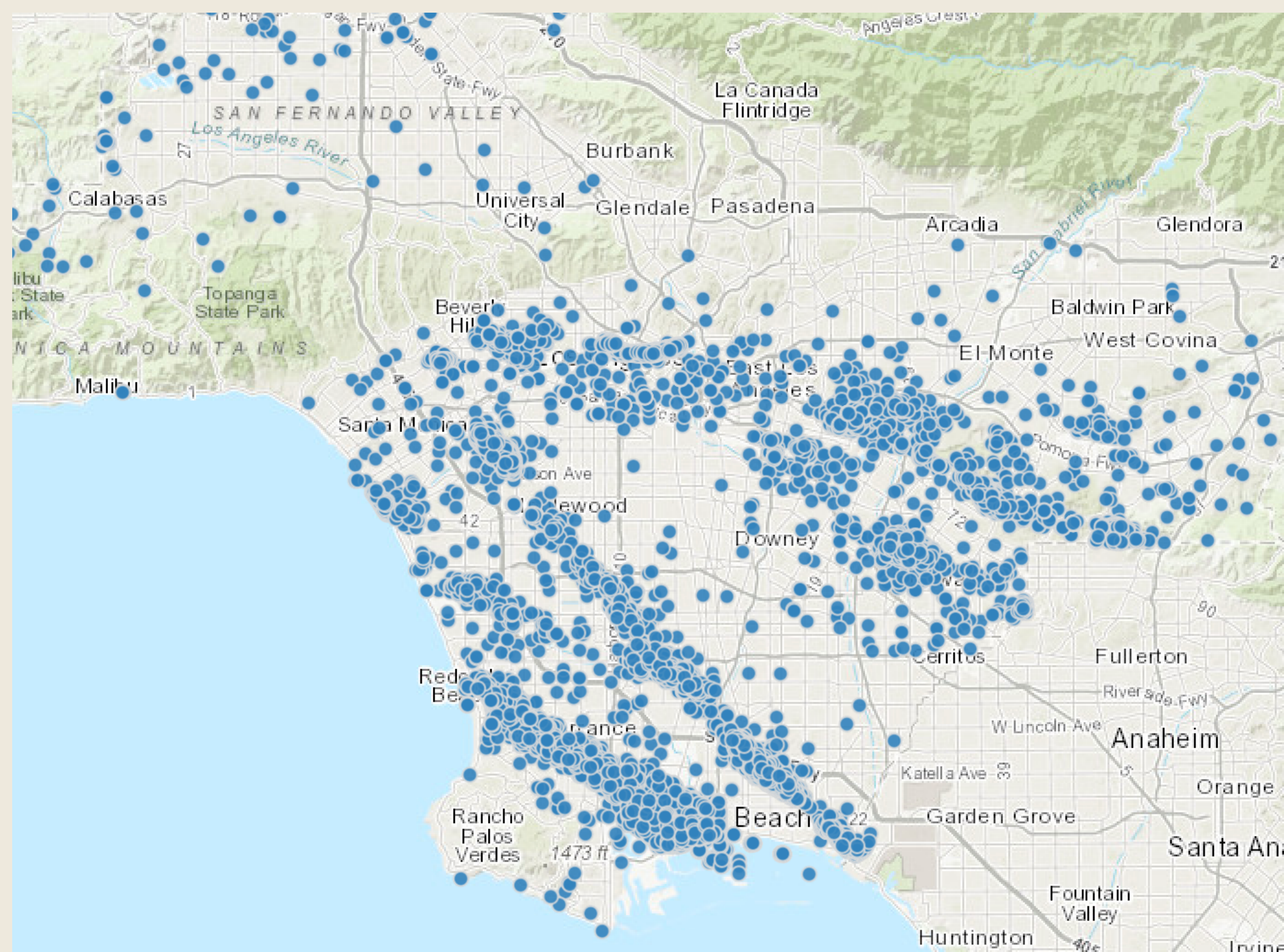


Lead Soil Contamination in Los Angeles



Examining the various soils through central, west, and east Los Angeles and their levels to identify locations with high levels of harmful contaminants.



01. Introduction

Los Angeles is widely known for having many oil wells, both active and idle. These wells have led to contamination over time, specifically soil contamination. Soil contamination can be caused by oil wells, lead-based paints, and automobile emissions. These traces of lead and other contaminants throughout the city can eventually be harmful to the citizens of Los Angeles. Though many of the oil wells might have been closed or have not been used recently, they might have contaminated soils in their respective neighborhoods. In this project, we examine the soil contaminants and their levels in soil from places all throughout Los Angeles.

02. Objective

Examining contaminated locations throughout LA and analyzing their relationship with the area's financial stability and situation and how that can affect the contamination levels for that place.

References

Venezia Ramirez, Research Coordinator, USC Environmental Health
 City of Los Angeles Hub. (n.d.).
<https://geohub.lacity.org/datasets/29f5d6391d0749a7a7c59aacd40bb0846/explore?location=33.804128%2C-118.295000%2C10.00>

03. Methodology

Process of research conducted

- Collection of soil following safety and cross-contamination protocols.
- Drying of soil
- Testing soil using the XRF machine and testing for various elements with an emphasis on lead.

The collection of soil was all done myself and testing was done by a research coordinator as well as myself.

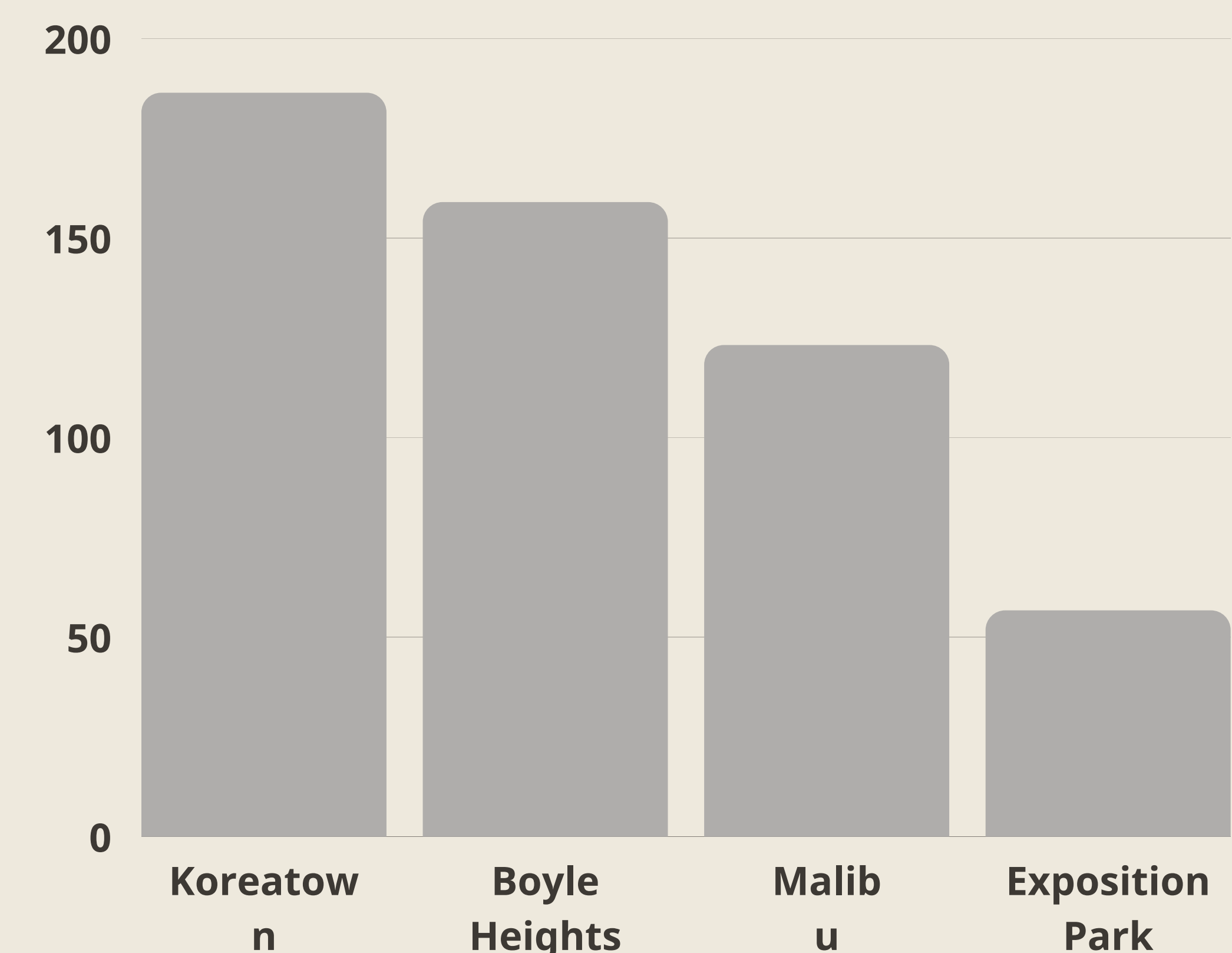
04. Results/Findings

The analysis of samples and their units was done using ppm (parts per million).

- Koreatown average: 186 ppm
- Boyle Heights average: 159 ppm
- Malibu average: 123 ppm
- Exposition Park average: 56 ppm

Places that were tested for contaminants in soil include:

- Shatto Park and Recreation Center in Koreatown
- Berendo St in Koreatown
- Hollenbeck Park in Boyle Heights
- Terrace Heights in Boyle Heights
- The Getty Villa Museum in Malibu
- Los Leones Trail Canyon in Malibu
- Exposition Rose Garden in Exposition Park
- USC in Exposition Park



05. Analysis

- Koreatown: Koreatown is in the center of the city. This area has a large population but also has a very crowded neighborhood. This leads to more vehicles and therefore more lead carbon emissions which is clear through the high levels of lead in Koreatown. Koreatown has a very middle class population and is not a pristine and preserved neighborhood. Koreatown also houses many both idle and active oil wells.
- Boyle Heights is also quite crowded when it comes to population and location. Though Boyle Heights is near train tracks which would make these results understandable and has a mainly low income population. Boyle Heights has a moderate amount of oil wells in the area but not to an excessive amount.
- Malibu is near Pacific Palisades which houses many wealthy people and that would make sense to why these lead levels are quite low. Additionally, Malibu has little to none oil wells in the general area.
- Exposition Park has the lowest levels for lead, this is probably due to the fact that this area contains many public places and there is inherently no space for oil well. These areas that were tested were also near roads and regardless of that, their levels of lead are still very low.

06. Conclusion

It is evident that Los Angeles has some pretty high levels of lead soil pollution but this happens to be lesser in well preserved, more financially stable areas such as Exposition Park and Malibu.

