

CONTAMINATION ASSESSMENT

**The Lodge, Bennetts Rise, Haywards Heath
West Sussex RH16 4SL**

August 2025

Client:

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CONTAMINATION ASSESSMENT

The Lodge, Bennetts Rise, Haywards Heath, West Sussex, RH16 4SL.

1. Introduction

A building known as The Lodge in Bennetts Rise, Haywards Heath, RH16 4SL is to be re-developed. The Lodge lies within the grounds of the former mental health hospital established as the Brighton Lunatic Asylum in the mid-19th Century and latterly known as Frances Hospital.

The Lodge is located in what was a landscaped area near the original entrance to the hospital and close to Colwell Road (Grid Reference 533620 122910). Currently the building has been partially demolished.

2. Historical Development of the Site

Historical Ordnance Survey maps for the area show the development of the site and details shown on the maps have been summarised below:

1899: The mental hospital was established by this date and the Chapel is shown to the front of the main building. The area around the Chapel is shown to be lawn surrounded with trees. The surrounding area is largely agricultural land or woodland; the hospital farm.

1912: No significant changes to the site or surrounding area

1938: By this date a long building, staff accommodation, had been built to the west of the Chapel. At present, this building is in a derelict state.

1963: The mental hospital is now known as St. Frances Hospital. Little had changed on the site since the 1938 survey, although land to the north east had been developed as Hurstwood Park Hospital.

1969: The lodge had apparently been built at the end on the staff building and a small building had been built on the east of the access road.

1978: A terrace of houses had been built on the west side of what is now known as Bennetts Rise and the building to the east of the access road enlarged.

1992: Generally, as 1978 however Princess Royal Hospital had been developed to the east of the site. Confusingly, there is a small building marked Lodge on the historical maps to the west of the site.

St. Frances has been closed and the building converted to apartments and other houses have been built on the site. The development is known as Southdown Park. The Chapel still exists, however the area to the east of the access road is run-down and neglected and the staff building has been fenced for security.

3. Geology and Hydro-Geology

The 1/50,000 geological map shows the area to be underlain by the Upper Tunbridge Wells Sand (Sheet 302) with the Sandrock fault passing along Colwell Road.

The Upper Tunbridge Wells Sand are a minor aquifer however, there are no source protection zones near the site (DEFRA), however the site lies within the drinking water safeguard zone for ground water.

There are no surface water features close to the site.

St. Francis Hospital and the associated farm land have been in the ownership of East Sussex County Council and the NHS for very many years and no landfill areas have been developed.

The site lies in an area where the risk of properties being affected by emission of radon is less than 1 percent and no protection measures for this gas will be required.

4. Intrusive Investigation

A site visit was undertaken on 22nd July 2025 and samples were recovered from shallow trial holes around the building. Two samples were taken from the east end where a small garden will be established. The samples were assayed for a range of common contaminants, see Chemtec Analytical Report 25-07342. The results compared with published screening concentrations for residential occupation with plant uptake (Table 1).

4.1 Metals

None of the heavy metals were at concentrations that exceeded the screening values.

4.2 Poly-Aromatic Hydrocarbons

The concentrations of all sixteen compounds in this group were less than the published screening concentrations. In particular, the concentration of benzo-a-pyrene, a carcinogenic compound was less than the screening value of 2.5mg/kg.

5. Risk Assessment

The Lodge was built in the grounds of St. Frances Hospital, a former mental hospital established originally by East Sussex County Council. The site of The Lodge was initially lawn surrounded with trees to the west of the access road to the hospital and adjacent to the Chapel. The area was developed over the years with construction of staff accommodation (1938), The Lodge (1969) and Bennetts Rise (1978). The surrounding area was a farm associated with the mental hospital and was always in public ownership, until St. Frances Hospital was closed and redeveloped as apartments and residential houses. There was no industrial or commercial development in the area. Samples of soil taken from the site showed no evidence of contamination and the concentration of all the determinants was less than published screening values for residential occupation with plant uptake. The trial holes revealed some disturbance to the site with a thin fill or disturbed topsoil overlying undisturbed silts of Upper Tunbridge Wells Sand.

Based on the historical information and the assays of the soil samples, a conceptual model for the site has been prepared (Table 2). Overall, the risk of past use of the site was considered to be very low with no risk to human health.

6. Conclusion

The site of The Lodge in Bennetts Rise, Haywards Heath, RH16 4SL is small with only room for a small garden at the east end of the existing building. The Lodge was built about 1969 on undeveloped land, formerly part of St. Frances Hospital. Assays of soil from around the building gave low concentrations of heavy metals and poly-aromatic hydrocarbons, and there was no visual evidence of other contaminants.

Overall, the risk of significant harm to human health was assessed to be very low and no remediation of the site will be required.

During demolition of the existing building a visual check should be made for evidence of overt pollution and any such areas should be investigated.

(W K Elson)
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12th August 2025

TABLE 1**Site Screening Values for Soils****Residential with Plant Uptake****Metals**

Determinand	Screening Value	Reference
Antimony	500 mg/kg	DEFRA SP1010 (2014) ¹
Arsenic	37 mg/kg	DEFRA SP1010 (2014) ¹
Barium	1300 mg/kg	DEFRA SP1010 (2014) ¹
Beryllium	1.7 mg/kg	LQM/CIEH ²
Boron (water soluble)	3 mg/kg 290 mg/kg	MAFF (1998) ³ LQM/CIEH ²
Cadmium	17 mg/kg	DEFRA SP1010 (2014) ¹
Chromium	910 mg/kg	LQM/CIEH ²
Copper	130 mg/kg 2400 mg/kg	MAFF (1998) ³ LQM/CIEH ²
Lead	200 mg/kg	DEFRA SP1010 (2014) ¹
Mercury (inorganic)	40 mg/kg	LQM/CIEH ²
Nickel	130 mg/kg	LQM/CIEH ²
Selenium	250 mg/kg	LQM/CIEH ²
Vanadium	410 mg/kg	LQM/CIEH ²
Zinc	300 mg/kg 3700 mg/kg	MAFF (1998) ³ LQM/CIEH ²

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Site Screening Values for Soils

Residential with Plant Uptake

Organic Compounds

Determinand	Screening Value	Reference
Total PAH	50 mg/kg	WRAS Paper 9-04-03 ⁴
Benzo- α -pyrene	2.5 mg/kg	DEFRA SP1010 (2014) ¹
Fluorene	400 mg/kg	LQM/CIEH ²
Dibenzo (a,h) Anthracene	0.3 mg/kg	LQM/CIEH ²
Naphthalene	5.6 mg/kg	LQM/CIEH ²

¹ DEFRA Category 4 Screening Values SP1010 July 2014

² Generic Assessment Criteria for Human Health Assessment by Land Quality Management and Chartered Institute of Environmental Health, 2015 (S4UL).

³ The Soil Code MAFF 1998. Phyto-toxic criteria for plant growth.

⁴ Selection of Materials for Water Supply Pipes to be Laid in Contaminated Lane, WRSA Paper 9-04-03, October 2002.

TABLE 2
Conceptual Model of Pollution Linkages

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Pollution Linkage	Metals	Poly -aromatic Hydrocarbons	Other Contaminants
Human Health • Ingestion of soil/dust • Ingestion of contaminated food • Dermal contact • Inhalation of VOC's • Risk of explosion or asphyxiation	L L L X X	L L L X X	X X X X X
Water Environment • Uncontained surface run-off • Migration of mobile constituents into ground/surface water	L X	X X	X X
Flora and Fauna • Potential impact on landscape or plants • Potential impact on water plants and fauna	L X	L X	X X
Building Materials • Direct contact with foundations • Permeation through water pipes	X X	X X	X X

Assessed degree of risk : H - high, M - moderate, L – low, X – no risk

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APPENDIX A

Site Plan

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**The Lodge, Bennetts Rise, Haywards Heath,
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APPENDIX B

Historical Ordnance Survey Maps

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**The Lodge, Bennetts Rise, Haywards Heath,
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APPENDIX C

Trial Pit Logs

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**The Lodge, Bennetts Rise, Haywards Heath,
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APPENDIX D

Contamination Assays

