Analytical Resources, Incorporated
Analytical Chemists and Consultants

012317005 W

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polycyclic Aromatic Hydrocarbons (PAH)

Laboratory:	Analytical Resources, Inc.			SDG:	17A0304
Client:	HDR, Inc.			Project:	East Eagle Harbor OU 2016 OMM
Matrix:	Water	Laboratory ID:	17A0304-09	File ID:	N817020306.D
Sampled:	01/23/17 13:03	Prepared:	01/30/17 18:32	Analyzed:	02/03/17 15:28
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BFA0582	Sequence:	SFB0056	Calibration:	AB00010
Instrument:	NT8	Column:	RXI-17Sil ms		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.10	U	0.02	0.10
91-57-6	2-Methylnaphthalene	1	0.10	U	0.03	0.10
90-12-0	1-Methylnaphthalene	1	0.10	U	0.02	0.10
208-96-8	Acenaphthylene	1	0.10	U	0.02	0.10
83-32-9	Acenaphthene	1	0.10	U	0.02	0.10
132-64-9	Dibenzofuran	1	0.10	U	0.02	0.10
86-73-7	Fluorene	1	0.10	U	0.02	0.10
85-01-8	Phenanthrene	1	0.10	U	0.02	0.10
120-12-7	Anthracene	1	0.10	U	0.02	0.10
206-44-0	Fluoranthene	1	0.10	U	0.02	0.10
129-00-0	Pyrene	1	0.10	U	0.03	0.10
56-55-3	Benzo(a)anthracene	1	0.10	U	0.05	0.10
218-01-9	Chrysene	1	0.10	U	0.06	0.10
205-99-2	Benzo(b)fluoranthene	1	0.10	U	0.09	0.10
207-08-9	Benzo(k)fluoranthene	1	0.10	U	0.09	0.10
50-32-8	Benzo(a)pyrene	1	0.10	U	0.06	0.10
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.10	U	0.08	0.10
53-70-3	Dibenzo(a,h)anthracene	1	0.10	U	0.09	0.10
191-24-2	Benzo(g,h,i)perylene	1	0.10	U	0.07	0.10
	Benzofluoranthenes, Total	1	0.20	U	0.19	0.20

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	3.0000	1.74	58.0	31 - 120	
Dibenzo[a,h]anthracene-d14	3.0000	2.30	76.7	10 - 125	
Fluoranthene-d10	3.0000	2.55	85.0	46 - 121	

Data File: \\target\share\chem3\nt8.i\20170203.b\N817020306.D

Date : 03-FEB-2017 15:28

Client ID:

Instrument: nt8.i

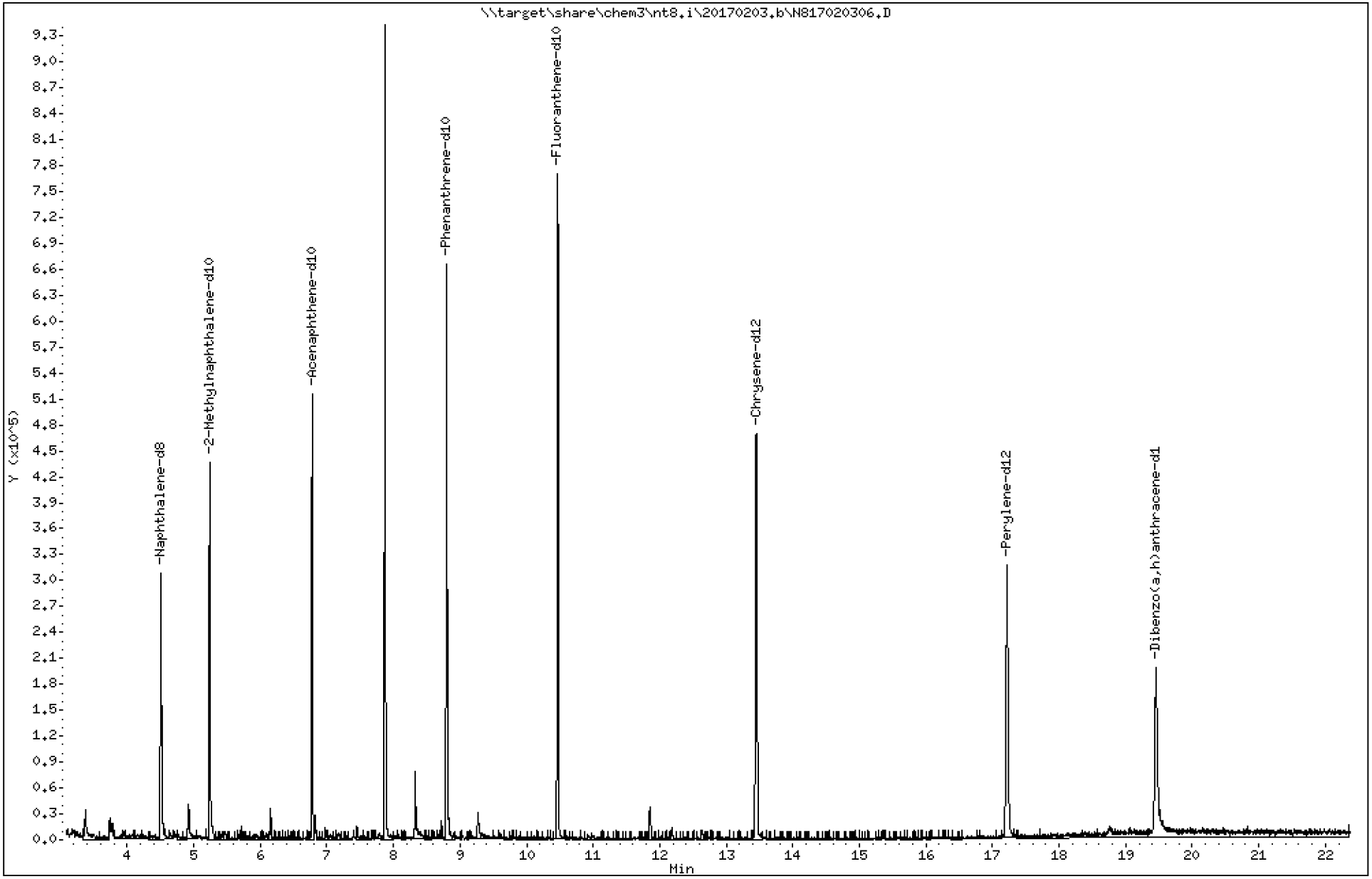
Sample Info: 17A0304-09

Volume Injected (uL): 1.0

Operator: JR

Column phase: Rxi-17sil

Column diameter: 0.25



Data File: \\target\share\chem3\nt8.i\20170203.b\N817020306.D

Date : 03-FEB-2017 15:28

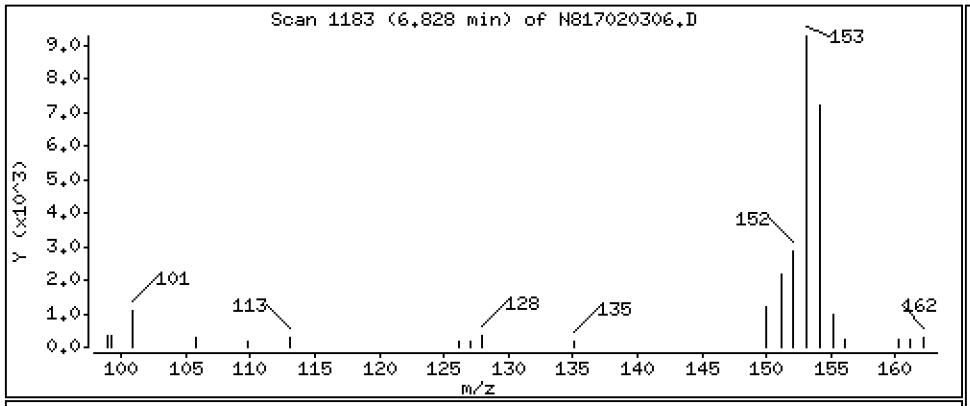
Client ID: Instrument: nt8.i

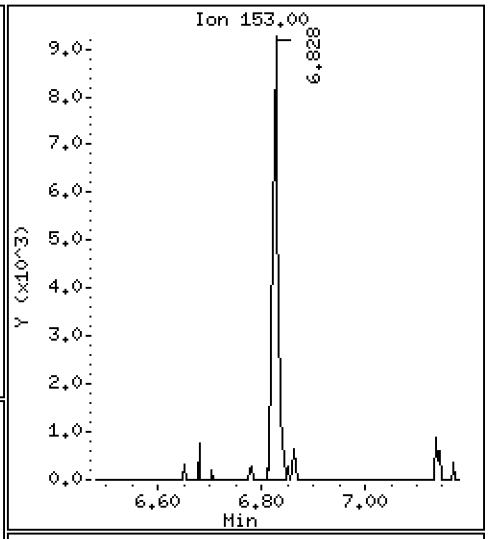
Sample Info: 17A0304-09

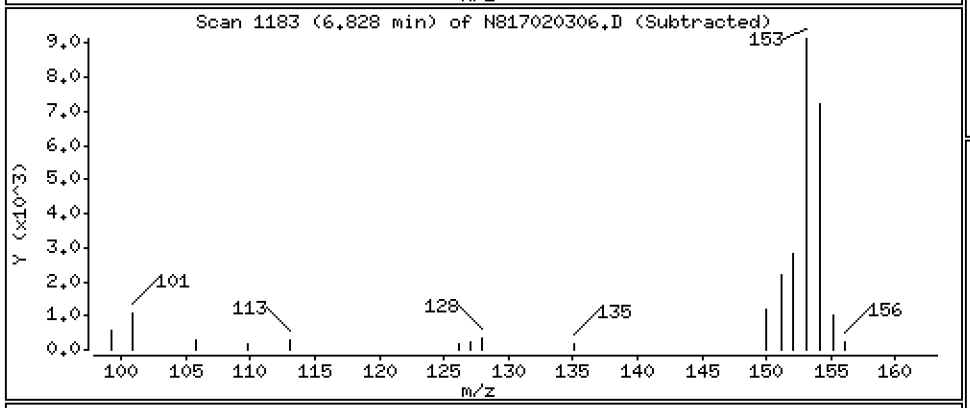
Volume Injected (uL): 1.0 Operator: JR

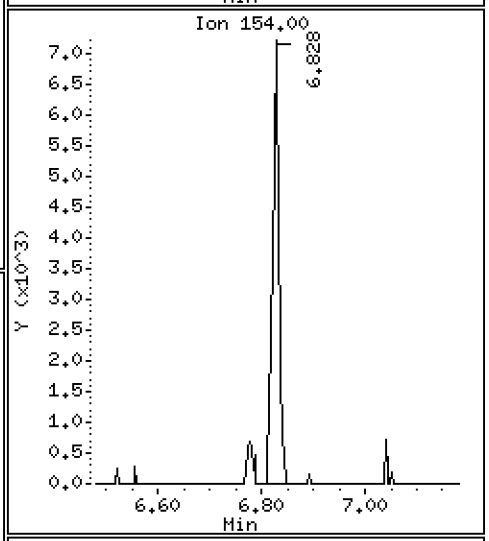
Column phase: Rxi-17sil Column diameter: 0.25

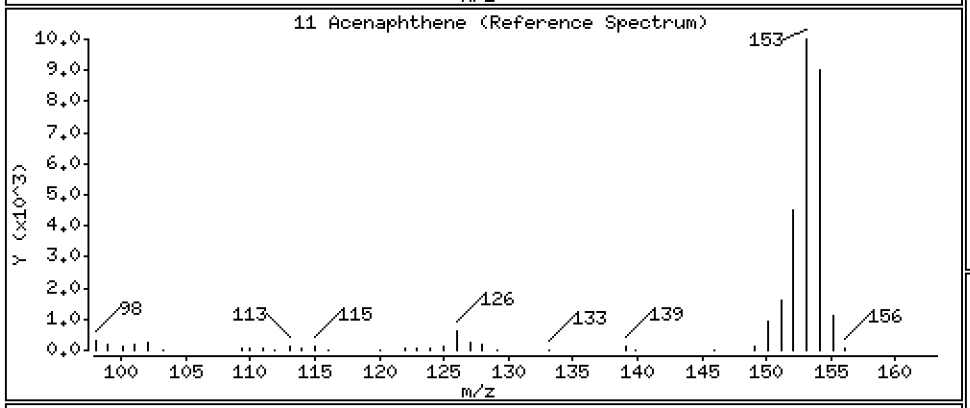
11 Acenaphthene Concentration: 0.07326 ug/L

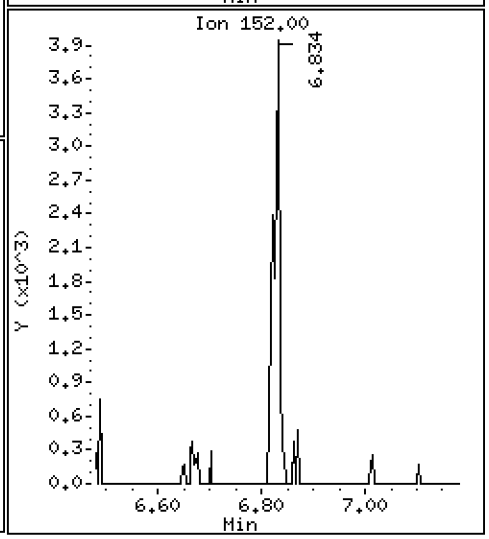


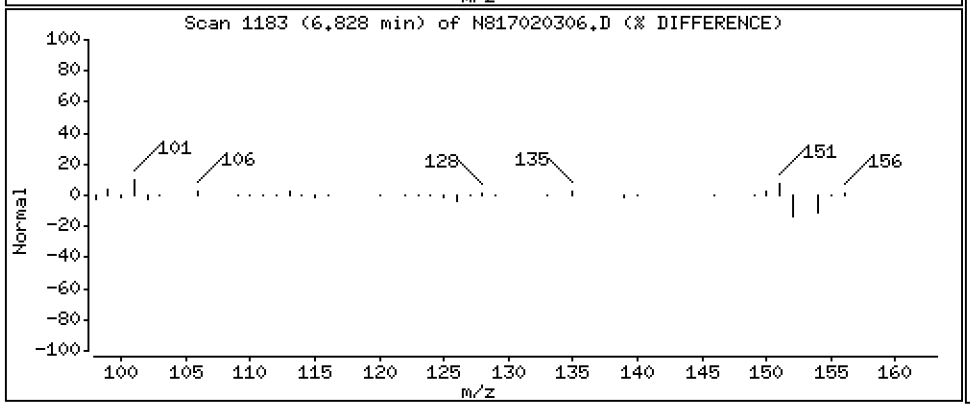












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20170203.b\N817020306.D
Lab Smp Id: 17A0304-09
Inj Date : 03-FEB-2017 15:28
Operator : JR Inst ID: nt8.i
Smp Info : 17A0304-09
Misc Info : 17-
Comment : 1ul Injection
Method : \\target\share\chem3\nt8.i\20170203.b\FSIMPNA170201.m
Meth Date : 09-Feb-2017 12:08 jianqing Quant Type: ISTD
Cal Date : 01-FEB-2017 15:48 Cal File: N817020113.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnax.sub
Target Version: 4.14
Processing Host: ORGDATA06

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136	4.506	4.515	(1.000)	256866	2.00000	
2 Naphthalene	128	Compound Not Detected.					
$ 3 2-Methylnaphthalene-d10	152	5.240	5.243	(1.163)	145894	1.73954	1.740
4 2-Methylnaphthalene	141	Compound Not Detected.					
5 1-methylnaphthalene	141	Compound Not Detected.					
9 Acenaphthylene	152	Compound Not Detected.					
* 10 Acenaphthene-d10	164	6.780	6.779	(1.000)	138653	2.00000	
11 Acenaphthene	153	6.827	6.830	(1.007)	7003	0.07326	0.07326
12 Dibenzofuran	168	Compound Not Detected.					
14 Fluorene	166	Compound Not Detected.					
* 15 Phenanthrene-d10	188	8.800	8.803	(1.000)	261786	2.00000	
16 Phenanthrene	178	Compound Not Detected.					
17 Anthracene	178	Compound Not Detected.					
22 Fluoranthene	202	Compound Not Detected.					
$ 21 Fluoranthene-d10	212	10.470	10.473	(1.190)	366314	2.55109	2.551
23 Pyrene	202	Compound Not Detected.					
24 Benzo(a)anthracene	228	Compound Not Detected.					
* 25 Chrysene-d12	240	13.451	13.454	(1.000)	289371	2.00000	
27 Chrysene	228	Compound Not Detected.					
28 Benzo(b)fluoranthene	252	Compound Not Detected.					
29 Benzo(k)fluoranthene	252	Compound Not Detected.					
30 Benzo(j)fluoranthene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	31 Total Benzofluoranthenes	252	Compound Not Detected.					
	32 Benzo(a)pyrene	252	Compound Not Detected.					
*	33 Perylene-d12	264	17.217	17.220	(1.000)	229572	2.00000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	19.459	19.462	(1.130)	187331	2.30115	2.301
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	35 Perylene	252	Compound Not Detected.					

Data File: \\target\share\chem3\nt8.i\20170203.b\N817020306.D Page 1
Report Date: 09-Feb-2017 12:08

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N817020306.D
Lab Smp Id: 17A0304-09
Analysis Type: SV
Quant Type: ISTD
Operator: JR
Method File: \\target\share\chem3\nt8.i\20170203.b\FSIMPNA170201.m
Misc Info: 17-

Calibration Date: 03-FEB-2017
Calibration Time: 13:45
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	259663	129832	519326	256866	-1.08
10 Acenaphthene-d10	150335	75168	300670	138653	-7.77
15 Phenanthrene-d10	287336	143668	574672	261786	-8.89
25 Chrysene-d12	314746	157373	629492	289371	-8.06
33 Perylene-d12	277543	138772	555086	229572	-17.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.52	4.02	5.02	4.51	-0.21
10 Acenaphthene-d10	6.78	6.28	7.28	6.78	0.00
15 Phenanthrene-d10	8.80	8.30	9.30	8.80	-0.03
25 Chrysene-d12	13.45	12.95	13.95	13.45	-0.02
33 Perylene-d12	17.22	16.72	17.72	17.22	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N817020306.D

Lab ID: 17A0304-09
nt8.i, 20170203.b\FSIMPNA170201.m, 03-FEB-2017 15:28

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt8.i, 20170203.b\FSIMPNA170201.m, pnax.sub = 0.0500

Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Benzo(j)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000