



Applus⁺

Together
beyond
standards

CARGO & SHIPMENT INSPECTION SERVICES

2023



Introduction

Applus+ as one of the **world's leading Testing, Inspection & Certification companies** offers complete cargo inspection before, during and after shipment.

Our teams composed by high skilled inspectors verify for our clients quantity and quality of their shipments as well as the compliance with contract and legal requirements.

Applus has the necessary resources, experience and laboratories to complete all the process: draft survey, sampling, sample preparation and testing for different kinds of goods such us Coal & Coke, Agricultural Products, Cereals and Flours, Minerals , LNG & LPG and Containers.



The objective is to determine the weight of the material load into or unload from a vessel using draft survey measures according to internationally standardised draft survey protocol (Procedure EC/ENERGY/19)

Applus+ [®]		INGENIERÍA DEL TERRENO RECURSOS HIDRÁULICOS	
"DRAFT SURVEY" REPORT OF CARGO IN BULK		<input type="checkbox"/> LOADED <input type="checkbox"/> UNLOADED	MATHEMATICAL CALCULATION OF CARGO IN BULK
Vessel Identification		Surveyor	
Vessel No: 547 8328		4	
C. DIMENSIONS (LUMP) C. MEAN DRAFTS 		D. PERMANENT CORRECTION 	
E. CORRECTED DRAFTS L (m) = 10.000 M (m) = 10.000 P (m) = 10.000		F. SYSTEM CORRECTIONS SYSTEM CORRECTIONS = 0.000 MEASUREMENT CORRECTIONS = 0.000 STRAIN CORRECTIONS = 0.000	
G. DRAFT CORRECTIONS Draft Error & Air Pressure - EA = 0.000 Mean of Pressure - MP = 0.000 Draft Gauge Error and Sag - MDC = 0.000 Tide = 0.000		H. DISPLACEMENT Displacement = 10000 LAD = 10000 MTC = 10000	
I. DWT CONNECTION DWT = 10000 Tare = 0.000		J. DWT CONNECTION Gross Weight = 10000 Net Weight = 10000	
L. MAIN TRIM CORRECTIONS			

We measure the displacement of the water before and after the loading or unloading, and using our specific software, we obtain the weight of the cargo from the difference between the two displacements



- Applicable to Vessels with cargo > 5000T
- Inspections at origin and final destination
- Inspections carried out by Surveyors
- High performance inspections, optimized procedure

Inspection Services

Load and discharge supervision

Vessels with cargo < 5,000T

Applus provides inspection services during load and unload assuring our clients that the cargo shipped is the one bought or sold.

Our surveyors conduct the inspection of the vessel before the loading to verify cleanliness, environmental and safety conditions. After the cargo they check secure conditions.

Our report includes information of all the shipment process: storage, handling, stowage in the receiving carrier; type, name and/or number of receiving carrier; date of arrival and departure, incidents, delays during the process, etc.

Successful case: Applus has been responsible since 2002 for the control and monitoring for Coke Discharges in La Coruña Port for Showadenko (SGL Carbon Group)



Sampling & Sample Preparation

According to International Standards

First step before Testing. Great importance to guarantee representativeness.

Representative Sampling

Where? Carried out in Ports, Industrial Zones, Stores... From:- Stockpiles- Conveyor belts- Trucks and Wagons- Vessels

How? Automatically- Manually

Sample preparation

Different equipment, physical operations: grinding, quartering, screening, drying...

Different methods depending on the product size and test

We prepare samples as per client internal procedures



Coal Sample. Thermoelectric Plant Test





COAL SAMPLING IN THERMOELECTRIC PLANT IN ANDORRA (Teruel)



COAL SAMPLING IN THERMOELECTRIC PLANT IN CARBONERAS (Almería)

COAL SAMPLES



COAL SAMPLE EXTRACTION IN THERMOELECTRIC PLANT MEIRAMA (A Coruña).



DETAIL VIEW OF MANUAL SAMPLING OF COAL



Testing

Applus + performs material testing both in laboratory and on site, to verify cargo quality according to International Standards. We verify characteristics of the products and compliance with the International Regulations as well as contract conditions.

We conduct physical & chemical testing depending on the type of the goods and nature.



THERMOGRAVIMETRIC ANALYZER FOR THE DETERMINATION OF THE IMMEDIATE ANALYSIS)

TRUSPEC ELEMENTARY ANALYZER (CHN-Sulphur Module)



CALORIFIC VALUE DETERMINATION CALORIMETER



Anexo Técnico / Technical Annex
Nº 76/ LE1208 Rev./Ed. 11
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APPLUS NORCONTROL, S.L. (Unipersonal) (APPLUS)

Dirección/Address: Carretera Nacional VI, Km 582
15168 – SADA (A CORUÑA)
Norma de referencia/Reference Standard: UNE-EN ISO/IEC 17025:2005
Actividad/Activity: Ensayos/Testing
Acreditación/Accreditation nº: 76/LE1208
Fecha de entrada en vigor/Coming into effect: 12/05/2006

ALCANCE DE LA ACREDITACIÓN
SCHEDULE OF ACCREDITATION
(Rev./Ed. 11 fecha/issue 12/05/2016)

Instalaciones donde se llevan a cabo las actividades cubiertas por esta acreditación
Facilities where the activities covered by this accreditation are carried out:

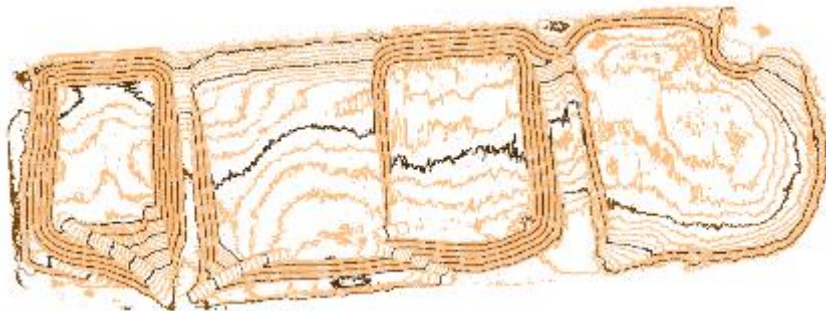
C/ Francisco Sancha, 8 Bajo. Polígono Industrial Puencarral; 28034 – Madrid (Madrid)

Stockpile Measurement

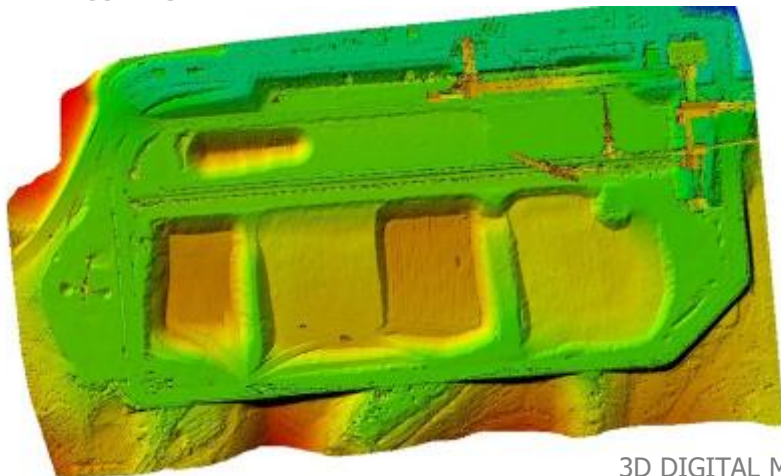
Applus+ provides comprehensive Service for Stockpile Measurement at ports, storehouses, mines, refineries or manufacturing facilities. We have cutting-edge technologies to determine volume and density of different materials

Depending on the work, we determine volume using laser scanner, LIDAR, topographic survey (GPS) or RPAS. **TOPODRON** is a complete system that performs photogrammetry works. It includes Pix4D software for processing data as well as planning and flight simulator software

We obtain the 3D Model and we provide our clients with the Ground Digital Model, Ortophoto and Level Curves



LEVEL CURVES



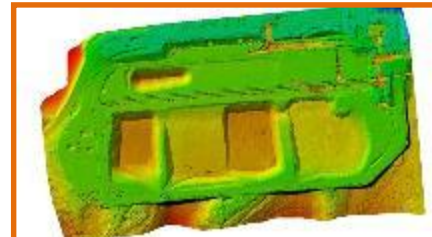
3D DIGITAL MODEL



3D MODEL WITH TEXTURES

Main Experiences

Thermal Power Plant (ALMERÍA)



Road Survey: VIVEIRO-SAN CIBRAO (LUGO)



Stone Quarry (GALICIA)



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