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Client:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

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ADDITIONAL:

Payment Terms:

50% / 50%

Other: please specify _____

Penalty Clause Yes / No

Please specify: _____

Blue Book Completion:

Signed	<i>G. O'Connor</i>	Date	22/10/25
Verified	<i>J. McElroy</i>	Date	23/10/25

Quotation

To: UZ Leuven Financiële Dienst (€ Euros)
 Herestraat 49
 3000 Leuven
 Belgium

VAT No. 0419052173

Quotation Date: 27/05/2025
Quotation Reference: 18965
Customer Ref:
Account Ref: KUL001
Quotation Validity: 27/08/2025

Quantity	Product Code	Product Description	Unit Price €	Discount €	Net Price €
Proposal for PyroEarth EA					
accompanies quote 18408					
1	10202/14	PyroEarth High performance elemental analyser with pyrolysis capable furnace including TCD for simultaneous CNS + OH analysis. Includes autosampler for solids. 70501-3 - Includes sample preparation kit - micro spatula, mirror, forceps, sample tray and syringe - Includes 70501-5 Simultaneous CNS consumables kit - 70801-1 Pyrolysis Start Up Kit high temp for Solids	61,250.000	0.00	61,250.00

Requires Trapping loop

* The price quoted does not include any local taxes or duties
 See separate document for terms and conditions

Payment Details:-

50% with order, 40% on delivery and 10% installation
 Payment is required within 30 DAYS of invoice date by bank transfer.
 All bank transfer charges are the responsibility of the customer.

Intra-community supply, subject to VAT in the country of acquisition.

This quotation is issued in Euro

Total Net Amount	€	61,250.00
Total VAT Amount	€	0.00
Order Total	€	61,250.00

Sercon Bank Details:-

National Westminster Bank, 36 High Street,
 Nantwich, Cheshire CW5 5GA U.K.

Sterling: IBAN: GB74NWBK54101736755133
 Euro: IBAN: GB14NWBK60721013806831
 US Dollar: IBAN: GB94NWBK60730113806556
 BIC: NWBKGB2LXXX



SERCON LTD
UNIT 3B, TRADE PARK, GATEWAY
CREWE, CHESHIRE
CW1 6JT
VERENIGD KONINKRIJK

Purchase order 4501623229**please mention on delivery
notes and invoices**

Delivery address	Information
Vandermeulen Greet lokaal 07.4052 ON2 Herestraat 49 3000 LEUVEN BELGIUM	Date purchase order: 16.06.2025 Orderconfirmation to: greet.vandermeulen@kuleuven.be Phone: +32 16 37 75 40 Fax: Purchase order created by: Jasmien Schaevers Mail: jasmien.schaevers@kuleuven.be Phone: +32 16 32 14 07 Fax: Delivery date: 23.09.2025
Send invoice to	
KU Leuven Facturen bureau Krakenstraat 3 bus 5506 3000 Leuven BELGIUM VAT-n°: BE 0419.052.173 (Please mention on ALL invoices)	

Instructions for the vendor

The terms governing the execution of this order are the General Terms of Acceptance of the KB 14/01/2013 and the specific terms and instructions on the following page(s) of this order. Administrative provisions and instructions:

https://admin.kuleuven.be/td/aankoop/english/algemene_aankoopvoorwaarden_EN.html

In case of delivery of goods: The goods must be packaged separately per purchase order number. A delivery note needs to be attached visibly to each package and it must clearly mention the purchase order number. Furthermore, we ask you, in the context of KU Leuven's sustainability policy, to keep the packaging material as limited as possible.

From 1/11/22 e-invoicing mandatory: <https://admin.kuleuven.be/fd/en/electronic-invoicing-at-ku-leuven#section-3>

Contact: Greet Vandermeulen (Translational Research in GastroIntestinal Disorders)

Tel.: +32 16 37 75 40

E-mail: greet.vandermeulen@kuleuven.be

Terms of Delivery:

Our dossier AOZB25-5857 with specifications nr. TD/111676/LEA-vek and your offer ref. 18965, dd. 27.05.2025

Item	Material/Description	Qty	Unit	Price/unit	Net value	Curr.
10	Machinery&equipment>=1000 EUR/pcVATexcl PyroEArth	1.00	items	61,250.00	61,250.00	EUR
Total excl. tax					61,250.00 EUR	
 Eva Naert Head of Central Purchasing  Stefaan Saeys Director of the Technical Services Department						

**SPECIAL PROVISIONS****In case of deliveries of goods**

For each delivery a separate delivery note for each order form is supplied. On each delivery note the order form number (45 or 48 number) must be stated. The delivery notes are attached to the package in question.

The delivered items must always meet the applicable laws and regulations regarding safety, health, welfare at work and environment. If necessary, the purchase order will refer to any specific requirements. The supplier will provide a manual in Dutch and an attestation, in which he explicitly confirms compliance with the required safety and environmental regulations. The specific safety and environmental requirements for machinery and equipment are available on <https://admin.kuleuven.be/sab/vgm/derden/standaard-aankoopvoorwaarden-ku-leuven>. Deliveries are made FRANCO destination unless otherwise stated on the order form.

Price revision

No price revision is possible unless expressly agreed upon with the contracting authority.

Invoicing terms

The contractor sends his invoice to the BILLING ADDRESS listed on the ORDER FORM, after the service has ended and up to the amount approved, plus VAT, and at intervals according to the agreements with KU Leuven.

Payment shall be made within 30 calendar days of receipt of the invoice and approval of the performance. The invoice must be in conformity with KU Leuven's following requirements:

- VAT Number: BE 0419 052 173
- VAT percentage / or exemption from VAT (specifying the relevant exemption clause)
- A detailed description of the invoiced
- The order form number (always starting with 45 or 48)

Mandatory electronic invoicing from 1/11/2022: <https://admin.kuleuven.be/fd/elektronische-facturatie-aan-de-ku-leuven>

Governing law and competent court

This assignment is a public contract within the meaning of the law of June 17, 2016 on public procurement. The General Conditions of Performance for Public Contracts as stipulated in the Royal Decree of January 14, 2013 shall apply.

In the absence of an amicable settlement only the courts of Leuven have jurisdiction to judge disputes related to the assignment. The Belgian law is applicable. In case of contract provisions contrary to Belgian law, then such provisions shall be considered null and void but the contract will remain in force in its entirety.

IMPORT FROM E.U.-COUNTRIES

- 1) Please mention our VAT-no.: BE 419.052.173 and your VAT-no. on the invoice.
- 2) Please mention also the country of origin, the country of fabrication, the way of shipping, the intrastat code and the net weight of the supplied goods on the invoice.

3 - MACHINE SPECIFICATION

Client:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

Ref No.	Product Description	Required
HS2022 (continuous flow)		
20402/1	HS2022 Ref Gas + P Mag	
20402/2	HS2022 Ref Gas + E-Mag	
20402/3	HS2022 Ref Gas + Hd Collector + E-Mag	
20402/4	HS2022 Ref Gas + Hd Collector+E-Mag+Trap Loop	
20501	Hd Collector Assy	***
50101/2	Trapping Loop Assy	
70201-1	70201-1 Analyser spares kit – Included	
EA Units		
10202/11	iso-EArth	
10202/13	iso-EArth+	
10202/14	PyroEArth	
10202/15	Iso-Earth (Without Autosampler)	
11802/1	Earth+PC	
11802/2	EArth+Clarity+PC	
70501-1	Consumables for C and N for Combustion Only	
70501-11	Simultaneous CNS Consumables Kit (approx. 10000 analysis)	
70501-3	Sample Prep Kit (Inc.)	
70501-4	GSL Combustion and Gas C & N Start Up Kit	
70501-5	Simultaneous NCS Consumables Kit	
70501-6	C&N Combustion Only Consumables Kit (approx. 5000 samples)	
70501-8	Simultaneous CNS Consumables Kit (approx. 5000 samples)	
70601-1	Sulphur Start Up Kit (Inc. with Sercon EA Systems)	
70601-2	Sulphur Consumables Kit for 1000 Samples	
70601-4	Sulphur Consumables Kit (approx. 5000 Samples)	
70801-2	Pyrolysis Consumables Kit-Low temp for Solids	
71701-1	Sub Microgram Nitrogen Analysis Start Up Kit	
SI2040	PN150 Pneumatic Autosampler with one no.50 pos, carousel	
SI2345	ME Micro Balance	
SI2737/A	Sercon 50 Position Autosampler Assy	
SI2789	Extra 50 Position Carousel	
SI2744	Automatic Liquid Sampler 15 Position	
SI2743	Liquid Sampler Mounting Plate	
Headspace Equilibration		
10202/10	XYZ Gas Sampling Control Box	
10302/1	Aqua System	
11103	µCarbs for CF	
11103-1	µCarbs for DI	
11601	200 Place Dual Heated Block 240 Volt	
11801	Sercon XYZ Gas Autosampler	
71107-1	CF oxygen-18 equilibration kit	
71107-2	DI Oxygen-18 Equilibration kit	
71201-1	CF deuterium equilibration kit	
71201-2	DI Deuterium Equilibration kit	
71801-1	WES-DI start up kit (Inc. with WES-DI)	
GC Units		
10402/2	Orchid module 1500C (Will run Hd 70901-1 C Spares Kit Inc)	
10901	Nitrogen Option (71301-1 N Spares kit Included)	
HP7890/1	Agilent 7890B GC System	
HP7890/2	Agilent 7890B GC with Auto Injector	
HP7890/3	Agilent 7890B GC + Auto Injector + 150 Vial Sample Tray	
SI2561	Nexis GC 2010 Plus	

Ref No.	Product Description	Required
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S027_v12

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17/10/2025

*** When ordered alone IN no. / Blue book NOT required

3 - MACHINE SPECIFICATION

Client:	KU Leuven		
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GC Units *continued*

SI2564	Nexis GC-2030	
70901-3	GC Pyrolysis H and O Start Up Kit	
70901-4	GC Pyrolysis H Spares Kit	
70901-5	GC Combustion C Spares Kit (approx. 5000 samples)	
70901-6	GC Pyrolysis h Start Up Kit (approx. 5000 samples)	
71301-1	GC N Spares kit	

ABCA2 Units

10502/1	ABCA2 Sercon XYZ Autosampler	
10602	ABCA2 Gas Box	
20602	Complete Sercon ABCA2 system	
20603	ABCA IR Analyser	
70101-1	ABCA2 spares kit (<i>Inc. With ABCA2</i>)	
70101-2	ABCA2 Spares Kit for AB Analitica Systems	
70101-3	ABCA2 Autosampler Upgrade Kit	
SI1767	CVL505 – Barcode Reader	
SC9973	13C Urea breath test kit for Helicobacter pylori infection	
SC9974	Helicobacter Test kit for children age 3-11 (45mg)	

Integra2 Units

20802/4	Integra2	
70201-2	Integra2 analyser spares kit - Included	
70401-1	Integra-2 consumables (<i>Inc. With Integra2</i>)	

Trace Gas Systems

10802/4	CryoPrep	
10802/5	Automated LN refiller	
10802/6	CryoFlex (TOC)	
10802/7	CryoGas	
10802/8	CryoFlex (LA)	
SI2533	Silicon Carbide Vertical Furnace	
SI2731	213nm Laser Ablation System	
SI2733	isoScell 100 sampler chamber	
71001-1	Cryoprep Spares Kit	
71001-5	CryoGas Consumables Kit	

TOC Units

14001	Thermalox Environmental TOC-IRMS	
14002	Thermalox Environmental TOC-Standalone	
14003	Thermalox Environmental TOC-Standalone No Sampler	
SI2772	CO2 Detector, High sensitivity Option	
SI2773	NOx detector Option	
SI2774	Vacuum pump Option	
SI2775	Stirred Vial rack Option	
72101-1	TOC Start Up Kit	
72101-2	TOC Chem Pack	
72101-3	TOC & TN Instrument with heavy usage - one year	
72101-4	TOC only - economy holding	

GEO 20-22 (dual inlet)

10702	GEO 20-22 Water Equilibration System (D & 18O)	
21802/1	GEO 20-22	
21802/2	GEO 20-22 + E-Mag	
21802/3	GEO 20-22 + E-Mag +Hd	
21802/4	GEO 20-22 Inlet	

3 - MACHINE SPECIFICATION

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70301-1	GEO start up kit - Included	
70301-3E	Comprehensive GEO 20-22 spares kit for 5 years operation	
HT-EA		
11501/4	HT-EA (With Autosampler)	
11501/5	HT-EA With Liquid Option	
11501/6	HT-EA Stand Alone	
11501/7	HT-EA (Without Autosampler)	
SI2622	CTC PAL3-LSI-L-S	
SI2624	CTC PAL3-Kit-Standalone	
70801-1	Pyrolysis Consumables Kit-High Temp for Solids	
71501-1	HT-EA Pyrolysis Start Up kit O and H	
71501-2	HT-EA Pyrolysis Kit for Water injections	
71501-3	HT-EA Sensitivity Start Up Kit for O & H in small samples	
71501-4	HT-EA Sensitivity Consumables Kit for O & H in small samples	
71501-5	HT-EA Sensitivity Kit for O&H in Small Samples (5000 samples)	
71501-7	HT-EA Kit for Room Temp Equilibration	
71501-8	HT-EA Pyrolysis Kit for Water injections (approx. 1 year kit)	

Ref No.	Product Description	Required
Upgrades		
12101	Evacuation System ***	
12102	2 Ref Gas+ Dilutor Box ***	
20101	Standard Source Assy ***	
20102	HS Source Assy ***	
20301	Standard Collector Assy ***	
30202/1	System Control Upgrade (Pmag) installation not included	Edwards Or Pfeiffer
30202/2	System Controller Upgrade (Emag) installation not included	Edwards Or Pfeiffer
10202/7	Preparation PCB Upgrade	
30202/3	Hijack Box ***	
30302/4	nEXT85 Edwards Pumping System Upgrade Single - installation not included	
30302/5	nEXT85 Edwards Pumping System Upgrade Dual - installation not included	
30302/6	nEXT85 Edwards Pumping System Upgrade Triple- installation not included	
SI2542	ABCA2 Upgrade Kit	
CALLISTOW	Callisto software upgrade ***	
Specials		
11702	LC-I interface	
12202	Leco Interface Unit	
SI2320	Agilent 1260 Series Refractive Index Detection HPLC System	
71401-1	ABCA-G Start Up/Spares Kit	
71401-2	ABCA-G Equilibration Spares Kit - Room temp O only	
71401-3	ABCA-G Equilibration Spares Kit - Room Temp O & H	
71601-1	LC Interface Spares Kit	
ADDITIONS		
PC	Windows 7 based PC System with Callisto Software	
Printer	Printer	
INST1	Installation and start up training at customer's site by Sercon Engineer	
INST2	Installation and start up training at customer's site by Agents Engineer	
WARR	1 year warranty	
WARR2	2 year warranty	
TRAIN	Training in UK for one person for 3 days	
SCONTRACT	Maintenance Service Contract – 1 year	
SPECIFICATION REQUIREMENTS		
Voltage	Volts 50/60Hzs	

3 - MACHINE SPECIFICATION

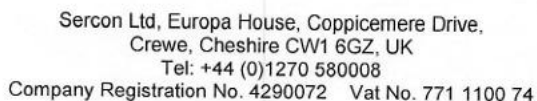
Client:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

Plug Type	SI2510	3 Metre USA/Japan plug to IEC C 13	
	SI2511	2.5 Metre Australian plug to IEC C 13	
	SI2512	3 Metre UK 13 amp Fused plug to IEC C 13	
	SI2523	3metre Schuko (Euro) Plug to IEC C13 Socket	
	SI2514	2.5 metre Chinese mains to IEC C13	
Pallet	Stamped for export heat treated for 30 min @ 56 °C		
	Complies with all Export Requirements		

3 - MACHINE SPECIFICATION

Client:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

Approved by Sales: (Name)		Date: 14 / Jun / 23
Approved by Tech.: (Name)		Date: 19 / 06 / 25



3 - MACHINE SPECIFICATION

Client:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

[illegible]

4 - LOG SHEET

Client:	Ku Leuven		
Quotation Number:	18965	Date:	27/5/25
Job Number:	IN1364	Date:	19/6/25

Date	Action Taken	By Whom
16/6	UNIT QUANTITY CHECKED UNIT P.A/T LISTED	PH PH.
27/06/25	Pre-test inspection - all good Connected the to system Autosampler leak tight Empty tubes fitted Connected to PC Reset valve 15 to correct place on orange box Set purge and V14 vent crimps Set purge flow meter	TI/AD
30/6/25	Swapped valve 15 for new, gas flow now coming through - Swapped mfc's around to correct gases leak test - cold - pass Fit tubes, heating furnaces HT and tube's wiring sorted. Thermocouple for HT needs adjusting - cooling HT	AD
1/7/25	cooling all furnaces to look at combustion element tube - copper melted, change temp. Cuk Mass Spec now connected to pyro Valco air pumped backwards, changed. heating furnaces up slowly Flow meters calibrated for purge and trap Pressure test (Hd) passes. O ₂ line pressure test ok - holding 30 PSI over a whole day	AD
2/7/25	Column melted again. replaced thermocouple for new - new column melted at 600-700°C	
3/7/25	Swapped prep board for new - temp still runs too high. Element sitting on insulation, resit the element. Thermocouple position adjusted	

Date	Action Taken	By Whom
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4 - LOG SHEET

Client:	Ku Leuven		
Quotation Number:	18965	Date:	27/5/25
Job Number:	1W1364	Date:	19/6/25

14/7/25	MS left in HD over weekend, running ref gas precision. HD ref gas passes NO O ₂ - put in pyrolysis setup. High CO background 7e-9	AD/HC
15/7/25	HD background 8e-10, lots of background entering flighttube - broke out	AD/HC
16/7/25	Flighttube background clearer, swapped tube for empty ceramic - no background at 1300°C System put on upgraded MS	AD/HC
17/7/25	Pyro heated for combustion again and connected to MS. Work needed for MS before analysis	AD
21/7/25	Work done on MS, waiting for O ₂ delivery	AD
24/7/25	Trapping loop is not responding, position 0 on orange block not working, swapped to 2 - ok. Trapping samples and tuning for N ₂ , CO ₂ and SO ₂	AD
25/7/25	High background and blank for N ₂ diagnosing cause	AD
29/7/25	All connections on plumbing checked and corrected by D.W. as ferrules found incorrect	DW
31/7/25	Retuned NCS, ran samples - C+S pass N too high still have high blanks	DH/AD
16 Aug 25	Investigated high blanks on O ₂ line. Found possible leak on back line plumbing.	DH
Date	Action Taken	By Whom

4 - LOG SHEET

Client:			
Quotation Number:		Date:	
Job Number:		Date:	
16 Aug 25	Set up system on new O ₂ cylinder. Blank much lower but still high + variable. Swapped V8 for new - did not fix. Replaced pipe work on O ₂ sections - did not fix. Replaced MFC for new. Suspect multiple leaks on system making it hard to diagnose. New MFC + new O ₂ cylinder resolved issue. Removed original V8 to pathway OK. Also fixed leak on GC column which reduced high N ₂ background. Blank now 2.0 e ⁻¹⁰ high.		DJH
16 Aug 25	Run NCS batch - Results good. Beam size quite small. Opened up crimp for dual linearity test. Results good. Combustion specs all pass.		DJH
18 Aug 25	Also replaced reaction tubes for new as they had been spent due to excessive amount of blank samples containing cat mess		DJH
19/8/25	Pyrolysis line set up, high CO background and what looks like a high HD background (temperature dependent). HD VFE added to the system controller		AD
1/09/25	Combustion - High N ₂ blank from O ₂ lines in building. Good blank achieved & NCS Specs passed with O ₂ cylinder plumbed directly. Pyrolysis - CO background found to mostly be water in He line, reduced from ~20 Na to 1 Na by using directly plumbed cylinder. HD peak shape found with magnet move		HC

5 - FAULT REPORTING

Client:	Ku Leuven		
Quotation Number:	18965	Date:	27/5/25
Job Number:	1N1364	Date:	19/6/25

Fault(s)	Action Taken	By Whom	Total Time Taken to Resolve
27/6/25	Connected He to unit. He coming out of T between 13+10. V8 possibly wrong way around.	TI / AD	5mins
27/6/25	Purge 1 carrier flow to the autosampler as He wrong way around	TI / AD	5mins
27/6/25	Bottom connection from furnace to water trap too long to fit	TI / AD	5mins
27/6/25	Valve wired to 16 th Spot * labels for autosampler purge and valve 15 incorrect	AD	5mins
30/6/25	He and O ₂ MFC put in wrong way around - Swapped	AD	30 mins
	V15 blocked - no flow coming through - Swapped for new	AD	30 mins
	HT Thermocouple wired backwards	OW	5 mins
	Tube furnace mains wired to wrong place and HT furnace electrical wire loose. Tube furnace IFC cables tightened down	OW	30 mins
1/7/25	Valco air plumped backwards - swapped around	AD	2 mins
	Sample flow meter wired backwards - Swapped around	AD	2 mins
3/7/25	Thermocouple too short, replaced for longer and repositioned. Element sitting on bottom insulation. Insulation chiselled out and element now sits correct	OW	1 hr 30 mins
29/7/25	Ferrules on plumbing and all fittings checked - lots replaced / redone	OW	6 hrs
16 Aug 25	High blank. Possible leak in Backline plumbing - MFC leaking	OW	5 days

6 - TEST / ACCEPTANCE SPECIFICATION

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Pyrolysis (n=3 for each analyte)							
² H	3 Alkanes	250 ng H	3.0		25 ng H	10.0	
¹⁸ O	3 FAMES	100 ng O	0.5		20 ng O	2.0	
Water pyrolysis (n=5)							
² H	0.1 µl water	3.0					
¹⁸ O	0.1 µl water	0.4					

CryoRange							
(n=5)							
¹³ C	Air CO ₂ (12ml)	0.1		Air CH ₄ (125ml)	0.2		
¹⁵ N	Air N ₂ (1ml)	0.1		Air N ₂ O (125ml)	0.4		
¹⁸ O	Air CO ₂ (12ml)	0.15		Air N ₂ O (125ml)	0.7		
¹⁸ O	Air O ₂ (1ml)	0.1					
² H	Air CH ₄	3.0					
¹³ C	TOC (5ppm)	0.4					
¹³ C	Laser						

Geo2							
Internal precision (no change overs)							
² H	200 Bar µl	0.15					
¹³ C	100 Bar µl	0.01					
¹⁵ N	100 Bar µl	0.01					
¹⁸ O	100 Bar µl	0.015					
³⁴ S	100 Bar µl	0.015					
Single cold finger volumes (10 change overs)							



sercon
innovators in isotopes

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Tel: +44 (0)1270 580008
Company Registration No. 4290072 Vat No. 771 1100 74

Test acceptance - 6

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	KU Leuven		
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HS20-22

Reference Gas Precision (n=5) x5 Ref gas pulses of 5 seconds to be used.

¹³ C	(CO ₂)	0.06	
¹⁵ N		0.06	
¹⁸ O	(CO ₂)	0.06	
³⁴ S	(SO ₂)	0.1	
² H		0.4	

Reference Gas Linearity ref gas pulses ranging from 1-second trough to 10 seconds

¹³ C	≤0.02‰/nA STD Deviation <0.30	
¹⁵ N	≤0.02‰/nA STD Deviation <0.30	

IsoEarth & PyroEarth

**Combustion (n=5) (For NCS use 0.3mg of Cystine) (Pyrolysis use silver caps)
0.4mg of Cystine for ¹⁸O and 4 mg of Cystine for H₂**

¹³ C	100 µg C	0.1 0-04%	10 µg C	0.8	
¹⁵ N	100 µg N	0.15 0-10%	10 µg N	1.5	
³⁴ S	25 µg S	0.3 0-18%	10 µg S	1.0	
Dual	400 µg C	0.1	100 µg N	0.15	
¹⁸ O	100 µg or 1 µl water	0.3 0-2%			
² H	200 µg H or 1 µl water	1.0 0-66%			

6 - TEST / ACCEPTANCE SPECIFICATION

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EArth			
Solid specs to be completed using 2mg methionine calibration against 1,2,3mg (n=3) cystine. Combustion (n=5)			
		Accuracy (avg)	Precision (std dev)
¹³ C		+/- 0.4%	0.2
¹⁵ N		+/- 0.4%	0.2
² H		+/- 0.4%	0.2
³⁴ S		+/- 0.4%	0.2
¹⁸ O	Pyrolysis	+/- 0.4%	0.2
Liquid injections n=5 using 5µl methanol calibrated against 2,4,6µl injections of ethanol			
		Accuracy (avg)	Precision (std dev)
¹⁸ O	Pyrolysis	+/- 0.4%	0.2

Integra2			
Specs to be completed using AS beet mix 400C/100N for precision & 250C/100N for linearity			
¹³ C	100 µg C	0.2	
¹⁵ N	100 µg N	0.3	
Dual	100 µg N & 400 µg C	0.4 & 0.15	
³⁴ S	30 µg S	0.5	
¹⁸ O	100 µg O	0.5	
Dual	100 µg N & 250 µg C	0.5	
HT-EA (Pyrolysis use silver caps) 0.4mg of Cystine for ¹⁸ O and 4 mg of Cystine for H ₂			
Pyrolysis (n=5)			
¹⁸ O	100 µg O or 1 µl water	0.3	
² H	200 µg H or 1 µl water	1.0	



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Sercon Ltd, Europa House, Coppicemere Drive,
Crewe, Cheshire CW1 6GZ, UK
Tel: +44 (0)1270 580008
Company Registration No. 4290072 Vat No. 771 1100 74

Test acceptance - 6

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

Aqua, µCarbs & GasBox					
Equilibrations (n=5)					
¹⁸ O	0.2 ml water	0.1			
² H	0.2 ml water	2.0			
Carbonates (n=5)					
¹³ C	100 µg CaCO ₃	0.08			
¹⁸ O	100 µg CaCO ₃	0.1			
Gas Analysis (n=5)					
¹³ C	5% CO ₂	0.1		Air CO ₂	0.1
¹⁸ O	5% CO ₂	0.1		Air CO ₂	0.2
² H	0.5 ml H ₂	1.5			
¹⁵ N	0.5 ml N ₂	0.1		100 ppm N ₂ O	0.5
¹³ C	Breath (12 ml)	0.1			
DIC (n=5)					
¹³ C	15ppm (0.5ml)	0.15			

LC-I					
(n=5)					
¹³ C		0.2			

GC Orchid					
Combustion (n=3 for each analyte)					
¹³ C	3 Alkanes	100 ng C	0.2	10 ng C	0.5
¹⁵ N	2 Amines	100 ng N	0.5	14 ng N	1.5

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

¹³ C	20 Bar µl	0.01	
¹⁸ O	20 Bar µl	0.015	
¹³ C	3 Bar µl	0.02	
¹⁸ O	3 Bar µl	0.03	
CAPS (n=5)			
¹³ C	50 µg CaCO ₃	0.03	
¹⁸ O	50 µg CaCO ₃	0.06	
WES (n=5)			
² H		1.0	
¹⁸ O		0.05	
Manifold (10 tubes)			
² H		0.5	
¹³ C		0.02	
¹⁵ N		0.02	
¹⁸ O		0.03	
³⁴ S		0.03	

Special tests
No res gas on mass spec
All tests on PyroEarth have passed
Wmme HC 08-Sep-2025



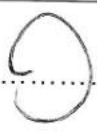
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Test acceptance - 6

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

Sales Signature: 	Date: 08 - Sep - 25
Test Signature: 	Date: 08 - Sep - 2025

7: ASSEMBLY AND TEST RECORD

Client:	KV LEUVEN		
Quotation Number:	18965	Date:	27/5/25
Job Number:	IN1364	Date:	19/6/25

PRODUCT:

PYRO EARTH.

SERIAL NUMBER:

10202/25-2025

 ASSEMBLED:
 (Name)

Mwdm

Date:

12/6/25.

 PRE-TEST
 INSPECTION:
 (Production name)

P. Hays.

Date:

12/6/25

 PRE-TEST
 INSPECTION:
 (Test name)

Fordengeth

Date:

27/06/21

 SYSTEM TEST:
 (Name)

Wmre

Date:

08/09/25

 PRE-DESPATCH
 INSPECTION:
 (Name)

P. Hays

Date:

10/9/25

P.A.T. Test results

 In compliance with Low Voltage directive 73/23/EEC
 To Low Voltage standard EN61010 – 1:1993

Earth Continuity

0.022

Ω

Insulation

146

MΩ

Earth Leakage Current

0.70

mA. @

0.28

kVA.

Tested by:

P. Hays

Date:

12/6/25.

8 - Serial Numbers Record Document

Client:	KU Leuven		
Quotation Number:	18965	Date:	27/05/2025
Job Number:	IN1364	Date:	19/06/2025

Units	S/N
MS/ABCA	
Integra 2	
Prep Unit 1	
Prep Unit 2/Misc	
Electronics Upgrade	
CETAC	
Gas Box	
Autosampler	42712
BCR	
Dual Heater Block	

Pump Kit and Optics	S/N
Turbo pump S	210475317
Turbo pump A	210455925
Rotary Pump	44440
Voltage	110 / 240
Gauge S	974162098
Gauge A	106306854
Source	
Collector 1	
Collector 2	24026 20501-078
Magnet	153

Parts	S/N
Fan PSU	
24V PSU	

PCBs	S/N
Electronics Box	20130026
Prep PCB	20240013
VFC PCB	13008
Watchdog PCB	
Head Amp PCB 1	
Head Amp PCB 2	24026
Electromagnet RP	2505

Furnaces	S/N
Combustion	
Reduction	
HT-EA	
GC Oven	
Furnace 1	
Furnace 2	

PC	S/N
PC	
Monitor	
Printer	

Key

Pumps:	E: Edwards P: Pfeiffer
Furnaces:	V/S: Vecstar E: Elite
Magnet:	E: Electromagnet S: Standard
Turbos & Gauges:	S: Source A: Analyser
Collectors:	Std: Standard S: Sulphur HD: Hydrogen Deuterium

Additional System Info:

Packing List

Customer Reference: 4501623229

Shipper / Exporter:

Sercon Limited
Europa House
Coppicemere Drive
Crewe
CW1 6GZ
UK

Tel: +44 (0)1270 580008
Reference: IN1364

Consignee:

K.U. Leuven
Vandemeulen Greet
Lokaal 07.452
ON / Herestraat 49
3000 Leuven
BELGIUM

Contact Name: Greet Vandemeulen
Contact Tel Number: 0032 16 37 75 40

BOX: 1

Quantity	Product Code	Product Description	Serial Number: if available
☒ 1	10202/14	PYRO EARTH	10202/14-2025/1364

Packed by: [Signature]

Date: 10/9/25

Claims for damage or shortages must be made within 3 days

Shipper / Exporter:

Sercon Limited
Europa House
Coppicemere Drive
Crewe
CW1 6GZ
UK

Tel: +44 (0)1270 580008
Reference: IN1364

Packing List

Customer Reference: 4501623229

Consignee:

K.U. Leuven
Vandemeulen Greet
Lokaal 07.452
ON / Herestraat 49
3000 Leuven
BELGIUM

Contact Name: Greet Vandemeulen
Contact Tel Number: 0032 16 37 75 40

BOX: Dimensions and weights

	<u>L</u>		<u>W</u>		<u>H</u>				
Box 1	<u>98</u>	x	<u>87</u>	x	<u>107</u>	cm	gw	<u>137</u>	kg