

ProQares : van (voor) LIMS naar LES

Proof of reliability.



ProQares : Van (voor) LIMS naar LES



- Introductie ProQares
- Data uitwisseling
 - Voor LIMS
 - LIMS
 - LES
- Rapportage
- Planning
- Toekomst

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ProQares B.V.

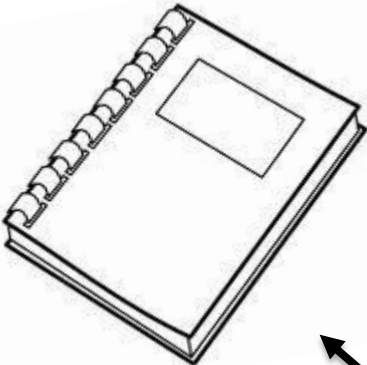


- Spin-out vanuit TNO voor het testen & certificering voor persoonlijke beschermende middelen tegen toxische chemische stoffen.
- Een B.V. binnen TNO-bedrijven
- Met unieke faciliteiten worden testen gedaan met de meest toxische chemicaliën.

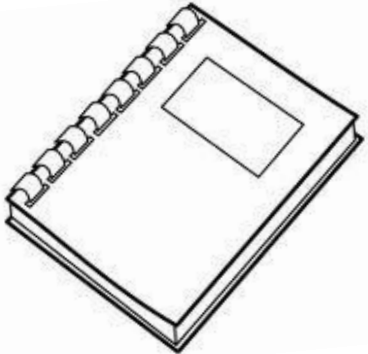
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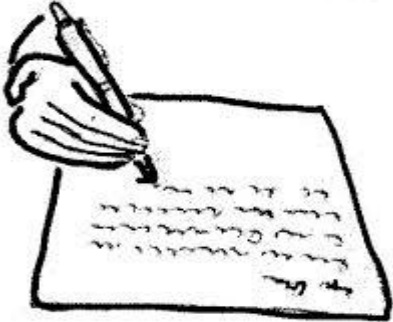
Data uitwisseling voor LIMS



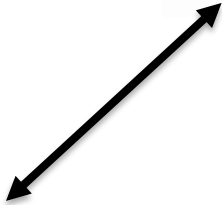
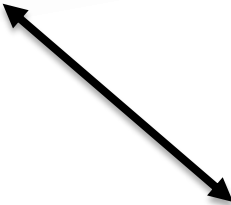
Logboek



Labjournaal



Report



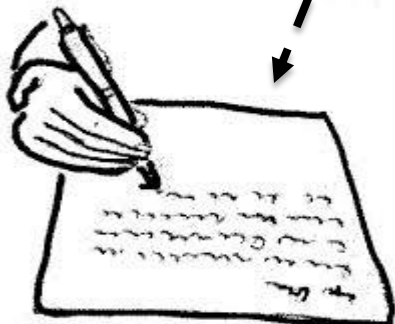
Data uitwisseling met LIMS



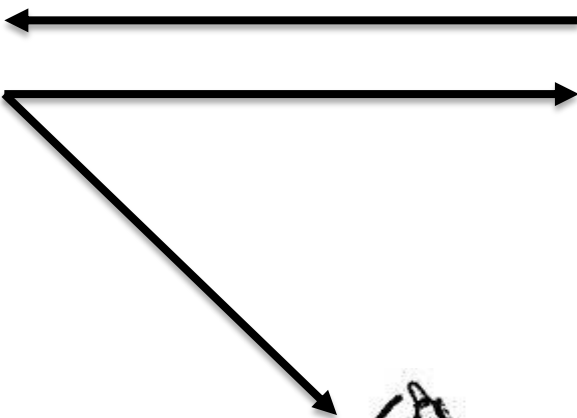
Formulier



LIMS



Report



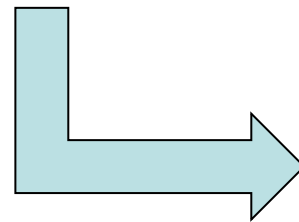
Typische test bij ProQares

Concentratie genereren

Flow afhankelijk van luchtweerstand materiaal

Afvangst in gaswasflesje

Analyse vloeistof met GC



Rapportage

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	Cel A			Cel B		
Luchtweerstand (mm H ₂ O/(cm ² /s))						
Celnummer						
Besmetting						
Datum						
Opstelling / Plaats						
Flow (ml/min)						
Split factor						
Buisnummer						
DES (ml)						
Duur (h)	-	-	-	-	-	-
Paraaf						
Datum injectie						
Verdunning						
Hoeveelheid (µg)						
Paraaf						
Blootstellingsconc. (mg/m ³)	voor	tijdens	na	voor	tijdens	na

← **Bepaling luchtweerstand**

← **Test uitvoer in opstelling**

← **Gaswasflesje**

← **Analyse**

← **Gegeneerde concentratie**

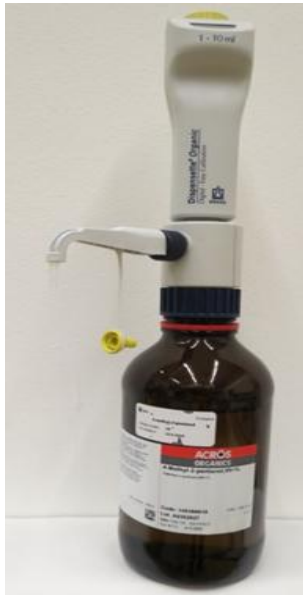
Bepaling luchtweerstand



Opstelling : _____

Meting	Celnummer	PQ-nummer (..PQ....)	Gemeten druk (mbar)	Luchtweerstand (mmH ₂ O/(cm/s))
		IJkgaas		-0.15
1				-0.15
2				-0.15
3				-0.15
4				-0.15
5				-0.15
6				-0.15
7				-0.15
8				-0.15
9				-0.15
10				-0.15

Afvangst in gaswasflesje



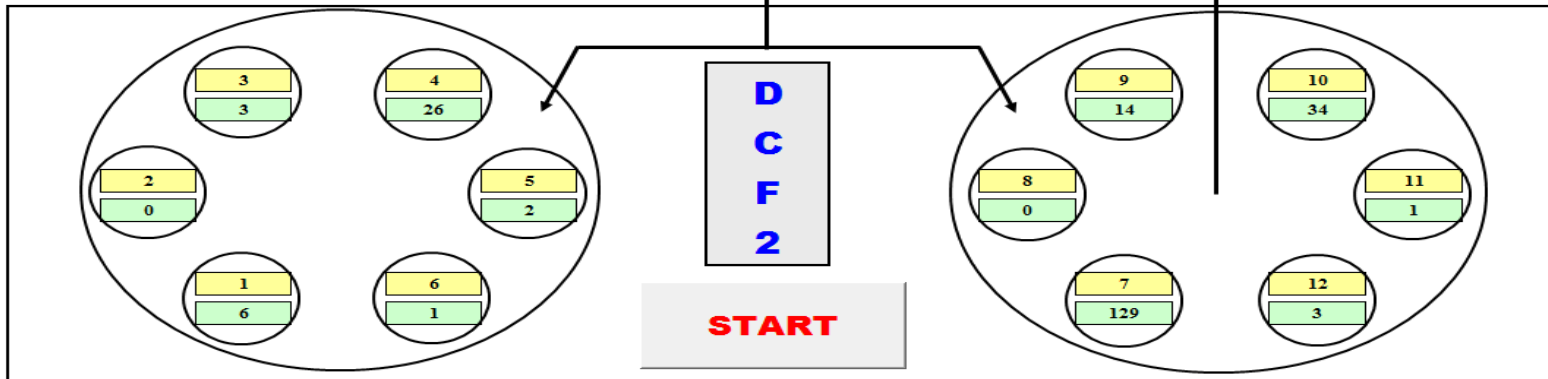
Testuitvoer in een opstelling

Date	
Start	
Duration	32 h
Temperature	32 °C
Pressure	1033 mbar
Low Flow ?	
Quit ?	

START	Set	Read
Generation	0	3
Liquiflow	0	18
Meng	0	6
Generation temp.		49.0
Test	Special	

Concentration	
Impinger	
Flow	
Set	0
Read	0

Cryostate 1	29.0	°C
Cryostate 2	3.9	°C
Heater 1	32.5	°C
Heater 2	32.5	°C
Liqui-Flow	37.0	%



Position	PQ-nr.	LWS mmH ₂ O(cm/s)	Impinger	Flow ml/min	500 ml _(n) /min		5000 ml _(n) /min	
					Set ml _(n) /min	Read ml _(n) /min	Set ml _(n) /min	Read ml _(n) /min
1				0	0	0	0	6
2				0	0	0	0	0
3				0	0	3	0	0
4				0	0	0	0	26
5				0	0	2	0	0
6				0	0	1	0	0

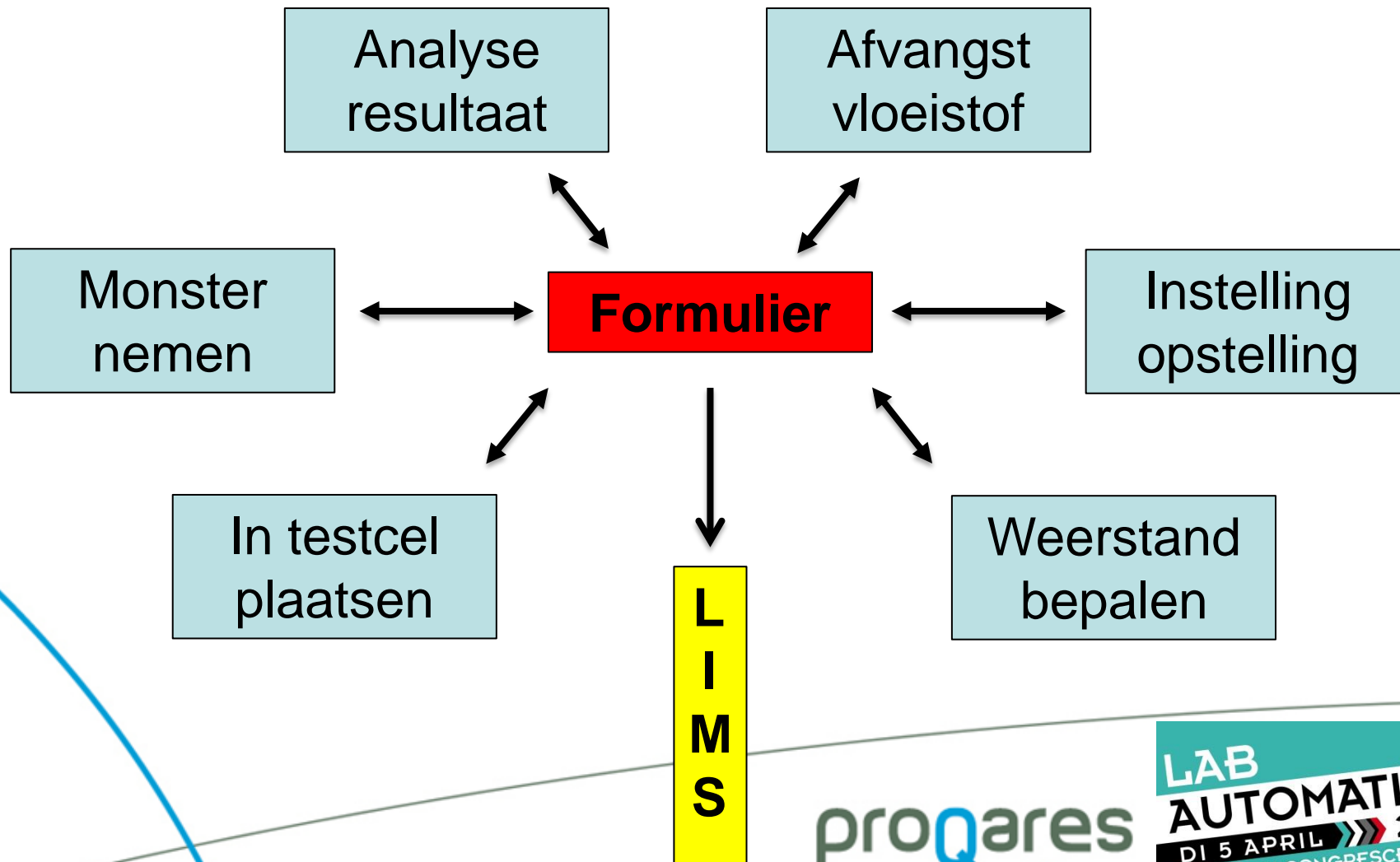
Position	PQ-nr.	LWS mmH ₂ O(cm/s)	Impinger	Flow ml/min	500 ml _(n) /min		5000 ml _(n) /min	
					Set ml _(n) /min	Read ml _(n) /min	Set ml _(n) /min	Read ml _(n) /min
7				0	0	2	0	127
8				0	0	0	0	0
9				0	0	0	0	14
10				0	0	0	0	34
11				0	0	1	0	1
12				0	0	3	0	0

GC analyse



Sample Id	Mean (μg)	Total (μg)	DES (ml)	Result ($\mu\text{g/ml}$)	RSD%
88 DCF-1 29/3		274.06	25	10.96	
88 DCF-1 29/3	274.29	274.51	25	10.98	0.1
	224	190.70	25	7.63	
	224	192.25	25	7.75	1.1
	114	241.30	25	9.65	
	114	241.93	25	9.70	0.4

Papierstroom bij een test

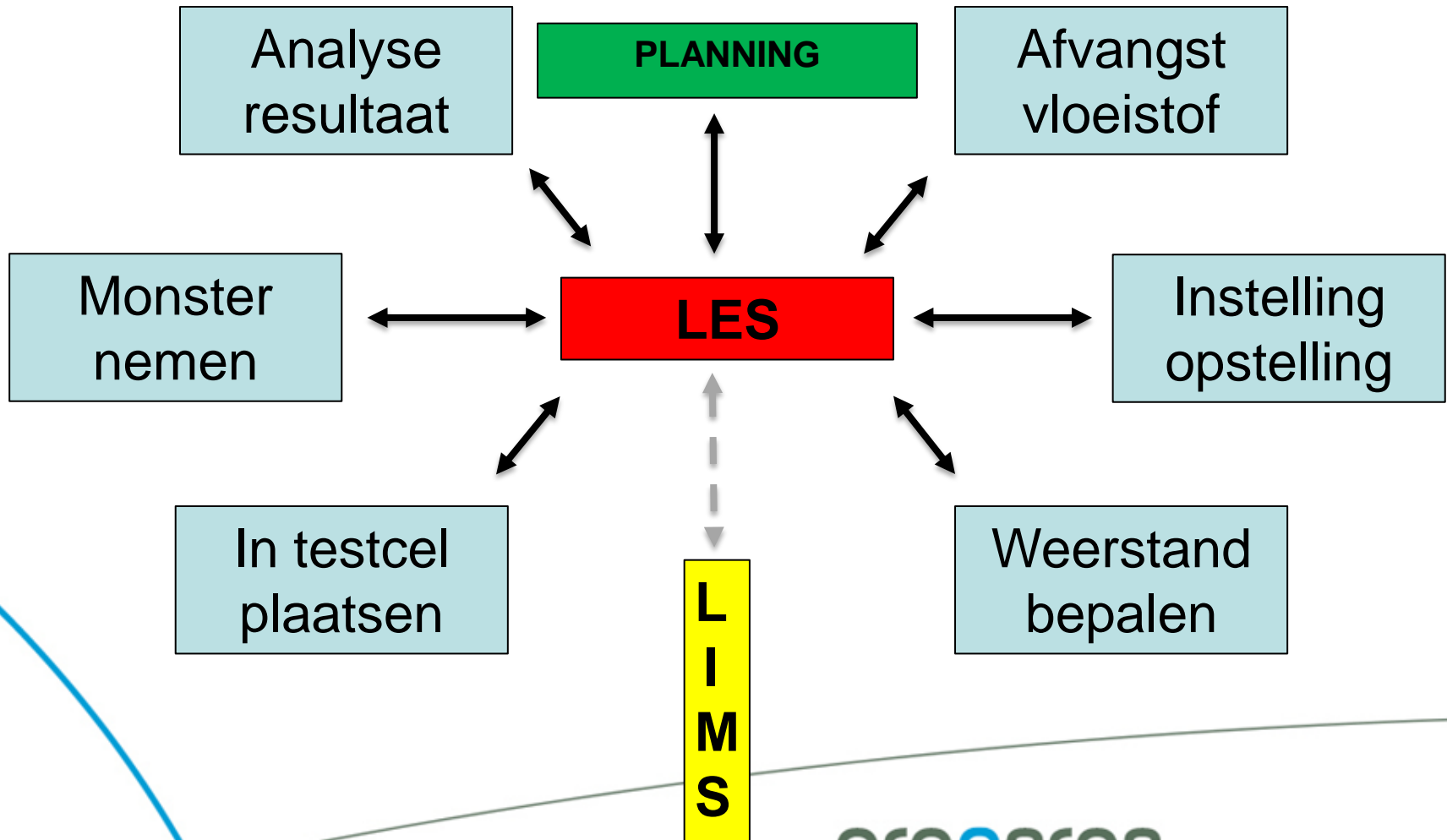




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Processtations



Processtations in LES

The screenshot displays the LES interface with a blue header bar containing 'Project', 'Start', and 'Administration' tabs. The left sidebar shows a tree view of the 'Start' menu, which is expanded to show sub-items like 'Ongeplande testen', 'Planning', 'Test Validation', 'Rapporten', 'Opdrachten', 'Monsters', 'Controle Folders', 'Lokaties', 'Adem', 'Kleding' (with sub-items: Stansen, Cellen Maken, Luchtweerstand, Stansen Industriechemicalien, Kleding resultaat invoer, Buizen maken), 'Zoeken', and 'Beheer'. The main content area shows a detailed view of the 'Start' menu, listing the same items with additional descriptions, such as 'Via deze folder kunnen testen worden geautoriseerd' for 'Test Validation' and 'Resultaten zoeken' for 'Zoeken'.

Menu Item	Description
Start	
Ongeplande testen	
Planning	Planning folder
Test Validation	Via deze folder kunnen testen worden geautoriseerd
Rapporten	Rapporten
Opdrachten	Order
Monsters	
Controle Folders	Controle Folders
Lokaties	Lokaties
Zoeken	Resultaten zoeken
Beheer	Beheer

Processtation Luchtweerstand

Temperatuur (°C)	
Luchtdruk (mbar)	
Instelling 1 cm/s (%)	
Instelling 5 cm/s (%)	

				Results					
CellNumber	Sample	GrootteCell	Flow (cm/s)	Druk (mbar)	Luchtwee	Flow@25p	Flow@1m	Flow@5m	
7877	16PQA0076	12.56							
7878	16PQA0076	12.56							
7879	16PQA0076	12.56							
7880	16PQA0076	12.56							
7881	16PQA0076	12.56							

Processtation Gaswasflesje

Fields						
	#	Sample	Buis	Code	Tijdstip	Des
↕	1	▼ 16PQ0413	GC-Buis/004	A4		2 ▼
↕	2	▼ 16PQ0413	GC-Buis/005	B4		2 ▼
↕	3	▼ 16PQ0413	GC-Buis/006	C4		2 ▼
↕	4	▼ 16PQ0413	GC-Buis/007	A5		2 ▼
↕	5	▼ 16PQ0413	GC-Buis/008	B5		2 ▼
↕	6	▼ 16PQ0413	GC-Buis/009	C5		2 ▼
↕	7	▼ 16PQ0413	GC-Buis/001	A6		2 ▼
↕	8	▼ 16PQ0413	GC-Buis/002	B6		2 ▼
↕	9	▼ 16PQ0413	GC-Buis/003	C6		2 ▼

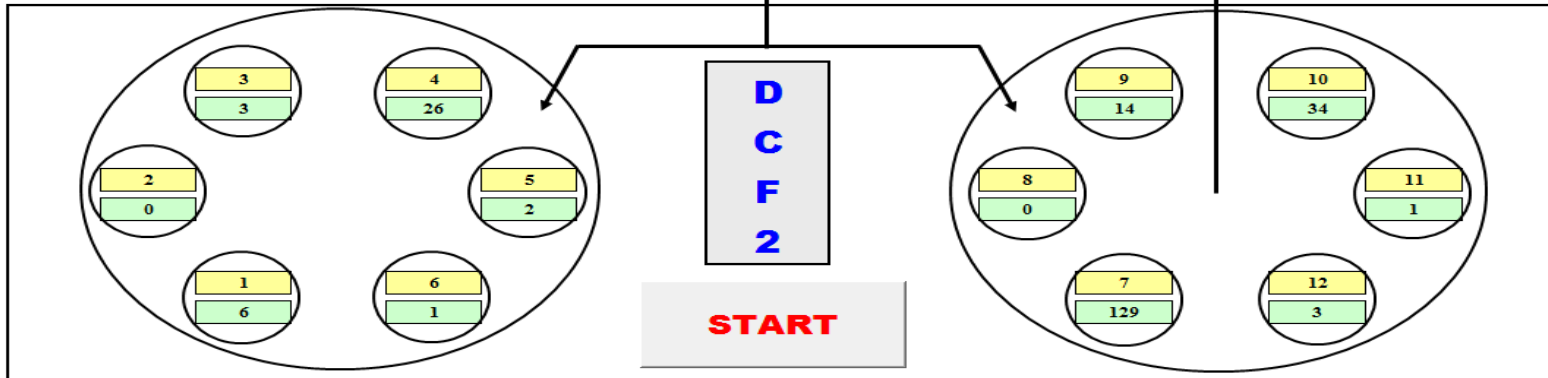
Testuitvoer in een opstelling

Date	
Start	
Duration	32 h
Temperature	32 °C
Pressure	1033 mbar
Low Flow ?	
Quit ?	

START	Set	Read
Generation	0	3
Liquiflow	0	18
Meng	0	6
Generation temp.		49.0
Test	Special	

Concentration	
Impinger	
Flow	
Set	0
Read	0

Cryostate 1	29.0	°C
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Heater 1	32.5	°C
Heater 2	32.5	°C
Liqui-Flow	37.0	%



Position	PQ-nr.	LWS mmH ₂ O(cm/s)	Impinger	Flow ml/min	500 ml _(n) /min		5000 ml _(n) /min	
					Set ml _(n) /min	Read ml _(n) /min	Set ml _(n) /min	Read ml _(n) /min
1				0	0	0	0	6
2				0	0	0	0	0
3				0	0	3	0	0
4				0	0	0	0	26
5				0	0	2	0	0
6				0	0	1	0	0

Position	PQ-nr.	LWS mmH ₂ O(cm/s)	Impinger	Flow ml/min	500 ml _(n) /min		5000 ml _(n) /min	
					Set ml _(n) /min	Read ml _(n) /min	Set ml _(n) /min	Read ml _(n) /min
7				0	0	2	0	127
8				0	0	0	0	0
9				0	0	0	0	14
10				0	0	0	0	34
11				0	0	1	0	1
12				0	0	3	0	0

Rapportage

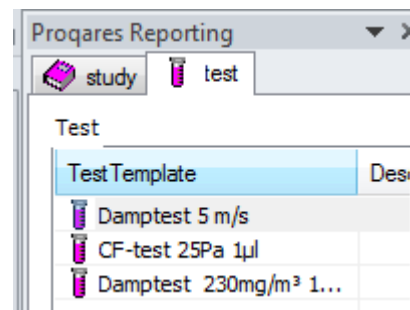
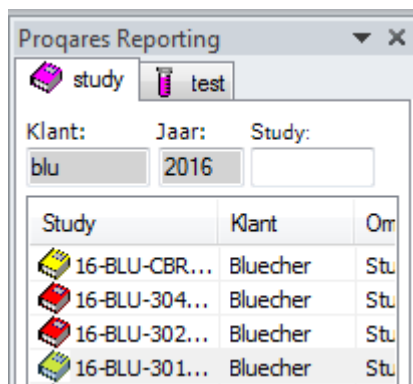
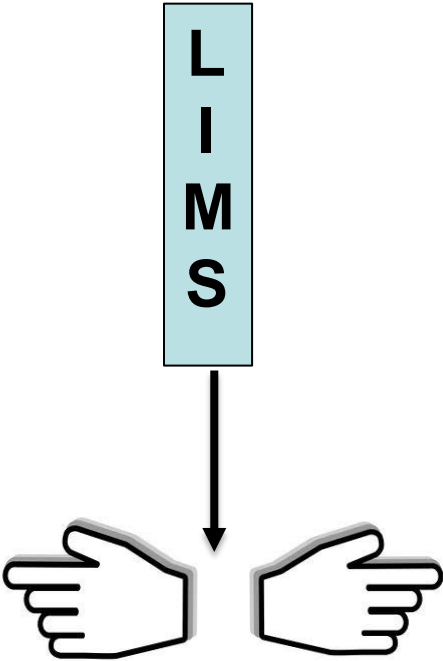
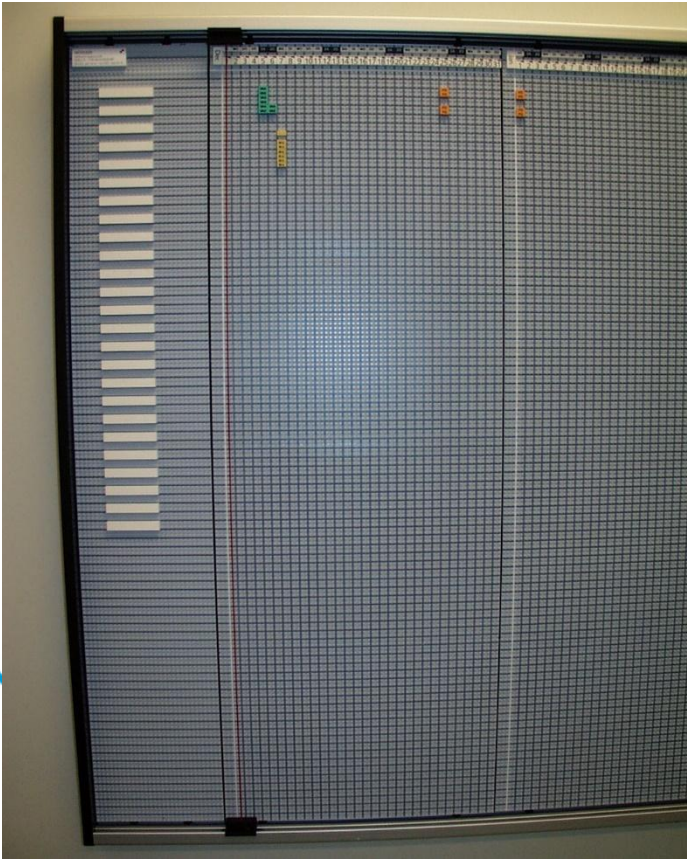


Table 1: Vapour test, 100 mg/m³ (80% RH, 32°C, 16 hours)

Sample code	State	Challenge (mg/m ³)	Velocity through sample (cm/s)	Penetrated dose (mg.min/m ²)
16PQ0184/16PQ0188A	New	107	0.27	251
16PQ0184/16PQ0188B	New	107	0.27	427
16PQ0185/16PQ0188A	New	107	0.27	151
16PQ0185/16PQ0188B	New	107	0.27	182
16PQ0186/16PQ0188A	New	107	0.27	151
16PQ0186/16PQ0188B	New	107	0.27	289

Planning vanuit LIMS



	A	F	G	H	I	J	K	L	M
1			DINSDAG 3-Jan-12			WOENSDAG 4-Jan-12			
2									
3	DCF1	CF 5 m/s			HD				
4		30	80		0-24:				
5	1	1PQ2080			10				
6	2	1PQ2080			10				
7	3	1PQ2080			10				
8	4	1PQ2081			10				
9	5	1PQ2081			10				
10	6	1PQ2081			10				
11	7	1PQ2082			10				
12	8	1PQ2082			10				
13	9	1PQ2082			10				
14	10								
15	11								
16	12								
17									
18	DCF2	Dampstest 5 m/s			HD	Dampstest 5 m/s			HD
19		30	80		0-4; 4-6;	30	80		0-4; 4-6;
20	1	1PQ2039		17 293 ml/min	1PQ2043		17 293 ml/min		17 293 ml/min
21	2	1PQ2040		17 293 ml/min	1PQ2044		17 293 ml/min		17 293 ml/min
22	3	1PQ2041		17 293 ml/min	1PQ2045		17 293 ml/min		17 293 ml/min
23	4	1PQ2042		17 293 ml/min	1PQ2049		17 293 ml/min		17 293 ml/min
24	5	1PQ2046		17 293 ml/min	1PQ2050		17 293 ml/min		17 293 ml/min
25	6	1PQ2047		17 293 ml/min	1PQ2051		17 293 ml/min		17 293 ml/min
26	7	1PQ2048		17 293 ml/min	1PQ2052		17 293 ml/min		17 293 ml/min
27	8	1PQ2053		17 293 ml/min	1PQ2058		17 293 ml/min		17 293 ml/min
28	9	1PQ2054		17 293 ml/min	1PQ2058		17 293 ml/min		17 293 ml/min
29	10	1PQ2055		17 293 ml/min	1PQ2059		17 293 ml/min		17 293 ml/min
30	11	1PQ2056		17 293 ml/min	1PQ2059		17 293 ml/min		17 293 ml/min
31	12								
32									
33									
34									
35	1								
36	2								
37	3								
38	4								
39	5								
40	6								
41	7								
42	8								
43	9								
44	10								
45	11								
46	12								
47									
48	DCF3								
49									

Planning vanuit LES

LES

Ongeplande testen

GroupBy		PrimarySampl	TestType
217	(no filter)	14PQA0035	Conditionering
215	Filter	14PQA0035	Conditionering
2	Conditionering	14PQA0034	Filter
		14PQA0035	Filter
		14PQA0034	Filter
		14PQA0035	Filter
		14PQA0035	Filter
		14PQA0035	Filter
		14PQA0035	Filter



	di 14-jan	wo 15-jan	
IC-Geleid 3	Industriechemicalien	Industriechemicalien	
	Sulfu... 23	Sulfu... 23	
	13PQ1999	13PQ2001	
	13PQ1999	13PQ2001	
	13PQ1999	13PQ2001	
	Industriechemicalien	Industriechemicalien	
	Sulfu... 23	Sulfu... 23	
	13PQ2000	13PQ2004	
	13PQ2000	13PQ2004	
	13PQ2000	13PQ2004	
	IC-Polytron 3	Industriechemicalien	Industriechemicalien
	Chlor... 23	Chlor... 23	
13PQ1997	13PQ2001		
13PQ1997	13PQ2001		
13PQ1997	13PQ2001		
Industriechemicalien	Industriechemicalien		
Chlor... 23	Chlor... 23		
13PQ1997	13PQ2000		
13PQ1997	13PQ2000		
13PQ1997	13PQ2000		
IC-GC 6	Industriechemicalien	Industriechemicalien	
Methy... 23	Methy... 23		
13PQ1997	13PQ2000		
13PQ1997	13PQ2000		
13PQ1997	13PQ2000		
Industriechemicalien	Industriechemicalien		
Methy... 23	Methy... 23		
13PQ1999	13PQ2001		
13PQ1999	13PQ2001		
13PQ1999	13PQ2001		



Toekomst



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