Appendix 4.6-5: Opinion Letter

HILLMANN
CONSULTING

September 30, 2022

Mr. Fred Shaffer
16911 Normandie Associates LLC
134 Lomita Street
El Segundo, CA 90245

RE: Opinion Letter
Light Industrial Property
16829-16839 South Normandie Avenue
Gardena, CA

Dear Mr. Shaffer,

Per your request, Hillmann Consulting, LLC (Hillmann), reviewed the documents you provided regarding the above referenced site. The documents summarize environmental work conducted by Partner Engineering and Science, Inc. (Partner) in two phases of investigation competed in 2021. The investigations included sampling of soil, groundwater, and soil gas beneath the site to depths extending to 28 feet below grade. The project is not currently under regulatory guidance. We understand that the purpose of your request is to evaluate the work performed thus far and to provide an independent assessment of Partner's conclusions.

BACKGROUND

The Property is a light industrial site located on the southwest corner of South Normandie Avenue and 169th Street in a mixed use industrial/residential area of Gardena. The Property is composed of three parcels that together occupy about 1.35 acres. The site is developed with three buildings constructed from 1957-1978. Records indicate the Property was formerly occupied by a number of operators that handled and utilized hazardous materials including two machine shops, an engine repair and auto body business, a cabinet maker, and various manufacturing entities. The site is currently occupied by a property preparation service that conducts power washing activities off-site and uses an on-site clarifier to treat the wash water before discharge. These concerns justified preliminary subsurface investigation.

In July 2021, Partner conducted the first phase of investigation which included installation of five soil borings (B1-B5), each advanced into groundwater located at 28 feet below grade. Soil samples obtained at 2 feet below grade in each boring were analyzed for total petroleum hydrocarbons, volatile organic compounds (VOC), and poly aromatic hydrocarbons (PAH).

Groundwater samples were also collected from each boring for testing of VOC and PAH. Each boring was then sealed to 5 feet below grade and completed as a soil gas sampling probe. Target locations included the wastewater treatment system, an area of stained pavement and various accessible locations. In this phase of investigation, it was implied that the site was to be redeveloped for residential use.

Results from testing indicated low concentrations of various petroleum hydrocarbons, VOC and PAH in some soil and groundwater samples, but none that exceed recognized screening levels for residential applications. The results from soil gas testing indicated nine VOC constituents were detected at concentrations that exceed residential screening levels, including environmentally sensitive compounds such as benzene (max concentration of 210 ug/m^3), ethylbenzene (max concentration of 420 ug/m^3), methylene chloride (max concentration of 240 ug/m^3), tetrachloroethene -PCE (max concentration of 220 ug/m^3), and trichloroethene -TCE (max concentration of 860 ug/m^3). Some of these concentrations also exceeded DTSC proposed commercial screening levels, which might indicate a potential vapor intrusion concern for current occupants. Based on these findings, Partner could not rule out possible vapor intrusion concerns in either scenario (residential or commercial) and recommended additional testing after grading was completed to provide a better evaluation prior to residential reconstruction.

In the second phase of investigation, Partner returned to the site in August 2021, and installed four multi-depth soil gas probes in the previous B1-B4 locations, with sample tips installed at 5, 10, and 20 feet below grade (B1-SV-B4-SV). Two new locations were also explored (B6-SV and B7-SV), with tips installed at similar intervals. The results of supplemental soil gas sampling indicated each sample had detectable concentrations of PCE with concentrations ranging up to 660 ug/m^3. In addition, benzene (max concentration of 150 ug/m^3), and ethylbenzene (max concentration of 4,800 ug/m^3), were detected but TCE and methylene chloride were not. In this case, the detected concentrations were compared to current commercial screening levels, not residential, and all detected concentrations were below those less stringent guidelines. The data from these investigations are included in **Appendix A**.

DISCUSSION

The data from the combined Partner investigations indicates a mild environmental impact from decades of use for light industrial activities. The data set is not entirely consistent, partly due to different analytical techniques (EPA TO-15 analysis in the first assessment and EPA Method 8260B in the second), each with much different precision, and partly due to the screening guidelines selected for comparison. However, the data, certainly confirms an impact to soil gas that requires additional evaluation by a risk assessment professional prior to undertaking a redevelopment program to residential use. The required risk assessment will make use of the existing data set to provide an evaluation of the health risks that will likely allow a residential development to take place with certain engineering controls. These will likely include use of a VOC-specific vapor intrusion barrier and possibly a passive venting system. The cost for these should be considered in any redevelopment plan. In addition, the health risk professional may

require additional sampling to supplement the data to provide a statistically defensible case, but that decision is at their discretion.

Our understanding is that the site is planned for redevelopment for residential use with two floors of above ground parking located at the base of the residential units. This layout provides a significant control of vapor intrusion concerns that likely alleviates many of these concerns. However, this will need to be considered in a proper health risk analysis.

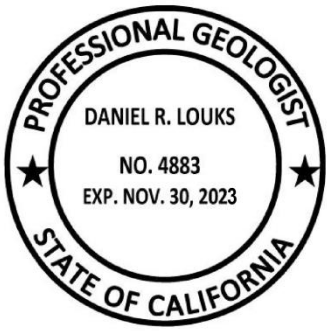
CONCLUSION

The data provided by the Partner investigation indicates the subsurface is impacted with relatively low concentrations of VOC in soil gas that could potentially pose a human health concern in the event of redevelopment for residential use. The data set provides an adequate level of confidence that the VOC is a legitimate concern, and will likely require modest mitigation measures that might include a vapor intrusion barrier and possibly a passive vent system. In addition, these data suggest that a Soil Management Plan will be required to protect workers against possible health concerns during construction and to provide a framework for handling significant contaminated soil in the event it is encountered during site grading and construction. Importantly, however, the data from these investigations also indicate relatively light contamination of soil and that groundwater is not significantly impacted and will likely not require treatment.

These data should be submitted to a risk assessment professional to provide a Human Health Risk Assessment that will likely be required prior to redevelopment. The HHRA will hopefully provide a defensible case for redevelopment that can then be conditionally approved by the local Building and Safety Department or appropriate regulatory authority.

We thank you for the opportunity to provide you with our services. If you have any questions or comments, please feel free to contact our office at 714-634-9500.

Sincerely,
Hillmann Consulting, LLC



Dan Louks
Professional Geologist 4883
Attachments