



February 22, 2018

Hounsfield Heights – Briar Hill Community Association

1922 14 Ave NW
Calgary, AB T2N 1M5

Re: SEARS Plume

ARO Environmental Solutions Ltd. (ARO Enviro) was retained by the Hounsfield Heights – Briar Hill Community Association (HHBH CA) to review previous environmental reports concerning the hydrocarbon plume beneath North Hill mall and the HHBH community, and to respond to a letter addressed to the HHBH CA Board of Directors, written by concerned residents in January 2018. This letter is attached.

More than 230 documents were available for review on Alberta Environment and Parks Environmental Site Assessment Repository (ESAR). In February 2018, ARO Enviro summarized work completed to date for HHBH CA. Key documents reviewed to determine current status of the plume beneath North Hill Mall and Hounsfield Heights (the Site) included, but was not limited to, the reports outlined in the following table:

Date	Report
2016	Subsurface Investigation North Hill Mall and Hounsfield Heights by Clifton Associates (Clifton), issued January 2016
2016	Development of Soil Vapour Quality Guidelines by by Intrinsik Environmental Services Inc. (Intrinsik), issued April 2016
2016	Soil Vapour Monitoring Report for Spring 2016 by Clifton, issued December 2016
2017	Human Health and Ecological Risk Assessment for Hounsfield Heights Community and North Hill Mall Areas by Intrinsik, issued April 2017

Response to letter:

1. **Is there any imminent or potential health or safety risk to any community stakeholders, and in particular, its residents?**

The Intrinsik Risk Assessment indicated that there was not a risk to human health for HHBH residents. Although the vapour monitoring completed for the Intrinsik Risk Assessment was limited, Clifton later completed a much larger soil vapour monitoring program and did not find any vapour levels that exceeded the Tier 2 guidelines developed by Intrinsik. This was supported by groundwater samples that were below the Tier 2 guidelines calculated by Intrinsik for the vapour pathway.

However, there are some concerns – most significant is that remediation (by dual-phase vapour extraction system) was on-going during the soil vapour monitoring program and the groundwater monitoring program. Site conditions may change now that the DPVE remediation system has been shut down. Previously (in 2015), when the DPVE remediation system was shut down, free product accumulated in one of the monitoring wells on 13th Avenue NW. Changing Site conditions (remediation system shut down) may create potential human health risks.



Locations for vapour monitoring may have been biased as well. Soil vapour monitoring was not completed within approximately 50 m of where free product (one of the worst-case areas) was encountered.

ARO Enviro agrees with the Clifton and Intrinsic conclusions that indicate vapour and groundwater conditions should continue to be monitored and assessed.

2. Are efforts to monitor and remediate the Sears Hydrocarbon Plume ongoing in accordance with the expectations of the Minister of Environment and Parks?

Based on a conversation with Clifton in January 2018, it is the understanding of ARO Enviro that no remediation or monitoring efforts are occurring at this time.

3. If not why and how will monitoring and remediation be enforced given the liquidation of Sears Canada assets?

Monitoring and/or remediation may be enforced by Alberta Environment and Parks.

4. Who will be liable for funding the cost of monitoring and remediation of the Sears Hydrocarbon Plume in the interim and in the long term given liquidation of the Sears Canada assets?

It is likely that Alberta Environment and Parks or the current property owner will fund any future costs associated with monitoring and/or remediation. There is also an unlikely possibility that the directors of Sears may be personally liable to fund these costs.

5. What legal issues, if any, do community stakeholders, and in particular its residents, have to be aware of and potentially act upon, *perhaps urgently*, in order to ensure their interests are protected?

Individual residents, or the HHBH CA, may be in a position to sue Sears for damages and should seek legal advice.

Should you have any questions regarding the information outlined in this letter, please contact me directly at 403 998-4610.

Sincerely,

Mayson Abraham, P.Chem.
ARO Environmental Solutions