

ENGINEERING, INSPECTION, TESTING & LAB SERVICES

LONESTAR



Groupe **apave**



One Stop Solution for all your testing needs...



Lonestar Dubai and Lonestar Abu Dhabi provides testing, engineering, and survey services. They are accredited to ISO/IEC 17025:2017, certified to ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, and are registered with the UAE Ministry of Industry and Advanced Technology. Lonestar Dubai maintains ISO 17025:2017 through Emirates International Accreditation Centre (EIAC), GCC Accreditation Center (GAC) and International Accreditation Service (IAS). Lonestar Abu Dhabi holds ISO 17025:2017 accreditation through Emirates International Accreditation Centre (EIAC) and Emirates National Accreditation System (ENAS). Details of each accreditation is available on the respective accreditation bodies' websites.

Lonestar was established in 1992 to meet the industry requirement by establishing Lonestar Technical Services in the emirate of Dubai in United Arab Emirates. In the following years, the need to extend the testing and laboratory services to the emirate of Abu Dhabi – UAE, which resulted in establishment of our laboratories in Abu Dhabi.

As of 1st January 2024, Lonestar Laboratory is pleased to announce its acquisition by the Apave Group.

Apave is an international group with over 150 years of experience in technical, human, environmental and digital risk management. An independent company with a turnover of €1.2 billion in 2023, Apave operates in the TIC industry, providing inspection, testing, certification, training, and consulting services. The group currently has 14,000 employees, 130 branches in France, 170 training sites in France and abroad and 18 test centres. Apave has an international presence in more than 55 countries.

The alliance of Apave and Lonestar's extensive expertise, reputation signifies a new chapter of enhanced capabilities. This synergy will enable Lonestar to adeptly address the evolving needs and intricacies of its clientele, delivering unparalleled efficiency and efficacy in risk management.

Quality Training

Lonestar has strong in-house quality training program. Continuous training is imparted to all the staff in their respective fields to meet the growing need of customers and international standards. Our quality-training program is based on the principle of continuous improvement.

Our staffs are trained in various disciplines and special training is provided for specific projects, when required.

QA/QC Areas

For any test result to be valid and reliable, careful monitoring and implementation of QA/QC procedures are required. One key element of successful quality assurance is regular participation of a laboratory in a national and/or international Proficiency Testing Program (PTP) program. Lonestar Dubai and Lonestar Abu Dhabi participates regularly in national and international PTP with most results exceeding the minimum requirements of acceptance.

The strength of our QA/QC program encompass the following areas:

- Sampling Procedures
- Analytical Procedures, Revisions and Validations
- Internal Quality Control Checks
- Internal Training Programs
- Corrective Action Reports (CARs)
- Management Review Meeting (MRM)
- Calibration Checks and Frequencies
- Reporting
- Internal Performance and System Audits
- Assessment of Precision and Accuracy
- Non Conformance Reports (NCRs)
- Internal Quality Audit (IQA)

Lonestar Major Diversified Divisions/Testing Facilities:

- Analytical Chemistry Division
- Food Testing - Microbiology
- Industrial Hygiene Division (IH)
- Clean Room Validation
- Mechanical/Material Testing Division
- Corrosion Testing / Salt Spray Test Facility
- Geotechnical Engineering Division
- Environmental Testing Division
- Food Testing - Nutrition Analysis
- Indoor Air Quality Division (IAQ)
- Metallurgical Failure Investigation Division
- Full Ring / Coating Testing Facility
- Civil/Construction Material Testing Division
- Topographic Survey



ANALYTICAL CHEMISTRY DIVISION

Lonestar Dubai & Abu Dhabi offer the most advanced and unique environmental, chemical and water analysis in the Middle East / Gulf Region. Our full complement of analysis is conducted on various matrices which includes:

Waste Water and Effluents Analysis: Services offered for Dubai Municipality waste disposal / Jebel Ali Free Zone Authority / Abu Dhabi Municipality / ADSSC / Sharjah / Trakhees.

Drinking Water Analysis: Chemical and Microbial analysis of drinking water as per GSO / WHO / RSB guidelines

Sludge / Waste Paint Analysis: Services offered for Dubai Municipality waste disposal / Jebel Ali Free Zone Authority / Abu Dhabi Municipality / ADSSC / Sharjah / Trakhees.

Soil And Sediment Analysis: We offer services for Soil and Sediment sample analysis for various Inorganic tests parameters including Heavy metals and Organic tests like TPH - Total Petroleum Hydrocarbons, VOC-Volatile Organic Compound, SVOC-Semi Volatile Organic Compound, Organochlorine Pesticides, PCB-Polychlorinated Biphenyl, Halo Acetic Acid, TrihaloMethanes, Phenols, Polynuclear Aromatic Hydrocarbons by US EPA methods.

Oil Analysis: We offer services for new and used Oil samples from ship engines, transformer for evaluation of quality and continuous usage. Services are also offered for Fuel Oil - Gasoline, Diesel and Heavy Fuel Oil.

Foam Analysis: Foam samples are analyzed for their continuous usage as a part of ship / vessel requirements as per MISC 16 / 312.

Deposit / Scale Analysis: Scale and Deposit samples are routinely analyzed for determination of their composition which helps our client determine the source of corrosion / contamination and thus helps them prevent material repair and time loss.



Steel Analysis

Ferrous & Non-Ferrous Steel Analysis: We routinely offer services for determination of grades of various Steels – Carbon / Stainless / Duplex / Inconel, Aluminum, Brass and Bronze materials by Optical Emission Spectroscopy / wet methods with a turnaround time of 24 hours. Our faster TAT saves a lot of time for our clients as it help them procure the right material at right time for timely service to their client.

Zinc / Aluminum Coating Analysis: Services offered for determination of Zinc and Aluminum coatings for routine compliance for projects as per ASTM and ISO methods.



Corrosion Inhibitor Analysis

Corrosion Inhibitors are routinely used in Oil Field Industry for prevention of Rust and Deposit in the pipelines. Corrosion Inhibitor analysis is carried out using FTIR and other techniques to evaluate their quality as per client order requirements which helps them decide the correct inhibitor for a specific requirement.

Microbiological Analysis

Microbial analysis of Drinking water / sludge / Food / Waste water as per GSO / WHO / RSB guidelines. We also offer Growth media, sampling and analysis of SRB-Sulfate Reducing Bacteria / GAB-General Aerobic Bacteria analysis / APB-Acid Producing Bacteria in Oil Field water and Deposit samples.

Legionella analysis in drinking water samples.



ENVIRONMENTAL TESTING DIVISION

Lonestar provides compliance monitoring to Municipal, Federal and International standards. Our expertise is made possible by our integrated team of professionals in the field. Laboratory analysis of air sampling is performed using NIST or equivalent standards for accuracy. Our equipment are calibrated/inspected routinely to ensure maximum sensitivity and efficiency.

Stack / Stationary Source & Ambient Air Monitoring

We routinely offer services for Stack, Ambient and Noise monitoring for various clients in Dubai, Abu Dhabi and regional Gulf countries for their Municipality and Federal Guidelines compliances. Our parameters includes routine test parameters like Particulate Monitoring, Oxides of Nitrogen, Sulfur Dioxide, Ozone, Total Volatile Organic Compounds in Stack and Ambient sources.

We also offer Dioxin and Furan sample collection and analysis for incinerator emission monitoring.

Monitoring Performed

Lonestar provides Stack Testing and Ambient Air Monitoring services to solve many environmental challenges:

- Emissions Surveys
- Trial Burns
- CEMS/PEMS Certifications
- Control Equipment Specification / Performance / Acceptance
- Worker and Public Safety / Air Quality
- Real-Time Process Evaluation and Optimization
- Waste Reduction
- Regulatory Compliance
(Title V, MACT, BACT, NESHAP, NSPS, PSD etc.)



Particulates Monitoring

Monitoring Particulates in indoor, outdoor and workplace atmosphere is performed by Lonestar using:

- Sampler equipped with continuous data logging capability
- Measurement of Total Suspended Particulate (TSP) & Respirable Particulate (PM10)

Noise Monitoring

Noise Monitoring is carried out for work place and Ambient Air using Class 1 Noise Meter which confirms to IEC 61672 Class 1 and reporting with data logging for Leq, Lmax, Lmin, Leq 50, L10 and L90. As part of the workplace compliance program with many companies, Lonestar monitors Noise Levels as follows:



- Measurement of Noise in dB in Outdoor, Workplace and from Operating Equipment
- Noise meter confirms to IEC 61672 Class 1 and Class 2 ANSI S-1.4
- Meter with continuous data logging ability and measures Total dB, Leq, min. & max, Leq50, L10 & L90.



FOOD TESTING - MICROBIOLOGY

The Food and water microbiological testing division includes analytical services to detect and enumerate pathogenic microbes (such as Salmonellae, Listeriae, Legionella) and their toxins.

Detection of organisms causing decay (such as yeasts, fungi or molds) and to provide hygiene quality checks (such as Total Bacterial count, Total / Fecal coliforms, Clostridium perfringens, Staphylococcus, Enterobacteriaceae) with the aim of making foods, water and other products such as cosmetics safer for our clients, meeting statutory requirements and safeguarding the consumer brand.

Lonestar now offers food testing in a variety of matrices:

- Raw and Cooked Food
- Drinking Water
- Animal Feed
- Cosmetics
- Food Ingredients / Additives

Lonestar is accredited to ISO 17025 for analyzing numerous parameters in water and food samples in compliance to the prevailing local regulations. We undertake sample collection and transport samples under strict food microbiology transport practices adhering to relevant local regulations.

We cater to various industries including Hospitality sector, Hospitals, Food Manufacturers and Food Outlets, Importers and Exporters of Food and related items.

We aspire to support our client`s efforts and programs by providing safe products to their consumer market. Please contact LONESTAR today to enquire about our Water and Food pathogen testing services and how we can help you protect your business, customers and consumers and most importantly **YOUR BRAND**.



FOOD TESTING - NUTRITION ANALYSIS

Food Safety and Quality are of greatest importance to everyone involved in the manufacturing and distribution of food products and services.

Lonestar Laboratory's innovative approach and client focused understanding means it can make a positive impact on business as a truly global partner that understands the wide variety of international standard and regulations, from source, during production and through delivery.

Lonestar laboratory has developed processes and systems which ensures accurate testing and provides timely results to the clients. Our educated and experienced scientific chemists and technicians backed with our state-of-the-art equipment ensure that the products are tested in the most accurate manner and in an economical way.

The laboratory operates with a well-developed mature quality assurance systems and processes with customer centric approach to offer a holistic solution beyond testing and certification of the products and service to its client Internationally.

Tests at Lonestar laboratory are conducted as per International Standard such as AOAC, AOCS, ISO, GSO and In House Validated Test Methods. We offer wide range of ISO 17025 Accredited Testing Services to the Industries to include:

- Beverages
- Fruits and Vegetables
- Spices and Condiments
- Meat and Poultry
- Oils and Fats
- Nut and Nut Products
- Bakery and Confectionary
- Milk and Dairy Products
- Fish and Marine life
- Tea and Coffee
- Cereal and Pulses
- Honey
- Animal Feed



OIL / NATURAL GAS TESTING & ANALYSIS

Oil Testing Facility

Lonestar Laboratories provide testing of various petroleum products like Engine oil, Gear oil, ATF oil, Hydraulic Fluid, Brake Fluid and Fuel samples etc. The benefits of periodic Lube oil testing include- Reduced downtime, Reduced Maintenance Costs, Increased Machine Life, Increase in Productivity thereby leading to increased Profitability.

Lonestar also provides fuel testing services to many industries across UAE where fuel quality is of paramount importance. Testing of fuels is carried out as per international methods like ASTM, IP, UOP & IS Standards. We offer fuel testing services which include the entire range from Distillate Fuels, Residual Fuels, Fossil Fuels and Bio-fuels. Our regular customers include from various industry sectors as detailed below:

- Transport
- Road
- Rail
- Shipping
- Air
- Fuel Suppliers and Importers
- Mining
- Construction
- Power Generation
- Engines
- Transmission
- Injection Moulding
- Gearboxes
- Turbines -Wind, Gas, Stream, Hydro.

Natural Gas Testing & Analysis

Lonestar Laboratories provide natural gas quality and component analysis. Natural gas testing includes analysis of conventional and process gas at any stage; LNG, and hydrocarbon condensates and components. Gases analyzed include hydrocarbons from C1 to C14+ such as methane, ethane, propane, iso-butane, n-butane, iso-pentane, n-pentane, and hexane, BTEX plus heavier fractions.

Our Lab is well equipped and experienced in determining trace detection levels of impurities such as Hydrogen Sulfide, Hydrogen, Nitrogen, Carbon monoxide, Carbon dioxide, Oxygen, Mercury, Sulfur, Water, and other components.

We are accredited to ISO 17025 for Natural gas analysis and has been providing these services to various industries such as Oil and Gas, Marine industry, Biogas industries and other Gas companies in the region.



CLEAN ROOM VALIDATION

Lonestar offers a wide range of Clean Room Validation/Inspection/Testing/Certification services to Healthcare facilities, Pharmaceutical facilities, Research/Testing Laboratories and Manufacturing facilities supported by an experienced team of trained engineers, technicians and modern equipment. Lonestar has gained the reputation of providing accurate and timely professional services; particularly when it relates to validation of clean rooms in the Healthcare and Pharmaceutical facilities as per the requirements/technical guidelines of UAE-MOHAP / DOH / HAAD / OSHAD / DHA and International ISO 14644, ISO 14698, BS EN ISO 14644, EN 12469, UK-HTM, EU GMP, HACCP / ISO / FSSC 22000, US-Federal STDS 209, CDC, ASHRAE, NSF / ANSI 49 and USP 800.



Clean Room Test Parameters:

- Airborne Particle Counts
- Ventilation Testing
- Thermal Comfort
- Noise Comfort
- Bio-Safety Cabinet Testing / Fume Hood Testing
- Filter Integrity Testing / DOP Testing
- Pressure Differential Testing
- Visual comfort
- General Indoor Air Quality

Our Services to Following Sectors:

Healthcare Facilities: Operation Theatres, Delivery suites, ICU, NICU, PICU, IVF, Isolation Rooms, Procedure Rooms, Dialysis Rooms, ER Rooms, Recovery Rooms, CSSD-Dirty / Sterile / Packing areas, Laboratories, Positive and Negative Protective Environments, etc.

Pharmaceutical Facilities: IP Pharmacy, Clinical Trial / Aseptic Preparation and Support Rooms including Sterilization, Sterile Filling, Sterile Store, Controlled Drugs Stores, etc.

Research / Testing Laboratories: Aseptic Preparation and Support Rooms including Sterilization, Sterile Filling, Sterile Store, Food Testing Labs, Health Screening Labs, Positive and Negative Protective Environments, etc.

Manufacturing Facilities: Food Products, Cosmetic / Skincare Products, Healthcare Equipment's / supplies, Aeronautical Equipment's / Supplies, Medicine / Drugs / Aseptic Preparation and Support Rooms including Sterilization, Sterile Filling, Sterile Store, Positive and Negative Protective Environments, etc.



INDUSTRIAL HYGIENE/INDOOR AIR QUALITY DIVISION

Lonestar is the largest Industrial Hygiene (IH) / Indoor Air Quality (IAQ) Field Services Team in the MENA Region. Our Project Sampling services utilizes dedicated team of technically qualified field staff and the latest Intrinsically Safe (IS) equipment. Lonestar performs Airborne, Bulk Material and Surface Type Chemical, Physical, Noise, Asbestos, Microbiological Inspection / Survey / Sampling / Analysis.

Industrial Hygiene (IH) Monitoring

Industrial Hygiene (IH) Monitoring Tests Conducted:

- Silica
- Acid Mists
- Hazardous Gases
- Dusts / Particulates
- Hazardous Chemical Compounds
- LUX / Lighting / Illumination Monitoring
- Sound/Noise Level Monitoring (Ambient/Area & Personnel/Dosimetry)
- Analysis of Bulk Material Samples for Asbestos/Non-Asbestos by Visual ID
- Inspection / Survey / Sampling / Analysis of Work Place for Asbestos, Lead, Hazardous Chemicals / Metals / Dusts / Fumes.
- Hazardous Metals
- Asbestos in Air
- Meteorological
- Microbiological
- Occupational Parameters
- Vibration Monitoring
- Combustible Gases
- Oil Mists
- Breathing Air Quality

Industrial Hygiene (IH) Monitoring performed for following requirements:

- Municipal, Commercial, Industrial, Governmental Regulatory Agency.
- Internal audit workplace monitoring for occupational exposure risk assessment.

Indoor Air Quality (IAQ) Monitoring

Indoor Air Quality (IAQ) Monitoring Tests Conducted:

- Particulate Fractions
- Differential Pressure
- Vibration Monitoring
- Fungal/Mold Spore Identification/Quantification
- Toxic Vapors & Gases
- Occupational Parameters
- Hazardous Metals Dusts/Fumes
- Acid Mists
- Silica
- Oil Mists
- LUX/Lighting/Illumination Monitoring
- Hazardous Chemical Compounds
- Occupational/Workplace Monitoring
- Meteorological
- Microbiological
- Air Velocity
- Sound/Noise Level

Typical Indoor Air Quality (IAQ) Surveys:

- IAQ or IEQ profile for LEED GREEN Building
- Mold/Fungal Spore contamination
- IAQ Occupational Monitoring of Workplace for Sick Building Syndrome
- Mold/Fungal Spore Airborne Contamination Monitoring
- Compliance Monitoring for Municipal, Commercial, Military, Industrial or Governmental Agency requirements.
- IAQ Monitoring
- Sick Building Syndrome

Typical IH/IAQ Monitoring Locations:

Commercial Office Buildings, Industrial and Medical Facilities, Military Facilities, Hotels, Manufacturing Facilities, Schools, Engineering Services Facilities, Federal & Municipal Facilities, Personnel Training Facilities, Ships and Offshore Vessels, Rigs, Executive Offices, Private Facilities, Fabrication Yards, Accommodation Facilities - Onshore/Offshore.



MECHANICAL TESTING/METALLURGY DIVISION

Lonestar has the capability to cater to the Mechanical Testing requirements of a wide range of materials and products. The testing capability and experience are recognized by reputed classification societies and third party inspection agencies.

Mechanical/Material Testing Division

Our Mechanical Testing Division is equipped to perform Mechanical Testing for wide range of materials and products. The tests we perform include:

- Tensile Test
- Hot Tensile Test
- Impact Test
- Bend Test
- Macro Examination
- Micro Examination
- Compression Test
- Fillet Fracture Test
- Nick Break Test
- Proof Load Test
- Flattening Test
- Flaring Test
- Crack Tip Opening Displacement (CTOD)
- Hardness Test (Brinell, Vickers and Rockwell)



Metallurgical Failure Investigation Division

Lonestar offers a wide range of metallurgical services to many diverse industries supported by an experienced team of metallurgical engineers, trained technicians and modern equipment. We offer a spectrum of metallurgical testing and it includes:

- Root Cause Metallurgical Failure analysis
- Replica Metallography
- Stereo and Optical Microscopy
- Grain Size Measurement
- Point count Method for Delta Ferrite
- Micro Structural Analysis



Coating Testing Facility

We provide a comprehensive list of coating test which is mainly applicable to pipes and field joint coatings.

The test we perform include:

- Cathodic Disbondment Test
- Holiday Detection
- Tensile Test
- Water Absorption Test
- Impact Strength
- Heat Ageing
- Pull Off Adhesion Strength
- Lap Shear Test
- Porosity Test
- Hot Water Immersion Test
- Flexibility Bend Test
- Coating Thickness Verification
- Peel Off Adhesion Strength
- Indentation / Penetration Resistance
- Coating Resistivity / Electrical Insulation Resistance Test



Corrosion/Full Ring Testing Facility

Our corrosion testing laboratory can perform a wide range of testing to qualify the material for sour service and various critical applications.

The test we perform include:

- Full Ring Test
- Hydrogen Induced Cracking (HIC)
- Intergranular Test (IGC)
- Pitting and Crevice Corrosion Test
- Sulfide Stress Corrosion Cracking Test (SSCC)
- Stress Orientated Hydrogen Induced Cracking (SOHIC) Test



CIVIL/CONSTRUCTION MATERIAL TESTING DIVISION

Civil/Construction Material Testing Division of Lonestar Abu Dhabi & Lonestar Dubai offers a wide range of Construction Material Testing Services through our well experienced Management team and supporting technical crew, who undertake challenges of the industry. Our Civil lab possess the capabilities of testing Physical and Mechanical properties of construction materials both field and laboratory to check the compliance with local / international / project specifications as per ASTM, AASHTO, BS and DIN standards.

Soil Testing

- Plate Loading Test
- Soil Resistivity (Field & Lab)
- Particle Size Distribution (Sieve & Hydrometer)
- Maximum Dry Density-Optimum Moisture Content Relationship (MDD/OMC)
- California Bearing Ratio (CBR), Field Density Test
- Liquid Limit, Plastic Limit and Plasticity Index (LL, PL & PI)
- Specific Gravity, Linear Shrinkage, Sand Equivalent Value
- Field Compaction by Sand Replacement Method and Nuclear Density Meter
- In situ CBR Testing
- Thermal Resistivity (Field & Lab)



Fresh & Hardened Concrete Testing

- Lab and Plant Trial Mixes
- Concrete Mix Design
- Tensile Split Strength
- Dimension and Water Absorption of Masonry / Paving Block
- Supervision of Field Concreting and Quality Control of Project
- Temperature Monitoring of Mass Concrete (Thermocouple)
- Investigation and Testing of Building & Road Construction Materials
- Compressive Strength (Conc. Cube / Cylinder / Masonry Block / Interlock / kerb-Stone / Marble etc.)
- Coring and Core Compressive Strength
- Concrete Deterioration Investigation
- Rebound Hammer Test



Concrete Durability Test

- Water Absorption Test (W.A)
- Water Permeability Test (W.P)
- Porosity
- Rapid Chloride Permeability Test (RCP)
- Initial Surface (ISAT)

Pile Testing

- Low Strain Pile Integrity Test
- Caliper Logging
- High Strain Pile Dynamic Load Test
- Pile Load Test (Supervision)
- Cross Hole Sonic Logging



Reinforcement Steel Testing

- Tensile Test
- Bend
- Re-Bend

Other Testing Services

- Aggregate & Rock Testing
- Electrical Resistivity of Concrete
- Ultrasonic Pulse Velocity Measurements
- Ultrasonic Scanning for the Reinforcement
- Chemical Analysis of Soil, Concrete, Aggregate, Admixture, Asphalt, Cement and Cementitious Materials, Steel, Drinking Water, Waste Water, Water for Concrete & Swimming Pool etc.
- Pull out Test, Pull off Test
- Refractory Material Testing
- Cement Testing
- Asphalt Testing



GEOTECHNICAL ENGINEERING DIVISION

Geotechnical Engineering Division of Lonestar Abu Dhabi & Lonestar Dubai offering a unique and comprehensive perspective on ground engineering and foundation works. Our management staff has over 15 plus years combined experience in the field of topographic survey, resource mapping, ground investigation, geotechnical engineering & design and project management. Our customers include, Government Infrastructural Bodies, National & International Oil Production Companies, Consulting Engineers, Project Management Companies, Developers and Private Industries.

Scope of Geotechnical Investigation

Drilling, Sampling, In-situ Borehole Testing, Interpretation of Field Data, Preparation of Borehole Log, Refine the Geotechnical Design Parameters, Presentation of Factual and Interpretative Engineering Report with Bearing Pressure/Working Load Recommendation, Foundation Type, Foundation Concrete and Guidelines for Ground Improvement.

On shore Drilling Services

- Soil & rock sampling for Soil Investigation
- Soil & water sampling for environmental analysis
- Installation of monitoring wells
- Shallow & Deep holes for various diameter for electrical grounding / cathodic protection

Subsurface Investigation

- Test Pit, Boreholes with SPT, DCPT, Macintosh Probe Test
- Static CPTu

Foundation Engineering

- Shallow and Deep Foundation Designs
- Settlement Analysis
- Slope Stability Analysis
- General Consultations

In-situ Borehole & Field Tests

- SPT, Soil Permeability (Falling Head & Constant Head)
- Packer Test (Rock Permeability)
- Seismic Down Hole Tests & Cross Hole Tests
- Seismic CPT
- Electrical Resistivity of Soil & Electrical Resistivity Tomography
- Thermal Resistivity of Soil (Both Lab and Field)
- Pressure Meter / Elastometer
- MASW Survey
- Geotechnical Instrumentation
- Discrete Interval Water Sampling

Other Services

- Topographical Survey



Lonestar survey division dedicated to the provision of comprehensive and cost-effective topographical and underground utility survey solutions to the customers. We provide professional land surveying services by combining years of experience and up to date surveying equipment to ensure consistent, accurate and timely survey data and mapping. Our suitably experienced and talented survey team provides precise and comprehensive surveying by using conventional and cutting-edge survey equipment.

Topographical Survey (Contour Surveys)

A topographic survey locates all surface features of a property, and depicts all-natural features and elevations. In essence it is a 3-dimensional map of a 3-dimensional property showing all natural and man-made features and improvements. Specifically, it shows their location, size, height and any changes in elevation. Topographic surveys may be required as part of land development, civil engineering design and construction projects, including:

- Construction
- Remodeling projects to existing structures
- Utility design
- Road or bridge design or improvements

Grading or Drainage Projects

Together with a boundary survey, topographic surveys are used by architects and engineers to create accurate and appropriate designs based on existing conditions. Measurements for topographic surveys are done either with a surveying-quality GPS unit, or with an Electronic Distance Measurement unit. The results of the topographic survey are presented as contour lines on a site map, and can be enhanced by computer software to provide interactive views. Our Computer Aided Design Specialists can generate drawings, maps based on input from field observation or data.

Engaging a professional surveyor to conduct a topographic survey prior to land development or the commencement of a construction project will ensure that the land's features will be suitable for its intended use. In addition, a topographic survey can provide valuable insight in to how a site's previous or current use how affected the land, enabling better planning for future.

Underground Utility Survey

It is Important to collect all information regarding existing underground utilities within the surveyed areas, accurately locate all existing underground utilities by whatever means appropriate for the same and show all the existing above ground and underground utilities on the survey drawings. As the Infrastructure continues to grow due to new developments and the need to replace / maintain our existing utilities increases, It is very essential to keep an accurate information. It is always been a difficult task due to the lack of information which may cause:

- Risk to Safety of Workers and to the Public
- Inefficient design solutions
- Damage of third-party assets
- Abortive and unnecessary works

In-order to avoid the above Situations Standard Methods for Detection, Verification and Locating of Underground Utilities are very much important. All the Verified and Collected data has to be recorded for future use.

Following types of survey technique's:

- Desktop Utility Record Search
- Detection Methods
- Site Reconnaissance Method
- Verification Method



Laser Scanning & 3D Reality Capture Services

Laser scanning technology delivers a faster, more accurate, and comprehensive approach to site measurement and documentation than traditional surveying techniques. Using high-precision 3D laser scanners, millions of data points are captured in minutes—producing a detailed, true-to-scale digital representation of any environment.

Adopting this technology is essential to remain competitive and to expand our service capabilities, opening new opportunities in BIM, engineering design, and digital twin development. Unlike conventional surveys that depend on selective point measurements, laser scanning captures complete spatial information, eliminating the risk of missed details and reducing costly site revisits.

The result is a 3D point cloud that can be processed into CAD models, drawings, and immersive visualizations—providing clients, designers, and consultants with a clear, accurate understanding of existing conditions.



Key Benefits

- **Rapid Data Capture:** Significantly reduces fieldwork time and project downtime.
- **High Accuracy:** Millimetre-level precision ensures dependable and repeatable measurements.
- **Comprehensive Coverage:** Captures every visible surface, minimizing errors or omissions.
- **Improved Safety:** Reduces time spent in hazardous or difficult-to-access areas.
- **Enhanced Value:** Creates new opportunities in BIM integration and advanced engineering applications.

3D Reality Capture & Digital Twin Services

Our 3D Reality Capture Service transforms real-world environments into intelligent, measurable 3D datasets that enhance project accuracy, accelerate timelines, and support informed decision-making. Through advanced laser scanning and digital modeling, we deliver complete spatial intelligence for every stage of your project lifecycle.

Technical Capabilities

- **High-Density 3D Scanning:** Captures millions of data points per second, delivering dense point clouds with millimetre accuracy.
- **Automated Registration & Alignment:** Real-time field registration ensures seamless alignment of multiple scans across large or complex environments.
- **HDR Imaging Integration:** Combines detailed geometry with high-resolution imagery for photorealistic 3D visualizations.
- **Comprehensive Coverage:** Efficiently scans confined interiors, open sites, and multi-level structures with consistent precision.
- **Data Compatibility:** Outputs provided in standard & customized formats for direct integration with modeling & engineering purposes.

Applications

- **Architecture & Engineering:** As-built documentation, design validation, and construction verification.
- **Construction Management:** Progress monitoring, clash detection, and dimensional control.
- **Industrial & Plant Facilities:** Equipment layout, maintenance planning, and retrofit design.
- **Heritage & Cultural Preservation:** Accurate digital archives for restoration and documentation.
- **Infrastructure & Utilities:** Surveying, deformation analysis and asset condition assessments.

Deliverables

- Registered point clouds and orthographic views
- 2D drawings and elevations derived from scan data
- BIM-ready models and digital twin integration
- 3D mesh and surface models
- Interactive 3D visualizations and virtual walkthroughs

Why Choose Our Laser Scanning & Reality Capture Service

By combining advanced scanning technology with expert data processing, we deliver precise, verified, and fully compatible 3D datasets that enhance collaboration, minimize rework, and optimize project outcomes. Our team ensures that every deliverable meets the highest industry standards, supporting seamless integration into your existing design and construction workflows.



The industry depends on accurate testing results of material products which are critical to public Health, Safety and Environment. Lonestar management and staffs are committed in maintaining a QHSE Management Systems that enables its laboratories to meet the requirements of ISO/IEC 17025:2017 accreditation, ISO 9001:2015, 14001:2015 and 45001:2018 certification.

Lonestar Dubai & Lonestar Abu Dhabi are both ISO/IEC 17025:2017 Accredited Testing Laboratories by Emirates International Accreditation Centre (EIAC). Lonestar Dubai is also accredited by GCC Accreditation Center (GAC) and International Accreditation Service (IAS), while Lonestar Abu Dhabi Lab is accredited by Emirates National Accreditation System (ENAS) as per ISO/IEC 17025:2017 Standards. The scopes of accreditation are available on the websites of the respective accreditation bodies.

Lonestar Dubai & Lonestar Abu Dhabi are certified by TUV as per ISO 9001:2015, 14001:2015 and ISO 45001:2018.



GAC – GCC ACCREDITATION CENTER No. ATL 0042



Testing - NAL 046

ENAS – EMIRATES NATIONAL ACCREDITATION SYSTEM NO. NAL 046



EIAC – EMIRATES INTERNATIONAL ACCREDITATION CENTER NO. LB-TEST-019



EIAC – EMIRATES INTERNATIONAL ACCREDITATION CENTER NO. LB-TEST-122



TUV SUD Middle East ISO 9001:2015 Certification



TUV SUD Middle East ISO 14001:2015 Certification



TUV SUD Middle East ISO 45001:2018 Certification

ACCREDITATIONS & CERTIFICATIONS

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EIAC LB-TEST-019
Lonestar Dubai



EIAC LB-TEST-122
Lonestar Abu Dhabi



GAC ATL-0042
Lonestar Dubai



ENAS NAL-046
Lonestar Abu Dhabi



IAS TL-1098
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ACCREDITATIONS & CERTIFICATIONS



ISO 9001:2015
Lonestar Dubai



ISO 14001:2015
Lonestar Dubai



ISO 45001:2018
Lonestar Dubai



ISO 9001:2015
Lonestar Abu Dhabi



ISO 14001:2015
Lonestar Abu Dhabi



ISO 45001:2018
Lonestar Abu Dhabi

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