



Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
External Services



1. ERTLS-GRFTLD01 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - TEN (10) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy	Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)	
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy	Applicant / Client	
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)	Applicant / Client	
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)	Applicant / Client	
<i>Remarks:</i>		
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)	Applicant / Client	
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)	Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)	Applicant / Client	
<i>Remarks:</i>		



Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

D.b. Unconsolidated Sample

D.b.1. Unconsolidated Sample
(Sample: 50 grams)

Applicant / Client

Remarks:

Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

E. Oil and Gas Sample

E.1. Oil and Gas Sample
(Sample: 1 liter / kilogram)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

F. LPG / Natural Gas

F.1. LPG / Natural Gas
(Sample: 60 psi)

Applicant / Client

Remarks:

Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses.

Sample size/weight depends on the test parameters requested.

G. Crude Oil

G.1. Crude Oil
(Sample: 500 milliliters)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director

- Geothermal Coal Section -coal and geothermal water samples
- Processed Fuels Section - petroleum and biofuel samples
- Geology Section -rock samples



Oil and Gas Section - geothermal gas, biogas or synthesis gas B) For Agency Action (Step 1.6): The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing Laboratory Services (ERTLS)
	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample		8 working day/s	Supervising Science Research Specialist / Senior



	Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist			Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 10 working day/s
Total Processing Fee:	Total Standard Fee: None See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	



	Volatile Combustible Matter, VCM	750.00	
	Sample Preparation	650.00	
	Sieve Analysis (per size)	200.00	
	Total Sulfur, S	1,250.00	
	Geothermal Water Analysis		
	Alkalinity	500.00	
	Arsenic (As)	900.00	
	Boron (B)	600.00	
	Cadmium	400.00	
	Calcium (Ca)	400.00	
	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	



Methyl Laurate in Biodiesel	3,750.00	
Succeeding Run	1,950.00	
Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
Succeeding Run	4,450.00	
Total Acid Number in Biodiesel, Color Indicator	1,625.00	
Total Acid Number in Biodiesel, Potentiometric	2,100.00	
Total Glycerin in Biodiesel	2,750.00	
Bioethanol		
Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	



Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New
Acidity/Alkalinity, pH	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New



Geology Section Laboratory Services	Octane Number, RON (CFR)	10,400.00	
	Oxidation Stability, Hours	4,600.00	
	Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
	Succeeding Run	4,400.00	New
	Pour Point, °C	1,100.00	
	Sediment by Extraction, % Volume	2,200.00	
	Sulfur, % Mass (UVF)	2,300.00	
	Sulfur, % Mass (WD-XRF)	3,000.00	New
	Sulfur, % Mass (XRF)	2,100.00	
	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
		Amount	Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
	Analysis		
	Coal - Vitritine Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New



	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
Other Services Laboratory Services	Amount		Remarks
	Biostratigraphic Report of Well		
	First 7,000 feet / 2,133 meters)	48,000.00	
	(excluding Sample Preparation and Analysis)		
	For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00	
	Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00	
	Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00	
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS ^a			
	Number of Samples		
Processed Fuels Section			
PNS Test for Automotive Diesel Oil ^b	1-9		
PNS Test for B100 ^b	1-6		
PNS Test for E100 ^b	1-15		
PNS Test for Fuel Oil (Industrial) ^b	1-6		
PNS Test for Gasoline ^b	1-6		
PNS Test for Kerosene	1-15		
Non-PNS Test for Diesel ^b	1-15		
Non-PNS Test for Gasoline ^b	1-15		
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	1-6		
Geothermal-Coal Section			
Coal and Other Related Sample/s			
Coal Sample/s With Sample Preparation			
Proximate Analysis	1-6		
Proximate Analysis, Heating Value and Sulfur Analysis	1-6		
-Including Residual Moisture, Heating Value and Sulfur Only			
Proximate Analysis, Ultimate Analysis and Heating Value Determination	1-6		
Ultimate Analysis (CHNAS)	1-6		
Coal Sample/s Without Sample Preparation			
Proximate Analysis	1-15		
Proximate Analysis, Heating Value and Sulfur Analysis	1-15		
-Including Residual Moisture, Heating Value and Sulfur Only			
Proximate Analysis, Heating Value and Ultimate Analysis	1-12		



Ultimate Analysis 1-12
Biomass Sample/s Without Sample Preparation

Proximate Analysis 1-5

Proximate Analysis and Heating Value 1-5

-Including Residual Moisture and Heating Value Only

Residual Moisture, Volatile Combustible Matter and Heating Value 1-15

Carbon, Hydrogen and Nitrogen 1-20

Geothermal Water Samples

Complete Ion Analysis 1-5

Oil and Gas Section

Analysis of Crude Oil 1-5

Analysis of Natural Gas / Biogas 1-15

Analysis of Stable Isotope 1-5

PNS Test for B100: GC Analysis 1-5

PNS Test for E100: GC Analysis 1-10

Analysis of Liquefied Petroleum Gas 1-5

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 1-3

Drying of ditch cutting samples 1-30

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes



2. ERTLS-GRFTLD01-01 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FIFTEEN (15) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
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Operating Hours:	7:00 AM - 4:00 PM	
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For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
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C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
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D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i>		



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D.b. Unconsolidated Sample

D.b.1. Unconsolidated Sample
(Sample: 50 grams)

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Applicant / Client

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3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
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	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample		13 working day/s	Supervising Science Research Specialist / Senior



	Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist			Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 15 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	



	Volatile Combustible Matter, VCM	750.00	
	Sample Preparation	650.00	
	Sieve Analysis (per size)	200.00	
	Total Sulfur, S	1,250.00	
	Geothermal Water Analysis		
	Alkalinity	500.00	
	Arsenic (As)	900.00	
	Boron (B)	600.00	
	Cadmium	400.00	
	Calcium (Ca)	400.00	
	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	



Methyl Laurate in Biodiesel	3,750.00	
Succeeding Run	1,950.00	
Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
Succeeding Run	4,450.00	
Total Acid Number in Biodiesel, Color Indicator	1,625.00	
Total Acid Number in Biodiesel, Potentiometric	2,100.00	
Total Glycerin in Biodiesel	2,750.00	
Bioethanol		
Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	



Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New
Acidity/Alkalinity, pH	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New



Geology Section Laboratory Services	Octane Number, RON (CFR)	10,400.00	
	Oxidation Stability, Hours	4,600.00	
	Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
	Succeeding Run	4,400.00	New
	Pour Point, °C	1,100.00	
	Sediment by Extraction, % Volume	2,200.00	
	Sulfur, % Mass (UVF)	2,300.00	
	Sulfur, % Mass (WD-XRF)	3,000.00	New
	Sulfur, % Mass (XRF)	2,100.00	
	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
		Amount	Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
	Analysis		
	Coal - Vitritine Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New



	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
Other Services Laboratory Services	Amount		Remarks
	Biostratigraphic Report of Well		
	First 7,000 feet / 2,133 meters)	48,000.00	
	(excluding Sample Preparation and Analysis)		
	For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00	
	Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00	
	Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00	
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS ^a			
	Number of Samples		
Processed Fuels Section			
PNS Test for Automotive Diesel Oil ^b	10-14		
PNS Test for B100 ^b	7-9		
PNS Test for E100 ^b	16-20		
PNS Test for Fuel Oil (Industrial) ^b	7-10		
PNS Test for Gasoline ^b	7-9		
PNS Test for Kerosene	16-20		
Non-PNS Test for Diesel ^b	16-20		
Non-PNS Test for Gasoline ^b	16-20		
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	7-10		
Geothermal-Coal Section			
Coal and Other Related Sample/s			
Coal Sample/s With Sample Preparation			
Proximate Analysis	7-15		
Proximate Analysis, Heating Value and Sulfur Analysis	7-15		
-Including Residual Moisture, Heating Value and Sulfur Only			
Proximate Analysis, Ultimate Analysis and Heating Value Determination	7-15		
Ultimate Analysis (CHNAS)	7-15		
Coal Sample/s Without Sample Preparation			
Proximate Analysis	16-24		
Proximate Analysis, Heating Value and Sulfur Analysis	16-24		
-Including Residual Moisture, Heating Value and Sulfur Only			
Proximate Analysis, Heating Value and Ultimate Analysis	13-21		



Ultimate Analysis	13-21
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	6-9
Proximate Analysis and Heating Value	6-9
-Including Residual Moisture and Heating Value Only	
Residual Moisture, Volatile Combustible Matter and Heating Value	16-24
Carbon, Hydrogen and Nitrogen	21-32
Geothermal Water Samples	
Complete Ion Analysis	6-10
Oil and Gas Section	
Analysis of Crude Oil	6-7
Analysis of Natural Gas / Biogas	16-25
Analysis of Stable Isotope	6-7
PNS Test for B100: GC Analysis	6-7
PNS Test for E100: GC Analysis	11-13
Analysis of Liquefied Petroleum Gas	6-7
Geology Section	
Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	4-5
Drying of ditch cutting samples	31 - 60

Remarks:

- Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.
- ISO 9001:2015 certified processes



3. ERTLS-GRFTLD01-02 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - TWENTY (20) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i>		
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i>		



Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

D.b. Unconsolidated Sample

D.b.1. Unconsolidated Sample
(Sample: 50 grams)

Applicant / Client

Remarks:

Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

E. Oil and Gas Sample

E.1. Oil and Gas Sample
(Sample: 1 liter / kilogram)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

F. LPG / Natural Gas

F.1. LPG / Natural Gas
(Sample: 60 psi)

Applicant / Client

Remarks:

Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses.

Sample size/weight depends on the test parameters requested.

G. Crude Oil

G.1. Crude Oil
(Sample: 500 milliliters)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director

- Geothermal Coal Section -coal and geothermal water samples
- Processed Fuels Section - petroleum and biofuel samples
- Geology Section -rock samples



Oil and Gas Section - geothermal gas, biogas or synthesis gas B) For Agency Action (Step 1.6): The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing Laboratory Services (ERTLS)
	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample		18 working day/s	Supervising Science Research Specialist / Senior



	Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist			Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 20 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	



	Volatile Combustible Matter, VCM	750.00	
	Sample Preparation	650.00	
	Sieve Analysis (per size)	200.00	
	Total Sulfur, S	1,250.00	
	Geothermal Water Analysis		
	Alkalinity	500.00	
	Arsenic (As)	900.00	
	Boron (B)	600.00	
	Cadmium	400.00	
	Calcium (Ca)	400.00	
	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	



Methyl Laurate in Biodiesel	3,750.00	
Succeeding Run	1,950.00	
Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
Succeeding Run	4,450.00	
Total Acid Number in Biodiesel, Color Indicator	1,625.00	
Total Acid Number in Biodiesel, Potentiometric	2,100.00	
Total Glycerin in Biodiesel	2,750.00	
Bioethanol		
Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	



Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New
Acidity/Alkalinity, pH	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New



Geology Section Laboratory Services	Octane Number, RON (CFR)	10,400.00	
	Oxidation Stability, Hours	4,600.00	
	Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
	Succeeding Run	4,400.00	New
	Pour Point, °C	1,100.00	
	Sediment by Extraction, % Volume	2,200.00	
	Sulfur, % Mass (UVF)	2,300.00	
	Sulfur, % Mass (WD-XRF)	3,000.00	New
	Sulfur, % Mass (XRF)	2,100.00	
	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
		Amount	Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
	Analysis		
	Coal - Vitritine Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New



	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
Other Services Laboratory Services	Amount		Remarks
	Biostratigraphic Report of Well		
	First 7,000 feet / 2,133 meters)	48,000.00	
	(excluding Sample Preparation and Analysis)		
	For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00	
	Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00	
	Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00	
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS ^a			
	Number of Samples		
Processed Fuels Section			
PNS Test for Automotive Diesel Oil ^b	15-19		
PNS Test for B100 ^b	10-12		
PNS Test for E100 ^b	21-25		
PNS Test for Fuel Oil (Industrial) ^b	11-14		
PNS Test for Gasoline ^b	10-12		
PNS Test for Kerosene	21-25		
Non-PNS Test for Diesel ^b	21-25		
Non-PNS Test for Gasoline ^b	21-25		
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	11-14		
Geothermal-Coal Section			
Coal and Other Related Sample/s			
Coal Sample/s With Sample Preparation			
Proximate Analysis	16-24		
Proximate Analysis, Heating Value and Sulfur Analysis	16-24		
-Including Residual Moisture, Heating Value and Sulfur Only			
Proximate Analysis, Ultimate Analysis and Heating Value Determination	16-24		
Ultimate Analysis (CHNAS)	16-24		
Coal Sample/s Without Sample Preparation			
Proximate Analysis	25-33		
Proximate Analysis, Heating Value and Sulfur Analysis	25-33		
-Including Residual Moisture, Heating Value and Sulfur Only			
Proximate Analysis, Heating Value and Ultimate Analysis	22-30		



Ultimate Analysis	22-30
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	10-13
Proximate Analysis and Heating Value	10-13
-Including Residual Moisture and Heating Value Only	
Residual Moisture, Volatile Combustible Matter and Heating Value	25-33
Carbon, Hydrogen and Nitrogen	33-44
Geothermal Water Samples	
Complete Ion Analysis	11-15
Oil and Gas Section	
Analysis of Crude Oil	8-9
Analysis of Natural Gas / Biogas	26-35
Analysis of Stable Isotope	8-9
PNS Test for B100: GC Analysis	8-9
PNS Test for E100: GC Analysis	14-16
Analysis of Liquefied Petroleum Gas	8-9
Geology Section	
Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	6-7
Drying of ditch cutting samples	61-90

Remarks:

- Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.
- ISO 9001:2015 certified processes



4. ERTLS-GRFTLD01-03 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - TWENTY-FIVE (25) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client



<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
E.1. Oil and Gas Sample (Sample: 1 liter / kilogram)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
F.1. LPG / Natural Gas (Sample: 60 psi)			Applicant / Client	
<i>Remarks:</i> Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
G.1. Crude Oil (Sample: 500 milliliters)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section -coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section -rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing



B) For Agency Action (Step 1.6): <i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>				Laboratory Services (ERTLS)
	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: ColleTreasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		23 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ;



				Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 25 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	



	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		



Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	
Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New



Acidity/Alkalinity, pHe	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	



Geology Section Laboratory Services	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
Other Services Laboratory Services	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
	Amount		Remarks



Biostratigraphic Report of Well	
First 7,000 feet / 2,133 meters)	48,000.00
(excluding Sample Preparation and Analysis)	
For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00
Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00
Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00

CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a

Number of Samples

Processed Fuels Section

PNS Test for Automotive Diesel Oil^b 20-24

PNS Test for B100^b 13-15

PNS Test for E100^b 26-30

PNS Test for Fuel Oil (Industrial)^b 15-18

PNS Test for Gasoline^b 13-15

PNS Test for Kerosene 26-30

Non-PNS Test for Diesel^b 26-30

Non-PNS Test for Gasoline^b 26-30

Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks 15-18

Geothermal-Coal Section

Coal and Other Related Sample/s

Coal Sample/s With Sample Preparation

Proximate Analysis 25-33

Proximate Analysis, Heating Value and Sulfur Analysis 25-33

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Ultimate Analysis and Heating Value Determination 25-33

Ultimate Analysis (CHNAS) 25-33

Coal Sample/s Without Sample Preparation

Proximate Analysis 34-42

Proximate Analysis, Heating Value and Sulfur Analysis 34-42

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Heating Value and Ultimate Analysis 31-39

Ultimate Analysis 31-39

Biomass Sample/s Without Sample Preparation

Proximate Analysis 14-17

Proximate Analysis and Heating Value 14-17

-Including Residual Moisture and Heating Value Only

Residual Moisture, Volatile Combustible Matter and Heating Value 34-42

Carbon, Hydrogen and Nitrogen 45-56



Geothermal Water Samples

Complete Ion Analysis 16-20

Oil and Gas Section

Analysis of Crude Oil 10-11

Analysis of Natural Gas / Biogas 36-45

Analysis of Stable Isotope 10-11

PNS Test for B100: GC Analysis 10-11

PNS Test for E100: GC Analysis 17-19

Analysis of Liquefied Petroleum Gas 10-11

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 8-9

Drying of ditch cutting samples 91-120

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes



5. ERTLS-GRFTLD01-04 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - THIRTY (30) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client



<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
E.1. Oil and Gas Sample (Sample: 1 liter / kilogram)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
F.1. LPG / Natural Gas (Sample: 60 psi)			Applicant / Client	
<i>Remarks:</i> Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
G.1. Crude Oil (Sample: 500 milliliters)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section -coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section -rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing



B) For Agency Action (Step 1.6): <i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Laboratory Services (ERTLS) Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		28 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ;



				Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 30 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	



	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		



Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	
Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New



Acidity/Alkalinity, pHe	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	



Geology Section Laboratory Services	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
Other Services Laboratory Services	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
	Amount		Remarks



Biostratigraphic Report of Well	
First 7,000 feet / 2,133 meters)	48,000.00
(excluding Sample Preparation and Analysis)	
For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00
Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00
Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00

CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a

Number of Samples

Processed Fuels Section

PNS Test for Automotive Diesel Oil^b 25-29

PNS Test for B100^b 16-18

PNS Test for E100^b 31-35

PNS Test for Fuel Oil (Industrial)^b 19-22

PNS Test for Gasoline^b 16-18

PNS Test for Kerosene 31-35

Non-PNS Test for Diesel^b 31-35

Non-PNS Test for Gasoline^b 31-35

Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks 19-22

Geothermal-Coal Section

Coal and Other Related Sample/s

Coal Sample/s With Sample Preparation

Proximate Analysis 34-42

Proximate Analysis, Heating Value and Sulfur Analysis 34-42

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Ultimate Analysis and Heating Value Determination 34-42

Ultimate Analysis (CHNAS) 34-42

Coal Sample/s Without Sample Preparation

Proximate Analysis 43-51

Proximate Analysis, Heating Value and Sulfur Analysis 43-51

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Heating Value and Ultimate Analysis 40-48

Ultimate Analysis 40-48

Biomass Sample/s Without Sample Preparation

Proximate Analysis 18-21

Proximate Analysis and Heating Value 18-21

-Including Residual Moisture and Heating Value Only

Residual Moisture, Volatile Combustible Matter and Heating Value 43-51

Carbon, Hydrogen and Nitrogen 57-68



Geothermal Water Samples

Complete Ion Analysis 21-25

Oil and Gas Section

Analysis of Crude Oil 12-13

Analysis of Natural Gas / Biogas 46-55

Analysis of Stable Isotope 12-13

PNS Test for B100: GC Analysis 12-13

PNS Test for E100: GC Analysis 20-22

Analysis of Liquefied Petroleum Gas 12-13

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 10-11

Drying of ditch cutting samples 121-150

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes



6. ERTLS-GRFTLD01-05 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - THIRTY-FIVE (35) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client



<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
E.1. Oil and Gas Sample (Sample: 1 liter / kilogram)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
F.1. LPG / Natural Gas (Sample: 60 psi)			Applicant / Client	
<i>Remarks:</i> Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
G.1. Crude Oil (Sample: 500 milliliters)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section -coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section -rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing



B) For Agency Action (Step 1.6): <i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Laboratory Services (ERTLS) Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		33 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ;



				Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 35 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	



	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		



Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	
Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New



Acidity/Alkalinity, pHe	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	



Geology Section Laboratory Services	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
Other Services Laboratory Services	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
	Amount		Remarks



Biostratigraphic Report of Well	
First 7,000 feet / 2,133 meters)	48,000.00
(excluding Sample Preparation and Analysis)	
For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00
Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00
Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00

CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a

Number of Samples

Processed Fuels Section

PNS Test for Automotive Diesel Oil^b 30-34

PNS Test for B100^b 19-21

PNS Test for E100^b 36-40

PNS Test for Fuel Oil (Industrial)^b 23-26

PNS Test for Gasoline^b 19-21

PNS Test for Kerosene 36-40

Non-PNS Test for Diesel^b 36-40

Non-PNS Test for Gasoline^b 36-40

Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks 23-26

Geothermal-Coal Section

Coal and Other Related Sample/s

Coal Sample/s With Sample Preparation

Proximate Analysis 43-51

Proximate Analysis, Heating Value and Sulfur Analysis 43-51

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Ultimate Analysis and Heating Value Determination 43-51

Ultimate Analysis (CHNAS) 43-51

Coal Sample/s Without Sample Preparation

Proximate Analysis 52-60

Proximate Analysis, Heating Value and Sulfur Analysis 52-60

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Heating Value and Ultimate Analysis 49-57

Ultimate Analysis 49-57

Biomass Sample/s Without Sample Preparation

Proximate Analysis 22-25

Proximate Analysis and Heating Value 22-25

-Including Residual Moisture and Heating Value Only

Residual Moisture, Volatile Combustible Matter and Heating Value 52-60

Carbon, Hydrogen and Nitrogen 69-80



Geothermal Water Samples

Complete Ion Analysis 26-30

Oil and Gas Section

Analysis of Crude Oil 14-15

Analysis of Natural Gas / Biogas 56-65

Analysis of Source Rocks / Soil 1-2

Analysis of Stable Isotope 14-15

PNS Test for B100: GC Analysis 14-15

PNS Test for E100: GC Analysis 23-25

Analysis of Liquefied Petroleum Gas 14-15

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 12-13

Drying of ditch cutting samples 151-180

Remarks:

- a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.
- b. ISO 9001:2015 certified processes



7. ERTLS-GRFTLD01-06 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FORTY (40) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client



<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
E.1. Oil and Gas Sample (Sample: 1 liter / kilogram)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
F.1. LPG / Natural Gas (Sample: 60 psi)			Applicant / Client	
<i>Remarks:</i> Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
G.1. Crude Oil (Sample: 500 milliliters)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section -coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section -rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing



B) For Agency Action (Step 1.6): <i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Laboratory Services (ERTLS) Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		38 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ;



				Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 40 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	



	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		



Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	
Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New



Acidity/Alkalinity, pHe	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	



Geology Section Laboratory Services	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
Other Services Laboratory Services	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
	Amount		Remarks



Biostratigraphic Report of Well	
First 7,000 feet / 2,133 meters)	48,000.00
(excluding Sample Preparation and Analysis)	
For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00
Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00
Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00

CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a

Number of Samples

Processed Fuels Section

PNS Test for Automotive Diesel Oil^b 35-39

PNS Test for B100^b 22-24

PNS Test for E100^b 41-45

PNS Test for Fuel Oil (Industrial)^b 27-30

PNS Test for Gasoline^b 22-24

PNS Test for Kerosene 41-45

Non-PNS Test for Diesel^b 41-45

Non-PNS Test for Gasoline^b 41-45

Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks 27-30

Geothermal-Coal Section

Coal and Other Related Sample/s

Coal Sample/s With Sample Preparation

Proximate Analysis 52-60

Proximate Analysis, Heating Value and Sulfur Analysis 52-60

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Ultimate Analysis and Heating Value Determination 52-60

Ultimate Analysis (CHNAS) 52-60

Coal Sample/s Without Sample Preparation

Proximate Analysis 61-69

Proximate Analysis, Heating Value and Sulfur Analysis 61-69

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Heating Value and Ultimate Analysis 58-66

Ultimate Analysis 58-66

Biomass Sample/s Without Sample Preparation

Proximate Analysis 26-29

Proximate Analysis and Heating Value 26-29

-Including Residual Moisture and Heating Value Only

Residual Moisture, Volatile Combustible Matter and Heating Value 61-69

Carbon, Hydrogen and Nitrogen 81-92



Geothermal Water Samples

Complete Ion Analysis 31-35

Oil and Gas Section

Analysis of Crude Oil 16-17

Analysis of Natural Gas / Biogas 66-75

Analysis of Stable Isotope 16-17

PNS Test for B100: GC Analysis 16-17

PNS Test for E100: GC Analysis 26-28

Analysis of Liquefied Petroleum Gas 16-17

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 14-15

Drying of ditch cutting samples 181-210

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes



8. ERTLS-GRFTLD01-07 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FORTY-FIVE (45) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client



<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
E.1. Oil and Gas Sample (Sample: 1 liter / kilogram)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
F.1. LPG / Natural Gas (Sample: 60 psi)			Applicant / Client	
<i>Remarks:</i> Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
G.1. Crude Oil (Sample: 500 milliliters)			Applicant / Client	
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section -coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section -rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing



B) For Agency Action (Step 1.6): <i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Laboratory Services (ERTLS) Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		43 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ;



				Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 45 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	



	Cesium (Cs)	400.00	
	Chloride (Cl)	550.00	
	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		



Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	
Total Acidity (as Acetic Acid) in Bioethanol	550.00	
Crude Oil		
C12 + Components of Whole Oil / Saturate Fraction	3,950.00	
Degree API Gravity of Oil Containing Water and Sediments	590.00	
Degree API Gravity of Oil Without Sample Preparation	450.00	
Extractable Organic Matter (EOM)	5,220.00	
Fractional Distillation of Crude Oil	1,880.00	
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00	
Separation of Crude Oil / Petroleum from Water and Sediments	600.00	
Gas Condensate		
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00	
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00	
Isotope Analysis		
C13 Isotope in Gas Sample	9,950.00	
Succeeding Run	5,350.00	
N15 Isotope in Various Samples	13,700.00	New
Succeeding Run	8,700.00	New
O18 Isotope in Water Sample	10,100.00	
Succeeding Run	5,350.00	
S34 Isotope in Various Samples	13,600.00	
Succeeding Run	8,650.00	
Natural Gas and Biogas		
CO ₂ and H ₂ S Gases	1,250.00	
Hydrocarbon Gases (C1-C4)	3,500.00	
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00	
Source Rock and Cuttings		
Pyrolysis of Source Rock	2,700.00	
Sample Preparation for Dry Cuttings	450.00	
Sample preparation for wet Cuttings	540.00	
Total organic / Inorganic Carbon	3,050.00	
Tetrafluoroethane		
Tetrafluoroethane / R134a		
With Standard	3,320.00	
Without Standard	3,100.00	
Processed Fuels Section Laboratory Services	Amount	Remarks
Processed Fuels		
API Gravity/Density/Specific Gravity (Hydrometer)	600.00	
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New



Acidity/Alkalinity, pHe	600.00	New
Aromatics with Oxygenates, % Volume	6100	
Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	



Geology Section Laboratory Services	Vapor Pressure, kPa	900.00	
	Viscosity Index	1,800.00	
	Water and Sediments, % Volume	1,100.00	
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, % Volume - Volumetric	1,300.00	
	Water by Karl Fischer, % Volume - Coulometric	3,300.00	New
	Wear Metals/Trace Metals, % Volume (per Metal)	800.00	
	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
Other Services Laboratory Services	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
	Amount		Remarks



Biostratigraphic Report of Well	
First 7,000 feet / 2,133 meters)	48,000.00
(excluding Sample Preparation and Analysis)	
For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00
Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00
Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00

CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a

Number of Samples

Processed Fuels Section

PNS Test for Automotive Diesel Oil^b 40-44

PNS Test for B100^b 25-27

PNS Test for E100^b 46-50

PNS Test for Fuel Oil (Industrial)^b 31-34

PNS Test for Gasoline^b 25-27

PNS Test for Kerosene 46-50

Non-PNS Test for Diesel^b 46-50

Non-PNS Test for Gasoline^b 46-50

Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks 31-34

Geothermal-Coal Section

Coal and Other Related Sample/s

Coal Sample/s With Sample Preparation

Proximate Analysis 61-69

Proximate Analysis, Heating Value and Sulfur Analysis 61-69

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Ultimate Analysis and Heating Value Determination 61-69

Ultimate Analysis (CHNAS) 61-69

Coal Sample/s Without Sample Preparation

Proximate Analysis 70-78

Proximate Analysis, Heating Value and Sulfur Analysis 70-78

-Including Residual Moisture, Heating Value and Sulfur Only

Proximate Analysis, Heating Value and Ultimate Analysis 67-75

Ultimate Analysis 67-75

Biomass Sample/s Without Sample Preparation

Proximate Analysis 30-33

Proximate Analysis and Heating Value 30-33

-Including Residual Moisture and Heating Value Only

Residual Moisture, Volatile Combustible Matter and Heating Value 70-78

Carbon, Hydrogen and Nitrogen 93-104



Geothermal Water Samples

Complete Ion Analysis 36-40

Oil and Gas Section

Analysis of Crude Oil 18-19

Analysis of Natural Gas / Biogas 76-85

Analysis of Stable Isotope 18-19

PNS Test for B100: GC Analysis 18-19

PNS Test for E100: GC Analysis 29-31

Analysis of Liquefied Petroleum Gas 18-19

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 16-17

Drying of ditch cutting samples 211-240

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes



9. ERTLS-GRFTLD01-08 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FIFTY (50) WORKING DAYS

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client
<i>Remarks:</i>		



Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

E. Oil and Gas Sample

E.1. Oil and Gas Sample
(Sample: 1 liter / kilogram)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

F. LPG / Natural Gas

F.1. LPG / Natural Gas
(Sample: 60 psi)

Applicant / Client

Remarks:

Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses.

Sample size/weight depends on the test parameters requested.

G. Crude Oil

G.1. Crude Oil
(Sample: 500 milliliters)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section -coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section -rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas B) For Agency Action (Step 1.6):	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing Laboratory Services (ERTLS)



<i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		48 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ; Geoscientific Research and



				Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 50 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	
Cesium (Cs)	400.00	
Chloride (Cl)	550.00	



Chromium (Hexavalent)	450.00	
Copper (Cu)	400.00	
Iodine (I)	1,700.00	
Iron (Fe)	400.00	
Lead (Pb)	400.00	
Lithium (Li)	400.00	
Magnesium (Mg)	400.00	
Manganese (Mn)	400.00	
Mercury (Hg)	1,500.00	
Nickel (Ni)	400.00	
pH	350.00	
Potassium (K)	450.00	
Rubidium (Rb)	400.00	
Silica (SiO ₂)	700.00	
Silver (Ag)	400.00	
Sodium (Na)	400.00	
Specific Conductivity	250.00	
Sulfate (SO ₄)	700.00	
Total Dissolved Solids	250.00	
Total Suspended Solids	450.00	
Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount	Remarks
Oil and Gas		
Automotive LPG		
Copper Strip Corrosion	2,850.00	New
Density of LPG	2,250.00	New
Gauge Vapor Pressure of LPG	4,600.00	New
Hydrogen Sulfide in LPG	1,500.00	New
LP Gases and Propene Concentrates by GC	8,250.00	New
Residue and Volatility	2,000.00	New
Sulfur in LPG	3,850.00	New
Biodiesel / CME		
Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
Succeeding Run	2,500.00	
FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
Succeeding Run	3,380.00	
Free Glycerin in Biodiesel	1,250.00	
Linolenic Acid in Biodiesel	4,320.00	
Succeeding Run	2,100.00	
Methanol in Biodiesel	3,350.00	
Succeeding Run	2,150.00	
Methyl Laurate in Biodiesel	3,750.00	
Succeeding Run	1,950.00	
Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
Succeeding Run	4,450.00	
Total Acid Number in Biodiesel, Color Indicator	1,625.00	
Total Acid Number in Biodiesel, Potentiometric	2,100.00	
Total Glycerin in Biodiesel	2,750.00	
Bioethanol		
Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
Succeeding Run	1,650.00	



Total Acidity (as Acetic Acid) in Bioethanol	550.00		
Crude Oil			
C12 + Components of Whole Oil / Saturate Fraction	3,950.00		
Degree API Gravity of Oil Containing Water and Sediments	590.00		
Degree API Gravity of Oil Without Sample Preparation	450.00		
Extractable Organic Matter (EOM)	5,220.00		
Fractional Distillation of Crude Oil	1,880.00		
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00		
Separation of Crude Oil / Petroleum from Water and Sediments	600.00		
Gas Condensate			
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00		
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00		
Isotope Analysis			
C13 Isotope in Gas Sample	9,950.00		
Succeeding Run	5,350.00		
N15 Isotope in Various Samples	13,700.00		New
Succeeding Run	8,700.00		New
O18 Isotope in Water Sample	10,100.00		
Succeeding Run	5,350.00		
S34 Isotope in Various Samples	13,600.00		
Succeeding Run	8,650.00		
Natural Gas and Biogas			
CO ₂ and H ₂ S Gases	1,250.00		
Hydrocarbon Gases (C1-C4)	3,500.00		
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00		
Source Rock and Cuttings			
Pyrolysis of Source Rock	2,700.00		
Sample Preparation for Dry Cuttings	450.00		
Sample preparation for wet Cuttings	540.00		
Total organic / Inorganic Carbon	3,050.00		
Tetrafluoroethane			
Tetrafluoroethane / R134a			
With Standard	3,320.00		
Without Standard	3,100.00		
Processed Fuels Section Laboratory Services	Amount		Remarks
Processed Fuels			
API Gravity/Density/Specific Gravity (Hydrometer)	600.00		
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00		New
Acidity/Alkalinity, pH	600.00		New
Aromatics with Oxygenates, % Volume	6100		



Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	
Vapor Pressure, kPa	900.00	
Viscosity Index	1,800.00	
Water and Sediments, %	1,100.00	



Geology Section Laboratory Services	Volume		
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, %	1,300.00	
	Volume - Volumetric		
	Water by Karl Fischer, %	3,300.00	New
	Volume - Coulometric		
	Wear Metals/Trace Metals, %	800.00	
	Volume (per Metal)		
	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
Other Services Laboratory Services	Amount		Remarks
	Biostratigraphic Report of Well		
	First 7,000 feet / 2,133 meters)	48,000.00	



(excluding Sample Preparation and Analysis)	
For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost	4,800.00
Photomicrography of Fossils (1-5 Samples, final shot/s)	400.00
Photomicrography of Rocks (1-5 Samples, final shot/s)	500.00

CONDUCT OF
SAMPLE PREPARATION /
TESTING / ANALYSIS

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 18-19

Drying of ditch cutting samples 241-270

Remarks:

Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.



10. ERTLS-GRFTLD01-09 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FIFTY-FIVE (55) WORKING DAYS

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client
<i>Remarks:</i>		



Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

E. Oil and Gas Sample

E.1. Oil and Gas Sample
(Sample: 1 liter / kilogram)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

F. LPG / Natural Gas

F.1. LPG / Natural Gas
(Sample: 60 psi)

Applicant / Client

Remarks:

Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses.

Sample size/weight depends on the test parameters requested.

G. Crude Oil

G.1. Crude Oil
(Sample: 500 milliliters)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section - coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section - rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas B) For Agency Action (Step 1.6):	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing Laboratory Services (ERTLS)



<i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		53 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ; Geoscientific Research and



				Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 55 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	
Cesium (Cs)	400.00	
Chloride (Cl)	550.00	



	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		
	Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
	Succeeding Run	1,650.00	



Total Acidity (as Acetic Acid) in Bioethanol	550.00		
Crude Oil			
C12 + Components of Whole Oil / Saturate Fraction	3,950.00		
Degree API Gravity of Oil Containing Water and Sediments	590.00		
Degree API Gravity of Oil Without Sample Preparation	450.00		
Extractable Organic Matter (EOM)	5,220.00		
Fractional Distillation of Crude Oil	1,880.00		
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00		
Separation of Crude Oil / Petroleum from Water and Sediments	600.00		
Gas Condensate			
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00		
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00		
Isotope Analysis			
C13 Isotope in Gas Sample	9,950.00		
Succeeding Run	5,350.00		
N15 Isotope in Various Samples	13,700.00		New
Succeeding Run	8,700.00		New
O18 Isotope in Water Sample	10,100.00		
Succeeding Run	5,350.00		
S34 Isotope in Various Samples	13,600.00		
Succeeding Run	8,650.00		
Natural Gas and Biogas			
CO ₂ and H ₂ S Gases	1,250.00		
Hydrocarbon Gases (C1-C4)	3,500.00		
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00		
Source Rock and Cuttings			
Pyrolysis of Source Rock	2,700.00		
Sample Preparation for Dry Cuttings	450.00		
Sample preparation for wet Cuttings	540.00		
Total organic / Inorganic Carbon	3,050.00		
Tetrafluoroethane			
Tetrafluoroethane / R134a			
With Standard	3,320.00		
Without Standard	3,100.00		
Processed Fuels Section Laboratory Services	Amount		Remarks
Processed Fuels			
API Gravity/Density/Specific Gravity (Hydrometer)	600.00		
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00		New
Acidity/Alkalinity, pH	600.00		New
Aromatics with Oxygenates, % Volume	6100		



Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	
Vapor Pressure, kPa	900.00	
Viscosity Index	1,800.00	
Water and Sediments, %	1,100.00	



Geology Section Laboratory Services	Volume		
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, %	1,300.00	
	Volume - Volumetric		
	Water by Karl Fischer, %	3,300.00	New
	Volume - Coulometric		
	Wear Metals/Trace Metals, %	800.00	
	Volume (per Metal)		
	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
Other Services Laboratory Services	Amount		Remarks
	Biostratigraphic Report of Well		
	First 7,000 feet / 2,133 meters)	48,000.00	



(excluding Sample Preparation and Analysis)

For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost 4,800.00

Photomicrography of Fossils (1-5 Samples, final shot/s) 400.00

Photomicrography of Rocks (1-5 Samples, final shot/s) 500.00

CONDUCT OF
SAMPLE PREPARATION /
TESTING / ANALYSIS

Geology Section

Micropaleontological / 20-21

Petrographic / XRD / Organic

Petrographic Analysis

Drying of ditch cutting samples 271-300

Remarks:

Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.



11. ERTLS-GRFTLD01-10 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - SIXTY (60) WORKING DAYS

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client
<i>Remarks:</i>		



Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

E. Oil and Gas Sample

E.1. Oil and Gas Sample
(Sample: 1 liter / kilogram)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

F. LPG / Natural Gas

F.1. LPG / Natural Gas
(Sample: 60 psi)

Applicant / Client

Remarks:

Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses.

Sample size/weight depends on the test parameters requested.

G. Crude Oil

G.1. Crude Oil
(Sample: 500 milliliters)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section - coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section - rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas B) For Agency Action (Step 1.6):	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing Laboratory Services (ERTLS)



<i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		58 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ; Geoscientific Research and



				Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 60 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	
Cesium (Cs)	400.00	
Chloride (Cl)	550.00	



	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		
	Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
	Succeeding Run	1,650.00	



Total Acidity (as Acetic Acid) in Bioethanol	550.00		
Crude Oil			
C12 + Components of Whole Oil / Saturate Fraction	3,950.00		
Degree API Gravity of Oil Containing Water and Sediments	590.00		
Degree API Gravity of Oil Without Sample Preparation	450.00		
Extractable Organic Matter (EOM)	5,220.00		
Fractional Distillation of Crude Oil	1,880.00		
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00		
Separation of Crude Oil / Petroleum from Water and Sediments	600.00		
Gas Condensate			
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00		
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00		
Isotope Analysis			
C13 Isotope in Gas Sample	9,950.00		
Succeeding Run	5,350.00		
N15 Isotope in Various Samples	13,700.00	New	
Succeeding Run	8,700.00	New	
O18 Isotope in Water Sample	10,100.00		
Succeeding Run	5,350.00		
S34 Isotope in Various Samples	13,600.00		
Succeeding Run	8,650.00		
Natural Gas and Biogas			
CO ₂ and H ₂ S Gases	1,250.00		
Hydrocarbon Gases (C1-C4)	3,500.00		
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00		
Source Rock and Cuttings			
Pyrolysis of Source Rock	2,700.00		
Sample Preparation for Dry Cuttings	450.00		
Sample preparation for wet Cuttings	540.00		
Total organic / Inorganic Carbon	3,050.00		
Tetrafluoroethane			
Tetrafluoroethane / R134a			
With Standard	3,320.00		
Without Standard	3,100.00		
Processed Fuels Section Laboratory Services	Amount	Remarks	
Processed Fuels			
API Gravity/Density/Specific Gravity (Hydrometer)	600.00		
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00	New	
Acidity/Alkalinity, pH	600.00	New	
Aromatics with Oxygenates, % Volume	6100		



Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	
Vapor Pressure, kPa	900.00	
Viscosity Index	1,800.00	
Water and Sediments, %	1,100.00	



	Volume		
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, %	1,300.00	
	Volume - Volumetric		
	Water by Karl Fischer, %	3,300.00	New
	Volume - Coulometric		
	Wear Metals/Trace Metals, %	800.00	
	Volume (per Metal)		
Geology Section Laboratory Services	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
Other Services Laboratory Services	Amount		Remarks
	Biostratigraphic Report of Well		
	First 7,000 feet / 2,133 meters)	48,000.00	



(excluding Sample Preparation and Analysis)

For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost 4,800.00

Photomicrography of Fossils (1-5 Samples, final shot/s) 400.00

Photomicrography of Rocks (1-5 Samples, final shot/s) 500.00

CONDUCT OF
SAMPLE PREPARATION /
TESTING / ANALYSIS

Geology Section

Micropaleontological / 22-23

Petrographic / XRD / Organic
Petrographic Analysis

Drying of ditch cutting samples 301-330

Remarks:

Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.



12. ERTLS-GRFTLD01-11 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - SIXTY-FIVE (65) WORKING DAYS

Testing of upstream and downstream petroleum, coal, and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2B (Government to Business), G2C (Government to Citizen)	
Who may avail:	Academe, Researchers, Importers, Manufacturers, Private Laboratories, Public	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 1 – External Form (GRFTL-SF-1) (1) Original Copy		Department of Energy - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD)
2. For students: Endorsement letter from School Head to avail student discount (1) Original Copy		Applicant / Client
For Situational Requirement		
A. Coal		
A.1. Coal with sample preparation (Sample: At least 1 kilogram)		Applicant / Client
<i>Remarks:</i> Acceptable samples for a) Sample Preparation: samples w/o oil, grease, and plastics b) Analysis: samples w/o plastics		
A.2. Coal without sample preparation (Sample: 100 grams)		Applicant / Client
B. Geothermal Water		
B.1. Geothermal Water (Sample: 1.5 - 2 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
C.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client
<i>Remarks:</i> Sample size/weight depends on the test parameters requested.		
D. Geological Samples		
Sub Situational Requirement/s		
D.a. Whole Rock		
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client
<i>Remarks:</i> Acceptance of service request is subject to the type/quality/condition of sample/s submitted.		
D.b. Unconsolidated Sample		
D.b.1. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client
<i>Remarks:</i>		



Acceptance of service request is subject to the type/quality/condition of sample/s submitted.

E. Oil and Gas Sample

E.1. Oil and Gas Sample
(Sample: 1 liter / kilogram)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

F. LPG / Natural Gas

F.1. LPG / Natural Gas
(Sample: 60 psi)

Applicant / Client

Remarks:

Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses.

Sample size/weight depends on the test parameters requested.

G. Crude Oil

G.1. Crude Oil
(Sample: 500 milliliters)

Applicant / Client

Remarks:

Sample size/weight depends on the test parameters requested.

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services form (GRFTL-SF-1). Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director (ERTLS-OD) Notes/Instruction: A) The Technical Staff of the concerned section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the ERTLS-OD staff in evaluating samples - Geothermal Coal Section - coal and geothermal water samples - Processed Fuels Section - petroleum and biofuel samples - Geology Section - rock samples - Oil and Gas Section - geothermal gas, biogas or synthesis gas B) For Agency Action (Step 1.6):	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.2. Reviews / checks the correctness of the filled-out request form.		15 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.3. Creates Request for Laboratory Services Billing		20 minute/s	- Executive Assistant I; ERTLS, Office of the Director - Administrative Assistant I; ERTLS, Office of the Director
	1.4. Approves the Laboratory Services Billing Statement		10 minute/s	Director III; Energy Research and Testing Laboratory Services (ERTLS)



<i>The Collection Monitoring System (COMS) will automatically cancel the Order of Payment (OOP) not paid within ten (10) calendar days.</i>	1.5. Receives notification that a billing statement has been approved.		15 minute/s	Accounting Staff; Accounting Division (AD)
	1.6. Creates and approves Order of Payment (OOP)		15 minute/s	- Data Encoder; Accounting Division (AD) - Division Chief; Accounting Division (AD)
2. Payment of Laboratory Service Fee Location: Treasury Division Ground Floor, Department of Energy Annex Building Notes/Instruction: The client will proceed with the next step once fees are paid.	2. Issues the Official Receipt for testing fee	Formula Fees Breakdown: Laboratory Service Fee	20 minute/s	Collection Officer; Treasury Division (TD)
3. Submission of one (1) photocopy of the Official Receipt Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	3.1. Consolidates photocopy of the Official Receipt	None	10 minute/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.2. Transmits GRFTL SF-1 to the Office of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist		2 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director
	3.3. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section		4 hour/s	Chief Science Research Specialist / Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	3.4. Analysis of Sample: a) Conducts Sample Preparation / Testing / Analysis (Refer to the "Conduct of Sample Preparation/ Testing/ Analysis" table b) Prepares Results of Analysis c) Reviews and Endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division Chief Science Research Specialist		63 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I ; Geoscientific Research and



				Fuel Testing Laboratory Division (GRFTLD)
4. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating – Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	4.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III ; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist / Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	4.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; ERTLS, Office of the Director

General Remarks

Note: Please remember to keep your Official Receipt after paying the Laboratory Service Fee.

Total Processing Time:	Working Days: 65 working day/s
Total Processing Fee:	Total Standard Fee: None
	See other fees below

Formula / Schedule of Fees

• Laboratory Service Fee

Geothermal-Coal Section Laboratory Services	Amount	Remarks
Coal		
Calorific Value, CV (Coal)	1,500.00	
Carbon, Hydrogen and Nitrogen, CHN (Coal)	3,650.00	
Carbon, Hydrogen and Nitrogen, CHN (Oil)	4,950.00	
Hardgrove Grindability Index, HGI	1,200.00	
Proximate Analysis	2,000.00	
Residual Moisture, RM	400.00	
Ash, A	850.00	
Volatile Combustible Matter, VCM	750.00	
Sample Preparation	650.00	
Sieve Analysis (per size)	200.00	
Total Sulfur, S	1,250.00	
Geothermal Water Analysis		
Alkalinity	500.00	
Arsenic (As)	900.00	
Boron (B)	600.00	
Cadmium	400.00	
Calcium (Ca)	400.00	
Cesium (Cs)	400.00	
Chloride (Cl)	550.00	



	Chromium (Hexavalent)	450.00	
	Copper (Cu)	400.00	
	Iodine (I)	1,700.00	
	Iron (Fe)	400.00	
	Lead (Pb)	400.00	
	Lithium (Li)	400.00	
	Magnesium (Mg)	400.00	
	Manganese (Mn)	400.00	
	Mercury (Hg)	1,500.00	
	Nickel (Ni)	400.00	
	pH	350.00	
	Potassium (K)	450.00	
	Rubidium (Rb)	400.00	
	Silica (SiO ₂)	700.00	
	Silver (Ag)	400.00	
	Sodium (Na)	400.00	
	Specific Conductivity	250.00	
	Sulfate (SO ₄)	700.00	
	Total Dissolved Solids	250.00	
	Total Suspended Solids	450.00	
	Zinc (Zn)	400.00	
Oil and Gas Section Laboratory Services	Amount		Remarks
	Oil and Gas		
	Automotive LPG		
	Copper Strip Corrosion	2,850.00	New
	Density of LPG	2,250.00	New
	Gauge Vapor Pressure of LPG	4,600.00	New
	Hydrogen Sulfide in LPG	1,500.00	New
	LP Gases and Propene Concentrates by GC	8,250.00	New
	Residue and Volatility	2,000.00	New
	Sulfur in LPG	3,850.00	New
	Biodiesel / CME		
	Fatty Acid Methyl Esters (FAME) in Biodiesel	4,200.00	
	Succeeding Run	2,500.00	
	FAME and Methyl Laurate (C12) in Biodiesel	5,800.00	
	Succeeding Run	3,380.00	
	Free Glycerin in Biodiesel	1,250.00	
	Linolenic Acid in Biodiesel	4,320.00	
	Succeeding Run	2,100.00	
	Methanol in Biodiesel	3,350.00	
	Succeeding Run	2,150.00	
	Methyl Laurate in Biodiesel	3,750.00	
	Succeeding Run	1,950.00	
	Mono, Di, tri, FG and TG in Biodiesel	7,500.00	
	Succeeding Run	4,450.00	
	Total Acid Number in Biodiesel, Color Indicator	1,625.00	
	Total Acid Number in Biodiesel, Potentiometric	2,100.00	
	Total Glycerin in Biodiesel	2,750.00	
	Bioethanol		
	Ethanol and Methanol Purity in Denatured Fuel Ethanol	3,200.00	
	Succeeding Run	1,650.00	



Total Acidity (as Acetic Acid) in Bioethanol	550.00		
Crude Oil			
C12 + Components of Whole Oil / Saturate Fraction	3,950.00		
Degree API Gravity of Oil Containing Water and Sediments	590.00		
Degree API Gravity of Oil Without Sample Preparation	450.00		
Extractable Organic Matter (EOM)	5,220.00		
Fractional Distillation of Crude Oil	1,880.00		
Liquid Chromatographic Separation of EOM / Whole Oil into Saturates, Aromatics and NSO	4,050.00		
Separation of Crude Oil / Petroleum from Water and Sediments	600.00		
Gas Condensate			
Carbon Dioxide (CO ₂) in Gas Condensate	1,400.00		
Hydrogen Sulfide (H ₂ S) in Gas Condensate	1,560.00		
Isotope Analysis			
C13 Isotope in Gas Sample	9,950.00		
Succeeding Run	5,350.00		
N15 Isotope in Various Samples	13,700.00		New
Succeeding Run	8,700.00		New
O18 Isotope in Water Sample	10,100.00		
Succeeding Run	5,350.00		
S34 Isotope in Various Samples	13,600.00		
Succeeding Run	8,650.00		
Natural Gas and Biogas			
CO ₂ and H ₂ S Gases	1,250.00		
Hydrocarbon Gases (C1-C4)	3,500.00		
Inorganic gases Plus Methane (N ₂ , H ₂ , Ar, O ₂ , He, C1)	3,350.00		
Source Rock and Cuttings			
Pyrolysis of Source Rock	2,700.00		
Sample Preparation for Dry Cuttings	450.00		
Sample preparation for wet Cuttings	540.00		
Total organic / Inorganic Carbon	3,050.00		
Tetrafluoroethane			
Tetrafluoroethane / R134a			
With Standard	3,320.00		
Without Standard	3,100.00		
Processed Fuels Section Laboratory Services	Amount		Remarks
Processed Fuels			
API Gravity/Density/Specific Gravity (Hydrometer)	600.00		
Acid/Base/Acetic/Iodine/Chloride/Saponification	2,700.00		New
Acidity/Alkalinity, pH	600.00		New
Aromatics with Oxygenates, % Volume	6100		



Aromatics, % Volume	4,600.00	
Ash (Sulfated), % Mass	1,900.00	
Ash, % Mass	1,900.00	
Carbon Residue (Conradson), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Carbon Residue (MCRT), % Mass	1,100.00	
Carbon Residue 10% Distillation Residue, % Mass	2,600.00	
Cetane Number	10,600.00	
Cetane Number, Calculated	2,300.00	
Cloud Point, °C	1,100.00	
Color, ASTM (Automated)	950.00	New
Color, ASTM (Manual)	600.00	
Copper Corrosion Test	2,400.00	
Density/Specific Gravity (Densitometer)	750.00	
Diesel Analyzer - Density/FAME/Cetane Number	1,100.00	
Distillation Characteristics, °C	1,900.00	
Distillation Temperature (AET), °C	2,800.00	
Electrical Conductivity, uS/m	650.00	New
Existent Gum, mg/100mL	3,200.00	New
FAME and Methyl Laurate, % Volume - GC	7,300.00	New
Succeeding Run	4,600.00	New
FAME (Fatty Acid Methyl Ester), vol % (FTIR)	1,400.00	
Flash Point (COC), °C	1,400.00	
Flash Point (PM), °C	1,000.00	
Gasoline Analyzer	1,000.00	
Group I & II Metals and Phosphorous, ppm	7,500.00	New
Hydrocarbon (Benzene & Aromatics, % Vol)	6,900.00	New
Succeeding Run	4,400.00	New
Insolubles, % Mass		
Pentane	1,700.00	
Toluene	1,800.00	
Kinematic Viscosity, mm ² /s	1,100.00	
Lead in Gasoline, g/L (XRF)	2,100.00	
Lubricity, Micron	5,900.00	New
Octane Number, RON (CFR)	10,400.00	
Oxidation Stability, Hours	4,600.00	
Oxygenates (Ethanol and Methanol), % vol - GC	6,900.00	New
Succeeding Run	4,400.00	New
Pour Point, °C	1,100.00	
Sediment by Extraction, % Volume	2,200.00	
Sulfur, % Mass (UVF)	2,300.00	
Sulfur, % Mass (WD-XRF)	3,000.00	New
Sulfur, % Mass (XRF)	2,100.00	
Vapor Pressure, kPa	900.00	
Viscosity Index	1,800.00	
Water and Sediments, %	1,100.00	



	Volume		
	Water by Distillation, % Volume	1,000.00	
	Water by Karl Fischer, %	1,300.00	
	Volume - Volumetric		
	Water by Karl Fischer, %	3,300.00	New
	Volume - Coulometric		
	Wear Metals/Trace Metals, %	800.00	
	Volume (per Metal)		
Geology Section Laboratory Services	Amount		Remarks
	Processing/Sample Preparation		
	Coal - Impregnated Polished Section (Briquette)	1,700.00	
	Coal - Polished Section (Whole Sample)	950.00	
	Drying of Ditch Cutting Samples (per Box)	600.00	
	Impregnated Polished Thin Section (Opaque Minerals)	1,700.00	
	Impregnated Polished Thin Section	1,500.00	
	Impregnated Polished Thin Section with Blue Dye	1,800.00	
	Normal Thin Section	1,200.00	
	Plain Slabbing/Plain Cutting	300.00	
	Polished Thin Section (for Opaque Minerals)	1,500.00	
	Polished Slab (Max Dimension 3x2x1 inches)	400.00	
	Smear Slide (Calcareous Nanno Fossils)	400.00	
	Staining using Alizarin Red (1-5 Sample/s)	100.00	
	Washed Residue (Foraminifera)	400.00	
	XRD-Extraction and Air Drying for Oriented Clay	500.00	New
	XRD-Glycol Treatment for Oriented Clay Sample	300.00	New
	XRD-Heat Treatment at 400°C for Oriented Clay	350.00	New
	XRD-Heat Treatment at 500°C for Oriented Clay	350.00	New
	XRD-Powdering for Random Sample	250.00	New
	Analysis		
	Coal - Vitrinite Reflectance measurement	3,500.00	New
	Coal - Maceral Identification	4,000.00	New
	Megascopic/Hand Specimen Rock Identification	500.00	
	Micropaleontological Analysis of Rock Sample (Foraminifera)	1,900.00	
	Micropaleontological Analysis of Rock Sample (Nanno Fossil)	1,500.00	
	Petrographic Analysis of Rock Sample	1,500.00	
	X-ray Diffraction Analysis per Scan	2,000.00	New
	X-ray Diffraction, Interpretation	1,500.00	New
Other Services Laboratory Services	Amount		Remarks
	Biostratigraphic Report of Well		
	First 7,000 feet / 2,133 meters)	48,000.00	



(excluding Sample Preparation and Analysis)

For Succeeding 1,000 ft or a fraction thereof; 10% of computed cost 4,800.00

Photomicrography of Fossils (1-5 Samples, final shot/s) 400.00

Photomicrography of Rocks (1-5 Samples, final shot/s) 500.00

CONDUCT OF
SAMPLE PREPARATION /
TESTING / ANALYSIS

Geology Section

Micropaleontological / 24-25

Petrographic / XRD / Organic
Petrographic Analysis

Drying of ditch cutting samples 331-360

Remarks:

Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.



Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
Internal Services



1. ERTLS-GRFTLD01-12 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - TEN (10) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		8 working day/s	Division (GRFTLD) Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)										
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)										
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)										
General Remarks CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a <table><thead><tr><th>Processed Fuels Section</th><th>Number of Samples</th></tr></thead><tbody><tr><td>PNS Test for Automotive Diesel Oil^b</td><td>1 - 9</td></tr><tr><td>PNS Test for B100^b</td><td>1-6</td></tr><tr><td>PNS Test for E100^b</td><td>1-15</td></tr><tr><td>PNS Test for Fuel Oil (Industrial)^b</td><td>1-6</td></tr></tbody></table>					Processed Fuels Section	Number of Samples	PNS Test for Automotive Diesel Oil ^b	1 - 9	PNS Test for B100 ^b	1-6	PNS Test for E100 ^b	1-15	PNS Test for Fuel Oil (Industrial) ^b	1-6
Processed Fuels Section	Number of Samples													
PNS Test for Automotive Diesel Oil ^b	1 - 9													
PNS Test for B100 ^b	1-6													
PNS Test for E100 ^b	1-15													
PNS Test for Fuel Oil (Industrial) ^b	1-6													



PNS Test for Gasoline ^b	1-6
PNS Test for Kerosene	1-15
Non-PNS Test for Diesel ^b	1-15
Non-PNS Test for Gasoline ^b	1-15
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	1-6
Geothermal-Coal Section	
Coal and Other Related Sample/s	
Coal Sample/s With Sample Preparation	
Proximate Analysis	1-6
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	1-6
Proximate Analysis, Ultimate Analysis and Heating Value Determination	1-6
Ultimate Analysis (CHNAS)	1-6
Coal Sample/s Without Sample Preparation	
Proximate Analysis	1-15
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	1-15
Proximate Analysis, Heating Value and Ultimate Analysis	1-12
Ultimate Analysis	1-12
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	1-5
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	1-5
Residual Moisture, Volatile Combustible Matter and Heating Value	1-15
Carbon, Hydrogen and Nitrogen	1-20



Geothermal Water Samples

Complete Ion Analysis 1-5

Oil and Gas Section

Analysis of Crude Oil 1-5

Analysis of Natural Gas / Biogas 1-15

Analysis of Stable Isotope 1-5

PNS Test for B100: GC Analysis 1-5

PNS Test for E100: GC Analysis 1-10

Analysis of Liquefied Petroleum Gas 1-5

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 1-3

Drying of ditch cutting samples 1 - 30

Remarks:

1. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.
2. **ISO 9001:2015 certified processes**

Total Processing Time:	Working Days: 10 working day/s
Total Processing Fee:	Total Standard Fee: None



2. ERTLS-GRFTLD01-13 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FIFTEEN (15) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



				Division (GRFTLD)
	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		13 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
General Remarks				
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a				
Processed Fuels Section			Number of Samples	
PNS Test for Automotive Diesel Oil ^b			10-14	
PNS Test for B100 ^b			7-9	
PNS Test for E100 ^b			16-20	
PNS Test for Fuel Oil (Industrial) ^b			7-10	



PNS Test for Gasoline ^b	7-9
PNS Test for Kerosene	16-20
Non-PNS Test for Diesel ^b	16-20
Non-PNS Test for Gasoline ^b	16-20
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	7-10
Geothermal-Coal Section	
Coal and Other Related Sample/s	
Coal Sample/s With Sample Preparation	
Proximate Analysis	7-15
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	7-15
Proximate Analysis, Ultimate Analysis and Heating Value Determination	7-15
Ultimate Analysis (CHNAS)	7-15
Coal Sample/s Without Sample Preparation	
Proximate Analysis	16-24
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	16-24
Proximate Analysis, Heating Value and Ultimate Analysis	13-21
Ultimate Analysis	13-21
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	6-9
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	6-9
Residual Moisture, Volatile Combustible Matter and Heating Value	16-24
Carbon, Hydrogen and Nitrogen	21-32



Geothermal Water Samples

Complete Ion Analysis 6-10

Oil and Gas Section

Analysis of Crude Oil 6-7

Analysis of Natural Gas / Biogas 16-25

Analysis of Stable Isotope 6-7

PNS Test for B100: GC Analysis 6-7

PNS Test for E100: GC Analysis 11-13

Analysis of Liquefied Petroleum Gas 6-7

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 4-5

Drying of ditch cutting samples 31 - 60

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes

Total Processing Time:	Working Days: 15 working day/s
Total Processing Fee:	Total Standard Fee: None



3. ERTLS-GRFTLD01-14 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - TWENTY (20) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



				Division (GRFTLD)
	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		18 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
General Remarks				
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a				
Processed Fuels Section			Number of Samples	
PNS Test for Automotive Diesel Oil ^b			15-19	
PNS Test for B100 ^b			10-12	
PNS Test for E100 ^b			21-25	
PNS Test for Fuel Oil (Industrial) ^b			11-14	



PNS Test for Gasoline ^b	10-12
PNS Test for Kerosene	21-25
Non-PNS Test for Diesel ^b	21-25
Non-PNS Test for Gasoline ^b	21-25
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	11-14
Geothermal-Coal Section	
Coal and Other Related Sample/s	
Coal Sample/s With Sample Preparation	
Proximate Analysis	16-24
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	16-24
Proximate Analysis, Ultimate Analysis and Heating Value Determination	16-24
Ultimate Analysis (CHNAS)	16-24
Coal Sample/s Without Sample Preparation	
Proximate Analysis	25-33
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	25-33
Proximate Analysis, Heating Value and Ultimate Analysis	22-30
Ultimate Analysis	22-30
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	10-13
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	10-13
Residual Moisture, Volatile Combustible Matter and Heating Value	25-33
Carbon, Hydrogen and Nitrogen	33-44



Geothermal Water Samples

Complete Ion Analysis 11-15

Oil and Gas Section

Analysis of Crude Oil 8-9

Analysis of Natural Gas / Biogas 26-35

Analysis of Stable Isotope 8-9

PNS Test for B100: GC Analysis 8-9

PNS Test for E100: GC Analysis 14-16

Analysis of Liquefied Petroleum Gas 8-9

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 6-7

Drying of ditch cutting samples 61 - 90

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes

Total Processing Time:	Working Days: 20 working day/s
Total Processing Fee:	Total Standard Fee: None



4. ERTLS-GRFTLD01-15 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - TWENTY-FIVE (25) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



				Division (GRFTLD)
	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		23 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
General Remarks				
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a				
Processed Fuels Section			Number of Samples	
PNS Test for Automotive Diesel Oil ^b			20-24	
PNS Test for B100 ^b			13-15	
PNS Test for E100 ^b			26-30	
PNS Test for Fuel Oil (Industrial) ^b			15-18	



PNS Test for Gasoline ^b	13-15
PNS Test for Kerosene	26-30
Non-PNS Test for Diesel ^b	26-30
Non-PNS Test for Gasoline ^b	26-30
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	15-18
Geothermal-Coal Section	
Coal and Other Related Sample/s	
Coal Sample/s With Sample Preparation	
Proximate Analysis	25-33
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	25-33
Proximate Analysis, Ultimate Analysis and Heating Value Determination	25-33
Ultimate Analysis (CHNAS)	25-33
Coal Sample/s Without Sample Preparation	
Proximate Analysis	34-42
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	34-42
Proximate Analysis, Heating Value and Ultimate Analysis	31-39
Ultimate Analysis	31-39
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	14-17
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	14-17
Residual Moisture, Volatile Combustible Matter and Heating Value	34-42
Carbon, Hydrogen and Nitrogen	45-56



Geothermal Water Samples

Complete Ion Analysis 16-20

Oil and Gas Section

Analysis of Crude Oil 10-11

Analysis of Natural Gas / Biogas 36-45

Analysis of Stable Isotope 10-11

PNS Test for B100: GC Analysis 10-11

PNS Test for E100: GC Analysis 17-19

Analysis of Liquefied Petroleum Gas 10-11

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 8-9

Drying of ditch cutting samples 91 - 120

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes

Total Processing Time:	Working Days: 25 working day/s
Total Processing Fee:	Total Standard Fee: None



5. ERTLS-GRFTLD01-16 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - THIRTY (30) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



				Division (GRFTLD)
	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		28 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
General Remarks				
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a				
Processed Fuels Section			Number of Samples	
PNS Test for Automotive Diesel Oil ^b			25-29	
PNS Test for B100 ^b			16-18	
PNS Test for E100 ^b			31-35	
PNS Test for Fuel Oil (Industrial) ^b			19-22	



PNS Test for Gasoline ^b	16-18
PNS Test for Kerosene	31-35
Non-PNS Test for Diesel ^b	31-35
Non-PNS Test for Gasoline ^b	31-35
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	19-22
Geothermal-Coal Section	
Coal and Other Related Sample/s	
Coal Sample/s With Sample Preparation	
Proximate Analysis	34-42
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	34-42
Proximate Analysis, Ultimate Analysis and Heating Value Determination	34-42
Ultimate Analysis (CHNAS)	34-42
Coal Sample/s Without Sample Preparation	
Proximate Analysis	43-51
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	43-51
Proximate Analysis, Heating Value and Ultimate Analysis	40-48
Ultimate Analysis	40-48
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	18-21
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	18-21
Residual Moisture, Volatile Combustible Matter and Heating Value	43-51
Carbon, Hydrogen and Nitrogen	57-68



Geothermal Water Samples

Complete Ion Analysis 21-25

Oil and Gas Section

Analysis of Crude Oil 12-13

Analysis of Natural Gas / Biogas 46-55

Analysis of Stable Isotope 12-13

PNS Test for B100: GC Analysis 12-13

PNS Test for E100: GC Analysis 20-22

Analysis of Liquefied Petroleum Gas 12-13

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 10-11

Drying of ditch cutting samples 121 - 150

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes

Total Processing Time:	Working Days: 30 working day/s
Total Processing Fee:	Total Standard Fee: None



6. ERTLS-GRFTLD01-17 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - THIRTY-FIVE (35) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



				Division (GRFTLD)
	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorse Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		33 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
General Remarks				
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a				
Processed Fuels Section			Number of Samples	
PNS Test for Automotive Diesel Oil ^b			30-34	
PNS Test for B100 ^b			19-21	
PNS Test for E100 ^b			36-40	
PNS Test for Fuel Oil (Industrial) ^b			23-26	



PNS Test for Gasoline ^b	19-21
PNS Test for Kerosene	36-40
Non-PNS Test for Diesel ^b	36-40
Non-PNS Test for Gasoline ^b	36-40
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	23-26
Geothermal-Coal Section	
Coal and Other Related Sample/s	
Coal Sample/s With Sample Preparation	
Proximate Analysis	43-51
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	43-51
Proximate Analysis, Ultimate Analysis and Heating Value Determination	43-51
Ultimate Analysis (CHNAS)	43-51
Coal Sample/s Without Sample Preparation	
Proximate Analysis	52-60
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	52-60
Proximate Analysis, Heating Value and Ultimate Analysis	49-57
Ultimate Analysis	49-57
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	22-25
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	22-25
Residual Moisture, Volatile Combustible Matter and Heating Value	52-60
Carbon, Hydrogen and Nitrogen	69-80



Geothermal Water Samples

Complete Ion Analysis 26-30

Oil and Gas Section

Analysis of Crude Oil 14-15

Analysis of Natural Gas / Biogas 56-65

Analysis of Source Rocks / Soil 1-2

Analysis of Stable Isotope 14-15

PNS Test for B100: GC Analysis 14-15

PNS Test for E100: GC Analysis 23-25

Analysis of Liquefied Petroleum Gas 14-15

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 12-13

Drying of ditch cutting samples 151 - 180

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes

Total Processing Time:	Working Days: 35 working day/s
Total Processing Fee:	Total Standard Fee: None



7. ERTLS-GRFTLD01-18 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FORTY (40) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		38 working day/s	Division (GRFTLD) Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
General Remarks				
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS ^a				
Processed Fuels Section			Number of Samples	
PNS Test for Automotive Diesel Oil ^b			35-39	
PNS Test for B100 ^b			22-24	
PNS Test for E100 ^b			41-45	
PNS Test for Fuel Oil (Industrial) ^b			27-30	



PNS Test for Gasoline ^b	22-24
PNS Test for Kerosene	41-45
Non-PNS Test for Diesel ^b	41-45
Non-PNS Test for Gasoline ^b	41-45
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	27-30
Geothermal-Coal Section	
Coal and Other Related Sample/s	
Coal Sample/s With Sample Preparation	
Proximate Analysis	52-60
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	52-60
Proximate Analysis, Ultimate Analysis and Heating Value Determination	52-60
Ultimate Analysis (CHNAS)	52-60
Coal Sample/s Without Sample Preparation	
Proximate Analysis	61-69
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	61-69
Proximate Analysis, Heating Value and Ultimate Analysis	58-66
Ultimate Analysis	58-66
Biomass Sample/s Without Sample Preparation	
Proximate Analysis	26-29
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	26-29
Residual Moisture, Volatile Combustible Matter and Heating Value	61-69
Carbon, Hydrogen and Nitrogen	81-92



Geothermal Water Samples

Complete Ion Analysis 31-35

Oil and Gas Section

Analysis of Crude Oil 16-17

Analysis of Natural Gas / Biogas 66-75

Analysis of Stable Isotope 16-17

PNS Test for B100: GC Analysis 16-17

PNS Test for E100: GC Analysis 26-28

Analysis of Liquefied Petroleum Gas 16-17

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 14-15

Drying of ditch cutting samples 181 - 210

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes

Total Processing Time:	Working Days: 40 working day/s
Total Processing Fee:	Total Standard Fee: None



8. ERTLS-GRFTLD01-19 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FORTY-FIVE (45) WORKING DAYS

ISO 9001:2015 Certified

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		



C.a.1. Petroleum Products and Biofuels (Sample: 1 Liter)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2)	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	Executive Assistant I; Energy Research and Testing



Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory



	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		43 working day/s	Division (GRFTLD) Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)
General Remarks				
CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a				
Processed Fuels Section			Number of Samples	
PNS Test for Automotive Diesel Oil ^b			40-44	
PNS Test for B100 ^b			25-27	
PNS Test for E100 ^b			46-50	
PNS Test for Fuel Oil (Industrial) ^b			31-34	



PNS Test for Gasoline ^b	25-27
PNS Test for Kerosene	46-50
Non-PNS Test for Diesel ^b	46-50
Non-PNS Test for Gasoline ^b	46-50
Other Samples e.g. Pyrolysis Oil and Biofuel from other feedstocks	31-34

Geothermal-Coal Section

Coal and Other Related Sample/s

Coal Sample/s With Sample Preparation

Proximate Analysis	61-69
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	61-69
Proximate Analysis, Ultimate Analysis and Heating Value Determination	61-69
Ultimate Analysis (CHNAS)	61-69

Coal Sample/s Without Sample Preparation

Proximate Analysis	70-78
Proximate Analysis, Heating Value and Sulfur Analysis -Including Residual Moisture, Heating Value and Sulfur Only	70-78
Proximate Analysis, Heating Value and Ultimate Analysis	67-75
Ultimate Analysis	67-75

Biomass Sample/s Without Sample Preparation

Proximate Analysis	30-33
Proximate Analysis and Heating Value -Including Residual Moisture and Heating Value Only	30-33
Residual Moisture, Volatile Combustible Matter and Heating Value	70-78
Carbon, Hydrogen and Nitrogen	93-104



Geothermal Water Samples

Complete Ion Analysis 36-40

Oil and Gas Section

Analysis of Crude Oil 18-19

Analysis of Natural Gas / Biogas 76-85

Analysis of Stable Isotope 18-19

PNS Test for B100: GC Analysis 18-19

PNS Test for E100: GC Analysis 29-31

Analysis of Liquefied Petroleum Gas 18-19

Geology Section

Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis 16-17

Drying of ditch cutting samples 211 - 240

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.

b. ISO 9001:2015 certified processes

Total Processing Time:	Working Days: 45 working day/s
Total Processing Fee:	Total Standard Fee: None



9. ERTLS-GRFTLD01-20 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FIFTY (50) WORKING DAYS

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		
C.a.1. Petroleum Products and Biofuels		Applicant / Client



(Sample: 1 Liter)				
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) Location:	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS)



4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			- Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	- Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	- Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) - Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)



	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		48 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)						
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)						
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)						
General Remarks CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a <table><tr><td>Geology Section</td><td>Number of Samples</td></tr><tr><td>Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis</td><td>18-19</td></tr><tr><td>Drying of ditch cutting samples</td><td>241 - 270</td></tr></table> Remarks: <i>a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.</i>					Geology Section	Number of Samples	Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	18-19	Drying of ditch cutting samples	241 - 270
Geology Section	Number of Samples									
Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	18-19									
Drying of ditch cutting samples	241 - 270									
Total Processing Time:		Working Days: 50 working day/s								
Total Processing Fee:		Total Standard Fee: None								



10. ERTLS-GRFTLD01-21 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - FIFTY-FIVE (55) WORKING DAYS

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		
C.a.1. Petroleum Products and Biofuels		Applicant / Client



(Sample: 1 Liter)				
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) Location:	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS)



4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			- Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	- Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	- Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) - Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)



	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorsees Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		53 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)						
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)						
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)						
General Remarks CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a <table><tr><td>Geology Section</td><td>Number of Samples</td></tr><tr><td>Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis</td><td>20-21</td></tr><tr><td>Drying of ditch cutting samples</td><td>271 - 300</td></tr></table> Remarks: <i>a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.</i>					Geology Section	Number of Samples	Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	20-21	Drying of ditch cutting samples	271 - 300
Geology Section	Number of Samples									
Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	20-21									
Drying of ditch cutting samples	271 - 300									
Total Processing Time:		Working Days: 55 working day/s								
Total Processing Fee:		Total Standard Fee: None								





11. ERTLS-GRFTLD01-22 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - SIXTY (60) WORKING DAYS

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		
C.a.1. Petroleum Products and Biofuels		Applicant / Client



(Sample: 1 Liter)				
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) Location:	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS)



4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			- Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	- Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) - Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	- Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) - Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)



	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorses Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		58 working day/s	Supervising Science ResearchSpecialist / Senior Science ResearchSpecialist / Science ResearchSpecialist II / Science ResearchSpecialist I / Science ResearchAnalyst / Laboratory Technician II /Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)						
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and TestingLaboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) ChiefScience Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)						
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)						
General Remarks CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a <table><tr><td>Geology Section</td><td>Number of Samples</td></tr><tr><td>Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis</td><td>22-23</td></tr><tr><td>Drying of ditch cutting samples</td><td>301 - 330</td></tr></table> Remarks: <i>a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.</i>					Geology Section	Number of Samples	Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	22-23	Drying of ditch cutting samples	301 - 330
Geology Section	Number of Samples									
Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	22-23									
Drying of ditch cutting samples	301 - 330									
Total Processing Time:		Working Days: 60 working day/s								
Total Processing Fee:		Total Standard Fee: None								





12. ERTLS-GRFTLD01-23 ISSUANCE OF CHEMICAL / GEOLOGICAL LABORATORY TEST REPORT - SIXTY-FIVE (65) WORKING DAYS

Testing of upstream and downstream petroleum as well as coal and renewable energy resources to determine compliance with the Philippine National Standard (PNS).

Office or Division:	Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)	
Classification:	Highly Technical	
Type of Transaction:	G2G (Government to Government)	
Who may avail:	EUMB, ERDB, LFO, MFO, OIMB, REMB, VFO	
Operating Hours:	7:00 AM - 4:00 PM	
CHECKLIST OF REQUIREMENTS		WHERE TO SECURE
For Standard Requirement		
1. Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) (1) Original Copy		Energy Research and Testing Laboratory Services (ERTLS) - Geoscientific Research and Fuel Testing Laboratory Division - Office of the Division Chief (GRFTLD-ODC)
2. Sample for analysis (Sample: Refer to situational requirements)		Applicant / Client
For Situational Requirement		
A. Coal Samples		
Sub Situational Requirement/s		
A.a. Coal with sample preparation		
A.a.1. Sample: at least one (1) kilogram (Sample: 1 kilogram)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for:</i> a) Sample Preparation - samples without oil, grease, and plastics b) Analysis - samples without plastic		
A.b. Coal without sample preparation		
A.b.1. Sample at least one hundred (100) grams (Sample: 100 grams)		Applicant / Client
<i>Remarks:</i> <i>Acceptable samples for analysis: samples without plastics.</i>		
B. Geothermal Water		
Sub Situational Requirement/s		
B.a. Geothermal Water		
B.a.1. Geothermal water (Sample: 1.5 - 2.0 Liters)		Applicant / Client
C. Petroleum Products and Biofuels		
Sub Situational Requirement/s		
C.a. Petroleum Products and Biofuels		
C.a.1. Petroleum Products and Biofuels		Applicant / Client



(Sample: 1 Liter)				
Remarks: Sample size/weight depends on the test parameters requested.				
D. Geological Samples				
Sub Situational Requirement/s				
D.a. Whole Rock				
D.a.1. Whole Rock Sample (Sample: Minimum of 3x3 and maximum of 6x6 inches)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/condition of sample/s submitted.				
D.a.2. Unconsolidated Sample (Sample: 50 grams)		Applicant / Client		
Remarks: Acceptance of service request is subject to the type/quality/condition of sample/s submitted.				
E. Oil and Gas Sample				
Sub Situational Requirement/s				
E.a. Oil and Gas Sample				
E.a.1. Oil and Gas Sample (Sample: 1 Liter / Kilogram)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
F. LPG / Natural Gas				
Sub Situational Requirement/s				
F.a. LPG / Natural Gas				
F.a.1. LPG / Natural Gas (Sample: 60 psi)		Applicant / Client		
Remarks: Samples must adhere to ASTM D6849 requirement especially for composition and vapor pressure analyses. Sample size/weight depends on the test parameters requested.				
G. Crude Oil				
Sub Situational Requirement/s				
G.a. Crude Oil				
G.a.1. Crude Oil (Sample: 500 Milliliters)		Applicant / Client		
Remarks: Sample size/weight depends on the test parameters requested.				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE (Designation; Office)
1. Submission of samples and Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) Location:	1.1. Examines the nature/ size/ weight/ volume of sample if acceptable for the required analysis.	None	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS)



4th Building - Energy Research and Testing Laboratory Services - Office of the Director Notes/Instruction: The Technical Staff of the concerned Section of the Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) may assist the Chief Science Research Specialist Staff in evaluating samples Geothermal Coal Section - coal and geothermal water samples Processed Fuels Section - petroleum and biofuel samples Geology Section- rock samples Oil and Gas Section - geothermal gas, biogas or synthesis gas			• Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.2. Reviews / checks the correctness of the filled-out request form	15 minute/s	• Executive Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS) • Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.3. Transmits the Request for Laboratory Services 2 - Internal Form (GRFTL-SF-2) to the Geoscientific research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist	3 hour/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) • Administrative Aide VI; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.4. Issues Laboratory Work Order (GRFTL SF-3) and dispatches GRFTL-SF-3 and Request for Laboratory Services 2 - Internal Form to the assigned Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Section	4 hour/s	• Chief Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	1.5. Receives the sample and Geoscientific Research and Fuel Testing Laboratory Standard Form 3 (GRFTL-SF-3)	30 minute/s	• Technical Staff of the concerned section; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)



	1.6. Conducts Sample Preparation / Testing / Analysis (Refer to General Remarks) and prepares/reviews/endorse Transmittal Letter and Test Report to the Geoscientific Research and Fuel Testing Laboratory Division - Office of the Chief Science Research Specialist		63 working day/s	Supervising Science Research Specialist / Senior Science Research Specialist / Science Research Specialist II / Science Research Specialist I / Science Research Analyst / Laboratory Technician II / Laboratory Technician I; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
2. Pick up of Test Report and submission of the Energy Research and Testing Laboratory Services (ERTLS) Customer Satisfaction Measurement Form [Customer Rating –Release of Test Report (GRFTL-SF-5)] Location: 4th Building - Energy Research and Testing Laboratory Services - Office of the Director	2.1. Endorses Transmittal Letter and Test Report to the Energy Research and Testing Laboratory Services (ERTLS) Director and affixes initial of supervisor of the concerned section and Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD) Chief Science Research Specialist and signature of the ERTLS Director to the Transmittal Letter	None	4 hour/s	- Director III; Energy Research and Testing Laboratory Services (ERTLS) - Chief Science Research Specialist /Supervising Science Research Specialist; Geoscientific Research and Fuel Testing Laboratory Division (GRFTLD)
	2.2. Releases Test Report and consolidates copy of Test Report acknowledged by the customer and filled-out Customer Satisfaction Measurement Form		4 hour/s	Executive Assistant I / Administrative Assistant I; Energy Research and Testing Laboratory Services (ERTLS)

General Remarks

CONDUCT OF SAMPLE PREPARATION / TESTING / ANALYSIS^a

Oil and Gas Section	Number of Samples
Analysis of Source Rocks / Soil	3-4
Geology Section	
Micropaleontological / Petrographic / XRD / Organic Petrographic Analysis	24-25
Drying of ditch cutting samples	331 - 360

Remarks:

a. Upon the occurrence of any force majeure event, laboratory shall promptly inform the customer specifying the cause of delay of analysis of samples in accordance with GRFTL Communication Plan.



Total Processing Time:	Working Days: 65 working day/s
Total Processing Fee:	Total Standard Fee: None