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VineMAP Report

Customer name:

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Email:

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Reference:

7 October 2019

Products:

Date:

- 1. Topographic suitability & grading
- 2. Soil suitability information, landcover suitability and designated 'protected' areas
- 3. Flood risk and access maps
- 4. All terrestrial reports (Reports 1 3)
- 5. Climate (including Frost Risk / Report No.6)
- 6 Frost risk
- 7. All terrestrial and climate suitability reports

Area coverage: 45.3 hectares (ha)

Location: Stanford le Hope, England, United Kingdom

National Grid reference:

TQ 686 852

Report description:

This report was generated using Vinescapes' Vineyard suitability Mapping and Assessment Program (VineMAP), powered by maploom. Maps, data, scoring and results within this report are provided to assist in viticulture suitability assessments. Where serious consideration is being given to establishing a vineyard on land evaluated within this report professional expertise should be sought from Vinescapes to advise on and undertake additional analysis. This includes detailed soil assessments, site and soil amelioration requirements, vineyard design, variety and planting material recommendations, business planning and project management. This report should not be relied on as the sole determinant for viticulture suitability, vineyard establishment or wine production business

ventures.

REPORT



Site Overview – Stanford le Hope, England, United Kingdom

Variable	Result	Suitability score
Topography Elevation Aspect Slope		- - - -
Dominant Soil Suitable landcover Area with no protected status Excellent potential vineyard area Good potential vineyard area Low potential vineyard area	Freely draining slightly acid 43.8 ha 45.3 ha	Suitable
	10-year averages	Suitability score
Growing season* average temperature (GST)	-	-
Growing Degree Days (GDD)	-	-
15th March - 31st May frost days	-	-
Average frost temperatures	-	-
Growing season rainfall	-	-
June rainfall	-	-
Combined climatic suitability	-	-



^{*} The growing season in England is roughly April to October



VineMAP soil type

Scale: 1:250,000 0 m 400 m Data source: Cranfield Uni. LandIS, National Soil Map.



Soils Data © Cranfield University (NSRI) and for the Controller of HMSO 2019. © HERE, 2019

KEY

Freely draining slightly acid loamy soils

Coverage: 69 % - Suitable

Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils Coverage: 31 % - Requires further analysis

VineMAP soil type



Soil: Soil texture, drainage, pH, fertility, nutrient and organic matter content are all important attributes in determining viticultural suitability. Their influences on vine nutrient and water availability, soil temperature and humidity, the solubility of metal ions and the supply of nutrient cations and anions, the number of beneficial microbes, and contributions to soil chemical, physical and biological properties all impact vine health, growth and productivity. Although a range of desirable soil characteristics exist for viticulture, for example it is generally accepted that soil pH should be between 5.5–8.0 for optimum vine growth and soil microbial composition, no one prescriptive 'ideal' set of soil properties exists. Rather a broad and generalised range is presented as being suitable under different environmental circumstances and for different rootstocks, clones, varieties, planting densities and training systems. It should also be noted that many soil characteristics, particularly nutrient availability, can be ameliorated via soil management activities to achieve desired traits.

Soil suitability for English and Welsh vineyards is considered to be one or more of the following soils, as described through the LandIS NATMAP SoilScapes (http://www.landis.org.uk/soilscapes/) product:

- Shallow lime-rich soils over chalk or limestone
- Freely draining acid loamy soils over rock
- Freely draining lime rich loamy soils
- Freely draining sandy Breckland soils
- Freely draining slightly acid but base rich soils
- Freely draining slightly acid loamy soils
- Freely draining slightly acid sandy soils
- Freely draining very acid sandy and loamy soils

Other soils that may be considered (on a case by case basis) are those classified as:

- Lime rich loamy and clayey soils with impeded drainage
- Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils
- Slowly permeable seasonally wet acid loamy and clayey soils
- Slightly acid loamy and clayey soils with impeded drainage

VineMAP uses the Cranfield university, LandIS, National soil Map of England and wales, datasource to provide an indicative measure of soil characteristics across land but please note that this dataset is not developed for micro field scale assessments and should therefore not be relied on as entirely representative of the soils in your selected area / field.

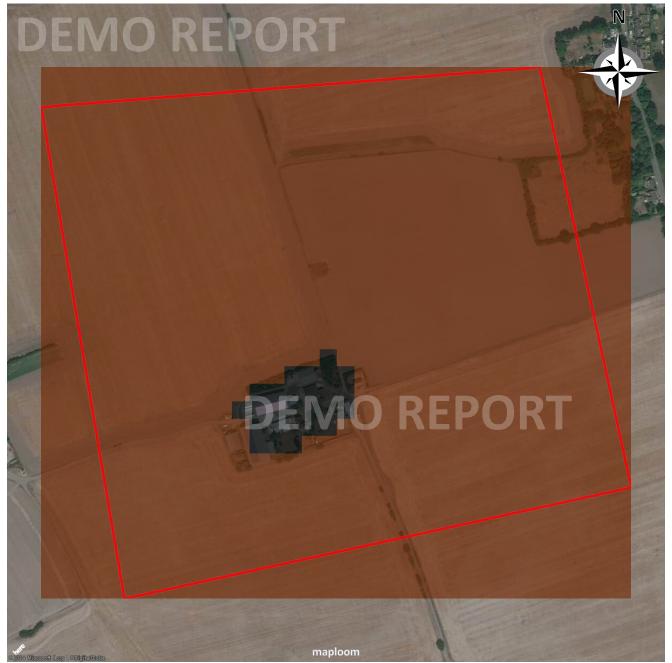
Soil characteristics can vary over a matter or meters and therefore all prospective vineyard sites require infield soil sampling and assessment to determine site / field specific soil characteristics, amelioration requirements, rootstock, clonal and viticulture suitability. Please contact Vinescapes directly to discuss soil suitability further or/and to undertake this process.

REPORT

Land Cover



Resolution: 25m 0 m 400 m
Data source: Centre for Ecology and Hydrology



Rowland, C.S.; Morton, R.D.; Carrasco, L.; McShane, G.; O'Neil, A.W.; Wood, C.M. (2017) Land Cover Map 2015 (25m raster, GB). NERC Environmental Information Data Centre. https://doi.org/10.5285/bb15e200-9349-403c-bda9-b430093807c7. © HERE, 2019



^{*} Potentially suitable areas for viticulture are limited to those classified as arable, horticulture or grassland because they are deemed most likely to exhibit viticulture suitability parameters. Please note that the Land Cover data/classifications are from 2015 and may change with time and land use variations





Data source: Natural England | 400 m



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No environmental designations were detected within the site.

All land considered for viticulture and/or wine production related activities, whether or not areas are shown in this report as containing designated sites within or near the selected land, may have restrictions regarding viticulture and/or wine production related activities. Always seek advice regarding any restrictions or implications from the relevant authorities before deciding if the land is suitable for your desired purpose.





Data source: Historic England | 400 m



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Designated sites	within	near by
Listed Buildings	2	4
World Heritage Sites	-	-
Parks and Garden	-	-
Battlefields	-	-
Scheduled Monuments	-	-
Building Preservation Notices	-	-
Certificates of Immunity	-	-
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Where present, historical designations at the site are shown in the map above. This is based on Historic England open data maps for Listed Buildings, World Heritage Sites, Parks and Garden, Battlefields, Scheduled Monuments, Building Preservation Notices, Certificates of Immunity. Searches against these designations are shown in the table and provides both designations within the selected area and those nearby (within the wider map area).

All land considered for viticulture and/or wine production related activities, whether or not areas are shown in this report as containing designated sites within or near the selected land, may have restrictions regarding viticulture and/or wine production related activities. Always seek advice regarding any restrictions or implications from the relevant authorities before deciding if the land is suitable for your desired purpose.

Terms and Conditions



This report was produced under VineScapes VineMAP Terms and Conditions as accepted online by the customer prior to purchase. For further information regarding Terms and Conditions please contact info@vinescapes.com.

DEMO REPORT



Mapping Overview

Mapping for this report was generated using the maploom platform. This is a cloud based geospatial analysis and modelling platform that uses open standards and open source analysis tools to deliver a wide range of location-based insights to non-specialist users. Further details can be found at www.maploom.com.

Mapping Datasets

The geospatial datasets used within the report are predominantly drawn from open source datasets. For each map, the data sources and relevant citations are provided.

Further details are summarised below:

Dataset	Map In report	Source	Credit / Disclaimer
Aerial Photography	Extensive use throughout the report	HERE	© HERE, 2019
Lidar	Extensive use throughout the report	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved.
SSSI - Sites of Special Scientific Interest	Environmental designations	Natural England	© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2019.
LNR - Local Nature Reserves			
NNR – National Nature Reserves			
SAC – Special Areas of Conservation			
SPA – Special Protection Areas			
Registered Battlefields	Historical Designations	Historic England	© Historic England 2019. Contains Ordnance Survey data © Crown copyright and database right 2019.
Registered Parks and Gardens			
Listed Buildings			
Scheduled Monuments			
Building Preservation Notices			
Certificates of Immunity			
World Heritage Sites	Historical Designations	UNESCO	© Historic England 2019 / UNESCO. Contains Ordnance Survey data © Crown copyright and database right 2019.
OpenMap Local	Site Overview: Access	Ordnance Survey	Contains OS data © Crown copyright and database right 2019.
Flood zones 2 and 3	Flood Risk	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved.
LandIS, National Soil Map	Soil type	Cranfield Uni. LandIS	Soils Data © Cranfield University (NSRI) and for the Controller of HMSO 2019
CEH Land Cover Map 2015	Land Cover	Centre for Ecology and Hydrology	Rowland, C.S.; Morton, R.D.; Carrasco, L.; McShane, G.; O'Neil, A.W.; Wood, C.M. (2017) Land Cover Map 2015 (25n raster, GB). NERC Environmental Information Data Centre. https://doi.org/10.5285/bb15e200-9349-403c-bda9-b430093807c7



Vinescapes provide wine production services, knowledge and innovation to the English viticulture sector. Vinescapes work with prospective, new and established wine producers to achieve outstanding wine quality and successful business ventures. We can take your vineyard idea from conception to delivery starting from business planning & site selection through to the successful establishment of a vineyard & winery.

Our staff and partners are trusted experts with international acclaim and years of experience delivering the highest quality grape growing and winemaking. We combine to bring our knowledge, expertise and passion to wine businesses across the UK. We provide vineyard assessments (land & climate), vineyard project management & consultancy, winery design & construction, business planning and innovative research & training services.

Aware of the opportunities and risks in English wine production we bring a considered but enthusiastic approach to our work and provide a friendly, high-quality service.

Please contact us at info@vinescapes.com for more information or call us on 07967602670.