

Typical Habitats Key



20 Wet acid meadows and woodland

TYPICAL HABITATS DESCRIPTION

There is a close relationship between vegetation and the underlying soil. Information about the types of broad habitat associated with each soil type is provided in this map. Soil fertility, pH, drainage and texture are important factors in determining the types of habitats which can be established. Elevation above sea level and sometimes even the aspect, the orientation of a hillslope, can affect the species present. This map does not take into account the recent land management, but provides the likely natural habitats assuming good management has been carried out.

2. Soil Association Descriptions

The following pages describe the following soil map units, (soil associations), in more detail.

-  **PARK GATE 841e**
Deep stoneless silty soils variably affected by groundwater.

The soil associations are described in terms of their texture and drainage properties and potential risks may be identified. The distribution of the soils across England and Wales are provided. Further to this, properties of each association's component soil series are described in relation to each other. Lastly, schematic diagrams of each component series are provided for greater understanding and in-field verification purposes.

PARK GATE (841e)

Deep stoneless silty soils variably affected by groundwater.

a. General Description

Deep stoneless silty soils variably affected by groundwater.

The major landuse on this association is defined as Cereals, potatoes and field vegetables; glasshouse crops in West Sussex.

b. Distribution (England and Wales)

The PARK GATE association covers 305 km² of England and Wales which accounts for 0.2% of the landmass. The distribution of this association is shown in figure 2. Note that the yellow shading represents a buffer to highlight the location of very small areas of the association.

c. Comprising Soil Series

Multiple soil series comprise a soil association. The soil series of the PARK GATE association are outlined in Table 1 below. In some cases other minor soil series are present at a particular site, and these have been grouped together under the heading 'OTHER'. We have endeavoured to present the likelihood of a minor, unnamed soil series occurring in your site in Table 1.

Schematic diagrams of the vertical soil profile of the major constituent soil series are provided in Section D to allow easier identification of the particular soil series at your site.

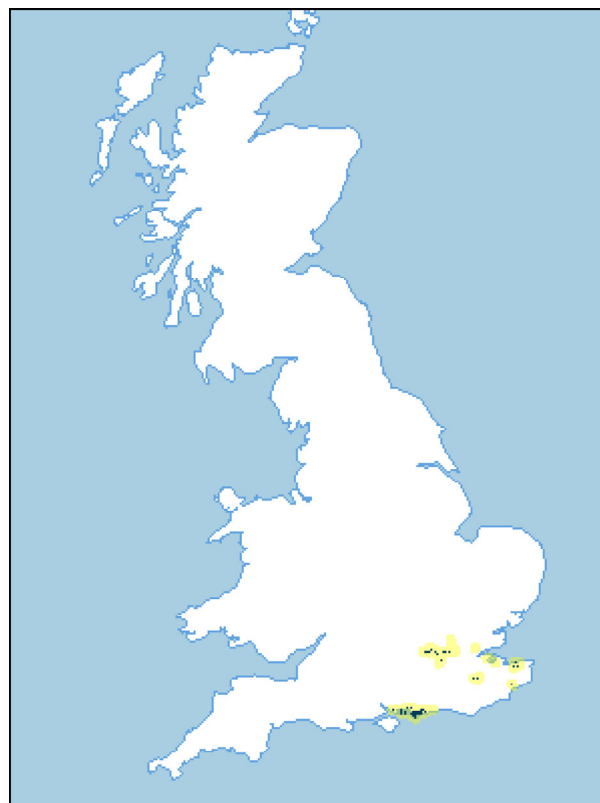


Figure 2: Association Distribution

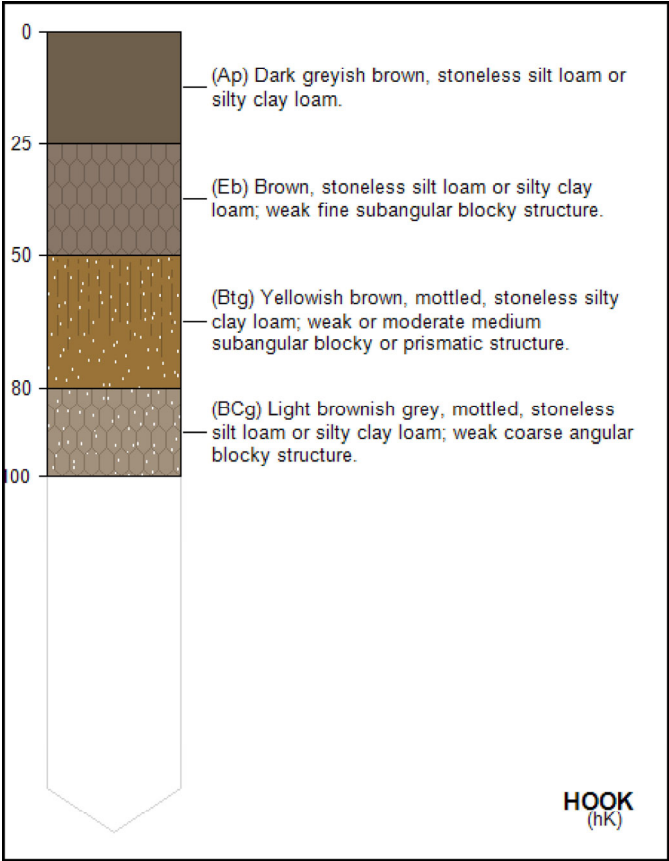
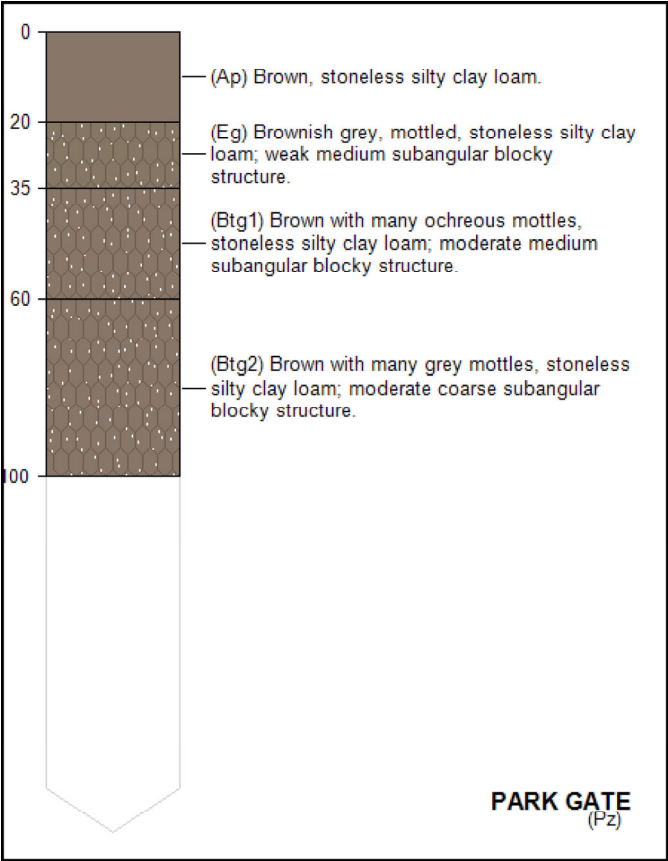
Table 1: The component soil series of the PARK GATE soil association. Because absolute proportions of the comprising series in this association vary from location to location, the national proportions are provided.

Soil Series	Description	Area %
PARK GATE (Pz)	silty stoneless drift	70%
HOOK (hK)	silty stoneless drift	20%
OTHER	other minor soils	10%

PARK GATE (841e)

Deep stoneless silty soils variably affected by groundwater.

d. PARK GATE Component Series Profiles



3. Soil Series Properties

The following pages describe the following soil series in more detail:

HOOK (hK)	silty stoneless drift
PARK GATE (Pz)	silty stoneless drift

SOIL PROPERTY DEFINITIONS

The following terms are used in the report.

DROCK (Depth to rock (cm))

Depth (cm) to rock. 999 implies no rock

DGLE (Depth to gleying (cm))

Depth to gleyed horizon (cm). 999 implies NO gleyed horizon present.

DIMP_DP (Depth to slowly permeable layer (downward percolation) (cm))

Depth (cm) to slowly permeable layer, i.e. in which effectively there is no downward percolation of water - 999 implies NO slowly permeable layer

DIMP_UD (Depth to slowly permeable layer (upward diffusion) (cm))

Depth (cm) to slowly permeable layer - upward diffusion, i.e. in which effectively there is no upward movement of water - 999 implies NO slowly permeable layer

IAC_DP (Integrated air capacity (IAC) (mm))

Integrated air capacity (downward percolation), a measurement of the volume of air in moist soils (0.05 bar suction) integrated from the surface to either an impermeable horizon, bedrock or 1m whichever is the shallowest, used for estimating the water storage potential of a soil

SPR (Standard percentage runoff (SPR) (%))

Standard Percentage Run-off. Dimensionless variable (range 0 to 100 %) that represents the percentage of rainfall that causes the short-term increase in flow at the catchment outlet seen after the storm event

BFI (Base flow index (BFI) (0 to 1))

Baseflow index. Dimensionless variable (range 0 to 1) that expresses the fraction of the average flow volume (in a river), represented by the contribution from groundwater storage

AWC (Available water (AWC) (mm))

Available water to 1m for a specific soil type, water available between suctions 5 and 1500kPa

AP_GRASS (Available water for grass (mm))

Available water (AP) in the profile for grass (mm); water available between suctions 5 and 1500 kPa

AP_CEREAL (Available water for cereal (mm))

Available water (AP) in the profile for cereals (mm); water available between suctions 5 and 1500 kPa

AP_SB (Available water for sugar (mm))

Available water (AP) in the profile for sugar beet (mm); water available between suctions 5 and 1500 kPa

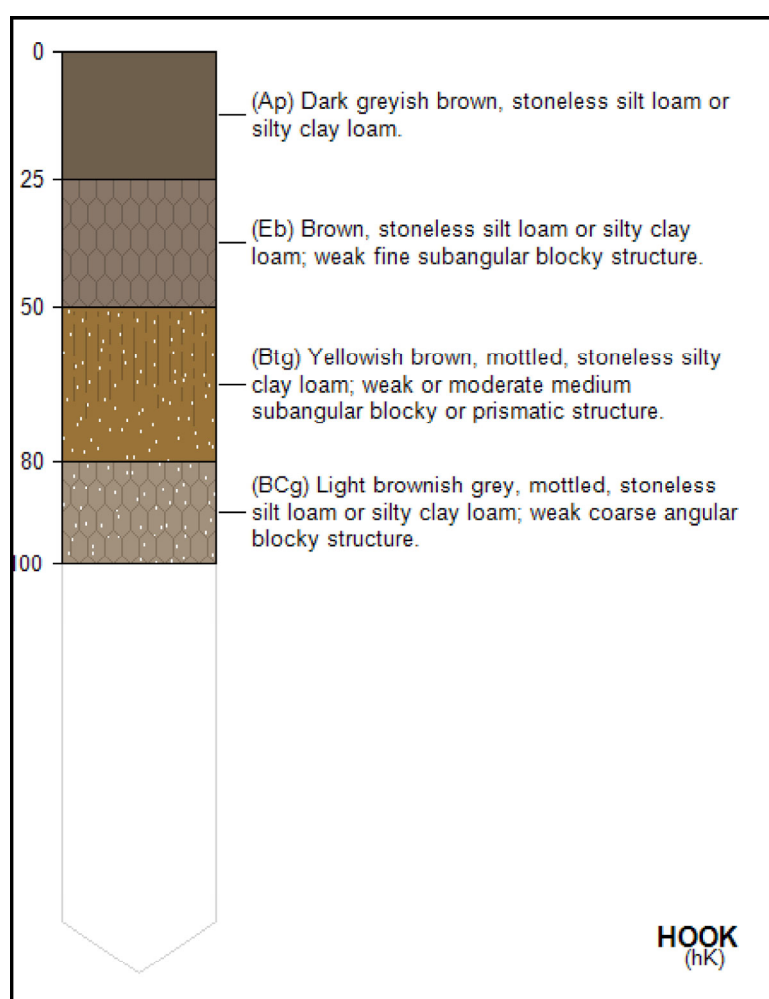
AP_POT (Available water for potatoes (mm))

Available water (AP) in the profile for potatoes (mm); water available between suctions 5 and 1500 kPa

5.73 HOOK (hK) (739)

Major soil group:	05 brown soils	With dominantly brownish or reddish subsoils and no prominent mottling or greyish colours (gleying) above 40 cm depth. They are developed mainly on permeable materials at elevations below about 300 m.O.D. Most are in agricultural use.
Soil group:	7 argillic brown earths	Loamy or clayey with an ordinary clay-enriched subsoil.
Soil Subgroup:	3 gleyic argillic brown earths	(faintly mottled with permeable subsoil)
Soil Series:	Hook series	silty stoneless drift

Property	Value
Depth to rock (cm)	n/a*
Depth to gleying (cm)	70
Depth to slowly permeable layer (downward percolation) (cm)	n/a*
Depth to slowly permeable layer (upward diffusion) (cm)	n/a*
Integrated air capacity (IAC) (mm)	103
Standard percentage runoff (SPR) (%)	30
Base flow index (BFI) (0 to 1)	0.56
Available water (AWC) (mm)	160
Available water for grass (mm)	150
Available water for cereal (mm)	155
Available water for sugar (mm)	190
Available water for potatoes (mm)	125

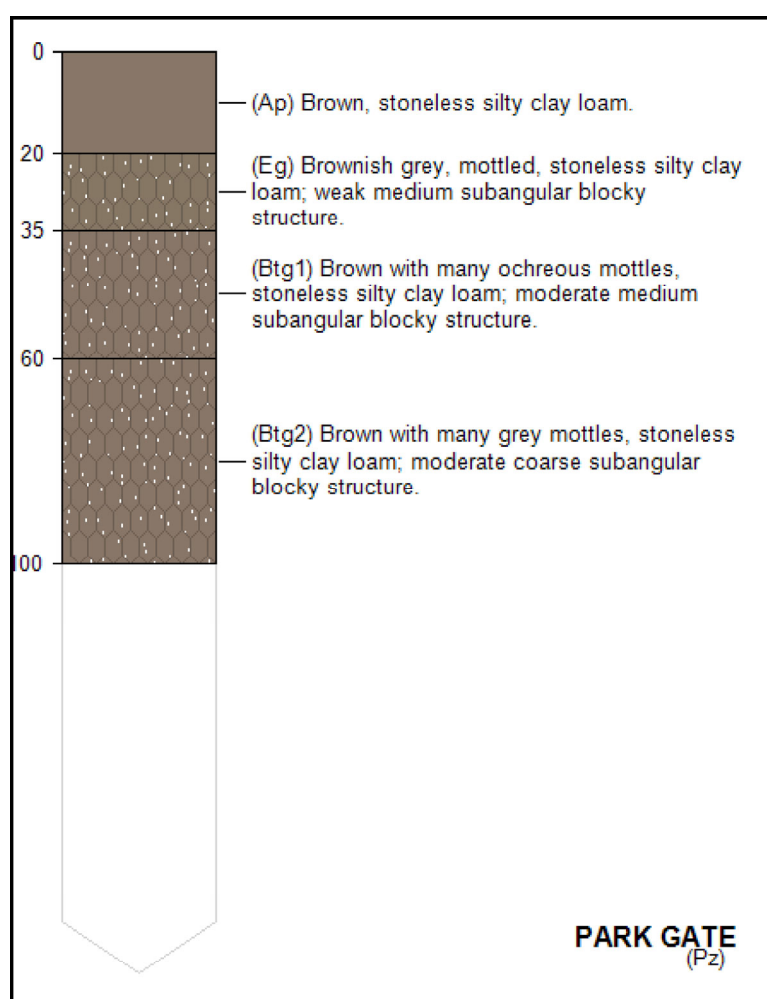


* not present within 150cm

8.41 PARK GATE (Pz) (1503)

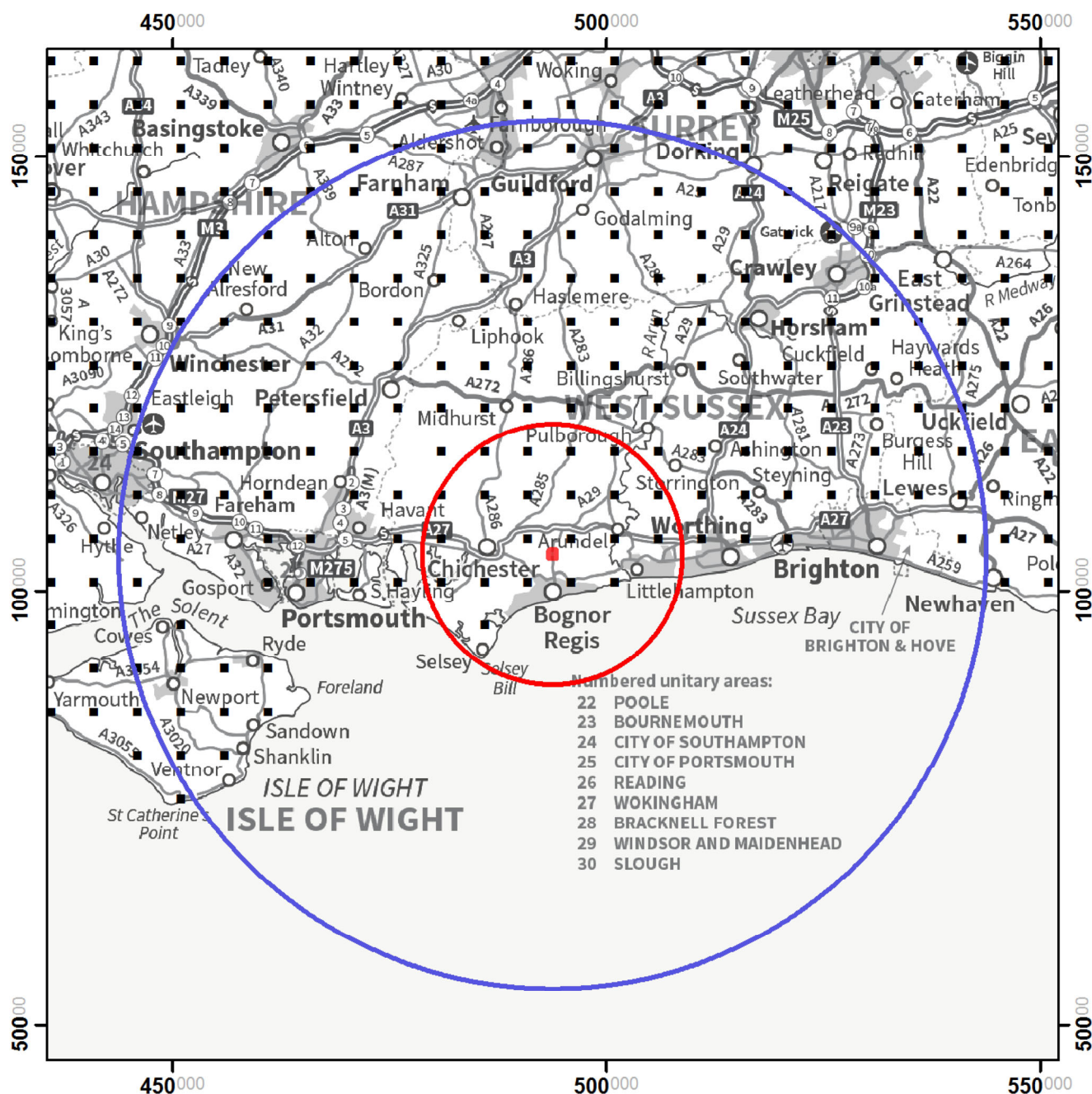
Major soil group:	08 ground-water gley soils	Seasonally waterlogged soils affected by a shallow fluctuating groundwater-table. They are developed mainly within or over permeable material and have prominently mottled or greyish coloured horizons within 40 cm depth. Most occupy low-lying or depressional sites.
Soil group:	4 argillic gley soils	With a distinct topsoil and a clay-enriched subsoil.
Soil Subgroup:	1 typical argillic gley soils	(with loamy topsoil)
Soil Series:	Park Gate series	silty stoneless drift

Property	Value
Depth to rock (cm)	n/a*
Depth to gleying (cm)	30
Depth to slowly permeable layer (downward percolation) (cm)	n/a*
Depth to slowly permeable layer (upward diffusion) (cm)	n/a*
Integrated air capacity (IAC) (mm)	89
Standard percentage runoff (SPR) (%)	25
Base flow index (BFI) (0 to 1)	0.73
Available water (AWC) (mm)	170
Available water for grass (mm)	150
Available water for cereal (mm)	155
Available water for sugar (mm)	195
Available water for potatoes (mm)	120



* not present within 150cm

4. Topsoil Element Background Levels



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Topsoil Element Background Levels Key

- Report area
- 15 km radius - local area
- 50 km radius - regional area
- NSI sample points

TOPSOIL ELEMENT BACKGROUND LEVELS DESCRIPTION

The National Soil Inventory (NSI) covers England and Wales on a 5 km grid and provides detailed information for each intersect of the grid. Collectively NSI data are statistically representative of England and Wales soils. The original sampling was undertaken around 1980 and there were partial resamplings in the mid-1990s. The most up-to-date data is presented here.

Analysis of the NSI samples provides detailed measurements of over 20 elements from the soils, in addition to pH. This data is summarised over three areas to provide you with an understanding of how your site, and your data for it, sits within the local, regional and national context.

Where available, the soil element levels are compared with the Soil Guideline Values and where a soil sample we have analysed has been found in excess of the SGV guidelines for "residential with plant uptake" land, this is displayed in red in the tables which follow.

SGV levels are provided for the following elements: lead, selenium, nickel, mercury, chromium, cadmium and arsenic.

In the following pages, a number of analyses of the topsoil are provided. The majority of analyses have been performed on the full compliment of sample points, however, in some areas, for some elements, only a few samples were analysed as part of subsequent programmes. In order to present the full suite of possible datasets, and accurately convey the validity of the data, the number of actual measured samples is stated for each analysis. Care should be taken where the number of samples is disproportionately low.

a. Analysis Within a 15km Radius (21 Sample Points)

ANALYSES	SAMPLES	MEAN	MIN	MAX	ST.DEV
pH (PH)	21	6.9	4.7	8.5	1.2
Carbon (CARBON)	21	3.6	1.4	7.9	1.9
Aluminium (AL_ACID)	21	24922.7	5747.0	36353.0	7043.7
Arsenic (AS_ACID)	12	2.4	1.2	3.6	0.7
Barium (BA_ACID)	21	92.0	39.0	173.0	29.8
Calcium (CA_ACID)	21	38150.3	395.0	254175.0	69681.1
Cadmium (CD_ACID)	21	0.8	0.1	2.4	0.6
Cadmium (Extractable) (CD_EDTA)	21	0.4	0.0	0.7	0.2
Cobalt (CO_ACID)	21	9.3	1.4	13.3	2.9
Cobalt (Extractable) (CO_EDTA)	21	0.9	0.1	2.6	0.7
Chromium (CR_ACID)	21	36.2	14.4	56.3	10.9
Copper (CU_ACID)	21	14.8	2.9	41.8	9.9
Copper (Extractable) (CU_EDTA)	21	3.7	0.4	14.4	3.7
Fluoride (F_ACID)	11	36.5	5.5	80.5	30.7
Iron (FE_ACID)	21	21182.5	9177.0	32205.0	6044.6
Mercury (HG_ACID)	12	0.0	0.0	0.1	0.0
Potassium (K_ACID)	21	3826.1	747.0	8145.0	1910.8
Potassium (Extractable) (K_NITRATE)	20	216.6	62.0	600.0	147.0
Magnesium (MG_ACID)	21	3203.0	268.0	7035.0	1397.1
Magnesium (Extractable) (MG_NITRATE)	20	237.1	26.0	1241.0	295.3
Manganese (MN_ACID)	21	837.6	89.0	2436.0	576.2
Manganese (Extractable) (MN_EDTA)	21	130.4	23.0	339.0	81.1
Molybdenum (MO_ACID)	21	0.5	0.0	1.9	0.5
Sodium (NA_ACID)	21	527.2	63.0	5415.0	1130.6
Nickel (NI_ACID)	21	20.8	2.7	44.7	8.4
Nickel (Extractable) (NI_EDTA)	21	1.3	0.1	4.4	1.2
Phosphorus (P_ACID)	21	880.3	367.0	1788.0	398.7
Phosphorus (Extractable) (P_OLSEN)	20	33.7	4.0	100.0	28.4
Lead (PB_ACID)	21	40.3	13.0	129.0	31.4
Lead (Extractable) (PB_EDTA)	21	26.5	1.4	274.4	59.6
Selenium (SE_ACID)	12	0.6	0.0	1.6	0.4
Strontium (SR_ACID)	21	86.3	7.0	427.0	104.8
Vanadium (V_ACID)	20	36.2	12.3	63.3	13.7
Zinc (ZN_ACID)	21	80.2	13.0	147.0	28.0
Zinc (Extractable) (ZN_EDTA)	21	6.8	1.1	29.0	7.2

for units, see Analyses Denitions (p45)

b. Analysis Within a 50km Radius (169 Sample Points)

ANALYSES	SAMPLES	MEAN	MIN	MAX	ST.DEV
pH (PH)	168	6.4	3.6	8.5	1.2
Carbon (CARBON)	169	3.5	0.4	18.5	2.6
Aluminium (AL_ACID)	169	23452.7	491.0	54350.0	11718.9
Arsenic (AS_ACID)	85	3.2	0.0	20.8	2.5
Barium (BA_ACID)	169	103.9	11.0	507.0	59.3
Calcium (CA_ACID)	169	27541.1	138.0	288025.0	63367.9
Cadmium (CD_ACID)	169	0.7	0.0	3.2	0.7
Cadmium (Extractable) (CD_EDTA)	169	0.3	0.0	1.8	0.3
Cobalt (CO_ACID)	169	11.3	0.2	37.4	7.6
Cobalt (Extractable) (CO_EDTA)	169	1.5	0.0	9.3	1.6
Chromium (CR_ACID)	169	34.5	0.6	67.7	13.6
Copper (CU_ACID)	169	14.5	1.2	62.0	9.3
Copper (Extractable) (CU_EDTA)	169	4.0	0.3	25.3	3.8
Fluoride (F_ACID)	114	47.5	0.0	508.9	57.0
Iron (FE_ACID)	169	24655.8	606.0	83675.0	11953.0
Mercury (HG_ACID)	50	0.0	0.0	0.1	0.0
Potassium (K_ACID)	169	3616.2	60.0	8915.0	1764.7
Potassium (Extractable) (K_NITRATE)	166	171.1	22.0	766.0	121.1
Magnesium (MG_ACID)	169	2218.3	41.0	7035.0	1183.4
Magnesium (Extractable) (MG_NITRATE)	166	122.4	12.0	1241.0	150.7
Manganese (MN_ACID)	169	1068.3	7.0	4470.0	938.4
Manganese (Extractable) (MN_EDTA)	169	228.7	1.0	1534.0	250.8
Molybdenum (MO_ACID)	161	0.5	0.0	4.0	0.6
Sodium (NA_ACID)	169	310.5	31.0	5724.0	641.1
Nickel (NI_ACID)	169	20.4	0.8	69.6	12.2
Nickel (Extractable) (NI_EDTA)	169	1.3	0.1	7.3	1.0
Phosphorus (P_ACID)	169	713.3	44.0	2554.0	417.2
Phosphorus (Extractable) (P_OLSEN)	166	26.5	2.0	105.0	22.8
Lead (PB_ACID)	169	45.6	5.0	402.0	46.5
Lead (Extractable) (PB_EDTA)	169	18.4	1.4	274.4	32.5
Selenium (SE_ACID)	85	0.4	0.0	1.6	0.3
Strontium (SR_ACID)	169	61.3	1.0	485.0	92.7
Vanadium (V_ACID)	160	38.5	0.0	150.1	22.7
Zinc (ZN_ACID)	169	70.8	6.0	227.0	39.0
Zinc (Extractable) (ZN_EDTA)	169	7.1	1.1	68.7	9.1

for units, see Analyses Denitions (p45)

c. National Analysis (5686 Sample Points)

ANALYSES	SAMPLES	MEAN	MIN	MAX	ST.DEV
pH (PH)	5630	6.0	3.1	9.2	1.3
Carbon (CARBON)	5672	6.1	0.1	61.5	8.9
Aluminium (AL_ACID)	5677	26775.3	491.0	79355.0	12772.2
Arsenic (AS_ACID)	2729	4.6	0.0	110.0	5.7
Barium (BA_ACID)	5677	150.0	7.0	3840.0	159.5
Calcium (CA_ACID)	5677	13768.7	0.0	339630.0	37785.0
Cadmium (CD_ACID)	5677	0.7	0.0	40.9	1.0
Cadmium (Extractable) (CD_EDTA)	5655	0.5	0.0	85.0	3.0
Cobalt (CO_ACID)	5677	10.6	0.0	567.0	13.7
Cobalt (Extractable) (CO_EDTA)	5655	1.1	0.0	26.5	1.2
Chromium (CR_ACID)	5677	38.9	0.0	2339.8	43.7
Copper (CU_ACID)	5677	22.6	0.0	1507.7	36.8
Copper (Extractable) (CU_EDTA)	5655	6.4	0.3	431.4	11.1
Fluoride (F_ACID)	3320	58.5	0.0	6307.9	186.2
Iron (FE_ACID)	5677	28147.8	395.0	264405.0	16510.5
Mercury (HG_ACID)	2159	0.1	0.0	2.4	0.2
Potassium (K_ACID)	5677	4727.7	60.0	23905.0	2700.2
Potassium (Extractable) (K_NITRATE)	5609	182.0	6.0	2776.0	151.6
Magnesium (MG_ACID)	5677	3648.1	0.0	62690.0	3284.1
Magnesium (Extractable) (MG_NITRATE)	5609	146.0	1.0	1601.0	147.5
Manganese (MN_ACID)	5677	777.0	3.0	42603.0	1068.8
Manganese (Extractable) (MN_EDTA)	5654	159.4	0.0	3108.0	188.6
Molybdenum (MO_ACID)	4417	0.9	0.0	56.3	2.0
Sodium (NA_ACID)	5677	323.3	17.0	25152.0	572.3
Nickel (NI_ACID)	5677	25.4	0.0	1350.2	29.2
Nickel (Extractable) (NI_EDTA)	5655	1.6	0.1	73.2	2.0
Phosphorus (P_ACID)	5677	792.1	41.0	6273.0	433.9
Phosphorus (Extractable) (P_OLSEN)	5604	27.4	0.0	534.0	25.5
Lead (PB_ACID)	5677	73.3	0.0	17365.0	280.6
Lead (Extractable) (PB_EDTA)	5655	27.8	1.2	6056.5	119.7
Selenium (SE_ACID)	2729	0.6	0.0	22.8	0.8
Strontium (SR_ACID)	5677	42.3	0.0	1445.0	67.8
Vanadium (V_ACID)	4428	41.0	0.0	854.4	33.9
Zinc (ZN_ACID)	5677	90.2	0.0	3648.0	104.4
Zinc (Extractable) (ZN_EDTA)	5655	9.6	0.5	712.0	24.6

for units, see Analyses Denitions (p45)

SOIL GUIDELINE VALUES (SGV)

Defra and the Environment Agency have produced soil guideline values (SGVs) as an aid to preliminary assessment of potential risk to human health from land that may be contaminated. SGVs represent 'intervention values', which, if exceeded, act as indicators of potential unacceptable risk to humans, so that more detailed risk assessment is needed.

The SGVs were derived using the Contaminated Land Exposure Assessment (CLEA) model for four land uses:

1. residential (with plant uptake / vegetable growing)
2. residential (without vegetable growing)
3. allotments
4. commercial / industrial

SGVs are only designed to indicate whether further site-specific investigation is needed. Where a soil guideline value is exceeded, it does not mean that there is necessarily a chronic or acute risk to human health.

The values presented in this report represent those from a number of sample points (given in the "Samples" column in each table) providing local, regional and national background levels. Figures which appear in red indicate that a bulked sample from 20m surrounding a sample point, has at a past date, exceeded the SGV for the 'residential with plant uptake' land use.

It is always advisable to perform site specific investigations.

More details on all the SGVs can be found on the Environment Agency Website.

All units are mg/kg which is equivalent to parts per million (ppm)

SUBSTANCE	RESIDENTIAL WITH PLANT UPTAKE	RESIDENTIAL WITHOUT PLANT UPTAKE	ALLOTMENTS	COMMERCIAL /INDUSTRIAL
LEAD	450	450	450	750
SELENIUM	35	260	35	8000
NICKEL	50	75	50	5000
MERCURY	8	15	8	450
CHROMIUM	130	200	130	5000
CADMIUM (pH 6)	1	30	1	1400
CADMIUM (pH 7)	2	30	2	1400
CADMIUM (pH 8)	8	30	8	1400
ARSENIC	20	20	20	500

ANALYSES DEFINITIONS

PH (pH)

pH of soil measure after shaking 10ml of soil for 15 minutes with 25ml of water

CARBON (Carbon)

Organic Carbon (% by wt) measured either by loss-on-ignition for soils estimated to contain more than about 20% organic carbon or by dichromate digestion.

AL_ACID (Aluminium)

Total Aluminium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

AS_ACID (Arsenic)

Total Arsenic concentration (mg/kg) determined by Hydride Atomic Absorption Spectrometry (AAS), extracted into hydrochloric acid after digestion with nitric acid and ashing with magnesium nitrate

BA_ACID (Barium)

Total Barium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

CA_ACID (Calcium)

Total Calcium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

CD_ACID (Cadmium)

Total Cadmium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

CD_EDTA (Cadmium Extractable)

Extractable Cadmium concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

CO_ACID (Cobalt)

Total Cobalt concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

CO_EDTA (Cobalt Extractable)

Extractable Cobalt concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

CR_ACID (Chromium)

Total Chromium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

CU_ACID (Copper)

Total Copper concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

CU_EDTA (Copper Extractable)

Extractable Copper concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

ANALYSES DEFINITIONS continued

F_ACID (Flouride)

Flouride extracted with 1mol / l sulphuric acid and determined by Ion Selective Electrode (ISE)

FE_ACID (Iron)

Total Iron concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

HG_ACID (Mercury)

Total Mercury concentration (mg/kg) determined by Hydride Atomic Absorption Spectrometry (AAS), digested in a nitric/sulphuric acid mixture

K_ACID (Potassium)

Total Potassium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

K_NITRATE (Potassium Extractable)

Extractable Potassium concentration (mg/l) determined by shaking 10ml of air dry soil with 50ml of 1.0M ammonium nitrate for 30mins, filtering and then measuring the concentration by flame photometry

MG_ACID (Magnesium)

Total Magnesium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

MG_NITRATE (Magnesium Extractable)

Extractable Magnesium concentration (mg/l) determined by shaking 10ml of air dry soil with 50ml of 1.0M ammonium nitrate for 30mins, filtering and then measuring the concentration by flame photometry

MN_ACID (Manganese)

Total Manganese concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

MN_EDTA (Manganese Extractable)

Extractable Manganese concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

MO_ACID (Molybdenum)

Total Molybdenum concentration (mg/kg) determined by Atomic Adsorption Spectrometry (AAS) in an aqua regia digest

MO_EDTA (Molybdenum Extractable)

Extractable Molybdenum concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

NA_ACID (Sodium)

Total Sodium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

NI_ACID (Nickel)

Total Nickel concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

ANALYSES DEFINITIONS continued

NI_EDTA (Nickel Extractable)

Extractable Nickel concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

P_ACID (Phosphorus)

Total Phosphorus concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

P_OLSON (Phosphorous Extractable)

Extractable Phosphorus concentration (mg/l) determined by shaking 5ml of air dry soil with 100ml of 0.5M sodium bicarbonate for 30mins at 20 deg.C, filtering and then measuring the absorbance at 880 nm colorimetrically with acid ammonium molybdate solution

PB_ACID (Lead)

Total Lead concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

PB_EDTA (Lead Extractable)

Extractable Lead concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

SE_ACID (Selenium)

Total Selenium concentration (mg/kg) determined by Hydride Atomic Absorption Spectrometry (AAS), extracted into hydrochloric acid after digestion with nitric acid and ashing with magnesium nitrate

SR_ACID (Strontium)

Total Strontium concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

V_ACID (Vanadium)

Total Vanadium concentration (mg/kg) determined by Atomic Adsorption Spectrometry (AAS) in an aqua regia digest

ZN_ACID (Zinc)

Total Zinc concentration (mg/kg) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) in an aqua regia digest

ZN_EDTA (Zinc Extractable)

Extractable Zinc concentration (mg/l) determined by Inductively Coupled Plasma Emission Spectrometry (ICP) after shaking 10ml of soil with 50ml of 0.05M EDTA at pH 7.0 for 1h at 20 deg. C and then filtering

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To view a glossary visit: www.landis.org.uk/sitereporter/glossary.pdf

For a list of further reading visit: www.landis.org.uk/sitereporter/FURTHER_READING.pdf

GIS Datasets:

The GIS data used in the creation of this report is available to lease for use in projects.

To learn more about, or acquire the GIS datasets used in the creation of this report, please contact the National Soil Resources Institute:

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