

PRODUCTS & SERVICES



WHO WE ARE

Premier Global Manufacturer of Certified Reference Standards for the Hydrocarbon, Natural Gas, Refining, Chemical and Biofuels Industries.

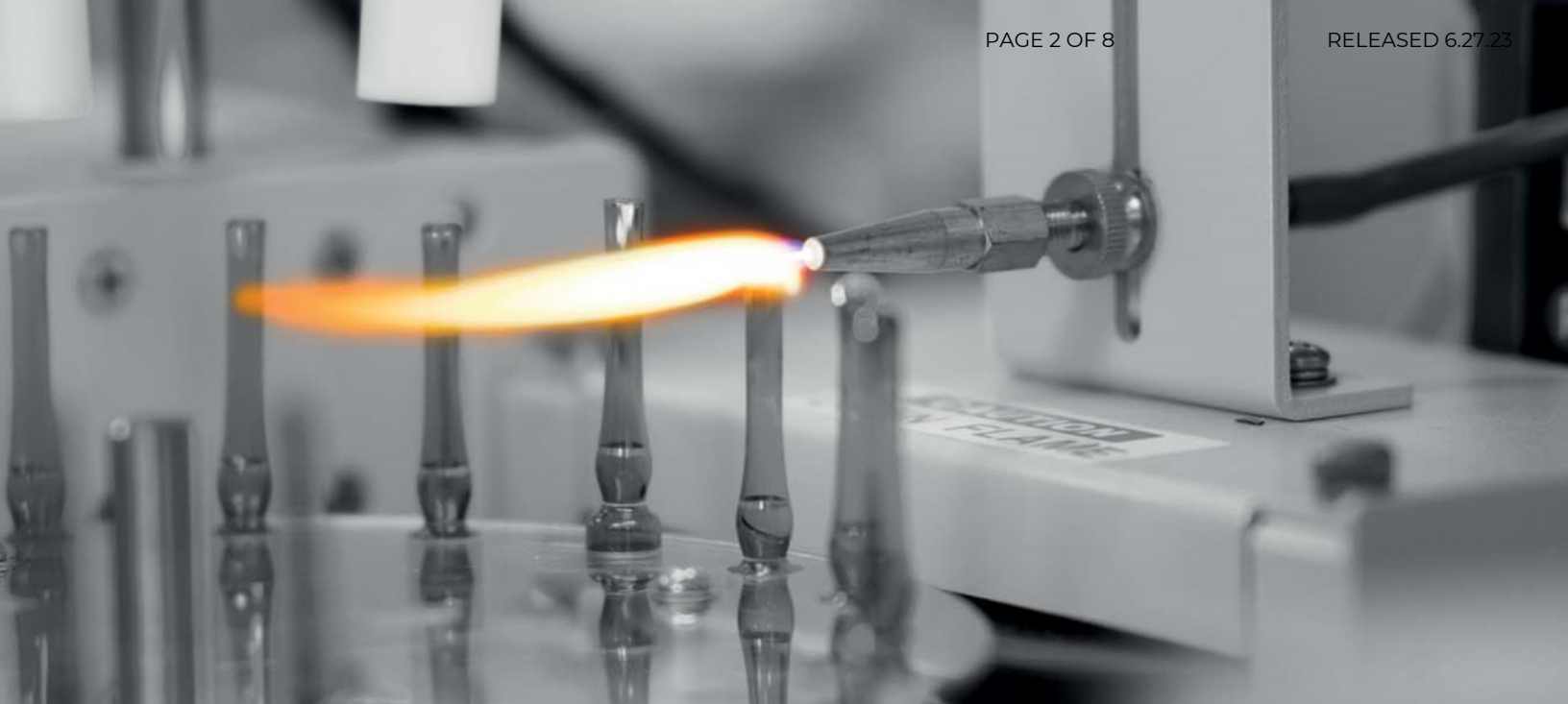
MEASUREMENT & METROLOGY - WHY IT MATTERS

“At DCG Partnership, reference materials are manufactured using processes and techniques to yield high quality, precision and accurate materials for our customers.” We do not produce any standard that we cannot analytically verify in our lab.

WHAT WE OFFER:

- CALIBRATION STANDARDS IN CYLINERS
- CALIBRATION STANDARDS IN AMPOULES
- PROFICIENCY TESTING PROGRAMS (PTP)
- REGULATORS & SWITCHOVER MANIFOLD SYSTEMS
- CYLINDERS
- HEATED PRODUCTS
- CUSTOM REFERENCE MATERIALS & SPECIALTY MIXES

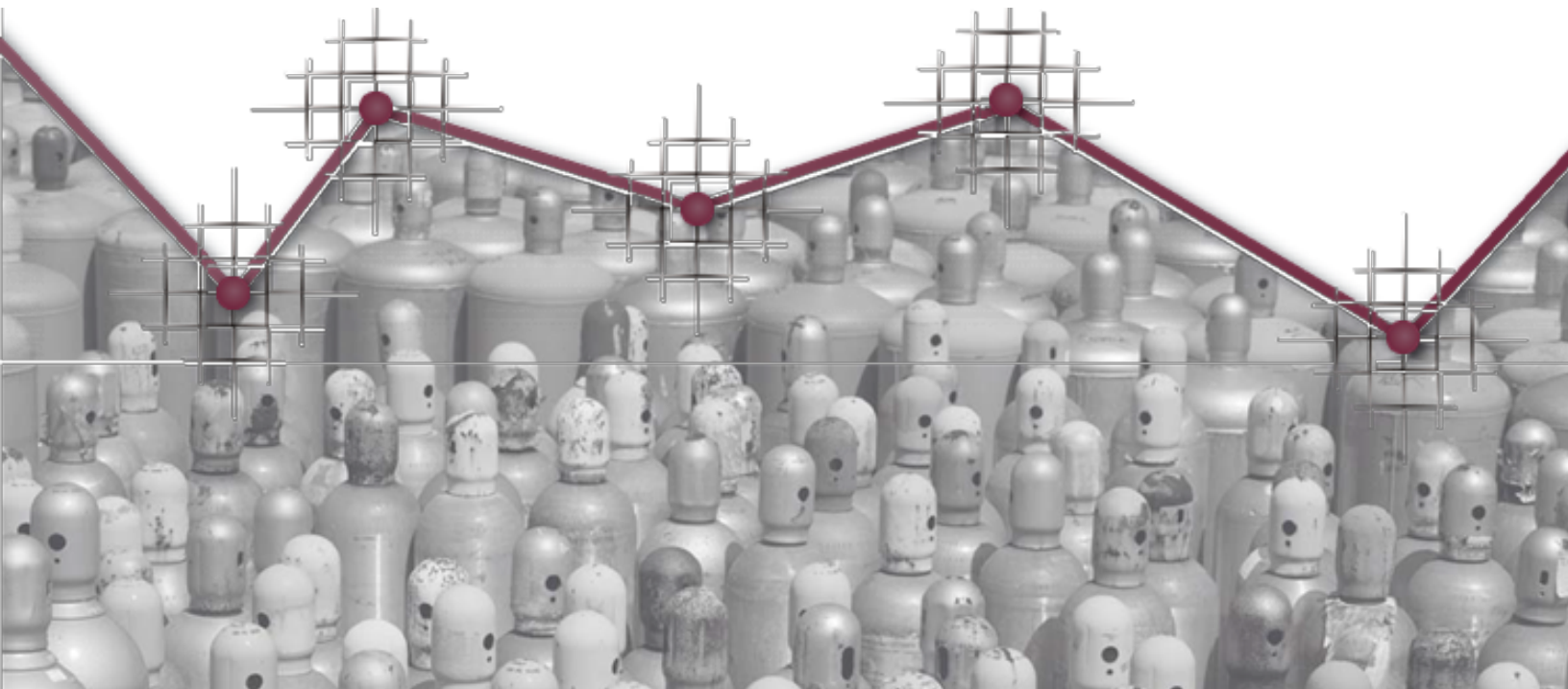




For over 30 years, DCG has been delivering state-of-the-art certified reference materials and fluid analytic products to the petroleum, petrochemical, chemical and natural gas industries. Headquartered in Pearland, Texas, our diverse client base includes leading domestic and global energy companies who regularly confront a wide range of technical, commercial, and regulatory challenges. Our customers rely on DCG products – along with the deep expertise and experience of our professional staff – to help meet stringent quality and commercial demands for their inside and outside the fence processes and product streams.

Delivering proven accuracy and performance, DCG products provide a critical link throughout the industry's chain of processes, equipment, and global standards. We bring the DCG Analytic Edge™ to help our clients take advantage of the opportunities and tame the challenges in today's complex marketplace. And because every DCG product is coupled with world-class customer support from the DCG technical team, you can be confident that your team will succeed.

We invite you to get started.



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Dutch physicist and Nobel Laureate, Heike Kamerlingh Onnes who once used the catch phrase, "Through measurement is knowledge," in his laboratory to highlight the importance of experimental work to gain knowledge and to perpetuate the idea that quantitative research was useful in three ways, laws, instruments, and standards. Our Founder, Lou D'Agostaro designed DCG Partnership after those ideals and continues to put them forth in the pursuit of becoming a Metrological Institution in the United States.

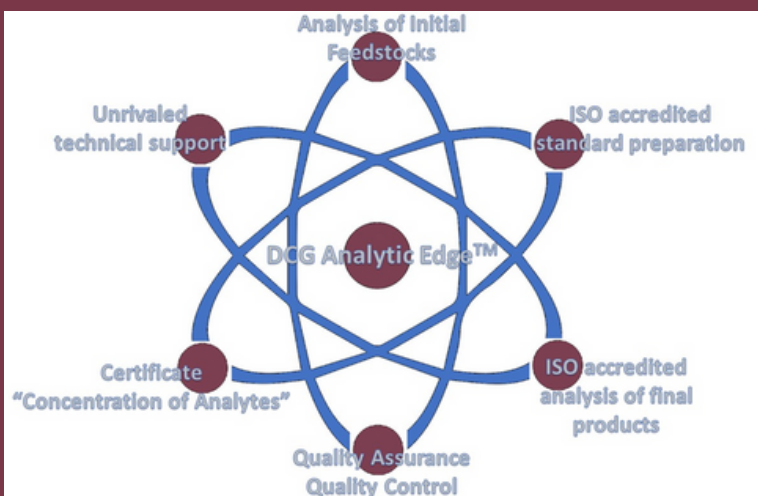
Measurement is the process of experimentally obtaining one or more numerical values that can reasonably be attributed to a quantity or property. Metrology covers the accuracy, precision, and repeatability of a measurement. It involves traceability or comparison with a "standard" or between different measuring systems.

It is our Mission to ensure the quality, accuracy, precision and repeatability of the calibration and verification standards utilized by our customers. Responding to the needs of our customers to have high-quality reference materials at their disposal and meet the growing demand for lower and lower levels of analysis while not compromising accuracy, we have created the DCG Analytic Edge™ to set us apart from our competitors.

- Our process includes analyzing the feedstock upon its arrival at our facility and validating the accuracy of the supplier's Certificate of Analysis prior to use in our manufacturing process. In manufacturing, we measure everything gravimetrically using Bureau International des Poids et Mesures (BIPM) certified balances thus producing a more accurate measurement of our products and lowering the level of uncertainty of the products you buy.
- We do not produce any certified reference material that we cannot analytically verify in our lab. For all the reference materials we make we have the instrumentation to analyze our final products again before the products leave our facility and are sent to our customers. DCG's reference materials are NIST-Traceable by weight and verified by one or more analytical techniques.
- Our Quality department takes an active role in ensuring that all the products manufactured at DCG comply with all our quality standards and all documentation is verified before any products leave our facility.
- All our products are supported by our Technical Support Team of chemists who have a combined 150+ years of experience in the industry. Our goal is to be an extension of our customers' teams, to support them in their endeavors, to be the best in class in their respective industries.

DCG ANALYTIC EDGE™

Staying true to our quality roots we are an accredited laboratory with more than 60+ methods on our scope for both ISO 17025 and ISO 17034 reference materials. All reference materials are analytically verified prior to shipping.



CALIBRATION STANDARDS IN CYLINDERS

Total Sulfur Standards

- Gas Phase (N₂, He, C₁, C₂, Ethylene, C₃, Propylene Matrices, ppb to % levels, weight/weight)
- Liquid Phase (LPG& Liquid Hydrocarbon Matrices, ppb to % levels, weight/weight)

Speciated Sulfur Standards

- Gas Phase (N₂, He, C₁, C₂, Ethylene, C₃, Propylene Matrices, ppb to % levels)
- Liquid Phase (LPG& Liquid Hydrocarbon Matrices, ppb to % levels)

Total Organic Nitrogen Standards

- Gas Phase (N₂, He, C₁, C₂, Ethylene, C₃, Propylene Matrices, ppb to % levels, weight/weight)
- Liquid Phase (LPG& Liquid Hydrocarbon Matrices, ppb to % levels, weight/weight)

Speciated Organic Nitrogen Standards

- Gas Phase (N₂, He, C₁, C₂, Ethylene, C₃, Propylene Matrices, ppb to % levels)
- Liquid Phase (LPG& Liquid Hydrocarbon Matrices, ppb to % levels)

Low Level Oxygenate Standard

- Contains 50 ppm each of the following by weight: Methanol, N-Propanol (1-Propanol), Isopropanol (2-Propanol), N-Butyl Alcohol(1-Butanol), Sec Butyl Alcohol (2-Butanol), 2-Butanone (Methyl Ethyl Ketone), MTBE, Ethanol, Acetone, Tertiary Butyl Alcohol(2-Methyl-2-Propanol), Isobutyl Alcohol(2-Methyl-1-Propanol), TAME, SBME, ETBE, & 200 ppm by weight of Dimethyl Ether in N-Butane.

Total Fluoride in N-Butane

- ≥ 1 ppm Total Fluoride from 2-Fluoropropane in N-Butane by weight

Acetaldehyde in LPG Refinery Gas Standards

- Custom Refinery Gas Standards
- Refinery Gas Standards with Hydrogen Sulfide
- Refinery Gas Standards # 1, 2 & 5 in one-liter refillable cylinders

Methane/Hydrogen Standards

Ethane Standards

- C₂ Standards
- CO, CO₂, C₂

Ethane/Propane (E/P) Standards

Ethylene Standards

- CO, CO₂, Ethylene
- High Purity Ethylene
- Hydrogen/Ethylene Standards
- Oxygen/Nitrogen/Ethylene

Propane Standards

- Propane with Olefins
- High Purity Propane

Propane/Propylene Standards Propylene Standards

- Low CO, CO₂, Propylene
- Low O₂, H₂, N₂, Propylene
- ppb & > H₂S, COS, Propylene
- Methanol/ Propylene
- High purity Propylene

Butane/Propane Standards Butane Standards

- C₄'s with Olefins
- Mixed C₄'s
- High Purity IC₄
- High Purity NC₄

Butane/Gasoline Standards

1,3 Butadiene Standards

- Refined BD
- Crude BD

Liquefied Petroleum Gas Standards

- Custom Standards

Natural Gas Standards

- With Hydrogen Sulfide
- With high Carbon Dioxide
- With high Ethane
- For Hexanes Plus Backflush
- For Extended Analysis
- For High, Medium, and Low BTU Gas
- BTU Standards
- Specific Gravity Standards
- BTEX Standards
- NG Standards 1, 2 & 3 in One Liter Refillable Cylinder
- For all types of NG Analyzers

Natural Gas Liquids

- NGL# 5 & 6
- E/P Standards
- Condensate Standards
- Custom Standards

HRVOC Standards

Oxygen in N₂, He, etc., ppm to % levels

Custom Standards available upon request

CALIBRATION STANDARDS IN AMPOULES

Ampoule Standards for Sulfurs

- ASTM D2622 - Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry
- ASTM D3120 - Trace Quantities of Sulfur in Light Petroleum Hydrocarbons by Oxidative Micro Coulometry
- ASTM D3246 - Sulfur in Petroleum Gas by Oxidative Micro Coulometry
- ASTM D4045 - Sulfur in Petroleum Products by Hydrogenolysis and Rateometric Colorimetric
- ASTM D4294 - Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-Ray Fluorescence Spectrometry
- ASTM D4735 - Trace Thiophene in Refined Benzene between 0.5- 5.0 ppm by FPD
- ASTM D5453 - Total Sulfur in Light Hydrocarbons, Motor Fuels & Oil by Ultraviolet Fluorescence
- ASTM D5623 - Sulfur Compounds in Light Petroleum by GC & Sulfur Selective Detection (also available in cylinders)
- ASTM D6212 - Total Sulfur in Aromatic Compounds by Hydrogen analysis and Rateometric Colorimetry
- ASTM D6313 - Total Sulfur in Aromatic Compounds by Hydrogen analysis and Sulfur Specific Difference Photometry
- ASTM D6334 - Sulfur in Gasoline by Wavelength Dispersive X-Ray Fluorescence
- ASTM D6428 - Total Sulfur in Liquid Aromatic Hydrocarbons and their Derivatives by Oxidation Combustion & Electrochemical Detection
- ASTM D6445 - Sulfur in Gasoline by Energy-Dispersive Fluorescence Spectrometry

Ampoule Standards for Nitrogen's

- ASTM D4629 - Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidation Combustion and Chemiluminescence Detection
- ASTM D5762 - Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence
- ASTM D6069 - Trace Nitrogen in Aromatic Hydrocarbons by Oxidation Combustion & Reduced Pressure Chemiluminescence Detection
- ASTM D6366 - Total Trace Nitrogen and its derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion & Electrochemical Detection

Ampoule Standards for Oxygenates

- ASTM D4815 - Determination of MTBE, ETBE, TAME, DIPE, tertiary-Amyl Alcohol and C1 to C4Alcohols in Gasoline by GC
- ASTM D5599 - Determination of Oxygenates in Gasoline by Gas Chromatography and Oxygen Selective Flame Ionization Detector
- Low Level Oxygenate Standard

Custom Standards available upon request



PROFICIENCY TESTING PROGRAMS (PTP)

DCG Partnership will help custom design your proficiency test program for inter-laboratory and intra-laboratory applications.

Ampoule Reference Materials

- Total Sulfur
- Sulfur Speciation
- Total Nitrogen
- Nitrogen Speciation
- Oxygenates
- Aromatics
- Olefins
- Petrochemical GC
- Petrochemical GC-MS
- Chloride
- Fluoride
- Amines in Water
- Methanol in Biodiesel
- Total Acid Number
- Pour Point
- Cloud Point
- Pure Hydrocarbons for:
Vapor Pressure
Distillation
Flash Point

Accessories

- Braided stainless steel pigtails
- Stainless steel tubing
- CGA connections & fittings
- Cylinder bench brackets & floor stands
- Flowmeters

Safety Accessories

- Cylinder Carts
- Brackets
- Stands

ISO ACCREDITATIONS

DCG Partnership is pleased to announce the Strategic Partnership with ANSI National Accreditation Board (ANAB). We maintain the accreditation standards set forth by ANAB and have been approved for accreditation to ISO 17025, ISO 17034 & ISO 17043 standards under their accrediting body.

As an organization, we are interested in continuous improvement and achieving the highest quality products and analyses possible. This accreditation for accurate, consistent testing and calibration confirms the commitment of DCG Partnership 1, LTD. to meet the most stringent international standards and engage in continual product and process improvement. By demonstrating technical competence for reference standard testing and production, as well as the operation and effectiveness of its laboratory. DCG Partnership continues to maintain ISO 17025, ISO 17034, & ISO 17043 accreditation.

DCG has enjoyed ISO 17025/17034/17043 accreditation since 2012. This affirms the commitment of DCG Partnership to its customers to consistently produce high quality products by offering the services of a laboratory that develops products with the most stringent standards recognized worldwide to equip laboratories with the certified reference materials required to be successful.



REGULATORS & SWITCHOVER MANIFOLD SYSTEMS

Brass Regulators

- Single stage & Double stage with brass barstock body and 316L stainless steel diaphragm
- Single stage & Double stage with chrome-plated brass forged body with 316L stainless steel diaphragm
- In-line regulator with brass barstock body and 316L stainless steel diaphragm
- Lecture bottle regulators
- Regulators for one liter steel cylinders

Stainless Steel Regulators

- Single stage & Double stage with 316L stainless steel barstock body and 316L stainless steel diaphragm
- In-line regulator with stainless steel barstock body and 316L stainless steel diaphragm
- Lecture bottle regulators
- Regulators for one liter aluminum cylinders
- Vaporizing regulator, single stage stainless steel

Automatic Switchover Manifold Systems Brass and 316L Stainless Steel Components

- Automatic Switchover System with pressure switches and brass components with or without remote alarm
- Automatic Switchover System with pressure switches and 316L stainless steel components with or without remote alarm
- Automatic Switchover System with pressure transducers with brass and 316L stainless steel components with or without remote alarm
- Protocol Switchover Station
- Automatic Switchover System, liquid primary with high pressure reserve and brass components
- Automatic Switchover System, liquid primary with high pressure reserve and 316L stainless steel components
- Automatic Switchover System with brass components with or without tee purge valves
- Automatic Switchover System with 316L stainless steel components with or without tee purge valves

Accessories

- Braided stainless steel pigtails
- Stainless steel tubing
- CGA connections & fittings
- Cylinder bench brackets and floor stands
- Flowmeters

CYLINDERS

Aluminum, High Pressure with tapered threads

- 1 AL (1 Liter Aluminum) with aluminum CGA 180 valve, 3.2" X 12", 4 lbs.
- AL 30: 7.25" X 21", 20 lbs.
- AL 80: 7.25" X 40", 40 lbs.
- AL 150: 8" X 53", 60 lbs.

Steel, High Pressure with tapered threads

- Size 200: 9" X 56", 120 lbs.

Low Pressure Steel with tapered threads

- 1 L (1 Liter low pressure cylinder) with brass CGA 170 valve, 3" X 12", 2 lbs.
- LP 2.5: 8" X 18", 20 lbs.
- LP 5: 12" X 18", 20 lbs.
- LP 143: 12" X 46", 50 lbs.
- LP 239: 15" X 48", 75 lbs.

Constant Pressure Cylinders

- 300 cc Constant Pressure Cylinder
- 500 cc Constant Pressure Cylinder
- 1000 cc Constant Pressure Cylinder
- Carry Case for Constant Pressure Cylinders

CGA Fittings for Valves Safety Accessories

- Cylinder Carts
- Cylinder Brackets
- Cylinder Stands



HEATED PRODUCTS

- Cylinder heat blankets
- Heat trace tubing
- We stock 1/8" stainless steel seamless tubing @ 8 watts per foot (other sizes available)
- We stock all kits, thermostats, accessories, and instruction manuals necessary for heat trace tubing installation.

DCG PARTNERSHIP CUSTOM REFERENCE MATERIALS AND SPECIALTY MIXES

Custom reference materials and specialty gas solutions are gravimetrically prepared via ISO 17034 manufacturing practices and analyzed on state-of-the-art instrumentation with analytical techniques applied specifically for the properties of the material.

Feedstocks are procured with tight specifications and verified by both documentation and analysis. Detailed impurities are quantified and used by the blending chemists to calculate gravimetric blends.

Gravimetric blends are prepared and analyzed versus quality control specifications based on each individual mixture. Each step of the DCG manufacturing process contains proprietary techniques refined during our 30+ years' experience of reference material and specialty gas manufacturing and analysis.

DCG manufactures many gas and liquid phase reference materials and specialty mixes to meet the specific needs of our customers. We pride ourselves on our ability to partner with our customers to create unique, practical solutions that fit customers' needs.

Our technical team consists of various analytical backgrounds and partners with customers to:

- Define the need.
- Scope the project
- Research and propose possible solutions.
- Select the best solution.
- Create the reference material.
- Analyze the reference material.
- Verify our internal results.
- Validating the "fit for purpose" with the customer.

It is our Mission to ensure the quality, accuracy and precision of the calibration and verification reference materials utilized by our customers at an affordable price. Responding to the need of our customers to have superior quality and affordable reference materials, DCG has created bundled packages to reduce the overall cost. It is our goal to support our customers' needs and meet the growing demand for accurate results at reduced levels of quantitation.

For Sales Inquiries:

Advanced Laboratory Solution Consulting LLC

Jennifer Donelson - Founder and Managing Director

Mobile: (812)655-3896

Email: Jennifer.Donelson@alsconsulting.tech

www.alsconsulting.tech



DCG Partnership

4170-A Main Street, Pearland, TX 77581

Phone: 281-648-1894

www.dcgpartnership.com

customerservice@dcgpartnership.com