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Job Number:	IN1269	Date:	09/11/2021

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ADDITIONAL:

Payment Terms:

50% / 40% / 10%

Other: please specify

Penalty Clause Yes / No

Please specify:

Blue Book Completion:

Signed	<i>[Signature]</i>	Date	30/3/22
Verified	<i>[Signature]</i>	Date	20/3/23

3 - MACHINE SPECIFICATION

Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
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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	iso-Earth HT Furnace Upgrade	
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	

3 - MACHINE SPECIFICATION

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Ref No.	Product Description	Required
GC Units <i>continued</i>		
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 (Inc. With ABCA2)	
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 (Inc. With Integra2)	
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	

3 - MACHINE SPECIFICATION

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21802/3	GEO 20-22 + E-Mag +Hd	
21802/4	GEO 20-22 Inlet	
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	

3 - MACHINE SPECIFICATION

Client:	N.Asteriadis S.A., Greece		
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SPECIFICATION REQUIREMENTS			
Voltage	Volts 50/60Hzs	230 volts	✓
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		✓

4 - LOG SHEET

Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Date	Action Taken	By Whom
1/12/21	UNIT PLACED INTO TEST MIGHT TUBE FOUND TO BE BENT - SENT BACK TO ALPHA	PH
17 Dec 21	Set up + Test begin. Instrument pumps down ok 6 thos fitted + re-pumped down. All read backs ok. Set up plumbing to auto sampler + Set flows. Leak on auto sampler - adjusted. Leak on GC column - fixed. Furnaces heats up - ok GC oven heats up - OK Fitted combustion (Reduction tube) Added H ₂ O scrubber + CO ₂ trap. Filament conditioned - OK	DJH 17 Dec 21 16 Dec 21 DJH
4 Jan 22	Fitted Head amp S/N 21006 System unstable following restart from x-rays break. Flashing over. Revised source + inspected. Replaced filament for new	DJH
05 Jan 22	Still unstable. Sensitivity is U-low (cannot obtain good peak shapes)	DJH
06 Jan 22	Replaced magnet. Peak shapes improved slightly. Sens still low. Swapped out System controller + Source cable - still unstable. Charged Head amp for SN 2034 ⁰²¹ 21014. Still unstable but less so.	DJH
07 Jan 21	Swapped source for new. Returned original cables + SysCon. Fitted new filament. Flashing over. Re-sealed source.	
10 Jan 21	Unstable - shorting under wire Revised source to inspect. Swarf found. Revised + re-sealed.	DJH

4 - LOG SHEET

Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
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Date	Action Taken	By Whom
11 Jun 21	Sens still very low. Stable but spikes present. Re built source. Found cracked ceramic on trap. Replaced. Emissions have been on the high side the whole time on test.	DDH
12 Jun 21	Slightly odd tuning required for CO ₂ . Sens now OK. Stability OK in CO ₂ Issue with autosampler locking samples not dropping / very slow to turn. Look found on grub screw on side of auto sampler. Resealed grub screw. passes pressure test Ran lots of blank tests. No spikes present.	DDH
17.1.21	Daily checks AM Pressure test: 57ml/min Indicated (60ml/min actual) Lost 6 psi over 5 mins att. 1. As before. att. 2. Adjusted tension on 4 sampler bolts Pressure test: Fail lost 4 psi over 5 mins Decided to take sampler apart - visual check - reassembly - tension. Pressure test PM: Lost 3 psi / 5 mins Att. Sample 'still dropping' down to take Fixed (Adjusted) Leak check after adjustment: lost 5 psi / 5 mins	
18.1.21	Pressure test AM: lost 3 psi / 5 mins Removed the sampler - leak in place to correct carrier -> Reaction tube. Pressure test: PASS held 25 psi / 5 mins	

4 - LOG SHEET

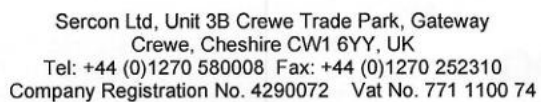
Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Date	Action Taken	By Whom
18.1.22	SM. to take sampler apart - clean out Reassembly Pressure test: Fail Suspected issue: grub screw on the ^{left hand} side of the sampler.	
19.1.22.	Pressure test AM: PASS held 25psi/5mins ATT: NO sample peaks coming through. Combustion tube damaged. Replaced (Standard Dual let up)	
20.1.22	Pressure test: PASS held 25psi/5mins. Split N ₂ peaks New Reduction tube in place 16:25	
21.1.22.	Pressure test AM: PASS held 25psi/5mins ATT: Split peaks again New combustion tube ATT: H ₂ O trap Solid in top quarter (Replaced) ATT: Still having an issue with a split peak in N ₂ Baking a GC column for a few hours at 140°C/60 ml/min.	
24.1.22	Fond the issue: purge flow at 8.5ml/min Replaced the line from VG - Sample Purge Bulkhead: Crimp set to 40ml/min O ₂ crimp set: 140ml/min carrier flow: 60ml/min	
Results:	Good Chromatography for dual TEST ONE 400/100 P.A. N ₂ : 7.02 e-05 height CO ₂ : 1.67 e-05 height (peaks) Pressure test: Pass (held 25psi/5mins) Blanks: around 2.5 e-10 N ₂ peak shape +21.2 PASS+PASS CO ₂ peak shape +2/1	

4 - LOG SHEET

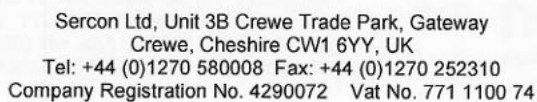
Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Date	Action Taken	By Whom
25-1	Dual IC precision results from 24-1 PM sequence ISN batch 1: 0.05 std batch 2: 0.03 std. ISC batch 1: 0.11 batch 2: 0.04 std. SAME RESULTS REPROCESSED: LR: OFF ISN batch 1: 0.08 batch 2: 0.05 ISC batch 1: 0.04 batch 2: 0.02 Pressure Test AM: Lost 1 psi / 5 mins PASS N ₂ Peak slope $\pm 2\%$: PASS + PASS CO ₂ Peak slope $\pm 2\%$: PASS + PASS DUAL LINEARITY: ISN: 0.27 LR: ON Blanks: 2.98×10^{-10} ISC: 0.13 LR: OFF Attempted N ₂ only Precision: GC 75°C Total Run 250 secs. STD: 0.08	
26-1-22	PRESSURE TEST AM: Held 24 psi / 5 mins PASS N ₂ Peak slope $\pm 2\%$ = PASS + PASS CO ₂ Peak slope $\pm 2\%$ = PASS + Dual ISN: 0.13 ISC: 0.03 Precision } LR TRUE Dual ISN: 0.34 ISC: 0.06 Linearity } SET LR FALSE Dual ISN: 0.19 ISC: 0.02 Precision ISN: 0.17 ISC: 0.09 Linearity Blanks 1 1.25 $\times 10^{-10}$ 2 1.24 $\times 10^{-10}$ 3 1.27 $\times 10^{-10}$ 4 1.24 $\times 10^{-10}$ 5 1.25 $\times 10^{-10}$	
9/2/22	Pump + Magnet removed before packing. USBs made	JH



Client:	N.Asteriadis S.A., Greece		
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S029_v3



Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

S029_v3

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Special tests

Sales Signature: <i>Go'cemer</i>	Date: <i>3/3/22</i>
Test Signature: <i>[Signature]</i>	Date: <i>28.1.2022</i>

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

HS20-22			
Reference Gas Precision (n=5)			
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			
¹³ C	≤0.02‰/nA		
¹⁵ N	≤0.02‰/nA		

IsoEarth & IsoEarth+					
Combustion (n=5)					
¹³ C	100 µg C	0.1		10 µg C	0.8
¹⁵ N	100 µg N	0.15		10 µg N	1.5
³⁴ S	25 µg S	0.3		10 µg S	1.0
Dual	400 µg C	0.1		100 µg N	0.15

Integra2				
¹³ C	100 µg C	0.2		
¹⁵ N	100 µg N	0.3	PASS: 25.1.2022	R.K.
Dual	100 µg N & 400 µg C	0.4 & 0.15	PASS: 24.1.-26.1.2022	R.K.
³⁴ S	30 µg S	0.5		
¹⁸ O	100 µg O	0.5		

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

HT-EA			
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	

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	

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
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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
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					

6 - TEST / ACCEPTANCE SPECIFICATION

Customer:	N.Asteriadis S.A., Greece		
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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)			
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	

7: ASSEMBLY AND TEST RECORD

Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

PRODUCT:

INTEGRA 2

SERIAL NUMBER:

20802/4-2021/1269

 ASSEMBLED:
 (Name)

ABenn

Date:

1/12/21

 PRE-TEST
 INSPECTION:
 (Production name)

[Signature]

Date:

3/3/22

 PRE-TEST
 INSPECTION:
 (Test name)

[Signature]

Date:

17 Dec 21

 SYSTEM TEST:
 (Name)

S. Masely

Date:

9/2/22

 PRE-DESPATCH
 INSPECTION:
 (Name)

[Signature]

Date:

3/3/22

P.A.T. Test results

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

Earth Continuity

0.077 Ω

Insulation

>300 $M\Omega$

Earth Leakage Current

0.90 mA. @ 0.05 kVA.

Tested by:

P. Mayo

Date:

13/12/21

8 - Serial Numbers Record Document

Client:	N.Asteriadis S.A., Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Units	S/N
MS/ABCA	
Integra 2	20802/4-2021/1269
Prep Unit 1	
Prep Unit 2/Misc	
Electronics Upgrade	
CETAC	
Gas Box	
Autosampler	42647
BCR	
Dual Heater Block	

Pump Kit and Optics	S/N
Turbo pump S	210563870
Turbo pump A	
Rotary Pump	210168365
Voltage	110 / 240
Gauge S	200439768
Gauge A	
Source	20102 HS-187
Collector 1	20301-089
Collector 2	
Magnet	13-05-21

Parts	S/N
Fan PSU	
24V PSU	

PCBs	S/N
Electronics Box	20210012
Prep PCB	
VFC PCB	
Watchdog PCB	
Head Amp PCB 1	
Head Amp PCB 2	
Electromagnet RP	

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

PC	S/N
PC	CF2GWC3
Monitor	ONHJMO-QDCO-18G-LAQ-A01
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: 21-874

Shipper / Exporter:

Sercon Limited
Unit 3B Crewe Trade park
Gateway
Crewe
CW1 6JT
UK

Tel: +44 (0)1270 580008

Reference: IN1269

Consignee:

N. Asteriadis S.A.
4 Koukoufli str
Thessaloniki
54622
Greece

Contact Name: Thanasis Asteriadis

Contact Tel Number: +30 2310 260331

BOX: 1

Quantity	Product Code	Product Description	Serial Number: if available
☒ 1		Magnet	13-05-21 number 6
☒ 1		Rotary pump	210168365
☒ 1		Autosampler	42647
☒ 1		Pc	CFZQWC3
☒ 1		Software USB – inside pc box	
☒ 1		Windows recovery USB – inside pc box	
☒ 1		Monitor	ONHJMO-QDCOO-18G-1LAQ-AQ1
☒ 1		70201-2	
☒ 1		70501-3	
☒ 1		70501-6	
☒ 1		70601-4	

Packed by:

Date:

[Signature]
03.03.22

Claims for damage or shortages must be made within 3 days

Packing List

Customer Reference: 21-874

Shipper / Exporter:

Sercon Limited
Unit 3B Crewe Trade park
Gateway
Crewe
CW1 6JT
UK

Tel: +44 (0)1270 580008

Reference: IN1269

Consignee:

N. Asteriadis S.A.
4 Koukoufli str
Thessaloniki
54622
Greece

Contact Name: Thanasis Asteriadis

Contact Tel Number: +30 2310 260331

BOX: Dimensions and weights

	<u>L</u>		<u>W</u>		<u>H</u>		
Box 1	99	x	84	x	107	cm	gw 85 kg
Box 2	99	x	84	x	107	cm	gw 154 kg
Box 3		x		x		cm	gw kg

11 – Installation Report

Client:	University of Ioannina, Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Contact:	Theodore Matikas		
Date of Visit:	7 th March – 9 th March 2023	No. of Days:	3
Engineer:	David Harris		

Details of visit:

Arrived on site.

Lab in incomplete and still in the process of being built.

Power is available from next door supply via extension cables.

There is not climate control within the building yet, this is due to be finished by the end of the month.

Advise that this is not the best environment for install but customer wants to continue.

Instrument to be powered off after install while building work continues on site.

Gasses are available. Cylinder plumbing and gauges set up by agents.

Removed instrument and PC from boxes. No damage noted on packages.

Installed rotary pump, added oil - All OK.

Fitted Magnet – All OK.

All units powers on - All OK.

Set up new PC – All OK

Comms established. Software responds for all units and components - All OK.

Activated pump. Instrument pumps down with no issues.

Powered on Source. Emissions good – All OK.

6thou Source inlet piping appears to be blocked. No change in vac when opened. Flow detected from isolation valve. Replaced 6thou inlet plumbing and re-crimped when vacuum had fully formed. New plumbing respond correctly. Set to 4.0e-06mBar with isolation valve open.

Vac of 1.0e-08mBar achieved after 1.5 days pumping - All OK.

Installed autosampler. Air leak found on blue tubing. Removed side panel. Re-seated loose connection. Now OK.

Made up combustion and reduction tubes.

Furnaces heat up OK.

GC oven heats up OK. Baked out GC column overnight at 140°C. Set to 70°C for operational use.

Missing set of wing nuts for lower fitting for reduction furnace. Parts ordered from Sercon.

Missing o-rings for scrubber tubes. Engineer had 2 spare in boot-stock, so able to fit water trap only. Parts ordered from Sercon.

Missing Sulphur combustion/reduction furnace link assembly, mini-scrubber tubes for S and Sulphur GC column.

Parts ordered from Sercon.

Parts sent to agent address. They will deliver and install at later date. Instrument location not currently occupied to receive delivery.

11 – Installation Report

Client:	University of Ioannina, Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Positioned magnet and tuned instrument via trapping loop for N₂ and CO₂.
Peak shapes and stability good. – All OK
Background good. – All OK
Calibrated flow meter – All OK
Pressure tested instrument – Pass. No drop in pressure for He or O₂ after system fully pressurised for 5 min.

AS Beet Mix samples

Checked instrument against AS Beet Mix (CO₂ & N₂) – All OK

CO₂ Peak Shape (2/1) = OK

CO₂ Stability (2/1) = OK

N₂ Peak Shape (2/1) = OK

N₂ Stability (2/1) = OK

Ref Gas ¹³C Precision = 0.008‰ S.D.

Ref Gas ¹³C Linearity = 0.089‰ S.D.

Ref Gas ¹⁵N Precision = 0.034‰ S.D.

Ref Gas ¹⁵N Linearity = 0.096‰ S.D.

System passes all specs. Instrument ready to be used by customer.

Trained instrument users.

Gave introduction to the theory of Integra2 (EA & IR-MS)

Explained practical every day tasks (Checking peak position & stability, etc) and demonstrated procedure required.

Trained on software use (Callisto & the Reprocessor).

Demonstrated how to build methods and alter parameters, create reference files, build sample lists and run batches.

Demonstrated how to make up samples in tin caps.

Demonstrated how to reprocess results and alter as required.

Customer made and ran test batch for dual analysis on oregano samples with cystine standard.

At the request of the customer unit powered down.

System to be activated again once building work has been completed on the site.

Install and training complete.

Instrument handed over to customer.

Recommendations:

N/A

11 – Installation Report

Client:	University of Ioannina, Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Faults and Shortages:

Missing set of wing nuts for lower fitting for reduction furnace. Parts ordered from Sercon.
Missing o-rings for scrubber tubes. Engineer had 2 spare in boot-stock, so able to fit water trap only. Parts ordered from Sercon.
Missing Sulphur combustion/reduction furnace link assembly, mini-scrubber tubes for S and Sulphur GC column.
Parts ordered from Sercon.
Parts sent to agent address. They will deliver and install at later date. Instrument location not currently occupied to receive delivery.

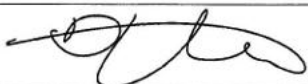
Follow up:

Contact Sercon/agents to help set up Sulphur method and tuning when required.

Engineer: David Harris

Date: 9th March 2023

Signed:



12 – Installation Acceptance and Warranty Certificate

Client:	University of Ioannina, Greece		
Quotation Number:	14838b	Date:	18/11/2020
Job Number:	IN1269	Date:	09/11/2021

Contact:	Theodore Matikas
System:	Integra2
Software:	V40.2.1
Engineer:	David Harris
Installation Date:	9 th March 2023

Warranty commences:	9 th March 2023
Warranty Expires:	9 th March 2025

Customer Acceptance:

Name: Theodoros Matikas

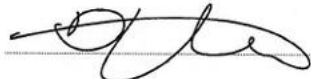
Signature: 

Date: 10th March 2023

Engineer's Signature:

On behalf of Sercon Limited

Name: David Harris

Signature: 

Date: 9th March 2023

Notes:

N/A