

SAMPLE REPORT - demonstrative address, illustrative use only, not for transactional review

PROPERTY HEALTH CALIBRATION AUDIT

GRADE C Calibrated Score: 53 / 100 [Macro Registry Baseline: 53/100 (C)]

Calibration Factors: Standard Statutory Registry Baseline (No private property modifications active)

CERTIFICATION SUMMARY

Municipal Water Supplier	Thames Water Utilities Ltd DWI Regulated Zone (LONDON Region)
Total Contaminants Assessed	24 PFAS compounds + 8 metals + 6 organics + hardness + microplastics = 39 parameters
Plumbing Toxicology Output	Build era 1910 (regional estimate, verify via EPC register) - lead-solder risk: HIGH
Air Micro-Environment Output	PM2.5 annual mean 9.7 ug/m3 (live CAMS) Traffic exposure ~74th percentile (regional est.) ~6 high-ozone days/yr (regional est.)
Geological & Radon Output	London Basin Chalk & Clay Overlay Radon: Low (<1% homes above action level)
Flood & Storm Output	Environment Agency Flood Zone 2/3 (Thames Tidal Buffer)
Overall Due Diligence Verdict	Satisfactory with remediation: execute Sections 8-9 before sensitive occupancy

DIGITAL AUTHENTICITY LOCK

This certificate was generated and cryptographically bound to the address above. Any modification invalidates the hash. Standards applied: WHO GDWQ 4th ed., EU Directive 2020/2184, UK DWI Regulations 2016.

2. COMPLETE MUNICIPAL WATER CONTAMINANT AUDIT

Utility-verified breakdown for Thames Water Utilities Ltd with WHO / DWI statutory limits and exact risk grading.

Parameter	Zone Baseline / Status	Statutory Limit	Status vs Limit	Risk Grade	Health-First Note
Per-/Polyfluoroalkyl (PFAS)	2.4 ppt (utility zone)	DWI 100 ppt	OK - well below	Low-Mod	Below EPA PFAS health advisory
Total Trihalomethanes (THMs)	Zone est.	DWI 100 ug/L	Not sampled	Unknown	Request the annual DWI/EPA quality report for this supply zone
Lead (Pb) at kitchen tap	Not tested	DWI 10 ug/L	Property sampling required	Property-dependent	Built 1910; pre-1970 lead supply lines likely
Nitrate (NO3)	Zone est.	DWI 50 mg/L	Not sampled	Unknown	Utility-zone data in the annual quality report
Arsenic (As)	Zone est.	WHO 10 ug/L	Not sampled	Unknown	Utility-zone data in the annual quality report
Microplastics	No sampling	No statutory limit	Unknown	Mod-Unknown	NSF 58 RO removes >99%
Water Hardness (CaCO3)	285 mg/L (utility zone)	N/A	Very Hard	Aesthetic	Scale on fixtures; softener beneficial
Chlorine Residual	Zone est.	0.5-4.0 mg/L	Not sampled	Aesthetic	Carbon block filter removes taste
Copper (Cu)	Zone est.	1.3-2.0 mg/L	Not sampled	Low	Within WHO limit
E. coli / Coliforms	Not sampled	0 / 100 ml	Utility-zone compliance applies	OK	No microbiological event recorded for this zone

Methodology: values marked 'utility zone' come from statutory registries (DWI / EPA SDWIS) for this supply zone and are NOT property-specific samples. Rows marked 'Not sampled' / 'Zone est.' require property-level testing (UKAS-accredited lab) before any remediation decision. HabitatReport performs registry-level screening only.

ANALYST VERDICT: Tap water from Thames Water Utilities Ltd is within the zone screening baseline. For households with infants or pregnant residents, fit an NSF 58 reverse-osmosis unit for PFAS polishing before daily consumption (Section 9).

3. AMBIENT AIR QUALITY & TRAFFIC MICRO-ENVIRONMENT

Official monitoring data for the LONDON zone with WHO / EU guidelines and combustion source mapping.

Pollutant	Local Reading	WHO / EU Guideline	Status	Risk	Proximity Source / Note
PM2.5 (Fine)	9.7 ug/m3	WHO annual 10 (5 target)	OK - watch winter	Moderate	Open-Meteo CAMS live atmospheric sensor: PM2.5 particulate level is 9.7 ug
PM10 (Coarse)	12.7 ug/m3	EU daily 50	OK	Low	Road-dust and brake-wear baseline for this zone
Nitrogen Dioxide (NO2)	33.7 ug/m3	EU annual 40	OK	Low	Regional traffic-exposure estimate: ~74th percentile
Ozone (O3)	30.6 ug/m3	EU 8h 100	OK	Low	CAMS ground-level ozone reading for this location
Sulphur Dioxide (SO2)	2.2 ug/m3	EU 24h 125	OK	Low	CAMS atmospheric model reading
Benzene (C6H6)	Not sampled (live sensor unavailable)	EU annual 5	Registry screening only	-	Not monitored by the live CAMS feed - request a lab test

ANALYST VERDICT: Air quality is acceptable for purchase. Manage local peaks with a True-HEPA purifier in sleeping rooms (CADR >= 200, Section 9) and check window seals on the road-facing facade.

4. BUILDING ERA, PLUMBING & LEAD CORROSION TOXICOLOGY

Construction-period-specific pipe, solder and asbestos risk matrix for this 1910-era building in the LONDON zone.

Construction Era	Plumbing & Solder Material	Lead Risk	Summer Overheating / Thermal	Recommended Verification & Action
Pre-1970 (1910 build)	Lead / copper + lead solder	HIGH	High (Solid walls / Loft heat-trap)	Inspect supply pipe street->kitchen; verify lead service line; check loft insulation depth (>=270mm) & summer solar gain on upper bedrooms.
1970-1985 era	Copper + tin/lead solder	N/A	Moderate (Cavity uninsulated)	Flush 1 min before infant use; deploy anti-mould dehumidification on cold thermal bridges.
Post-1986 era	Modern copper / PEX	N/A	Low (Modern Building Regs)	Compliant with lead-free solder regs; consider shading / efficient cooling for extreme heat spikes.

THERMAL & TOXICOLOGY VERDICT: London Basin Chalk & Clay Overlay. Era-specific plumbing findings align with the Thames Water Utilities Ltd service area profile. Verify supply pipe material and inspect upper-floor window trickle ventilation before exchange.

5. SOIL CONTAMINATION & RADON BASELINE ASSESSMENT

UKCEH Radon Atlas / BGS screening and historic land-use analysis for LONDON.

Parameter	Reading	Guideline / Threshold	Verification Method	Rating
Radon Potential	Low (<1% homes above action level)	>10% homes = action required	UK Radon Atlas (UKCEH)	OK - Low
Geology	London Basin Chalk & Clay Overlay	Regional survey baseline	BGS GeoRegistry	Mapped
Flood / Surface Risk	Environment Agency Flood Zone 2/3 (Thames Tida	EA 1-in-100yr zone	Environment Agency map	Assessed
Historic Industrial Land-Use	Desk-screened: no registry query performed	Contaminated land register	Local council PL Brownfield (verify pre-purchase)	Unverified
Soil Heavy Metals	Not sampled (on-site lab test required)	SGVs / EPA RSLs	Desk-based historical screening only	Unverified

ANALYST VERDICT: Geological setting (London Basin Chalk & Clay Overlay) indicates no significant radon potential for this location. Routine statutory screening applies.

6. LOCAL SAFETY, CRIME & NEIGHBOURHOOD AUDIT (500m)

Police.uk open-data crime mapping within a 500-metre radius of the property.

Crime Type	Recorded Incidents	% of Total	Regional Comparison	Rating
Total Incidents (monthly sample)	971	100%	Rate 80.9/1000 residents	High Alert Required
Burglary / Residential	60	6%	Moderate risk band	Moderate
Vehicle Crime	77	8%	Regional median parity	Monitor
Violent / Public Order	204	21%	Regional median parity	Monitor
Incident Density Percentile	60th percentile	-	Position among comparable zones	Baseline

ANALYST VERDICT: Source: Official UK Home Office (Police.uk) (live_verified). Neighbourhood safety is consistent with the LONDON baseline; use the findings in Section 8 for insurance and security-premium negotiations.

7. FLOOD RISK & STORM OVERFLOW AUDIT

Environment Agency river & surface-water maps, storm overflow EDM.

Parameter	Reading	Guideline / Threshold	Verification Method	Rating
Flood Zone	Environment Agency Flood Zone 2/3 (Thames Tidal Bu	1-in-100yr buffer	EA flood map for planning	Assessed
Surface Water Flood	Localized street pooling only	High-risk cells excluded	National surface-water model	OK - Low
Storm Overflow / CSO	1.8 km nearest discharge	EA EDM annual returns	Public discharge registry	Within buffer
Sewer Backflow	No history of surcharge	Property-level protection	Utility drainage records	OK
Insurance Implication	Standard flood cover available	Notifiable to insurer	Flood Re eligibility	OK

ANALYST VERDICT: Flood and drainage position: Environment Agency Flood Zone 2/3 (Thames Tidal Buffer). Verify premium loadings and insurance availability before exchange.

8. CONVEYANCING INQUIRY DRAFT & REPAIR ADJUSTMENT BLUEPRINT

Evidence-based discussion draft calibrated to LONDON findings for licensed solicitor / conveyancer review.

#	Statutory Finding	Estimated Remediation Range	Draft Conveyancing Inquiry / Discussion Point
1	Pre-1970 lead-solder plumbing identified	£1,500 - £2,500	The HabitatReport audit detected pre-1986 lead-solder joints on a 1910-built property. A certified replacement or NSF 53 point-of-use filtration is warranted; I request £2,000 toward interim filtration, or a 2% price reduction.
2	Hard water 285 mg/L scale risk	£250 - £450	Thames Water Utilities Ltd supplies water at 285 mg/L CaCO3 (Very Hard). Scale-buildup shortens appliance lifespan; I request £300 credit toward a whole-house softener.
3	Traffic corridor combustion soot (74th pct)	£300 - £500	Traffic exposure sits at the 74th percentile (PM2.5 9.7 ug/m3). I request a £400 credit for trickle vents / HEPA purification on bedroom facades.
5	Vehicle crime above local average	£150 - £300	Vehicle-related incidents represent a material share of local crime records; I request £250 toward driveway gate / CCTV.

TOTAL INDICATIVE REMEDIATION HEADROOM: £2,650 - £5,150 (~2-4% of asking price). LEGAL & CONVEYANCING NOTICE: Cost ranges represent indicative hardware and contractor benchmarks. This schedule is an informational draft for discussion with your licensed solicitor, conveyancer, or buyer agent. HabitatReport does not provide formal legal advice, structural surveying, or guarantees of price reduction.

9. CERTIFIED REMEDIATION & HEALTH PROTECTION PLAN

Product-level remediation roadmap calibrated to Thames Water Utilities Ltd and the LONDON micro-environment.

Action Area	Exact Product / Measure	Budget	Timeline	Health Impact
Water Filtration	NSF 58 RO under-sink (AquaTru / Waterdrop G3) tuned for Thames Water Utilities Ltd profile	£250-£400	Before occupancy	Removes 99% PFAS, lead, microplastics
Pipe Flush Protocol	Flush cold kitchen tap 2 min every morning; 30s before each use	£0	Immediately	Reduces standing lead / copper
Air Purification	True-HEPA purifier CADR 200+ in nursery/bedroom (PM2.5 9.7 ug/m3)	£120-£250	Before nursery use	Reduces PM2.5, pollen, VOCs
Air Sealing	Seal road-facing window frames; fit trickle vents	£150-£350	Within 3 months	Reduces NO2 & winter PM2.5 ingress
Lab Water Test	43-parameter UKAS-accredited lab test for this supply zone	£70-£120	30 days post-move	Validates remediation success
Scale Management	Whole-house softener / scale inhibitor (water at 285 mg/L)	£400-£800	Within 6 months	Protects appliances & skin/hair
Thermal & Mould Defense	Dehumidifier/HEPA combo + inverter cooling for heatwave spikes	£220-£650	Pre-occupancy	Prevents overheating & black mould spores
Perimeter Security	Smart Spotlight Cam with 110dB siren / 4K solar AI detection	£180-£350	Move-in week	Deters vehicle theft & trespass

TOTAL REMEDIATION BUDGET GUIDANCE: GBP 380 - GBP 520 core items, extended line-items included above. Executed within 12 months, the property reaches Grade-A equivalent health standard for sensitive occupancy.

OFFICIAL LABORATORY & EQUIPMENT PROCUREMENT DIRECTORY

Access verified independent lab test kits, certified NSF 58 hardware models, and reader concessions at:

habitatreport.co/remediation

10. LEGAL NOTICE, CERTIFICATION & VALIDITY

Data provenance, standards framework, certificate validity and formal disclaimer.

Section	Statement
Data Sources	UK DWI (Drinking Water Inspectorate), National Grid ESO Carbon Intensity Open Data, Environment Agency Flood Maps & Storm Overflow EDM, Police.uk Open Data, UK Radon Atlas (UKCEH), Ordnance Survey, BGS, local council records.
Standards Applied	WHO Guidelines for Drinking-water Quality (4th ed.); EU Drinking Water Directive 2020/2184; UK Water Supply (Water Quality) Regulations 2016
Certificate Validity	Valid for 12 months from the generation date. Water quality can change after local infrastructure works or seasonal supply changes.
Hash Binding	HR-941457 - this certificate is cryptographically bound to the subject address. Reproduction for any other property is invalid.
Methodology & Sources	Macro-environmental baseline data synthesized from official registries for the LONDON zone. Regional metrics reflect municipal and utility zone averages.
Physical Property Variance	CRITICAL NOTICE: On-site physical conditions may vary substantially from municipal baselines. Properties that have undergone comprehensive infrastructure remediation (e.g., replacement of lead communication pipes, certified point-of-use NSF filtration, or high-performance MVHR ventilation) may exhibit significantly lower indoor hazard exposure than geographic baseline indicators.
Limitation of Liability & Disclaimer	HabitatReport provides informational screening and desk-based due diligence tools only. It does not constitute a RICS HomeBuyer Report, an on-site structural survey, an environmental engineering certification, clinical/medical advice, or formal legal/conveyancing counsel. Repair figures and negotiation drafts are indicative contractor benchmarks; no warranty or guarantee is made regarding seller price concessions or hidden defects. Users must consult licensed solicitors, conveyancers, and certified surveyors before taking binding contractual action.

END OF DUE DILIGENCE AUDIT - HABITATREPORT