


# SOQ

## STATEMENT OF QUALIFICATIONS


FEBRUARY 2021

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**CRL Calabarquez  
Corporation**



**CRL Calabarquez Corporation** is an environmental air and water quality testing services provider ready to serve you with your environmental testing needs—may it be for local or international compliance testing, internal requirements, verification, research and development, and any other purposes.

Originally conceptualized to serve the testing needs of Luzon, particularly Region 4A (Calabarzon region), CRL Calabarquez Corporation, more than 15 years after its first foundation was laid in its LIIP, Biñan, Laguna headquarters, now serves every corner of the country.

The CRL Group of Companies—comprised of CRL Calabarquez Corporation together with its mother company, CRL Environmental Corporation; its laboratory solutions company, ASSET PH; and their marketing arm, CRL Analytics Corporation—with a combined strong workforce of more than 200 technical and support personnel is the biggest and leading environmental testing services provider in the country.

Our commitment to quality and customer responsiveness is our trademark and the source of our continuing efforts for service improvement and expansion. The CRL Group of Companies achieves its commitment through its personnel who are highly competent and motivated working as a team in a safe and healthy environment.

**Visit our site!**  
[www.crlabs.com](http://www.crlabs.com)



**OUR MISSION & VISION**

**MISSION:** Our mission is to provide air monitoring and laboratory services to the customers in a timely manner, focused on quality and excellence, aligned with international standards, government regulations, methods and protocols while satisfying and keeping the well-being of the employees and the environment safe.

**VISION:** CRL Calabarquez Corporation is to distinguish itself as a premier air monitoring service provider in Asia.

**BENEFITS OF DOING BUSINESS WITH CRL**

CRL is backed by array of networks and partners, of known competency, ranging from local to international laboratories. This ensures versatility in meeting your needs for specialized testing including the need for an on-site laboratory.

Our fleet of environmental samplers operates daily within mainland Luzon to collect and transport your samples to our laboratories. We provide pick-up services, at Manila and Clark airports, of samples that are coming from other regions outside mainland Luzon.

With state-of-the-art equipment, instrument redundancy, a computerized Laboratory Information Management System (LIMS), and highly competent personnel, CRL provides you with high quality analytical and technical reports and services.

By directly getting our services, you get savings from handling and operations costs.

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	• Accreditation and Recognition Certificates and Business Permit

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## HIGHLIGHTS

- ✓ First DOLE-OSHC Accredited Occupational Hygiene Laboratory and WEM Provider
- ✓ Pioneer and leader in Dioxins/Furans (US EPA Method 23) and air toxics (US EPA TO Compendium Methods) monitoring in the Philippines
- ✓ Pioneer and leader in air monitoring and CEMS audit (CGA, RATA, RAA) industry in the Philippines
- ✓ Pioneer in Environmental Technology Verification (ETV) tests for waste-to-energy compliance

## ACCREDITATION & RECOGNITION

- ✓ **DENR-EMB SAT accredited Third Party Source Emission Testing Firm**  
US EPA Methods 1 to 5 (PM), 6/8 (SO<sub>2</sub>), 7 (NO<sub>x</sub>), and 10 (CO)
- ✓ **DENR recognized Environmental Laboratory**  
Stationary Source Emissions, Ambient Air, and Water and Wastewater
- ✓ **OSHC-DOLE accredited WEM Provider**  
Category IA, IB, IC – Physical, Chemical, and Ventilation Parameters  
Category III – Sampling and Occupational Hygiene Laboratory

Downloadable and up-to-date copies of accreditation certificates, permits, and other legal documents

<http://gofile.me/4k7OP/Vz1T1Biaq>



## TESTING SERVICES

### Stationary Source Emission Testing (Stack Emission Testing)

On-site testing of air emissions from stationary sources such as generator sets, boilers, and scrubbers which involves samples collection and on-site measurements applying the air testing gold standard methods and protocols of the United States Environmental Protection Agency (US EPA).

### Ambient Air Quality and Noise Monitoring (Ambient Monitoring)

On-site testing of air emissions which involves samples collection and on-site measurements from general environment (ambient) and on-site noise measurements with optional data-logging services.

### Continuous Emission Monitoring Systems Audit (CGA, RAA, RATA)

Audit of Continuous Emission Monitoring Systems (CEMS) ranging from Cylinder Gas Audit (CGA) to Relative Accuracy Test Audit (RATA) applying the methods and protocols of the United States Environmental Protection Agency (US EPA).

### Work Environment Measurement or Industrial Hygiene (WEM or IH)

Testing or measurement of exposure to different health hazards such as physical, chemical, and biological hazards in the work environment.

### Indoor Air Quality (IAQ) Testing & Indoor Environmental Quality (IEQ) Testing



Testing or measurement of exposure to different health hazards such as physical, chemical, and biological hazards in non-industrial indoor environments.

### Laboratory Services (Stationary Source Emissions, Ambient Air, Industrial/ Occupational Hygiene, and Water and Wastewater Analyses)

Laboratory analyses of air, WEM/IH/IAQ, and water samples applying US EPA, MASA, NIOSH, OSHA and SMEWW methods coupled with industry standard instrumentations and analytical techniques.



**DETAILED LIST OF SERVICES**

Parameter	Test Reference
<b>Stationary Source Emission Testing (Stack Emission Testing)</b> downloadable Technical Guidebook for complete list of parameters: <a href="http://qofile.me/4k7OP/d5w07KmdY">http://qofile.me/4k7OP/d5w07KmdY</a> 	
<b>NESSAP (National Emission Standards for Source Specific Air Pollutants)</b>	
Carbon Monoxide (CO)	US EPA Method 10
Hydrofluoric Acid (HF) [and Fluoride compounds]	US EPA Method 13A
Hydrogen Sulfide (H <sub>2</sub> S)	US EPA Method 11
Metals [Antimony (Sb), Arsenic (As), Cadmium (Cd), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), Phosphorus Pentoxide (P <sub>2</sub> O <sub>5</sub> ), Zinc (Zn), and their compounds]	US EPA Method 29
Nitrogen Oxides (NO <sub>x</sub> )	US EPA Method 7
Opacity	USBM IC 8333
Particulates (PM, Particulate Matter)	US EPA Methods 1 to 5
Sulfur Oxides (as SO <sub>x</sub> )	US EPA Methods 6/8
<b>Other Parameters</b>	
Ammonia (NH <sub>3</sub> )	US EPA Conditional Test Method, CTM-027
BTEX (benzene, ethylbenzene, toluene, xylenes)	US EPA Method 18 / NIOSH 1500 / NIOSH 1501
Dioxins and Furans (D/F)	US EPA Method 23
Hydrogen Chloride (HCl)	US EPA Method 26A
Nitric Acid (HNO <sub>3</sub> )	US EPA Method 7 [adapted]
Total Volatile Organic Compounds (TVOC)	US EPA Method 18 [adapted]
Other metals [Beryllium (Be), Chromium (Cr), Manganese (Mn), Selenium (Se), Thallium (Tl), Vanadium (V)]	US EPA Method 29
<b>Ambient Air Quality and Noise Monitoring (Ambient Monitoring)</b> downloadable Technical Guidebook for complete list of parameters: <a href="http://qofile.me/4k7OP/d5w07KmdY">http://qofile.me/4k7OP/d5w07KmdY</a> 	
<b>NAAQGV &amp; NAAQS</b> (National Ambient Air Quality Guideline Values & National Ambient Air Quality Standards)	
Ammonia (NH <sub>3</sub> )	MASA Method 401 (Indophenol Method)
Arsenic (As)	40 CFR Part 50, Appendix B + MASA Method 303A
Antimony (Sb)	40 CFR Part 50, Appendix B + MASA Method 303A
Asbestos	NIOSH 7400 (A Rules) [adapted]
Cadmium (Cd)	40 CFR Part 50, Appendix B + MASA Method 303A
Carbon Monoxide (CO)	Direct readout instrumentation / 40 CFR Part 50, Appendix C
Carbon Disulfide (CS <sub>2</sub> )	US EPA Compendium Method TO-15



Parameter	Test Reference
Chlorine and Chlorine Compounds (Cl <sub>2</sub> )	MASA Method 202 (Methyl Orange Method)
Formaldehyde (HCHO)	MASA Method 117 (MBTH Colorimetric Method)
Hydrogen Chloride (HCl)	OSHA ID-174SG [adapted]
Hydrogen Sulfide (H <sub>2</sub> S)	MASA Method 701 (Methylene Blue Colorimetry Method)
Lead (Pb)	40 CFR Part 50, Appendix G
Nitric Acid (HNO <sub>3</sub> )	OSHA ID-165SG [adapted]
Nitrogen Dioxide (NO <sub>2</sub> )	MASA Method 406 (Griess-Saltzman Method)
Particulate Matter 2.5 microns (PM <sub>2.5</sub> )	40 CFR Part 50, Appendix L
Particulate Matter 10 microns (PM <sub>10</sub> )	40 CFR Part 50, Appendix J
Phenol	NIOSH 3502 [adapted]
Photochemical Oxidants (as Ozone)	40 CFR Part 50, Appendix D / MASA Method 411 (NBKI Method)
Sulfur Dioxide (SO <sub>2</sub> )	40 CFR Part 50, Appendix A-2 / MASA Method 704A (Pararosaniline Method)
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	OSHA ID-165SG [adapted]
Total Suspended Particulates (TSP)	40 CFR Part 50, Appendix B
<b>Other Parameters</b>	
BTEX (benzene, ethylbenzene, toluene, xylenes)	US EPA Method TO-15 / US EPA Method TO-17
Fixed Gases (CO, CO <sub>2</sub> , H <sub>2</sub> , N <sub>2</sub> , O <sub>2</sub> , etc.)	ASTM D1945
Hydrocarbons (carbon chain, C <sub>2</sub> – C <sub>12</sub> )	US EPA Method TO-3
Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, P, Se, Ag, Na, Sr, Ti, Sn, Ti, V and Zn)	40 CFR Part 50, Appendix B + MASA Method 303A (high volume air filtration)
Methane and Natural Gases (CH <sub>4</sub> , etc.)	ASTM D1945 / ASTM D1946
Pesticides and Polychlorinated Biphenyls (PCBs)	US EPA Method TO-4A
Polychlorinated, Polybrominated and Brominated/Chlorinated Dibenzo-p-Dioxins and Dibenzofurans (dioxins and furans)	US EPA Method TO-9A
Polycyclic Aromatic Hydrocarbons (PAHs)	US EPA Method TO-13A
Volatile Organic Compounds (VOCs)	US EPA Method TO-15 / US EPA Method TO-17
<b>Environmental Noise</b> (National Pollution Control Commission, NPCC)	
Noise	Direct readout instrumentation
<b>Continuous Emission Monitoring Systems Audit (RATA, RAA, CGA)</b> downloadable Technical Guidebook for complete list of parameters: <a href="http://qofile.me/4k7OP/d5w07KmdY">http://qofile.me/4k7OP/d5w07KmdY</a>	
<b>Cylinder Gas Audit (CGA)</b>	
Pollutants (SO <sub>2</sub> , NO <sub>x</sub> , CO, H <sub>2</sub> S)	40 CFR Part 60, Appendix F
Diluent (O <sub>2</sub> , CO <sub>2</sub> )	40 CFR Part 60, Appendix F



Parameter	Test Reference
<b>Relative Accuracy Test Audit, Relative Accuracy Audit (RATA, RAA)</b>	
Sulfur Dioxide (SO <sub>2</sub> )	40 CFR 60, Appendix F, US EPA PS-2 (Method 6)
Nitrogen Oxides (NO <sub>x</sub> )	40 CFR 60, Appendix F, US EPA PS-2 (Method 7E)
Carbon Dioxide (CO <sub>2</sub> )	40 CFR 60, Appendix F, US EPA PS-3 (Method 3A)
Oxygen (O <sub>2</sub> )	40 CFR 60, Appendix F, US EPA PS-3 (Method 3A)
Carbon Monoxide (CO)	40 CFR 60, Appendix F, US EPA PS-4/4A (Method 10)
Hydrogen Sulfide (H <sub>2</sub> S)	40 CFR 60, Appendix F, US EPA PS-7 (Method 11)

**Work Environment Measurement or Industrial Hygiene (WEM or IH)**

downloadable Technical Guidebook for complete list of parameters: <http://gofile.me/4k7OP/d5w07KmdY>



**Physical Parameters**

[illumination, noise, heat, temperature, relative humidity]

Direct readout instrumentation

**Ventilation Parameters**

[General Ventilation: air velocity, air change, air supply  
Local Exhaust Ventilation: face velocity, capture velocity]

Direct readout instrumentation

**Chemical Parameters**

Dusts & Fibers: total nuisance dust (TND), total respirable dust (TRD), crystalline silica dusts, alkaline dusts, carbon black, asbestos

Metals: aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, chromium, cobalt, copper, ferric oxide, gallium, gold, indium, iron, lanthanum, lead, lithium, magnesium, manganese, mercury, molybdenum, neodymium, nickel, palladium, phosphorus, platinum, potassium, selenium, silver, sodium, strontium, tellurium, thallium, tin, titanium, tungsten, vanadium, yttrium, zinc, zirconium, hexavalent chromium

Organic Solvents: TVOC, acetone, benzene, butyl acetate, ethanol, ethyl acetate, ethylbenzene, formaldehyde, gasoline, hexane, isopropyl alcohol, kerosene, methanol, methyl ethyl ketone, methylene chloride, toluene, xylenes

NIOSH, OSHA, and MASA Methodologies

*Note: refer to WEM, IH & IAQ Technical Guidebook for complete list of organic solvents / organic vapors / volatile organic compounds*

Acids: hydrogen chloride, phosphoric acid, hydrogen bromide, nitric acid, sulfuric acid, hydrogen fluoride, acetic acid, acrylic acid, formic acid

Gases: ammonia, carbon dioxide, carbon monoxide, chlorine, cyanide, hydrogen sulfide, methane, nitrogen dioxide, oxygen, sulfur dioxide, LEL

Others: oil mist, ozone

**Biological Parameters (Microbiological)**

[total bacteria, total fungi (as yeasts and molds)]

NIOSH 0800 / NIOSH 0801



Parameter	Test Reference
<b>Indoor Air Quality Testing (IAQ Testing)</b>	
downloadable Technical Guidebook for complete list of parameters: <a href="http://qofile.me/4k7OP/d5w07KmdY">http://qofile.me/4k7OP/d5w07KmdY</a>	
<b>IAQ Parameters List based on Singapore Standards (SS 554 : 2016)</b>	
Air Temperature	Direct readout instrumentation
Relative Humidity	Direct readout instrumentation
Air Movement	Direct readout instrumentation
Carbon Dioxide	Direct readout instrumentation
Carbon Monoxide	Direct readout instrumentation
Formaldehyde	NIOSH 3500 [adapted]
Total Volatile Organic Compounds (TVOC)	Direct readout instrumentation
Respirable Suspended Particles (Total Respirable Dust, TRD)	NIOSH 0600 [adapted]
Particulate Matter 2.5 microns (PM <sub>2.5</sub> )	SKC IP10A/10B
Total Viable Bacterial Count (total bacteria)	NIOSH 0800 / NIOSH 0801
<b>Indoor Environmental Quality Testing (IEQ Testing)</b>	
downloadable Technical Guidebook for complete list of parameters: <a href="http://qofile.me/4k7OP/d5w07KmdY">http://qofile.me/4k7OP/d5w07KmdY</a>	
<b>Thermal Comfort Parameters</b>	
Air Temperature	Direct readout instrumentation
Relative Humidity	Direct readout instrumentation
Air Movement	Direct readout instrumentation
<b>IAQ Parameters</b>	
Carbon Dioxide	Direct readout instrumentation
Carbon Monoxide	Direct readout instrumentation
Formaldehyde	NIOSH 3500 [adapted]
Total Volatile Organic Compounds (TVOC)	Direct readout instrumentation
Respirable Suspended Particles (Total Respirable Dust, TRD)	NIOSH 0600 [adapted]
Particulate Matter 2.5 microns (PM <sub>2.5</sub> )	EPA IP10A/10B
Total Viable Bacterial Count (total bacteria)	NIOSH 0800 / NIOSH 0801
<b>Visual Comfort Parameter</b>	
Illumination	Direct readout instrumentation
<b>Aural Comfort Parameter</b>	
Noise	Direct readout instrumentation



Parameter	Test Reference
<b>Laboratory Services</b> (Stationary Source Emissions, Ambient Air, Industrial/Occupational Hygiene, IAQ/IEQ, and Water and Wastewater Analyses) downloadable Technical Guidebook for complete list of parameters: <a href="http://qofile.me/4k7OP/d5w07KmdY">http://qofile.me/4k7OP/d5w07KmdY</a>	
<b>Stationary Source Emissions</b>	
Carbon Monoxide (CO)	US EPA Method 10
Nitrogen Oxides (NO <sub>x</sub> )	US EPA Method 7
Particulates	US EPA Method 5
Sulfur Oxides (as SO <sub>2</sub> )	US EPA Methods 6/8
<b>Ambient Air</b>	
Ammonia (NH <sub>3</sub> )	MASA Method 401 (Indophenol Method)
Hydrogen Sulfide (H <sub>2</sub> S)	MASA Method 701 (Methylene Blue Colorimetry Method)
Nitrogen Dioxide (NO <sub>2</sub> )	MASA Method 406 (Griess-Saltzman Method)
Sulfur Dioxide (SO <sub>2</sub> )	40 CFR Part 50, Appendix A-2 / MASA Method 704A (Pararosaniline Method)
<b>Occupational Hygiene (Industrial Hygiene)</b>	
Ammonia (NH <sub>3</sub> )	MASA Method 801 / 401 (Indophenol Method)
Formaldehyde (HCHO)	MASA Method 117 (MBTH Colorimetric Method) / NIOSH 3500
Hydrogen Sulfide (H <sub>2</sub> S)	MASA Method 812 / 701 (Methylene Blue Colorimetry Method)
Nitrogen Dioxide(NO <sub>2</sub> )	MASA Method 817 / 406 (Griess-Saltzman Method)
Ozone (O <sub>3</sub> )	MASA Method 819 / 411 (NBKI Method)
Sulfur Dioxide (SO <sub>2</sub> )	MASA Method 704A (Pararosaniline Method)
Total Nuisance Dust (TND)	NIOSH 0500
Total Respirable Dust (TRD)	NIOSH 0600
<b>Indoor Air Quality (IAQ), Indoor Environmental Quality (IEQ)</b>	
Formaldehyde (HCHO)	MASA Method 117 (MBTH Colorimetric Method) / NIOSH 3500
Respirable Suspended Particles (Total Respirable Dust, TRD)	NIOSH 0600 [adapted]
Particulate Matter 2.5 microns (PM <sub>2.5</sub> )	SKC IP10A/10B
<b>Water and Wastewater</b>	
Color, Apparent & True	SMEWW 2120 B (Visual Comparison Method)
pH	SMEWW 4500-H+ B (Electrometric Method) / US EPA Method 150.1
Temperature	SMEWW 2550 B (Thermometry)





**INSTRUMENTATION**

Quantity	Instrument / Equipment	Brand (Model)
<b>Stationary Source Emission Testing (Stack Emission Testing)</b>		
6	US EPA Methods 5, 6/8, 11, 13A, 23, 26A, 29 Sampling Set (Isokinetic Metering Console, Nozzles, Hot & Cold Boxes, Glassware)	CAE, APEX
11	US EPA Method 7 Sampling Set	CAE
18	US EPA Method 2 Sampling Set (Sampling Probe, Umbilical Cable)	CAE, APEX
10	US EPA Method 3 Sampling Set (Fyrite Analyzer, Orsat Analyzer)	Bacharach
5	US EPA Method 4 Sampling Set (Balance)	Ohaus
<b>Ambient Air Quality and Noise Monitoring (Ambient Monitoring)</b>		
7	TSP High Volume Sampler	TISCH Environmental (TE-5170VX)
3	PM <sub>10</sub> Head	TISCH Environmental (TE-6070DBLXZ, TE- 6070VX)
1	PM <sub>2.5</sub> Head	TISCH Environmental (TE-6070VX-2.5)
1	Low Volume Air Particulate Sampler (PM <sub>10</sub> & PM <sub>2.5</sub> )	TISCH Environmental (TE-Wilbur10, TE-Wilbur2.5)
1	Dual Channel Dust Sampler (PM <sub>10</sub> & PM <sub>2.5</sub> )	Instrumex
1	PUF Poly-Urethane Foam High Volume Air Sampler	TISCH (TE-1000X)
16	Low Volume Sampling Pump	SKC
13	Noise Meter	Lutron (SL-4010, SL-4011, SL-4030, SL-4033SD)
1	Carbon Dioxide Analyzer	Lutron (CO2-9914SD)
<b>Continuous Emission Monitoring Systems Audit (RATA, RAA, CGA)</b>		
1	SO <sub>2</sub> Analyzer	CAI (ZPA NDIR Gas Analyzer)
1	NO <sub>x</sub> Analyzer	CAI (Model 300)
1	NO <sub>x</sub> Analyzer	CAI (Model 600)
1	O <sub>2</sub> , CO <sub>2</sub> and CO Analyzer	CAI (Model 300)
1	Gas Condenser (Chiller)	CAI
1	Data Logger	CAE



Quantity	Instrument / Equipment	Brand (Model)
<b>Work Environment Measurement or Industrial Hygiene (WEM or IH), Indoor Air Quality Testing (IAQ), Indoor Environmental Quality (IEQ)</b>		
Direct-Reading Instruments		
1	Noise Meter	Lutron (SL 4033SD)
1	Noise Meter	Lutron (SL 4030)
3	Light Meter	Lutron (LX-1108)
2	Heat Stress Meter	Extech (HT30)
2	Hot-Wire Anemometer	Lutron (YK-2004AH)
1	Carbon Monoxide Analyzer	Testo (315-2)
1	Carbon Dioxide Analyzer	Testo (535)
1	Photoionization Detector (PID, 10.6eV lamp)	RAE Systems (MultiRAE Pro, PGM 6248)
1	Multi-Gas Analyzer (CO, H <sub>2</sub> S, O <sub>2</sub> , LEL)	RAE Systems (QRAE 3, PGM 2500)
Active Sampling Instruments and Accessories		
24	Personal Sampling Pump	SKC (Aircheck XR5000, Aircheck 224-PCXR4, Universal 44XR, Aircheck 52, Pocket Pump)
2	Dry Calibrator (Primary Calibrator)	TSI (4100 Series, Model 4146)
1	Biological Sampler (Air Impactor)	SKC (BioStage Single-stage Viable Cascade Impactor)
3	Personal Environmental Monitor (PM <sub>2.5</sub> )	SKC (4LPM)
1	Personal Environmental Monitor (PM <sub>10</sub> )	SKC (4LPM)
<b>Laboratory Services</b> (Stationary Source Emissions, Ambient Air, Industrial/ Occupational Hygiene, and Water and Wastewater Analyses)		
<b>Emissions/Air/WEM/IH/IAQ/IEQ:</b> Particulates, Gases, VOC (US EPA Methods 5, 6/8, 7, 10, IP10A/10B ; MASA Methods 801 / 401, 812 / 701, 817 / 406, 819 / 411, 117, 704A; NIOSH 0500, 0600, 3500)		
1	Analytical Balance	Mettler Toledo (MS 204 TS)
1	Microbalance	A&D (BM-20)
1	Spectrophotometer	Agilent (Cary 60 UV-Vis G6860A)
1	CO Analyzer (NDIR)	Thermo Environmental Instruments (Model 48C Trace Level)
1	Multiparameter Tester	Eutech (PCD650)
1	Refrigerator	Condura (CSD165S)
1	Hot Plate	La Germania (E108 W)
1	Water Bath	Delta (DTA 4848)
<b>Water/Wastewater:</b> Coliform, Color, pH, Temperature (SMEWW 9221 E, 9221 B, 2120 B, 4500-H+ B, 2550)		
1	Biosafety Cabinet / Laminar Hood	Camfil Farr (Absolute MDS-13-980-10/00)
1	Biosafety Cabinet	Telstar (Bio II Advance Plus 3)
1	Colony Counter	American Optical (Rocker Galaxy 230)



Quantity	Instrument / Equipment	Brand (Model)
2	Autoclave	Hirayama (HG-50), Sturdy (SA-300VL)
1	Bactincinerator	MRC (STER-815)
1	Oven	Memmert (UM-220)
3	Incubator	GCA Precision Scientific, Thelco
1	Top Loading Balance	Kern (PCB 1000-1)
1	Water Bath	Delta (DTA 4848)
1	Sterilizer	All American
1	Refrigerator	Fujidenzo
1	Refrigerator	Condura (CSD210SA-G1)
1	pH Meter	Horiba (PH-1100K)

Downloadable and up-to-date  
list of instruments

<http://gofile.me/4k7OP/tlcpmXrRM>



## KEY PERSONNEL

### Engr. Elizabeth P. Romualdo | President and CEO

- President and CEO, CRL Calabarquez Corporation (2004 – present)
- President and CEO, CRL Environmental Corporation (2005 – present)
- President and CEO, CRL Analytics Corporation (2005 – present)
- President and CEO, Analytical Support Services for Environmental Technologies (ASSET PH) (2016 – present)
- President and General Manager, CRL Environmental Corporation (2003 – 2005)
- General Manager, CRL Environmental Corporation (1998 – 2003)
- Director and Treasurer, Crevel International Incorporated (1999 – 2019)
- Member of the Board of Directors and Corporate Secretary, STI College Cubao (the largest franchise in the STI network) (1989 to 2007)
- President and CEO, STI Colleges in Alabang, Baguio, Laoag, and La Union (1989 – 1998)
- General Manager, Productive Temporary Staff Incorporated (PROTEMPS) (1990 – 1992)
- General Manager, Asian Data Entry Corporation (ADEC) (1990)
- President and General Manager, Dataprep Philippines Inc. (1987 – 1998)
- Hall of Fame Inductee, Entrepreneurship, UST Faculty of Engineering (2019)
- Centennial Awardee, Entrepreneurship, UST Faculty of Engineering (2007)
- BS Chemical Engineering, University of Santo Tomas – Manila (1969)
- Certificate in Programming Technology in Control Data Institute – Minneapolis, Minnesota, USA (1970 – 1971)
- Registered Chemical Engineer (PRC Reg. No. 4462)

### Ronald A. Agabin | Chief Operating Officer (COO)

- COO, CRL Calabarquez Corporation (2010 – present)
- COO, CRL Analytics Corporation (2008 – present)
- COO, Analytical Support Services for Environmental Technologies (ASSET PH) (2019 – present)
- Chief Business Development Officer, CRL Environmental Corporation (2019 – present)
- Marketing Manager, CRL Environmental Corporation (2005 – 2008)
- Marketing Director, TLC Environmental Labs, Shanghai, PRC (2004 – 2005)
- Project Manager / Business Development, Advanced Technology Laboratories, Signal Hill and Sacramento, California, USA (2000 – 2002)
- Regulatory Liaison Supervisor / Research and Development Officer / Chemist, Sharp Formulators Co., Ltd., Bangkok, Thailand (1994 – 2000)
- BS Chemistry, Centro Escolar University – Manila (1994)
- Member, American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- Member, International Society of Indoor Air Quality and Climate (ISIAQ)



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**Engr. Walter G. Fiesta** Air Quality Monitoring (AQM) Manager

- Air Quality Monitoring Department Manager, CRL Calabarquez Corporation (2007 – present)
- More than 20 years combined experience and training in industrial hygiene, indoor air quality assessments, and environmental testing and project management
- Third-party SET Accredited QA/QC Manager, DENR-EMB Sampling Assessment Team
- BS Mechanical Engineering, Northwestern University (1999)
- Registered Mechanical Engineer (PRC Reg. No. 0056193)

**Ma. Gwen Jane P. Limbaco, RCh** Laboratory Manager

- Laboratory Manager, CRL Calabarquez Corporation (2012 – present)
- More than 15 years combined experience and training in environmental analysis and laboratory management, industrial hygiene and quality assurance
- BS Chemistry, University of the Philippines, Diliman (2002)
- Post-Graduate Diploma in Environmental Science, University of the Philippines, Diliman (2013)
- Registered Chemist (PRC Reg. No. 009302)
- Member of the Board, Industrial Hygienists Association of the Philippines, Inc. (IHAP) (2018 – present)

**Engr. Ramil G. Peralta** Work Environment Measurement / Indoor Air Quality (WEM/IAQ) Manager

- WEM/IAQ Manager, CRL Calabarquez Corporation (2015 – present)
- More than 9 years combined experience and training in industrial hygiene, work environment measurement, indoor air quality assessments, and environmental testing and project management
- BS Mechanical Engineering, University of Santo Tomas – Manila (2011)
- Registered Mechanical Engineer (PRC Reg. No. 0076395)
- Member of the Board, Industrial Hygienists Association of the Philippines, Inc. (IHAP) (2018 – present)
- Member, American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- Member, International Society of Indoor Air Quality and Climate (ISIAQ)

**Engr. Kristin Anne C. Castillo-Strebel** AQM QA/QC Section Manager

- Air Quality Monitoring Department QA/QC Section Manager (2016 – present)
- More than 9 years combined experience and training in environmental analysis, quality assurance and quality control, and environmental testing and project management
- Third-party SET Accredited QA/QC Manager, DENR-EMB Sampling Assessment Team
- BS Chemical Engineering, University of Santo Tomas – Manila (2011)
- Registered Chemical Engineer (PRC Reg. No. 0028104)

**Engr. Glen J. Bonus** AQM Field Operations Section Manager

- Air Quality Monitoring Department Field Operations Section Manager, CRL Calabarquez Corporation (2007 – present)
- More than 20 years combined experience and training in environmental testing and project management
- Third-party SET Accredited Team Leader, DENR-EMB Sampling Assessment Team
- BS Electrical Engineering, Holy Angel University (1996)

Downloadable and up-to-date  
copy of organizational chart

<http://gofile.me/4k7OP/pDwD1Ue75>



**CRL Calabarquez**  
**Corporation**

Laguna International Industrial Park (LIIP)  
Administration Bdg., Mamplasan, Biñan, Laguna  
Philippines 4024

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-  (63917) 577-3969
-  @crllabs




**CAVITE**  
 CEZ Laboratory  
 Cavite Economic Zone, Rosario  
 Cavite 4106



**LAGUNA**  
 LIIP Admin. Bldg., Laguna Int'l. Ind'l. Park  
 Mamplasan, Biñan, Laguna 4024

**MOBILE LABORATORIES**  
 Air, RATA, Water Laboratories



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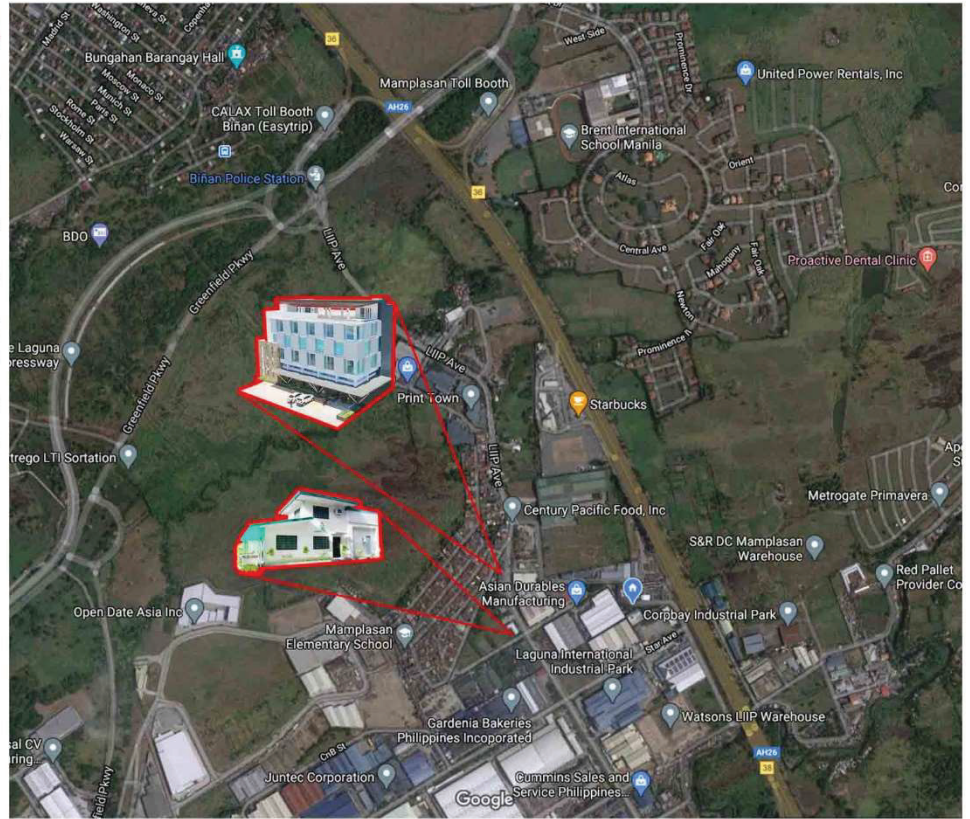


LOCATION MAP

**LAGUNA**

LIIP Admin. Bldg.  
Laguna Int'l. Ind'l. Park  
Mamplasan, Biñan  
Laguna 4024

- > take **SLEX Greenfield City/Unilab/ LIIP/Mamplasan Exit**
- > take **LIIP Avenue** and head towards LIIP
- > enter **LIIP** via it's **main gate**
- > proceed to **CRL Calabarquez facilities**



**CAVITE**

CEZ Laboratory  
Cavite Economic Zone  
Rosario, Cavite 4106

- > enter **CEZ** via any of it's gate
- > proceed to **CRL Calabarquez facility**  
(Road B near CEZ STP)



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