

Internal lab-no.: 188U1512-0523_1-2_A (is replacing report 188U1512-0523 from 16.06.23) Date: 19.06.2023

Task:	Authenticity of timber		
Date of receipt:	25.05.2023	Customer:	Panda Panels Agencies Ltd
Testing period:	25.05.2023 – 19.06.2023		Sandy Farm, The Sands, Farnham, Surrey
External lab-no.:	/	GU10 1PX, UK	
On behalf of:	Agroisolab UK	Attn.:	Chris Williams

Sample Details:		Analysis information:	
Samples(s):	1-2/4	Methods Agroisolab:	AIL-1.1c (2015-02)
Sampling by:	Agroisolab UK	Parameter:	$\delta^2\text{H}$, $\delta^{18}\text{O}$, $\delta^{13}\text{C}$, $\delta^{34}\text{S}$
The results refer to provided samples.		Remark: First sample preparation was done by Agroisolab UK.	
The following information in the table was given by customer: sample, declaration.			

Results of Analysis:							
No.	Sample	Decl.	$\delta^2\text{H}_{\text{org}}$ [‰] v.s. vsmow	$\delta^{18}\text{O}_{\text{org}}$ [‰] v.s. vsmow	$\delta^{13}\text{C}$ [‰] v.s. VPDB	$\delta^{34}\text{S}$ [‰] v.s. VCDT	Origin Evaluation
1	PPA-TM-BIR-2023.1 Veneer Timber (PLY) - DEC Betula sp. (top)	China/ yingjianxin Zhanxi Zhenyuan, songpo vilage, Zhanxi Town, Yingjiang County, Dehong Dai, Jingpo Autonomous prefecture, Yunnan, China, 679305#	-113.0 +/- 2.4	24.2 +/- 0.5	-27.7 +/- 0.1	6.9 +/- 0.3	
2	PPA-TM-BIR-2023.7 Veneer Timber (PLY) - DEC Betula sp. (core)		-104.1 +/- 2.1	24.8 +/- 0.5	-27.8 +/- 0.1	7.2 +/- 0.3	

* +/- total combined single standard uncertainty

Afterwards, the customer narrowed down the regional origin within China to Yunnan Province (Email: 19.06.2023).

- Quick evaluation:**
- = likely to be from declared origin
 - = doubts, has to be verified with further information
 - = unlikely, based on current evidence the sample is evaluated as mislabeled with respect to its provenance

Remark: China is a large country, which also borders Russia in the north-east. All in all, it is not trivial to check the origin of such a large country without a more precise indication of its small-scale origin. In addition, overlaps in the isotope ratios are possible or to be expected, especially in regions close to the border (e.g. Russia). It should also be noted that the present database consists mainly of reference samples from northeastern regions in China. However, that region is normally the typical growing region of Birch. The detailed origin of the samples was specified by the customer and the samples reevaluated.

Interpretation:

- Test samples 1 (PPA-TM-BIR-2023.1) and 2 (PPA-TM-BIR-2023.7) have significant enriched $\delta^{18}\text{O}$ isotope signatures and in case of sample 2 an enriched $\delta^2\text{H}$ value as well, which are based on the current state of knowledge atypical for an origin from northeastern regions in China. Taking into account the subsequently provided origin information, the two test samples show signatures that can be classified as inconspicuous for an origin from Southwest China (Yunnan). Accordingly, there is currently no indication of a misdeclaration. However, further verification with a direct concession reference would still be desirable.
- An origin from typical other countries like the Baltic States is currently unlikely. More depleted $\delta^2\text{H}$ and $\delta^{18}\text{O}$ could be expected.

Conclusion: Samples 1 and 2: Based on the current state of knowledge an origin from China/ South-Est (Yunnan) is to be considered as currently likely.

Best Regards,

S. Hofem
(Food Chemist)
- Scientific Manager -



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Report

Annex of order 188U1512-0523_1-2
 Photos of samples 1 and 2:

