

10 August 2026

Dear

ATISN 27307 Agricultural Land Classification

Information requested

Thank you for your request received on 05 August. A response was issued on 06 August.

On 07 August you made a further request in relation the questions below.

You asked for:

1 a. What where the dates, times and durations of all soil, subsoil and land testing for the 2 sites of DNS CAS-03107-C5X9W1?

1 b. How many personnel were involved to take samples of soils and subsoils on the 2 sites?

2 a. Please state the climate data contemporaneous with taking samples and up to one week in advance of soil/subsoil sampling. Please include photographs of the land and soils conditions before and during sampling activities.

2 b. Please state the soil wetness rating for all samples taken with the grade according to the Hodgson 2022 grading system.

3 a. What was the crop in the fields at the time of sampling?

3 b. What species or range of species of crop were present at the time of sampling?

3 c. What were the root depths of crops present at the time of sampling? Please show photographic evidence.

3 d. If the soil type and water logging, drought or pollution produced areas of plants more suited to those conditions at the time of taking samples, please supply details of the species in such areas and the area of each land grade so affected. I would respect sight of photographic evidence of such patches.

4. The method of sampling - what was used to take soil and subsoil samples? For examples: auger, spade, machine. Please supply details of depths of both topsoil and the full pit depth from which samples were taken per grade of land assessed. Please supply photographic evidence of the sampling method, photos to include the soils upon or within the sampling tool and the soil profile condition surrounding the depths of the sampled pit areas. For clarity, photographs of the pit walls and base of the pit are required.
5. Please supply the name of the company used to take soil samples, together with their accreditation.
6. Please state the accurate positions of each sample taken, either by map coordinates or a physical map of the site showing all sample positions.
7. Please describe accurately the topography of 2 sites, showing gradient and aspect details.
8. Please describe the on-site subjective soil texture determination reports including pictures of how the result was obtained.
9. Please describe the smell of both soil and subsoil at time of sampling for each sample dug.
10. Please describe evidence of earthworm activities in each topsoil and subsoil samples as taken.
11. Please describe under what climatic and ground conditions LQAS consider it unsuitable to take soil and subsoils samples whereby to assess agricultural land classification.
12. Please supply the complete laboratory analysis data of the mechanical analyses of the soil samples. I would respect sight of all soil constituents listed as percentages of the sample analysed.
Please note that as the LQAS letter of 01 July 2026 mentions 2 grades of land classification. I would respect that you disclose as a minimum the mechanical analysis for each soil and subsoil type stated in that letter. Should the lower ALC grade land be excessively stoney I require discovery of the percentage of stone cover and the size range of those stones. I would respect sight of contemporaneous evidence in the form of photographic records of such stoniness. Please make the position very clear within each of the 2 sites where each different soil type was taken.
13. Please supply the complete laboratory analysis data of the chemical or nutrient analyses of the soil. I would respect sight of all soil constituents listed. I expect you to disclose professionally conducted soil sample analysis data of:
Nitrogen (all oxidation states), phosphorus (all oxidation states), potassium (as chloride and sulphate). Plus pH, soil moisture content, ammonia content and soil oxygen content.
14. Please supply the complete laboratory analysis data of trace elements in the soil samples, especially metals including iron, nickel, cadmium, sodium and magnesium. Plus trace elements selenium, molybdenum and sulphur. Please disclose evidence of other concerning ions, molecules or compounds if found during analysis - e.g. asbestos, arsenic, mercury, methane, hydrogen sulphide, cyanide, VOCs etc.

15. How many samples were analysed in the laboratory? Please quote the number of both mechanical analysis and chemical/nutrient analysis.

16. What was the weight of each soil sample presented to the laboratory?

17. Please disclose the laboratory names and addresses.

18. What were the soil type descriptions of each soil type analysed?

19. With reference to the LQAS letter of 01 July 2026 mentioned above in para 1, that letter describes the ALC grading of the land areas with 2 decimal places of accuracy. Please therefore disclose an accurate map of each ALC grade as described in that letter. For the avoidance of doubt that is 22.00ha (sic) of ALC Grade 3B land and 30.00ha (sic) of ALC Grade 5 land.

20. With reference to question 1b, please demonstrate how many personnel were utilised to determine and then delineate the areas described as 22.00ha of ALC Grade 3B land and 30.00ha of ALC Grade 5 land.

21. With reference to question 20 please describe the LQAS procedures whereby the areas of land classification were mapped to 2 decimal places accuracy on the 2 sites.

22. The land under planning consideration via DNS CAS-03107-C5X9W1 is typical of much farmland in South Pembrokeshire. Is the Welsh Government's policy to have LQAS downgrade all such land to Agricultural Land Classification Grade 5?

23. With reference to question 22, as ALC Grade 5 land is worth about half the monetary value of Grade 3Ab and Grade 3B land, will the Welsh Government, PEDW and LQAS compensate farmers for all such farmland downgraded?

24. Please disclose the site visit logs by all LQAS personnel to DNS CAS-03107-C5X9W1 since the application was submitted to PEDW.

25. With reference to all of the questions above, please disclose the qualifications and experience of Mr A W Williams and Mr R J Cooke of LQAS.

26. How many times has LQAS downgraded farmland intended for solar and wind energy sites from its previous BMV status to ALC Grade 3B or lower grades?

27. How many times has LQAS downgraded farmland from ALC Grades 3A and 3B to ALC Grade 5?

28. How many previous complaints have LQAS received regarding downgrading Agricultural Land Classifications from Best and Most Versatile land to ALC Grade 3B and below? For the avoidance of doubt, this means farmland downgraded from previous grades of ALC Grade 2 or 3A.

29. LQAS, PEDW and the applicant are fully aware of the presence and positions of abandoned coal mine workings and the 3 pipelines which exist under the 2 sites under consideration. I would respect discovery of any and all soil and subsoil testing systems

utilised on the sites during 2025 or earlier, to accurately measure the proximity of the pre-existing infrastructure.

30. Please supply clear evidence of the risk assessments apropos the land and soils data from the questions above with regard to the proposed solar array infrastructures and their substations, inverters, wiring harnesses and cabling, Battery Energy Storage Systems etc.

For the avoidance of doubt I require disclosure of evidence of consideration of potential chemical interactions between the soils and land as tested with the water table and solar array infrastructure materials.

31. Please, under Freedom of Information legislation, disclose evidence from the ground and land sampling work that those soil and subsoils, if built upon by the proposed solar arrays, would have zero risks to human life and wildlife with an absolute guarantee that there will be no further pollution of watercourses - the latter to include the local shallow aquifers and shallow mine workings.

Our response

LQAS's response of 05 August provided links to all published documentation. The information you ask for goes beyond the disclosure of recorded information into detailed explanation of the ALC grading system and technical explanation.

Should you wish further explanation of the ALC system, independent advice should be sought.

In this letter, LQAS has clarified the standing advice, guidance and documents relevant to this case against each of the questions.

1 a. What where the dates, times and durations of all soil, subsoil and land testing for the 2 sites of DNS CAS-03107-C5X9W1?

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#) including.

Paragraphs 2.5 and 2.6 of "2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)" provides the relevant text.

"2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-2 - ALC Survey Report Correspondence" provides further information.

Appendix C, D & E of "2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)" contain the detailed soil property information.

"Times and durations of all soil, subsoil and land testing" are not relevant factors in the assessment of agricultural land quality as per JP069.

1 b. How many personnel were involved to take samples of soils and subsoils on the 2 sites?

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

This is not relevant to the assessment of agricultural land quality as per JP069.

2 a. Please state the climate data contemporaneous with taking samples and up to one week in advance of soil/subsoil sampling. Please include photographs of the land and soils conditions before and during sampling activities.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

“2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” provides “contemporaneous” weather conditions, and a series of photographs throughout the Report.

The approach in JP06 to assessing climate is provided for in Section 3 page 12 (overall limitation), page 22 (wetness and workability), page 26 (droughtiness, crop-adjusted available water capacity, moisture deficit, moisture balance), page 29 (APPENDIX 1 agroclimatic datasets) - [Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069](#) with reference to [Climatological Data for Agricultural Land Classification \(ALC010\)](#).

[Agricultural land classification: technical review \(part 4\): soil wetness](#) part 3.1
[Agricultural Land Classification Technical Review: scoping study | GOV.WALES](#) section 6.

2 b. Please state the soil wetness rating for all samples taken with the grade according to the Hodgson 2022 grading system.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

“2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” provides the wetness class for every soil auger and pit point in Appendix C. The methodology for assessing wetness class is provided for in Appendix 3 of [Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069](#).

Unless corrected, Hodgson 2022 refers to the ‘Soil Survey Field Handbook: Describing and Sampling Soil Profiles’ (Ed. J.M. Hodgson, Cranfield University, 2022). The results are contained within the ALC Survey Report.

3 a. What was the crop in the fields at the time of sampling?

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

[Agricultural land classification: frequently asked questions](#) states: “The current land use does not affect the grade or longer term agricultural potential of the land. Land use is an

economic and management choice of the land manager. The ALC grade describes what the land is potentially capable of, not what it is currently used for.”

[Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069](#) explains, “*The classification system gives considerable weight to flexibility of cropping, whether actual or potential, but the ability of some land to produce consistently high yields of a somewhat narrower range of crops is also taken into account.*”

3 b. What species or range of species of crop were present at the time of sampling?

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#). Please refer to, “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)”

3 c. What were the root depths of crops present at the time of sampling? Please show photographic evidence.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

The [Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069](#) provides an objective assessment of cropping limitations and takes account rooting factors throughout.

Please refer to, “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” for details on soil depth, depth to SPL (slowly permeable layer), gleying, wetness class, porosity and droughtiness. The Report includes multiple photographs.

3 d. If the soil type and water logging, drought or pollution produced areas of plants more suited to those conditions at the time of taking samples, please supply details of the species in such areas and the area of each land grade so affected. I would respect sight of photographic evidence of such patches.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Appendix C of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” provides the detailed soil property data and the wider Report provides photographs.

4. The method of sampling - what was used to take soil and subsoil samples? For examples: auger, spade, machine. Please supply details of depths of both topsoil and the full pit depth from which samples were taken per grade of land assessed. Please supply photographic evidence of the sampling method, photos to include the soils upon or within the sampling tool and the soil profile condition surrounding the depths of the sampled pit areas. For clarity, photographs of the pit walls and base of the pit are required.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Appendix C of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” provides the detailed soil property data and the wider Report provides photographs.

Any further information would be a matter for the Applicant.

LQAS requests no more information than is necessary to assess compliance with JP069.

5. Please supply the name of the company used to take soil samples, together with their accreditation.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Please refer to “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)”.

6. Please state the accurate positions of each sample taken, either by map coordinates or a physical map of the site showing all sample positions.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Please refer to Appendix A Figure-2 and Appendix C of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)”.

7. Please describe accurately the topography of 2 sites, showing gradient and aspect details.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Please refer to paragraph 5.4.3, Appendix A Figure-3 and Appendix C of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)”.

8. Please describe the on-site subjective soil texture determination reports including pictures of how the result was obtained.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Soil textures identified through the survey are documented in “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)”. Appendix E provides the accompanying laboratory analysis. Photos are provided throughout the Report supporting the hand and laboratory textures identified.

Soil texture, as standard, is determined by hand-texturing according to Appendix 2 of JP069. JP069 does not require anything more than hand texturing. However, it is good practice for surveyors to provide supporting laboratory analysis to confirm and calibrate hand texturing.

9. Please describe the smell of both soil and subsoil at time of sampling for each sample dug.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

The assessment and documentation of soil smell is not required by JP069.

10. Please describe evidence of earthworm activities in each topsoil and subsoil samples as taken.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

The assessment and documentation of earthworms is not required by JP069.

11. Please describe under what climatic and ground conditions LQAS consider it unsuitable to take soil and subsoils samples whereby to assess agricultural land classification.

The Welsh Government does not hold this information. LQAS does not offer standing advice on this topic. Any advice would be made subject to specific context of the site.

12. Please supply the complete laboratory analysis data of the mechanical analyses of the soil samples. I would respect sight of all soil constituents listed as percentages of the sample analysed.

Please note that as the LQAS letter of 01 July 2026 mentions 2 grades of land classification. I would respect that you disclose as a minimum the mechanical analysis for each soil and subsoil type stated in that letter. Should the lower ALC grade land be excessively stoney I require discovery of the percentage of stone cover and the size range of those stones. I would respect sight of contemporaneous evidence in the form of photographic records of such stoniness. Please make the position very clear within each of the 2 sites where each different soil type was taken.

Please see the answer to Question 8 and refer to JP069.

Soil textures identified through the survey are documented in "2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)". Appendix C provides stone volumes. Appendix E provides the accompanying laboratory analysis. Photos are provided throughout the Report supporting the hand and laboratory textures identified.

13. Please supply the complete laboratory analysis data of the chemical or nutrient analyses of the soil. I would respect sight of all soil constituents listed. I expect you to disclose professionally conducted soil sample analysis data of: Nitrogen (all oxidation states), phosphorus (all oxidation states), potassium (as chloride and sulphate). Plus pH, soil moisture content, ammonia content and soil oxygen content.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#). The analysis you have asked for is not required by JP069.

Page 08 of [Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069](#) states, “the Agricultural Land Classification (ALC) provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long- term limitations on agricultural use.”

Given this principle, Page 21 goes on to state, “The chemical status of a soil does not affect ALC grading where nutrient levels can be maintained or corrected by normal applications of fertiliser or lime. Chemical factors will only affect grading where they have, or are likely to have, a detrimental long- term effect on the physical condition of the soil, the crop yield, the range of crops that may be safely grown, stocking rates or grazing management.”

[Agricultural land classification: frequently asked questions](#) states, “Will fertilizer improve the grade? Applications of fertiliser or lime are part of the normal management of agricultural land and do not affect the grade. Normal fertiliser levels in the soil have no bearing on ALC grade. Chemical limitations in ALC relate to major long term problems that cannot easily be remediated. These can include extreme acidity, saline environments and presence of toxic elements.”

14. Please supply the complete laboratory analysis data of trace elements in the soil samples, especially metals including iron, nickel, cadmium, sodium and magnesium. Plus trace elements selenium, molybdenum and sulphur. Please disclose evidence of other concerning ions, molecules or compounds if found during analysis - e.g. asbestos, arsenic, mercury, methane, hydrogen sulphide, cyanide, VOCs etc.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

For trace elements related to fertility see the answer to Questions 13.

Pages 21 & 22 of [Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069](#) set out the issues, implications and guidance for chemical limitations.

[2018-19 Soil Policy Evidence Programme - ALC Technical Review - Part 5](#) sets out further detail on the technical matters concerning chemical limitations.

15. How many samples were analysed in the laboratory? Please quote the number of both mechanical analysis and chemical/nutrient analysis.

Please refer to answers provided for Questions 12 through 14.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

16. What was the weight of each soil sample presented to the laboratory?

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Appendix E of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” provides the laboratory analysis and the relevant British Standard.

17. Please disclose the laboratory names and addresses.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Appendix E of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” provides the laboratory analysis and company details.

18. What were the soil type descriptions of each soil type analysed?

The ALC survey report is held on the [PEDW Planning Casework Portal](#).

Appendix C of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” provides soil textures supported by Appendix E laboratory analysis.

See Annex 1 for LQAS assessment of laboratory analysis.

19. With reference to the LQAS letter of 01 July 2026 mentioned above in para 1, that letter describes the ALC grading of the land areas with 2 decimal places of accuracy. Please therefore disclose an accurate map of each ALC grade as described in that letter. For the avoidance of doubt that is 22.00ha (sic) of ALC Grade 3B land and 30.00ha (sic) of ALC Grade 5 land.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

See paragraph 5.4.5 and Appendix A Figure-4 of “2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-1 - Agricultural Land Classification (ALC) Survey Report (published 12-05-2026)” providing the grading map.

20. With reference to question 1b, please demonstrate how many personnel were utilised to determine and then delineate the areas described as 22.00ha of ALC Grade 3B land and 30.00ha of ALC Grade 5 land.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Please see answers provides to Questions 1a and 1b.

21. With reference to question 20 please describe the LQAS procedures whereby the areas of land classification were mapped to 2 decimal places accuracy on the 2 sites.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Please refer to answers provided to Questions 19 and 20.

22. The land under planning consideration via DNS CAS-03107-C5X9W1 is typical of much farmland in South Pembrokeshire. Is the Welsh Government's policy to have LQAS downgrade all such land to Agricultural Land Classification Grade 5?

It is not Welsh Government "...policy to have LQAS downgrade all such land to Agricultural Land Classification Grade 5".

Please refer to [Planning Policy Wales](#) Edition 12 paragraphs 3.58 & 3.59 "*The Best and Most Versatile Agricultural Land*".

23. With reference to question 22, as ALC Grade 5 land is worth about half the monetary value of Grade 3Ab and Grade 3B land, will the Welsh Government, PEDW and LQAS compensate farmers for all such farmland downgraded?

Please refer to the following standing advice and guidance:

[Agricultural land classification: predictive map guidance | GOV.WALES](#) states:

"The Predictive Agricultural Land Classification Map has not been designed for, and the Welsh Government does not approve of, the following uses: Valuing agricultural land; Assigning agricultural rents; Allocating financial support."

[Agricultural land classification: frequently asked questions](#) states:

"Are land values determined by ALC grade? The ALC system was developed to inform land use planning decisions. The use of the ALC system for land valuation has never been intended and should not be used for this purpose."

[Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069](#) states, "*The classification is well established and understood in the planning system and provides an appropriate framework for determining the physical quality of the land at national, regional and local levels. It is the only approved system for grading the quality of agricultural land in England and Wales.*"

24. Please disclose the site visit logs by all LQAS personnel to DNS CAS-03107-C5X9W1 since the application was submitted to PEDW.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

“2025-12-29 - Environmental Statement - Vol 4 - Appendix 6-2 - ALC Survey Report Correspondence” on the [PEDW Planning Casework Portal](#) sets out the LQAS position.

LQAS did not undertake a survey validation site visit.

Survey validation site visits are not mandatory, and requests are made on a case-by-case basis subject to the evidence.

It is important to note that LQAS has no automatic right of access to land and relies upon the goodwill of developers and landowners when it wishes to visit a site as part of the survey validation exercise.

Should LQAS have concerns in this regard, LQAS will make it known to the determining authority under standing advice within [Agricultural land classification: predictive map guidance | GOV.WALES](#).

25. With reference to all of the questions above, please disclose the qualifications and experience of Mr A W Williams and Mr R J Cooke of LQAS.

The Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

Both LQAS officials have >10 years survey and validation experience, including completion of:

- [Soil Training - British Society of Soil Science](#) course for ALC.
- British Society of Soil Science Describing Soils Course.
- In-field surveying training.
- The commissioning, technically review and delivery of ALC related packages under the [Soil policy evidence programme: all documents | GOV.WALES](#).

26. How many times has LQAS downgraded farmland intended for solar and wind energy sites from its previous BMV status to ALC Grade 3B or lower grades?

The Welsh Government does not hold this information.

Please refer to the answer given for Question 22.

The Predictive ALC Map is not definitive. Surveys nearly will always revise the grades and / grade distribution. See [Agricultural land classification: predictive map guidance | GOV.WALES](#)

27. How many times has LQAS downgraded farmland from ALC Grades 3A and 3B to ALC Grade 5?

The Welsh Government does not hold this information.

Please refer to the answer given for Question 22 and 26 [Agricultural land classification: predictive map guidance | GOV.WALES](#).

28. How many previous complaints have LQAS received regarding downgrading Agricultural Land Classifications from Best and Most Versatile land to ALC Grade 3B

and below? For the avoidance of doubt, this means farmland downgraded from previous grades of ALC Grade 2 or 3A.

The Welsh Government does not hold this information.

LQAS is unaware of previous complaints of this nature within the past 9 years of casework tracking.

29. LQAS, PEDW and the applicant are fully aware of the presence and positions of abandoned coal mine workings and the 3 pipelines which exist under the 2 sites under consideration. I would respect discovery of any and all soil and subsoil testing systems utilised on the sites during 2025 or earlier, to accurately measure the proximity of the pre-existing infrastructure.

Regarding the specifics of the development, the Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

LQAS only considers planning documents and matters relevant to the ALC Survey Report.

30. Please supply clear evidence of the risk assessments apropos the land and soils data from the questions above with regard to the proposed solar array infrastructures and their substations, inverters, wiring harnesses and cabling, Battery Energy Storage Systems etc. For the avoidance of doubt I require disclosure of evidence of consideration of potential chemical interactions between the soils and land as tested with the water table and solar array infrastructure materials.

Regarding the specifics of the development, Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

General publications:

- [The impact of solar photovoltaic sites on agricultural soils and land quality: literature review | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: industry overview | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: solar photovoltaic sites | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: review of impacts | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: summary | GOV.WALES](#)

31. Please, under Freedom of Information legislation, disclose evidence from the ground and land sampling work that those soil and subsoils, if built upon by the proposed solar arrays, would have zero risks to human life and wildlife with an absolute guarantee that there will be no further pollution of watercourses - the latter to include the local shallow aquifers and shallow mine workings.

Regarding the specifics of the development, Welsh Government holds no more information than is available in the published planning documents held on the [PEDW Planning Casework Portal](#).

General publications:

- [The impact of solar photovoltaic sites on agricultural soils and land quality: literature review | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: industry overview | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: solar photovoltaic sites | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: review of impacts | GOV.WALES](#)
- [The impact of solar photovoltaic sites on agricultural soils and land quality: summary | GOV.WALES](#)

Next steps

If you are dissatisfied with the Welsh Government's handling of your request, you can ask for an internal review within 40 working days of the date of this response. Requests for an internal review should be addressed to the Welsh Government's Freedom of Information Officer at:

Information Rights Unit,
Welsh Government,
Cathays Park,
Cardiff,
CF10 3NQ

or Email: Freedom.ofinformation@gov.wales

Please remember to quote the ATISN reference number above.

You also have the right to complain to the Information Commissioner. The Information Commissioner can be contacted at: Information Commissioner's Office,
Wycliffe House,
Water Lane,
Wilmslow,
Cheshire,
SK9 5AF.

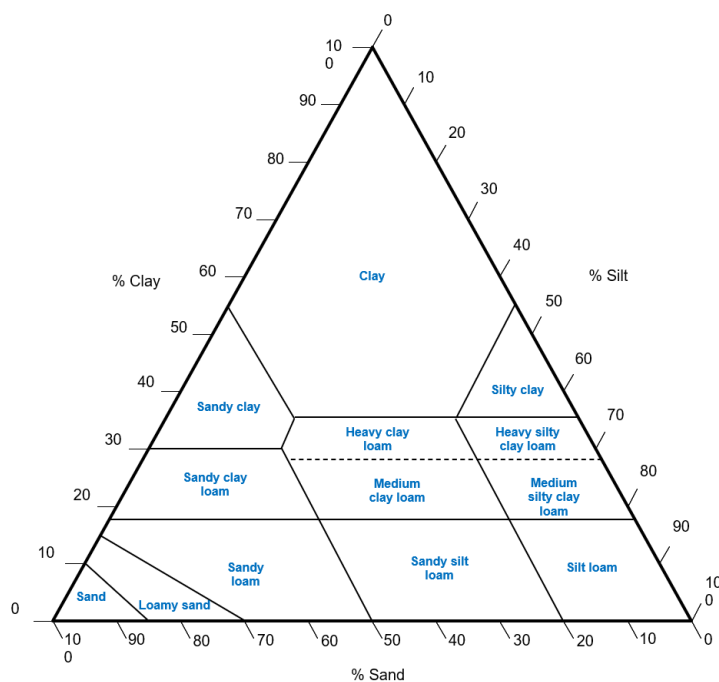
However, please note that the Commissioner will not normally investigate a complaint until it has been through our own internal review process.

Yours sincerely,

Annex 1: LQAS White House Farm Review of Laboratory Analysis (2026-07-01)

Table 10: Particle size fractions

		(mm)
Clay		<0.002
Silt		0.002 – 0.063
Sand	fine	0.063 – 0.200
	medium	0.200 – 0.600
	coarse	0.600 – 2.000



Analyse the attached soil particle size distribution analysis results. Compare against the attached Table 10 using only the fine earth fraction (<2.00mm). Determine what the soil texture is.

Note – Site is at 230FCD

If Gley in 40cm:

- SPL between 25cm and 62cm = WCIV (Fig. 7)
- SPL +62cm = WC III

If C, SC, ZL and WCIV @230FCD = Grade 5 (Wet&Work)

Summary Table:

Compared against Table 10 using only the fine earth fraction (<2.00mm).

Pit No:	Texture
TP1	SC
TP2	C
TP3	C
TP4	C
TP5	SC
TP6	C
TP7	C
P8	C

TP01 =

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	34
90	100	0.0060	29
75	100	0.0020	26
63	100		
50	100		
37.5	93		
28	91		
20	91		
14	89		
10	87		
6.3	85		
5	85		
3.35	82		
2	78		
1.18	71		
0.63	61		
0.425	59		
0.30	56		
0.20	52		
0.15	49		
0.063	41		

Using the fine earth fraction — normally meaning the material <2.00 mm — the soil texture is:

Sandy clay

1. Key particle-size results from the attached PSD table

From the analysis:

Particle size	% passing
---------------	-----------

2.00 mm	78%
0.063 mm	41%
0.002 mm	26%

So, 78% of the whole sample is fine earth <2 mm. The remaining 22% is >2 mm coarse material/gravel, which is excluded from the texture calculation.

2. Fine earth calculation

Texture should be calculated as a percentage of the <2 mm fraction, so each fraction is divided by 78.

Clay: <0.002 mm

$$\frac{26}{78} \times 100 = 33.3\%$$

Silt: 0.002–0.063 mm

$$\frac{41 - 26}{78} \times 100 = 19.2\%$$

Sand: 0.063–2.000 mm

$$\frac{78 - 41}{78} \times 100 = 47.4\%$$

3. Fine earth particle-size composition

Fraction	Size range from Table 10	Fine earth %
Clay	<0.002 mm	33.3%
Silt	0.002–0.063 mm	19.2%
Sand	0.063–2.000 mm	47.4%
Total		100%

4. Sand sub-fractions

Using the Table 10 sand divisions:

Sand fraction	Size range	Approx. fine earth %
Fine sand	0.063–0.200 mm	14.1%
Medium sand	0.200–0.600 mm	c. 11.2%
Coarse sand	0.600–2.000 mm	c. 22.2%

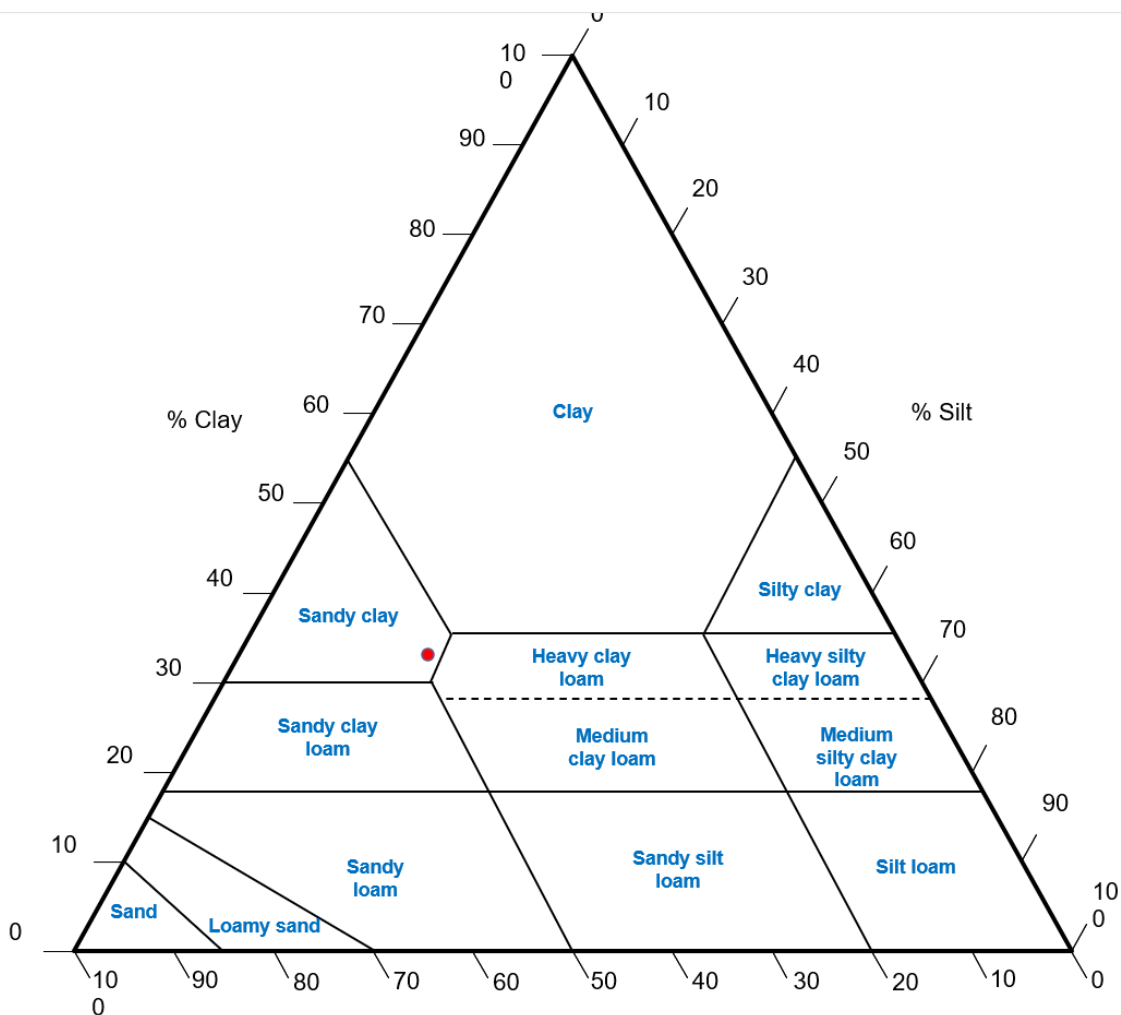
The medium/coarse split is approximate because the PSD table gives 0.63 mm, not exactly 0.600 mm. I interpolated between 0.425 mm and 0.63 mm.

Conclusion

The fine earth fraction is approximately:

- 33% clay
- 19% silt
- 47% sand

That places the soil in a sandy clay texture class.



TP02

Using only the fine earth fraction (<2.00 mm), the soil texture is:

Clay

The key point is that the PSD results must be renormalised to the <2 mm fraction, because the sample contains a substantial amount of material coarser than 2 mm.

1. Values taken from the PSD table

From the attached particle-size distribution table:

Particle size	% passing
2.00 mm	60%
0.063 mm	40%
0.002 mm	25%

So:

- 60% of the whole sample is fine earth <2.00 mm
- 40% of the whole sample is coarse material >2.00 mm, which is excluded from the soil texture calculation

2. Calculate texture fractions within the fine earth only

Clay: <0.002 mm

$$\frac{25}{60} \times 100 = 41.7\%$$

Silt: 0.002–0.063 mm

$$\frac{40 - 25}{60} \times 100 = 25.0\%$$

Sand: 0.063–2.000 mm

$$\frac{60 - 40}{60} \times 100 = 33.3\%$$

3. Resulting fine earth texture composition

Fraction	Size range from Table 10	Fine earth %
Clay	<0.002 mm	41.7%
Silt	0.002–0.063 mm	25.0%
Sand	0.063–2.000 mm	33.3%
Total		100%

4. Sand sub-fractions

Using Table 10's sand size divisions:

Sand fraction	Size range	Approx. fine earth %
---------------	------------	----------------------

Fine sand	0.063–0.200 mm	10.0%
Medium sand	0.200–0.600 mm	c. 12.9%
Coarse sand	0.600–2.000 mm	c. 10.5%

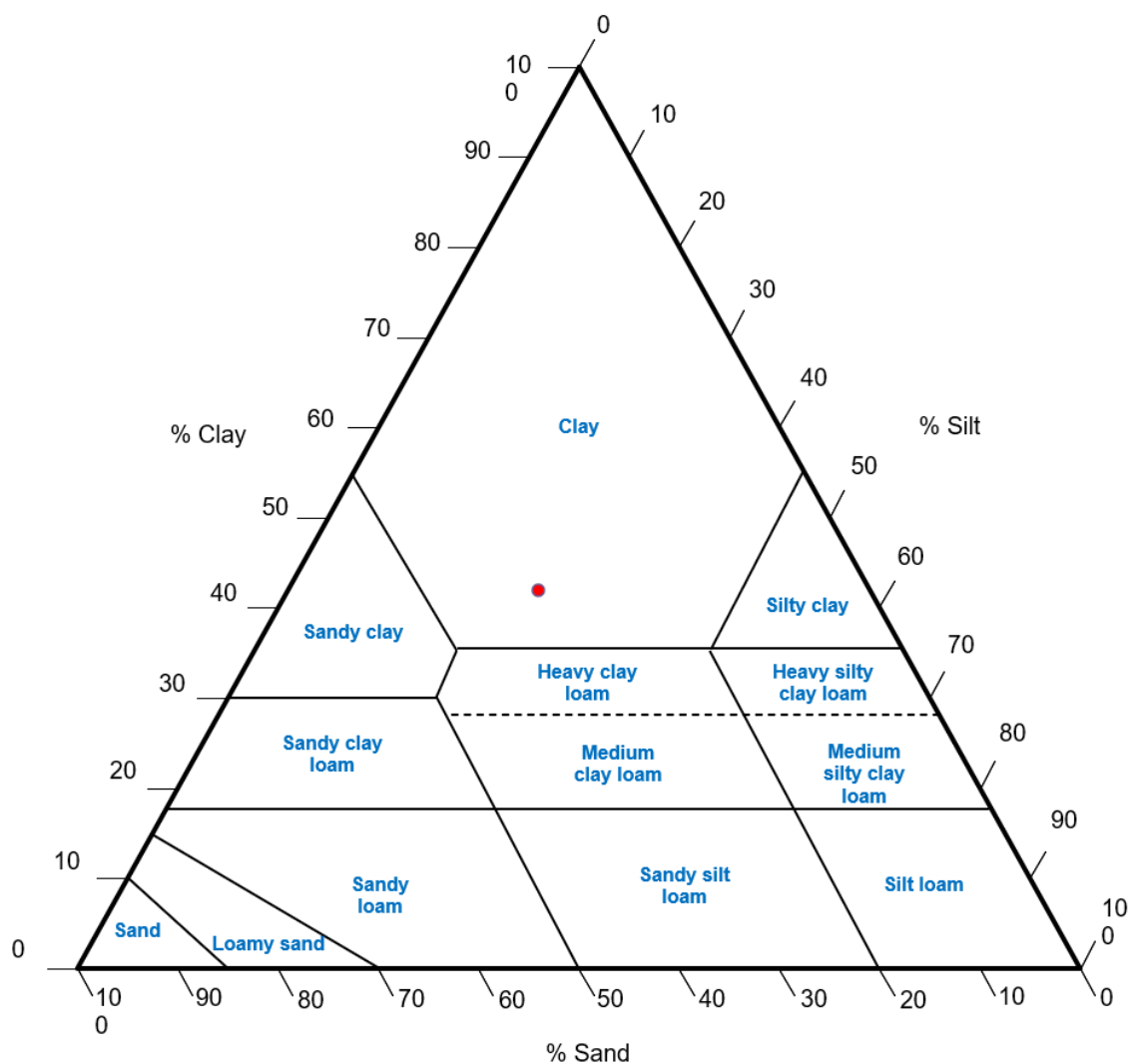
The medium/coarse split is approximate because the PSD table gives 0.630 mm, not exactly 0.600 mm, so I used a simple interpolation.

Conclusion

The fine earth fraction is approximately:

- 42% clay
- 25% silt
- 33% sand

This places the soil in the Clay texture class.



TP03

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	50
90	100	0.0060	44
75	100	0.0020	38
63	100		
50	100		
37.5	100		
28	100		
20	98		
14	97		
10	96		
6.3	94		
5	93		
3.35	90		
2	86		
1.18	81		
0.63	75		
0.425	71		
0.30	68		
0.20	65		
0.15	62		
0.063	56		

Using the attached PSD results and normalising only to the fine earth fraction <2.00 mm, the soil texture plots as:

Clay

1. PSD values used

From the attached analysis table:

Particle size	% passing
2.00 mm	86%
0.063 mm	56%
0.002 mm	38%

So the fine earth fraction is:

- <2.00 mm = 86%
- >2.00 mm coarse material = 14%

The 14% >2 mm material is excluded from the texture calculation.

2. Fine earth texture calculation

Clay: <0.002 mm

$$\frac{38}{86} \times 100 = 44.2\%$$

Silt: 0.002–0.063 mm

$$\frac{56 - 38}{86} \times 100 = 20.9\%$$

Sand: 0.063–2.000 mm

$$\frac{86 - 56}{86} \times 100 = 34.9\%$$

3. Fine earth particle-size composition

Fraction	Table 10 size range	Fine earth %
Clay	<0.002 mm	44.2%
Silt	0.002–0.063 mm	20.9%
Sand	0.063–2.000 mm	34.9%
Total		100%

4. Position on the attached soil texture triangle

Plotting approximately:

- 44% clay
- 21% silt
- 35% sand

on the attached soil texture triangle places the sample in the Clay textural class.

It does not fall into:

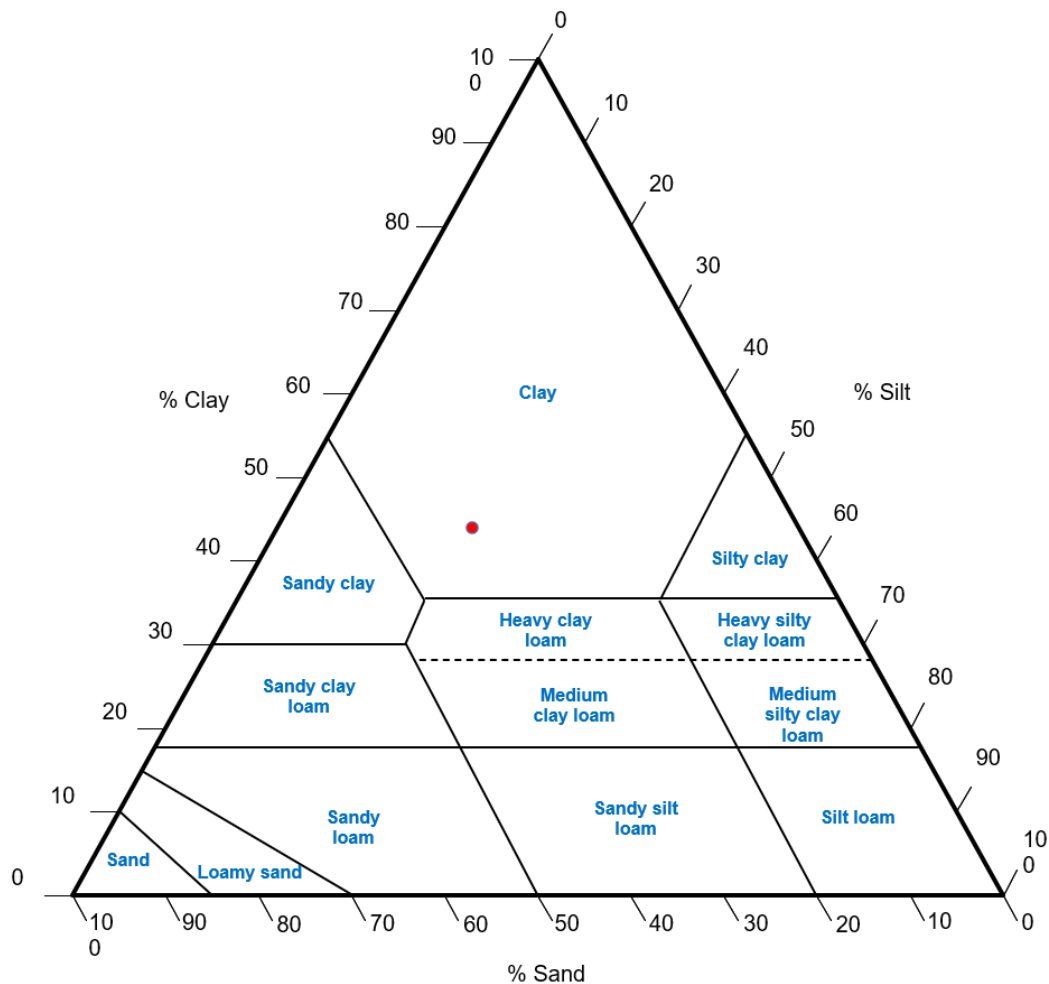
- Sandy clay, because the sand content is not high enough relative to the clay content.
- Silty clay, because the silt content is too low.
- Heavy clay loam, because the clay content is above the clay-loam band and sits within the clay field.

Conclusion

The soil texture, calculated using only the fine earth fraction <2.00 mm, is:

Clay

In plain terms, although the whole sample contains 14% coarse material >2 mm, the fine earth component itself is strongly clayey, with approximately 44% clay.



TP04

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	59
90	100	0.0060	48
75	100	0.0020	37
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	99		
10	99		
6.3	98		
5	97		
3.35	96		
2	95		
1.18	93		
0.63	90		
0.425	89		
0.30	86		
0.20	79		
0.15	76		
0.063	71		

Using the attached PSD results and the attached particle-size definitions in Table 10, calculated on the fine earth fraction only (<2.00 mm), the soil texture is:

Clay

1. Values read from the PSD table

Particle size	% passing
2.00 mm	95%
0.063 mm	71%
0.002 mm	37%

So:

- Fine earth fraction <2.00 mm = 95%
- Coarse material >2.00 mm = 5%

The 5% coarse material is excluded from the soil texture calculation.

2. Texture fractions normalised to the fine earth fraction

Clay: <0.002 mm

$$\frac{37}{95} \times 100 = 38.9\%$$

Silt: 0.002–0.063 mm

$$\frac{71 - 37}{95} \times 100 = 35.8\%$$

Sand: 0.063–2.000 mm

$$\frac{95 - 71}{95} \times 100 = 25.3\%$$

3. Fine earth texture composition

Fraction	Table 10 size range	Fine earth %
Clay	<0.002 mm	38.9%
Silt	0.002–0.063 mm	35.8%
Sand	0.063–2.000 mm	25.3%
Total		100%

4. Position on the soil texture triangle

Plotting approximately:

- 39% clay
- 36% silt
- 25% sand

on the attached soil texture triangle places the sample in the:

Clay texture class

It sits close to the boundary with the clay loam/heavy clay loam area, but because the clay content is close to 39% and the sand and silt proportions are not high enough to move it into sandy clay or silty clay, the correct class on the attached triangle is Clay.

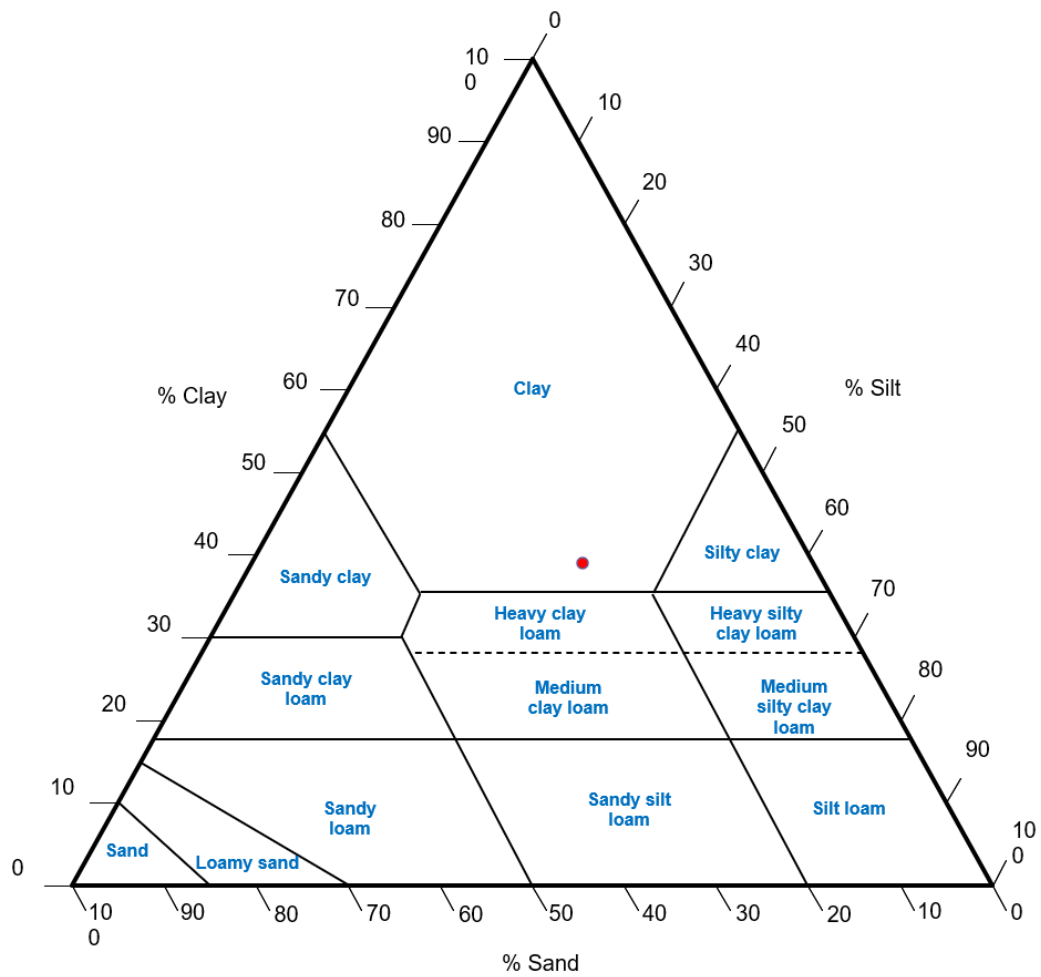
Sand sub-fractions, for completeness

Using Table 10's sand divisions:

Sand fraction	Size range	Fine earth %
Fine sand	0.063–0.200 mm	8.4%
Medium sand	0.200–0.600 mm	c. 11.4%
Coarse sand	0.600–2.000 mm	c. 5.4%

The medium/coarse split is approximate because the PSD table gives 0.630 mm rather than exactly 0.600 mm, so interpolation is needed.

Final texture classification: Clay.



TP05

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	40
90	100	0.0060	37
75	100	0.0020	36
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	98		
5	97		
3.35	95		
2	94		
1.18	86		
0.63	65		
0.425	62		
0.30	58		
0.20	51		
0.15	49		
0.063	45		

Using the attached PSD results, the soil texture calculated only on the fine earth fraction <2.00 mm plots on the attached texture triangle as:

Sandy clay

1. Values used from the PSD table

From the particle size distribution table:

Particle size	% passing
2.00 mm	94%
0.063 mm	45%
0.002 mm	36%

So:

- Fine earth fraction <2.00 mm = 94%
- Coarse material >2.00 mm = 6%

The 6% coarse fraction is excluded from the texture calculation.

2. Fine earth texture calculation

Clay: <0.002 mm

$$\frac{36}{94} \times 100 = 38.3\%$$

Silt: 0.002–0.063 mm

$$\frac{45 - 36}{94} \times 100 = 9.6\%$$

Sand: 0.063–2.000 mm

$$\frac{94 - 45}{94} \times 100 = 52.1\%$$

3. Fine earth particle-size composition

Fraction	Table 10 size range	Fine earth %
Clay	<0.002 mm	38.3%
Silt	0.002–0.063 mm	9.6%
Sand	0.063–2.000 mm	52.1%
Total		100%

4. Position on the soil texture triangle

Plotting approximately:

- 38% clay
- 10% silt
- 52% sand

on the attached soil texture triangle places the sample in the:

Sandy clay texture class

This is because the sample has:

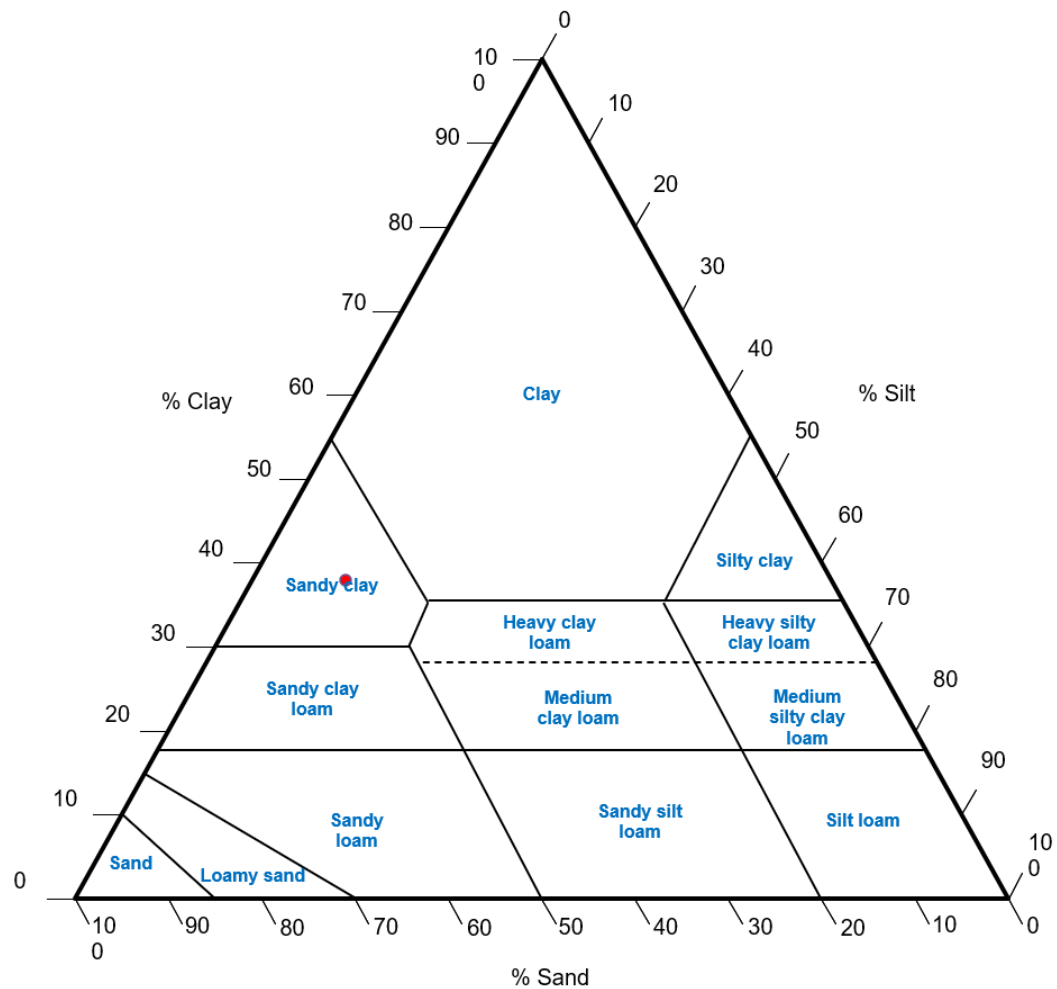
- a high sand content, over 50%;
- a substantial clay content, around 38%;
- a low silt content, around 10%.

It is therefore too clay-rich to be sandy clay loam, and too sandy/low in silt to be simply clay or silty clay

Conclusion

The soil texture, based on the fine earth fraction <2.00 mm, is:

Sandy clay



TP06

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	65
90	100	0.0060	61
75	100	0.0020	59
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	98		
5	97		
3.35	95		
2	93		
1.18	92		
0.63	87		
0.425	85		
0.30	83		
0.20	77		
0.15	75		
0.063	72		

Using the attached PSD results and comparing them with Table 10 particle-size fractions, using only the fine earth fraction <2.00 mm, the soil texture is:

Clay

1. Values read from the PSD table

Particle size	% passing
2.00 mm	93%
0.063 mm	72%
0.002 mm	59%

Therefore:

- Fine earth fraction <2.00 mm = 93%
- Coarse material >2.00 mm = 7%

The 7% coarse material is excluded from the soil texture calculation.

2. Fine earth texture calculation

Clay: <0.002 mm

$$\frac{59}{93} \times 100 = 63.4\%$$

Silt: 0.002–0.063 mm

$$\frac{72 - 59}{93} \times 100 = 14.0\%$$

Sand: 0.063–2.000 mm

$$\frac{93 - 72}{93} \times 100 = 22.6\%$$

3. Fine earth particle-size composition

Fraction	Table 10 size range	Fine earth %
Clay	<0.002 mm	63.4%
Silt	0.002–0.063 mm	14.0%
Sand	0.063–2.000 mm	22.6%
Total		100%

4. Position on the soil texture triangle

Plotting approximately:

- 63% clay
- 14% silt
- 23% sand

on the attached soil texture triangle places the sample clearly within the:

Clay texture class

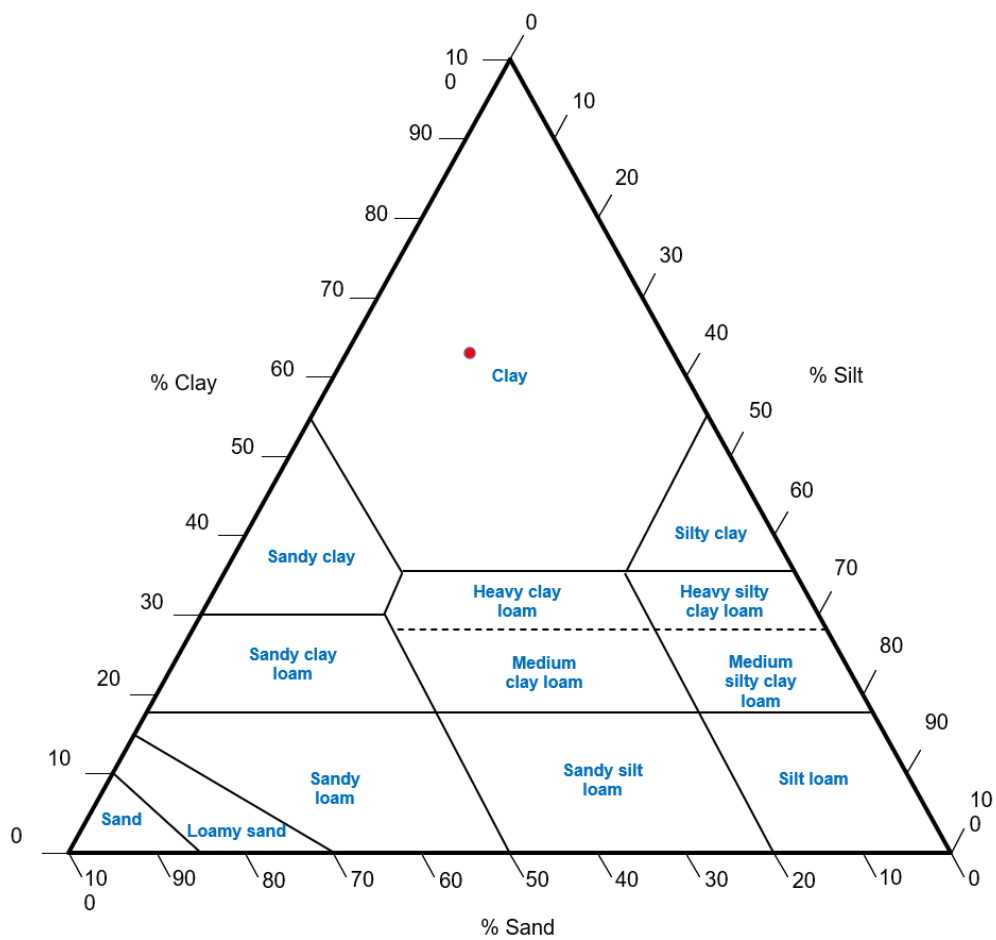
The clay content is well above the boundary for the lower clay-loam classes. The silt and sand contents are not sufficiently high to move the result into silty clay or sandy clay.

Conclusion

The soil texture, based on the fine earth fraction <2.00 mm, is:

Clay

This is a strongly clayey fine earth material, with over 60% clay once the >2 mm coarse fraction is excluded.



TP07

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	26
90	100	0.0060	23
75	100	0.0020	22
63	100		
50	100		
37.5	89		
28	78		
20	69		
14	65		
10	63		
6.3	59		
5	58		
3.35	55		
2	51		
1.18	46		
0.63	39		
0.425	37		
0.30	35		
0.20	31		
0.15	30		
0.063	29		

Using the attached PSD results, compared with Table 10 particle-size fractions and using only the fine earth fraction <2.00 mm, the soil texture plots as:

Clay

It is very close to the sandy clay boundary, but based on the calculated percentages it falls within the Clay class on the attached texture triangle.

1. PSD values used

From the attached particle size distribution table:

Particle size	% passing
2.00 mm	51%
0.063 mm	29%
0.002 mm	22%

Therefore:

- Fine earth fraction <2.00 mm = 51%
- Coarse material >2.00 mm = 49%

The 49% coarse material >2.00 mm is excluded from the soil texture calculation.

2. Fine earth texture calculation

Clay: <0.002 mm

$$\frac{22}{51} \times 100 = 43.1\%$$

Silt: 0.002–0.063 mm

$$\frac{29 - 22}{51} \times 100 = 13.7\%$$

Sand: 0.063–2.000 mm

$$\frac{51 - 29}{51} \times 100 = 43.1\%$$

3. Fine earth particle-size composition

Fraction	Table 10 size range	Fine earth %
Clay	<0.002 mm	43.1%
Silt	0.002–0.063 mm	13.7%
Sand	0.063–2.000 mm	43.1%
Total		100%

4. Position on the soil texture triangle

Plotting approximately:

- 43% clay
- 14% silt
- 43% sand

on the attached soil texture triangle places the soil in the:

Clay texture class

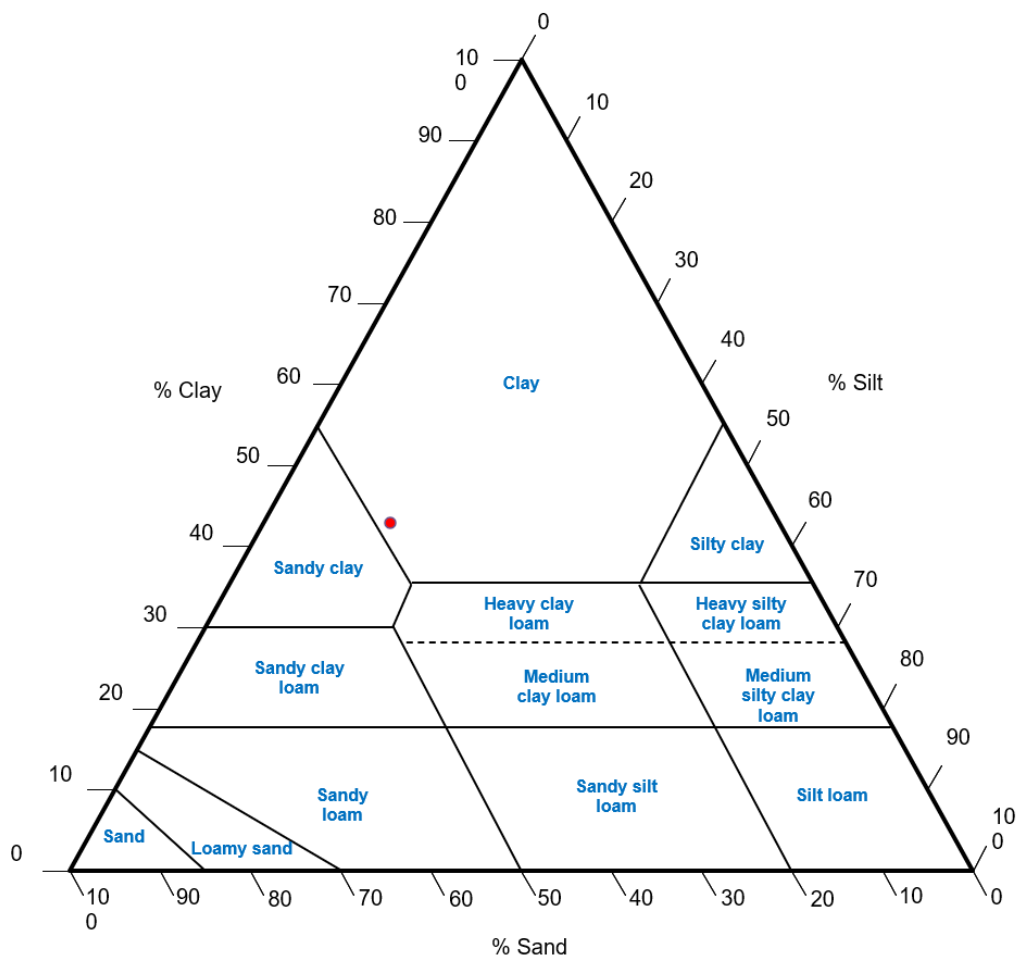
The point sits close to the sandy clay area because the sand content is also high, but the sand percentage is not quite high enough to move it into the sandy clay class on the attached triangle.

Conclusion

The soil texture, based on the fine earth fraction <2.00 mm, is:

Clay

With a note that this is a clay soil with a high sand component, and it lies close to the sandy clay boundary.



TP08

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100	0.0200	42
90	100	0.0060	40
75	100	0.0020	39
63	100		
50	100		
37.5	100		
28	94		
20	83		
14	82		
10	82		
6.3	81		
5	80		
3.35	79		
2	77		
1.18	70		
0.63	60		
0.425	58		
0.30	56		
0.20	51		
0.15	49		
0.063	45		

Using the attached PSD results, normalised to the fine earth fraction only (<2.00 mm) and compared against the attached Table 10 and soil texture triangle, the soil texture is:

Clay

It is a clay soil with a relatively high sand content, but the sand percentage is not high enough to move it into the sandy clay class on the attached triangle.

1. Values used from the PSD table

From the attached particle size distribution results:

Particle size	% passing
2.00 mm	77%
0.063 mm	45%
0.002 mm	39%

Therefore:

- Fine earth fraction <2.00 mm = 77%
- Coarse fraction >2.00 mm = 23%

The 23% coarse fraction is excluded from the soil texture classification.

2. Fine earth texture calculation

Clay: <0.002 mm

$$\frac{39}{77} \times 100 = 50.6\%$$

Silt: 0.002–0.063 mm

$$\frac{45 - 39}{77} \times 100 = 7.8\%$$

Sand: 0.063–2.000 mm

$$\frac{77 - 45}{77} \times 100 = 41.6\%$$

3. Fine earth particle-size composition

Fraction	Table 10 size range	Fine earth %
Clay	<0.002 mm	50.6%
Silt	0.002–0.063 mm	7.8%
Sand	0.063–2.000 mm	41.6%
Total		100%

4. Position on the soil texture triangle

Plotting approximately:

- 51% clay
- 8% silt
- 42% sand

on the attached texture triangle places the sample in the:

Clay texture class

The point sits close to the sandy clay boundary, but the sand content is below the level needed to classify it as sandy clay on the attached triangle.

Conclusion

The soil texture, based on the fine earth fraction <2.00 mm, is:

Clay

with a note that the soil has a substantial sand component and 23% coarse material >2 mm in the whole sample.

