



UGANDA NATIONAL BUREAU OF STANDARDS

CERTIFICATE OF LABORATORY RECOGNITION

Certificate No: UNBS/LRS/0034

This certificate is valid as per the scope stated in the accompanying schedule of recognition, Annex "A" which is an integral part of the present certificate bearing the above recognition number for

Chemical and Mechanical Testing of Cement, Steel Bars, Soil, Aggregates, Rocks and Concrete.

In accordance with the recognised International Standard **ISO/IEC 17025:2017**

Being supplied to

CHC ANALYSIS UG LIMITED

P. O. Box 1424 Mukono, Uganda.

Plot 4-7, Block 113, Namanve Industrial Area, Mukono District, Uganda.

The recognition demonstrates technical competence and the operation of a laboratory quality management system to perform the testing as described in the Annex. While this certificate remains valid, the recognised laboratory above is authorised to use the relevant UNBS recognition number to issue facility reports and /or certificates.

Recognition Decision Date: 2023-04-12

Date of original issue: 2023-04-12

Certificate Issue No: 01

Effective Date: 2023-04-12

Expiry date: 2026-04-11

Certificate Issue date: 2023-04-12

Executive Director
UGANDA NATIONAL BUREAU OF STANDARDS



ANNEX A

SCHEDULE OF RECOGNITION – TESTING LABORATORIES

Facility Number	Certificate Number UNBS/LRS/0034	S/N	Technical Signatories	Method
CHC Analysis Ug Limited Plot 724 Block 113, Namanve Industrial Area P.O. Box 1424 Mukono		1.	Dong Fei (Technical Signatory)	➤ US EAS 148-1: 2017, BS EN 196-1:2016, ISO 679-2009. (Flexure and Compressive testing Machine), ➤ US EAS 148-3: 2017, BS EN 196-3:2016, ISO 9597-2008 ➤ US EAS 148-5: 2017, BS EN 196-5:2011 ➤ US EAS 148-6: 2017, BS EN 196-6:2018 ➤ US EAS 148-7:2017, BS 196-7:2007 ➤ US EAS 148-8: 2017, BS EN 196-21:1992 ➤ US EAS 412-1:2019 and ISO 15630-1:2019 (Servo Hydraulic Universal testing Machine). ➤ ISO 6892-1:2019 ➤ BS 1377-1:2016 ➤ BS 1377-2:2022 ➤ BS 1377-3:2018 ➤ BS 1377-5:2022 ➤ BS 1377-7:2022 ➤ BS 1377-9:1990 ➤ BS 812-109:1990 ➤ BS 812-110:2020 ➤ BS 812-111:1990 ➤ BS 812-112:1990 ➤ BS 812-118 ➤ BS 812-121 ➤ BS 812: section 105.2:1990 ➤ BS 1924-2:2018 ➤ ISO 7438:2020 ➤ ASTM D 5731-16 ➤ BS EN ISO 14689-1 : 2003
		2.	Kivumbi Frank (Technical Signatory)	➤ BS 1377-2:2022 ➤ BS EN ISO 12350-5:2019 ➤ BS 1881-102:1983 (Slump cone, tamping rod) ➤ BS 1377-4:2022 ➤ BS 1377-5:2022 ➤ BS 1377-7:2022 ➤ BS 812-109:1990 ➤ BS 812-110:2020 ➤ BS 812-111:1990 ➤ BS 812-112:1990 ➤ BS 812-118 ➤ BS 812-121 ➤ BS 812: section 105.2:1990 ➤ US EAS 148-1:2017 ➤ US EAS 148-3:2017 ➤ BS EN 1097-3:1998 (Balance, tampering rod, measure, scoop, standardization equipment, unit weight bucket.

			➤ BS 1881-116:1983. (Compressive strength machine). ➤ BS 1881-108:1983
	3.	Mabirizi Titus (Technical Signatory)	➤ BS 1377-2:2022 ➤ BS 812-109:1990 ➤ BS 812-110:2020 ➤ BS 812-111:1990 ➤ BS 812-112:1990 ➤ BS 812-118 ➤ BS 812-121 ➤ BS 812: section 105.2:1990 ➤ US EAS 148-3:2017 ➤ ISO 9597-2008 ➤ ISO 679:2009. ➤ BS EN 1097-3:1998 ➤ BS EN 1097-4: Part 103.1:1985 ➤ BS EN 933-3: 2012 ➤ BS EN 1097-3:1998 (Balance, tampering rod, measure, scoop, standardization equipment, unit weight bucket. ➤ BS EN 1097-4:2008 ➤ BS EN 933-10:2009 (Balance, sieves, mechanical shaker, oven.
	4.	Omadang Pascal (Analyst)	➤ BS 1377-3:2018 ➤ BS 1377-2:2022 ➤ ISO 4945:2018, ISO 9647:2020, ISO 9658:1990, ISO 6306:2020.
	5.	Ochan Robert (Analyst)	➤ BS 1377-2:2022 ➤ BS 812-109:1990 ➤ BS 812-110:2020 ➤ BS 812-111:1990 ➤ BS 812-112:1990 ➤ BS 812-118 ➤ BS 812-121 ➤ BS 812: section 105.2:1990 ➤ US EAS 148-3:2017. ➤ BS 6463-103:1999. ➤ BS EN 1097-3:1998 ➤ BS EN 1097-4:2008 ➤ BS EN 933-10:2009 (Balance, sieves, mechanical shaker, oven. ➤ BS EN ISO 14689-1 : 2003
Material or products tested	Type of tests/property measured, Range of Measurement	Standard specifications, Techniques/Equipment used	
TESTING FIELD – CHEMICAL AND MECHANICAL			
Cement	Determination of strength	US EAS 148-1: 2017, BS EN 196-1:2016, ISO 679-2009. (Flexure and Compressive testing Machine.	
	Determination of standard consistency, setting time and soundness	US EAS 148-3: 2017, BS EN 196-3:2016, ISO 9597-2008.	

	Determination of chloride, carbon dioxide and alkali content.	US EAS 148-8: 2017, BS EN 196-21:1992
	Pozzolanicity test for pozzolanic cements soundness	US EAS 148-5: 2017, BS EN 196-5:2011
	Determination of fineness	US EAS 148-6: 2017, BS EN 196-6:2018
	Methods of taking and preparing samples of cement	US EAS 148-7:2017, BS 196-7:2007
Steel Bars	Tensile strength	US EAS 412-1:2019 and ISO 15630-1:2019(Servo Hydraulic Universal testing Machine. ISO 6892-1:2019
	Lower yield strength	US EAS 412-1:2019 and ISO 15630-1:2019(Servo Hydraulic Universal testing Machine. ISO 6892-1:2019
	Upper yield strength	US EAS 412-1:2019 and ISO 15630-1:2019(Servo Hydraulic Universal testing Machine. ISO 6892-1:2019
	Elongation	US EAS 412-1:2019 and ISO 15630-1:2019(Servo Hydraulic Universal testing Machine. ISO 6892-1:2019
	Bending test	ISO 7438:2020.
	Compressive strength test	US EAS 412-1:2019 and ISO 15630-1:2019(Servo Hydraulic Universal testing Machine. ISO 6892-1:2019
	Chemical tests	ISO 4945:2018, ISO 9647:2020, ISO 9658:1990, ISO 6306:2020.
Soil	Moisture content	BS 1377-2:2022 (moulds, rammer, sample extruders, balance and scale, oven, straight edge, mixing tools, containers.
	Plastic limit and plasticity index (Cone penetrometer) and Linear shrinkage	BS 1377-2:2022. (Penetrometer, balance, oven.)
	Particle size determination – pycnometer.	BS 1377-2:2022. (Pycnometer)
	Bulky density for undisturbed samples	BS 1377- 2:2022.
	Particle size distribution – Hydrometer.	BS 1377-2:2022.
	Consolidation Test Odometer	BS 1377-5:2022.
	Triaxial test	BS 1377-7:2022.
	Shear box test	BS 1377-7:2022.
	Permeability test Constant Head	BS 1377-5:2022.
	Organic content ignition Loss	BS 1377-3:2018.

	PH value	BS 1377-3:2018.
	Sulphate and carbonate content.	BS 1377-3:2018.
	Chloride content	BS 1377-2:2022.
	Field density	BS 1377-9:1990.
	Sampling, sample preparation and tests on materials before stabilisation	BS 1377-1:2016.
	Preparation of stabilised samples for UCS	BS 1924-2:2018.
	Compaction Test and UCS of stabilized materials.	BS 1924-2:2018.
	Quick lime, hydrated lime and natural calcium carbonate.	BS 6463-103:1999.
	Initial consumption of lime - ICL	BS 1924-2:2018.
Aggregates	Moisture content	BS 812-109:1990
	Relative Density	BS EN 1097-3:1998
	Determination of loose bulky density and air voids	BS EN 1097-3:1998 (Balance, tampering rod, measure, scoop, standardization equipment, unit weight bucket.
	Water absorption	BS EN 1097-3:1998
	Determination of voids of dry compacted filler	BS EN 1097-4:2008
	Particle size distribution	BS EN 1097-4: Part 103.1:1985
	Flakiness index (FI)	BS EN 933-3: 2012
	Elongation index.	BS 812: section 105.2:1990.
	Average list dimension (ALD)	BS EN 933-3: 2012
	Aggregate crushing value (ACV)	BS 812-110:2020
	Ten Percent Fines value(TFV)	BS 812-111:1990
	Aggregate Impact Value (AIV)	BS 812-112:1990
	Determination of percentage of	BS 812-112:1990 (Balance, sieves, mechanical shaker, oven.)

	crushed and broken surfaces in coarse aggregates.	
	Assessment of fines-Grading of fillers	BS EN 933-10:2009 (Balance, sieves, mechanical shaker, oven.
	Sulphate Content	BS 812-118
	Aggregate Soundness	BS 812-121
Rock	Unconfined compressive strength	BS EN ISO 14689-1 : 2003
	Point load test	ASTM D 5731-16
Concrete	Slump test	BS 1881-102:1983 (Slump cone, tamping rod)
	Flow table test	BS EN ISO 12350-5:2019
	Concrete cube strength	BS 1881-116:1983. (Compressive strength machine).
	Concrete mix design	BS 1881-108:1983

ISSUED BY

UGANDA NATIONAL BUREAU OF STANDARDS

.....


MANAGER CERTIFICATION DEPARTMENT

1