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CERTIFICATE OF ANALYSIS 39248

Client Details

Client	Blitz Holdings PTY Ltd
Attention	Mark Walker
Address	64 Ricky Way, Epping, VIC, 3076

Sample Details

Your Reference	**Health Holistics Shilajit**
Number of Samples	1 Resin
Date samples received	24/08/2023
Date completed instructions received	24/08/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	31/08/2023
Date of Issue	31/08/2023

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Chris De Luca, Assistant Lab Manager
Tara White, Metals Team Leader

Authorised By
Pamela Adams, Laboratory Manager

Acid Extractractable metals in soil		
Our Reference		39248-1
Your Reference	UNITS	Shilajit
Type of sample		Resin
Date digested	-	28/08/2023
Date analysed	-	28/08/2023
Antimony	mg/kg	<10
Arsenic	mg/kg	<4
Barium	mg/kg	6
Beryllium	mg/kg	<1
Boron	mg/kg	290
Cadmium	mg/kg	<0.4
Chromium	mg/kg	<1
Cobalt	mg/kg	<1
Copper	mg/kg	1
Lead	mg/kg	<1
Manganese	mg/kg	18
Mercury	mg/kg	<0.1
Molybdenum	mg/kg	<1
Nickel	mg/kg	1
Selenium	mg/kg	3
Tin	mg/kg	<2
Zinc	mg/kg	35
Iron	mg/kg	440

Cations in soil		
Our Reference		39248-1
Your Reference	UNITS	Shilajit
Type of sample		Resin
Date digested	-	28/08/2023
Date analysed	-	28/08/2023
Calcium	mg/kg	21,000
Potassium	mg/kg	66,000
Magnesium	mg/kg	16,000
Sodium	mg/kg	9,800
Phosphorus	mg/kg	180

Miscellaneous Inorg - soil		
Our Reference	UNITS	39248-1
Your Reference		Shilajit
Type of sample		Resin
Date prepared	-	25/08/2023
Date analysed	-	25/08/2023
Total Organic Matter	%	50
Total Organic Carbon (Walkley Black)	%	30

Method ID	Methodology Summary
Inorg-036	Total Organic Carbon or Matter - A titrimetric method that measures the oxidisable organic content of soils.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.

QUALITY CONTROL: Acid Extractractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			28/08/2023	[NT]	[NT]	[NT]	[NT]	28/08/2023	[NT]
Date analysed	-			28/08/2023	[NT]	[NT]	[NT]	[NT]	28/08/2023	[NT]
Antimony	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	105	[NT]
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	[NT]	[NT]	104	[NT]
Barium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Boron	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	125	[NT]
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	[NT]	[NT]	96	[NT]
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Selenium	mg/kg	2	Metals-020 ICP-AES	<2	[NT]	[NT]	[NT]	[NT]	102	[NT]
Tin	mg/kg	2	Metals-020 ICP-AES	<2	[NT]	[NT]	[NT]	[NT]	102	[NT]
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Iron	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: Cations in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			28/08/2023	[NT]	[NT]	[NT]	[NT]	28/08/2023	[NT]
Date analysed	-			28/08/2023	[NT]	[NT]	[NT]	[NT]	28/08/2023	[NT]
Calcium	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	101	[NT]
Potassium	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	99	[NT]
Magnesium	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	101	[NT]
Sodium	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	102	[NT]
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NT]	[NT]	119	[NT]

QUALITY CONTROL: Miscellaneous Inorg - soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			25/08/2023	1	25/08/2023	25/08/2023		25/08/2023	[NT]
Date analysed	-			25/08/2023	1	25/08/2023	25/08/2023		25/08/2023	[NT]
Total Organic Matter	%	0.1	Inorg-036	[NT]	1	50	50	0	[NT]	[NT]
Total Organic Carbon (Walkley Black)	%	0.1	Inorg-036	<0.1	1	30	30	0	94	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.