



# Geotechnical Excellence

Professional Soil Testing & Engineering Services

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Technical Services  
Whitepaper



Comprehensive technical whitepaper showcasing our expertise, methodologies, and proven track record in geotechnical investigation services across the Philippines.

## EXECUTIVE SUMMARY

RAK-JR Technical Testing Services has established itself as a leading provider of geotechnical investigation and soil testing services in the Philippines. Since 2019, we have successfully completed 35 projects across diverse sectors including residential, commercial, infrastructure, and industrial developments.

**35**

COMPLETED PROJECTS

**28**  
**6**

Soil Boring Projects  
Primary geotechnical investigation  
Field Density Test Projects  
Quality control & compaction



**42**

MAXIMUM DEPTH

**28+**

CITIES & MUNICIPALITIES

**4**

MAJOR INDUSTRIES  
SERVED

- Industrial
- Infrastructure
- Healthcare
- Residential
- Transportation
- Telecommunications



Soil investigation is essential to the success of any construction project. Soils have unique properties and behaviors that can be either advantageous or detrimental to a project's structural integrity. Understanding subsurface geological conditions, soil characteristics, and bearing capacity through thorough investigation is crucial. Our expertise provides you with reliable, complete information based on extensive and comprehensive research about soil properties and bearing capacity.

## ABOUT RAK-JR

Founded in 2019 by qualified and experienced professionals, RAK-JR Technical Testing Services has established itself as a trusted partner in geotechnical investigation. The company's main business includes comprehensive soil boring investigation, field density testing, laboratory analysis, and structural foundation design and analysis.

### Our Mission

To provide comprehensive, reliable, and professional geotechnical testing services that ensure the structural integrity and safety of construction projects throughout the Philippines.

### Core Values

- Precision: Accurate testing and reliable results
- Integrity: Honest reporting and transparent processes
- Innovation: Modern equipment and methodologies
- Service: Client-focused solutions and support

## Technical Team



**Ariel Domingo Bautista,  
General Manager/Founder**

Testing Services, is a Graduate of Mechanical Engineering from the Technological University of The Philippines.

He founded his company in 2019. He has over 21 years of experience in geological surveys/Material Testing. He has performed various geotechnical work such as bridges, residential and central government/public/corporate office buildings.

His achievements in implementing and managing various projects have received many recognitions. Various offices highly recommend technical reports produced by his company.



**MIGUEL DIMADURA, M CivEng  
Geotechnical Evaluator**

Consulting Geotechnical/Sub-Structural Engineer  
PRC CE Reg. 59571

# SERVICE PORTFOLIO

Our comprehensive range of geotechnical services ensures complete project support from initial investigation through final certification.

## Soil Boring Test (SPT)

Standard Penetration Test with comprehensive soil classification and bearing capacity analysis. Depths ranging from 10m to 42m based on project requirements.

- N-values determination
- Soil classification
- Groundwater assessment

## Field Density Test (FDT)

Comprehensive field testing for compaction control and material verification using sand cone and nuclear density methods.

- Compaction verification
- Moisture content
- Quality control

## Structural Assessment

Non-destructive testing including rebound hammer test and concrete coring for structural integrity evaluation.

- Rebound hammer test
- Core strength testing
- Structural evaluation

## Laboratory Analysis

Complete soil characterization including grain size analysis, Atterberg limits, and specialized geotechnical testing.

- Grain size distribution
- Plasticity index
- Chemical analysis

## Service Distribution

80%

17%

3%

Soil Boring Projects

Primary geotechnical investigation

Field Density Testing

Quality control & compaction

Specialized Testing

Structural & laboratory analysis

# PROJECT PORTFOLIO

Our diverse project portfolio demonstrates expertise across multiple sectors and project scales, from residential developments to major infrastructure projects.

## Notable Projects

### Industrial

60 tests  
20m depth

#### Port Area Power Plant & Sheet Pile Development

Tripartite Engineering and Construction  
• Brgy. Talisay, San Andres, Quezon

Large-scale soil investigation for major power plant infrastructure with extensive onshore and offshore testing requirements.

### Infrastructure

2 tests  
42m depth

#### Proposed New Pasig City Hall Building

Pasig City LGU  
• Pasig City

Government infrastructure project requiring specialized testing for public building construction with maximum depth requirements.

### Healthcare

9 tests  
30m depth

#### Proposed Nine Floor Medical Building

Urdaneta City Medical Center  
• Urdaneta City, Pangasinan

Healthcare facility development requiring precise soil analysis for medical equipment foundations and specialized requirements.

### Residential

21 tests  
12m depth

#### Amaresa Land Development Projects

Red Oak Properties, Inc.  
• Marilao, Bulacan & Mexico, Pampanga

Multi-site residential subdivision development across two major provinces demonstrating our regional project management capabilities.

## Industry Expertise



### Residential

Condominiums, subdivisions, residential complexes



### Infrastructure

Bridges, government buildings, utilities



### Industrial

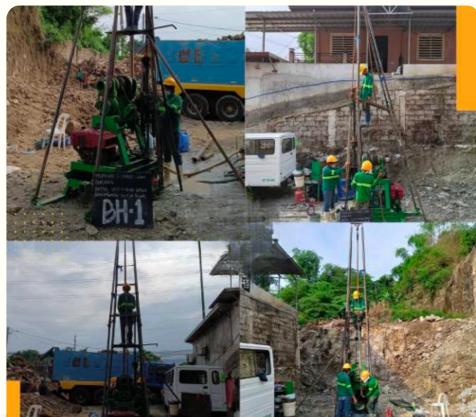
Warehouses, power plants, manufacturing



### Specialized

Healthcare, telecommunications, transportation

## PROJECT'S GALLERY



Brgy. Bagumbayan, Teresa, Rizal  
Soil boring investigation project



Sta. Ana, Manila  
Geotechnical testing services



San Jose Del Monte, Bulacan  
Standard penetration testing



North Fairview, Quezon City  
Multiple borehole drilling operations



Paranaque City  
Site investigation and testing



Taguig City  
Soil boring investigation project

## Performance Metrics

100%

Project Completion Rate

5+

Years of Experience

42m

Maximum Testing Depth

24/7

Technical Support

## TECHNICAL EXPERTISE

Our technical expertise is demonstrated through consistent delivery of accurate, reliable testing results using modern equipment and proven methodologies.

### Testing Specifications

- **Depth Capabilities**  
Standard range: 10m - 30m | Maximum: 42m depth
- **Project Scale**  
Single boring to 60+ test locations per project
- **Testing Standards**  
ASTM, AASHTO, and Philippine National Standards
- **Quality Assurance**  
Certified procedures and equipment calibration

### Equipment & Methods

- **Drilling Equipment**  
Truck-mounted drilling rigs with auger and wash boring capabilities
- **SPT Equipment**  
Standard penetration testing with 140 lb hammer and split-spoon samplers
- **Field Testing**  
Nuclear density gauge and sand cone methods for compaction testing
- **Laboratory**  
Complete soil characterization and materials testing facilities



Modern drilling and testing operation



Certified laboratory equipment and calibration

RAK-JR Technical Testing Services represents excellence in geotechnical investigation and soil testing. With 35 successfully completed projects and a proven track record across diverse industries, we continue to be the trusted partner for construction projects throughout the Philippines.

## LOCATIONS

RAK-JR Technical Testing Services maintains an extensive operational footprint across key Philippine regions, providing accessible and reliable geotechnical services.

### Succesful Project Locations



#### Metro Manila

- Pasig City
- Quezon City
- Mandaluyong City
- Caloocan City
- Manila
- Las Piñas City

*Primary metropolitan coverage*

#### Central Luzon

- Bulacan Province
- Pampanga Province
- Nueva Ecija
- Tarlac

*Regional expansion areas*

#### Southern Luzon

- Batangas Province
- Cavite Province
- Quezon Province
- Rizal Province

*Strategic service locations*

### Service Reach Statistics

28+

Cities & Municipalities

3

Major Regions

100%

Project Success Rate

### Client Portfolio

Our diverse client base includes government agencies, multinational corporations, construction companies, and private developers across various industries.

#### Government Sector

 **Department of Public Works & Highways**  
Infrastructure development projects

 **Pasig City LGU**  
Municipal building construction

 **Metropolitan Manila Development Authority**  
Sanitary landfill projects

#### Private Sector

 **NW Steel Technologies, Inc.**  
Industrial & infrastructure projects

 **Red Oak Properties, Inc.**  
Residential development projects

 **Tripartite Engineering and Construction**  
Major infrastructure projects

# RECOGNITION

## Why Choose RAK-JR?

- **Proven Experience:** 5+ years with 35+ completed projects
- **Technical Excellence:** Modern equipment and certified procedures
- **Comprehensive Services:** Complete geotechnical investigation capabilities
- **Geographic Reach:** Service coverage across major Philippine regions
- **Industry Expertise:** Experience across all construction sectors
- **Quality Assurance:** Reliable results and professional reporting



## Contact RAK-JR Technical Testing Services

Ready to ensure your project's success? Get in touch with our geotechnical experts for professional soil testing and engineering services.

### Get a Quote

Request a detailed project quotation tailored to your specific requirements.

Professional consultation available

### Technical Support

Speak with our engineering team about your geotechnical investigation needs.

Expert guidance provided

### Project Planning

Collaborate with us on testing scope and methodology for optimal results.

Customized solutions available

## Contact Information



**Address**  
B6, L24-E, Mt. Everest St., Mountain Heights Subdivision, Barangay 183, Tala, Caloocan City 1400



**Phone**  
(02) 88323170  
0918-2144273  
0933-5019853



**Email**  
[rakjunior\\_since2019@yahoo.com](mailto:rakjunior_since2019@yahoo.com)



**Website**  
[rakjr.vercel.app](http://rakjr.vercel.app)



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