- MS/MSD n/a
  a. Custom Recovery Summary Report, if available
  b. Quan Report (Quant – Generate Report – Summary)
  c. Graphics (@Cmd Line – Thumbnail)

- LCS/LCSD
  a. Custom Recc very Summary Report, if available
  b. Quan Report (Quant – Generate Report – Summary)
  c. Graphics (@Cmd Line –Thumbnail)

PCB QC Recovery Report

920110419B1
920110419L1
920110419L2

Matrix: 42 - Wipe

Sample ID	Filename	Date/Time Acquired	Initial Extracted Amount (mL)	Final Extract Volume (mL)	Spiking Std Concentration (ng/uL)	Spike Volume (uL)	Total Spike Amount per sample (ng)
920110419B1	M111319a03.D	11/13/2019 11:44	10	10	0	0	0
920110419L1	M111319a04.D	11/13/2019 12:09	10	10	4	1000	4000
920110419L2	M111319a05.D	11/13/2019 12:33	10	10	4	1000	4000

Data Paths

Reference...: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a03.D
LCS or MS...: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a04.D
LCSD or MSD.: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a05.D

Compound Name	Ref. Amt ug	Spk1 Amt ug	ExpSpk1 Amt ug	Spk1 LCS/MS %Rec	Spk2 Amt ug	ExpSpk2 Amt ug	Spk2 LCSD/MSD %Rec	Recovery Limits %	RPD %	RPD Limit %
1016 Column 1	0	3.14	4.00	79%	3.41	4.00	85%	48-132	8	30
1016 Column 2	0	3.28	4.00	82%	3.52	4.00	88%	48-132	7	30
1260 Column 1	0	4.02	4.00	100%	4.29	4.00	107%	56-139	7	30
1260 Column 2	0	3.65	4.00	91%	3.82	4.00	95%	56-139	5	30

Laboratory control spiked sample recoveries are NOT corrected for the amount found in the reference (BL) sample.

PCB

PCB Sample Results Summary

920110419L1

Sample.....: 920110419L1
Data File....: M111319a04.D
Project.....: OCE-009E
Matrix.....: 42 - Wipe
Analyzed.....: 11/13/2019 12:09
Type.....: L1
Additional Info..: SKY Valley PCB Wipes 10mL fv
DP Method Path...: J:\Organics\Minerva\Methods\M111219PCB1260.M
Datafile Path....: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a04.D

Date Prepped...: 11/4/2019
ICAL Date.....: 11/12/2019
Prep Method....: 3580A
Analysis Method: 8082A
Quant Column...: 1

Prepped By.: DWOOD
Analyst....: DWOOD
CID.....: 0
Acq. Method: M012116PCB2B.M
ASEQ Number: 4

Instrument.....: Minerva
Amount Extracted.: 10 wipe
Percent Solids...: NA
Final Volume.....: 10 mL
Dilution.....: 1x D0

m = manual integration
d = deleted
U = Undetected
J = Below calibrated range
E = Exceeds calibrated range

Pk	Low Cal (pg)¹	High Cal (pg)¹	Compound Name	RT	Exp RT	Response	Spike (pg)¹	Amount (pg)¹	Result	Units	Q
1	2.5	250	tmx (1)	6.96	6.96	1208950	50	43	85	%Rec	
12	2.5	250	dcb	17.73	17.73	622383	50	54	107	%Rec	
14	2.5	250	tmx (1) #2	4.71	4.71	3960230	50	44	89	%Rec	
25	2.5	250	dcb #2	13.10	13.11	2164670	50	53	106	%Rec	
2	25	2500	1016 -1	7.57	7.57	131290	400	315	3.2	ug	
3	25	2500	1016-2	8.63	8.63	174845	400	312	3.1	ug	
4	25	2500	1016-3	9.28	9.28	225010	400	311	3.1	ug	
5	25	2500	1016-4	9.42	9.43	141039	400	302	3.0	ug	
6	25	2500	1016-5	9.70	9.70	159016	400	331	3.3	ug	
7	25	2500	1260-1	12.46	12.46	384624	400	406	4.1	ug	
8	25	2500	1260-2	12.90	12.90	462664	400	416	4.2	ug	
9	25	2500	1260-3	13.44	13.45	470102	400	388	3.9	ug	
10	25	2500	1260-4	14.71	14.71	576757	400	398	4.0	ug	
11	25	2500	1260-5	15.29	15.29	268021	400	400	4.0	ug	
15	25	2500	1016 -1 #2	5.26	5.26	486671	400	335	3.4	ug	
16	25	2500	1016-2 #2	5.71	5.71	826783	400	327	3.3	ug	
17	25	2500	1016-3 #2	6.31	6.32	1175080	400	337	3.4	ug	
18	25	2500	1016-4 #2	6.49	6.49	643875	400	330	3.3	ug	
19	25	2500	1016-5 #2	6.57	6.57	442379	400	311	3.1	ug	
20	25	2500	1260-1 #2	8.79	8.80	1081040	400	356	3.6	ug	
21	25	2500	1260-2 #2	9.23	9.23	1672170	400	370	3.7	ug	
22	25	2500	1260-3 #2	9.66	9.67	1326050	400	354	3.5	ug	
23	25	2500	1260-4 #2	10.24	10.24	816505	400	362	3.6	ug	
24	25	2500	1260-5 #2	10.76	10.76	1841470	400	382	3.8	ug	

CAS#	Name	Avg	Unit	n	%RSD	Column RPD²
12674112	1016 Column 1	79	%Rec	5	3 %	
12674112	1016 Column 2	82	%Rec	5	3 %	4 %
11096825	1260 Column 1	100	%Rec	5	3 %	
11096825	1260 Column 2	91	%Rec	5	3 %	10 %

Results will be reported from Column 1

Note that avg results for LCS/MS samples do not reflect native amount adjustment.

¹'Amount' units are pg or pg/uL on column. ²RPD (Relative Percent Difference) is the percent difference between the result of column 1 and the result of column 2. The values are calculated using the non-rounded average result values. (|A-B|/((A+B)*0.5))*100 is the formula used for the calculation. The value should nominally be <= 40%.

Sample Concentration = (Amt)*(Final Volume[mL])*(Dilution)/Amount Extracted = ug/L, ug/kg, ug/g, or ug.

Generated Tue Dec 10 11:40:44 2019

Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a04.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 12:09 pm
Operator : DWOOD
Sample : 920110419L1
Misc : SKY Valley PCB Wipes 10mL fv
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:08:50 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.957	4.713	1208947	3960225	42.598	44.417
12) S2 dcb	17.732	13.105	622383	2164671	53.675	53.111
Target Compounds						
2) L1 1016 -1	7.568	5.256	131290	486671	315.067	335.466
3) L1 1016-2	8.629	5.713	174845	826783	312.338	327.065
4) L1 1016-3	9.282	6.314	225010	1175080	311.381	337.172
5) L1 1016-4	9.425	6.486	141039	643875	301.843	330.379
6) L1 1016-5	9.696	6.568	159016	442379	331.484	311.172
Sum 1016 -1			831200	3574788	1572.112	1641.254
Average 1016 -1					314.422	328.251
7) L2 1260-1	12.462	8.794	384624	1081044	405.532	356.247
8) L2 1260-2	12.898	9.226	462664	1672165	416.075	370.057
9) L2 1260-3	13.444	9.664	470102	1326045	388.133	353.733
10) L2 1260-4	14.708	10.243	576757	816505	398.339	361.576
11) L2 1260-5	15.289	10.756	268021	1841469	400.358	381.827
Sum 1260-1			2162168	6737228	2008.437	1823.440
Average 1260-1					401.687	364.688

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

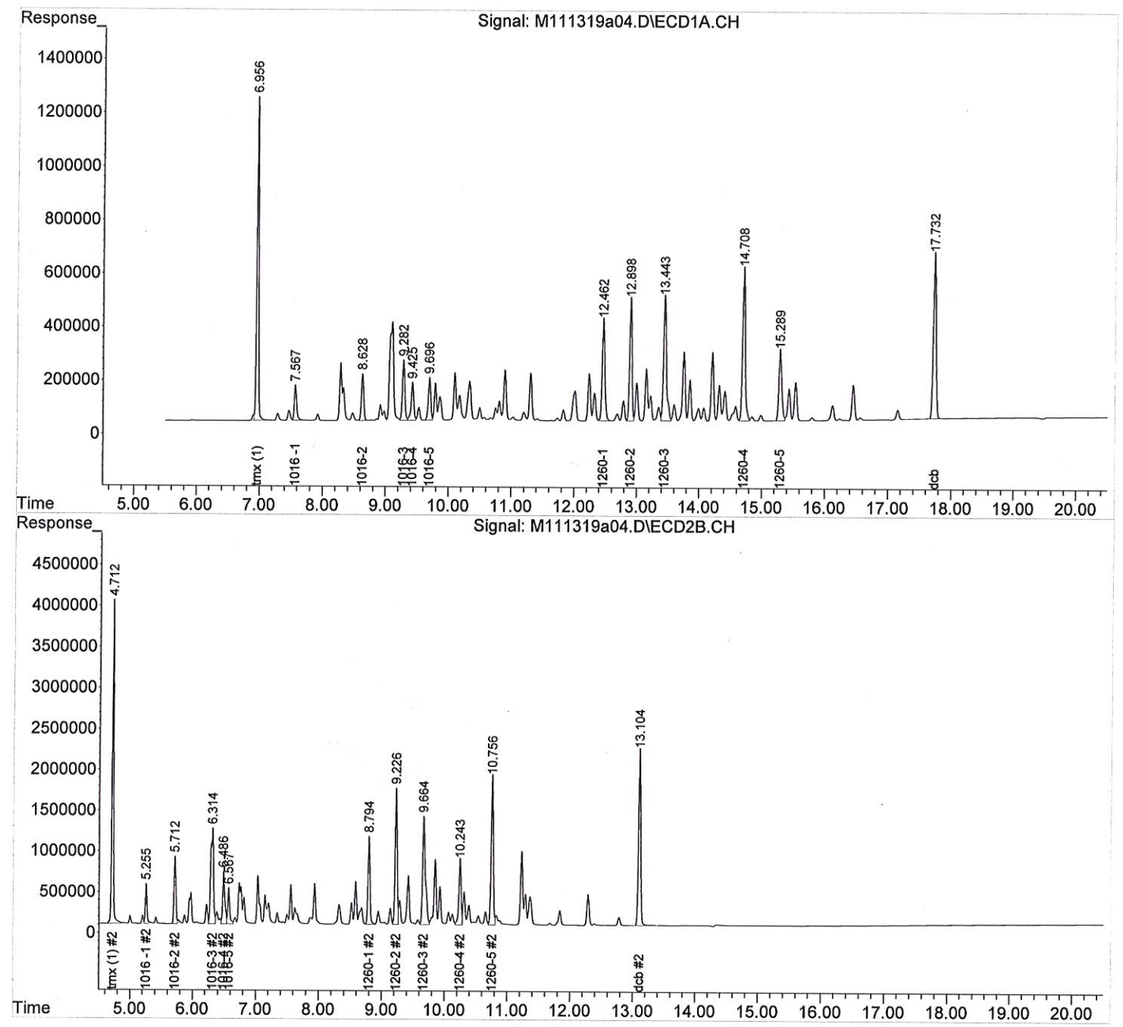
12/6/19

Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a04.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 12:09 pm
Operator : DWOOD
Sample : 920110419L1
Misc : SKY Valley PCB Wipes 10mL fv
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:08:50 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32



Quantitation Report (Not Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a04.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 12:09 pm
Operator : DWOOD
Sample : 920110419L1
Misc : SKY Valley PCB Wipes 10mL fv
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:08:50 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
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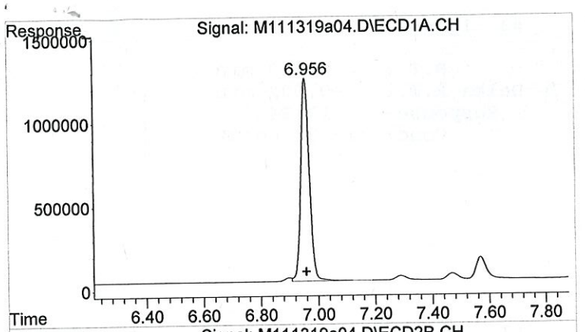
12) S2 dcb	17.732	13.105	622383	2164671	53.675	53.111
Target Compounds						
2) L1 1016 -1	7.568	5.256	131290	486671	315.067	335.466
3) L1 1016-2	8.629	5.713	174845	826783	312.338	327.065
4) L1 1016-3	9.282	6.314	225010	1175080	311.381	337.172
5) L1 1016-4	9.425	6.486	141039	643875	301.843	330.379
6) L1 1016-5	9.696	6.568	159016	442379	331.484	311.172
Sum 1016 -1			831200	3574788	1572.112	1641.254
Average 1016 -1					314.422	328.251
7) L2 1260-1	12.462	8.794	384624	1081044	405.532	356.247
8) L2 1260-2	12.898	9.226	462664	1672165	416.075	370.057
9) L2 1260-3	13.444	9.664	470102	1326045	388.133	353.733
10) L2 1260-4	14.708	10.243	576757	816505	398.339	361.576
11) L2 1260-5	15.289	10.756	268021	1841469	400.358	381.827
Sum 1260-1			2162168	6737228	2008.437	1823.440
Average 1260-1					401.687	364.688

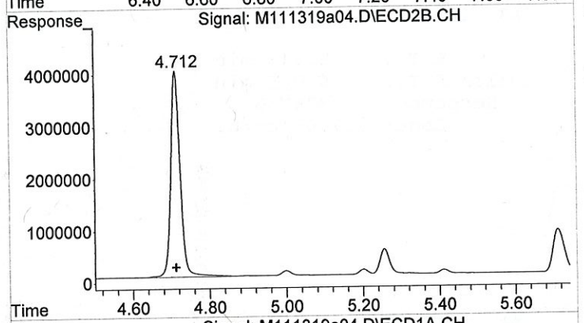
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

MW
11/15/19



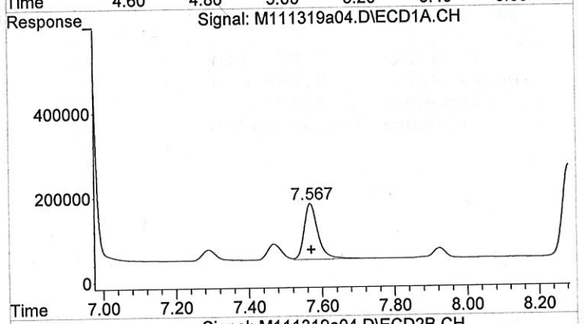
#1 tmx (1)

R.T.: 6.957 min
Delta R.T.: -0.002 min
Response: 1208947
Conc: 42.60 pg/uL



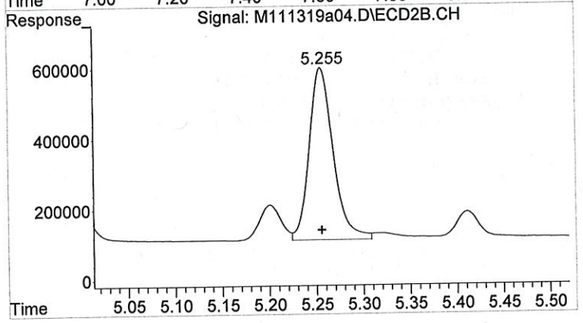
#1 tmx (1)

R.T.: 4.713 min
Delta R.T.: 0.000 min
Response: 3960225
Conc: 44.42 pg/uL



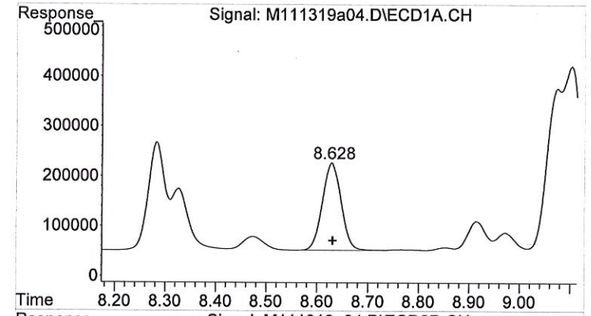
#2 1016 -1

R.T.: 7.568 min
Delta R.T.: -0.003 min
Response: 131290
Conc: 315.07 pg/uL



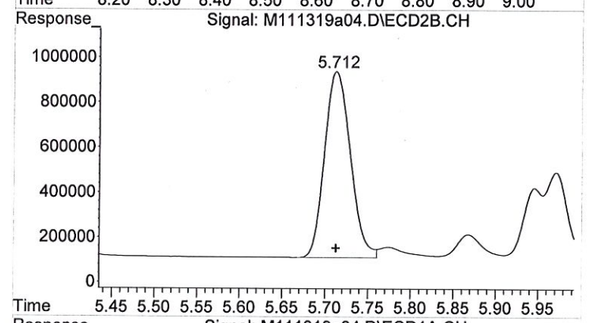
#2 1016 -1

R.T.: 5.256 min
Delta R.T.: 0.000 min
Response: 486671
Conc: 335.47 pg/uL



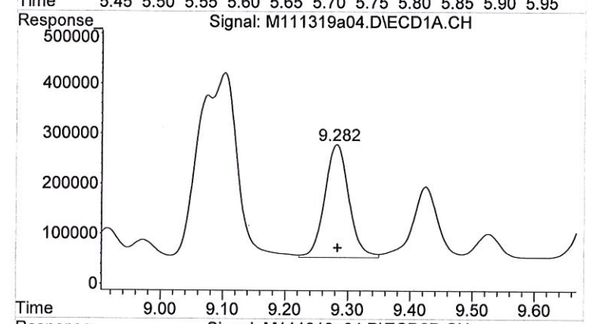
#3 1016-2

R.T.: 8.629 min
Delta R.T.: -0.002 min
Response: 174845
Conc: 312.34 pg/uL



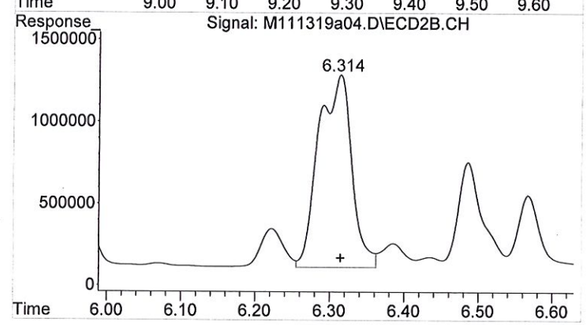
#3 1016-2

R.T.: 5.713 min
Delta R.T.: 0.000 min
Response: 826783
Conc: 327.07 pg/uL



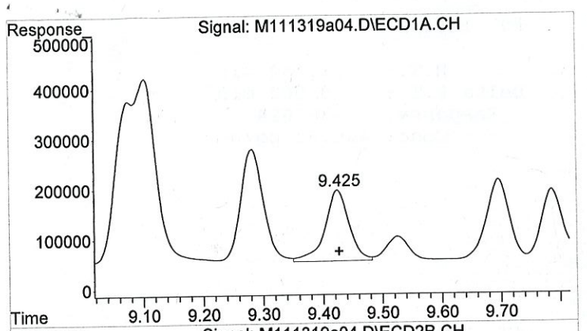
#4 1016-3

R.T.: 9.282 min
Delta R.T.: -0.002 min
Response: 225010
Conc: 311.38 pg/uL



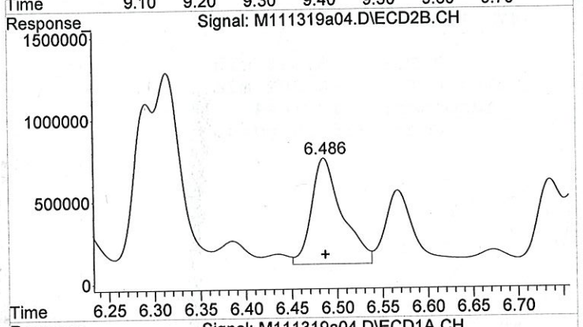
#4 1016-3

R.T.: 6.314 min
Delta R.T.: 0.000 min
Response: 1175080
Conc: 337.17 pg/uL



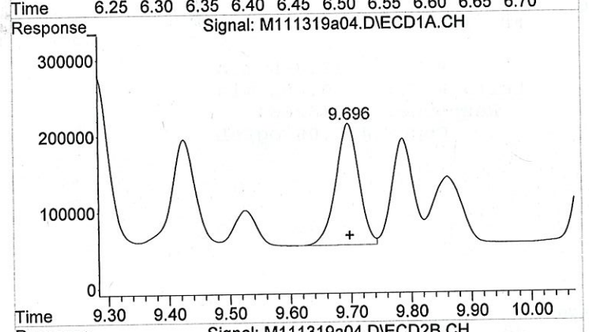
#5 1016-4

R.T.: 9.425 min
Delta R.T.: -0.002 min
Response: 141039
Conc: 301.84 pg/uL



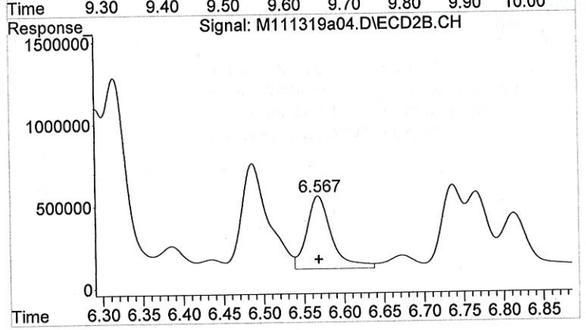
#5 1016-4

R.T.: 6.486 min
Delta R.T.: -0.001 min
Response: 643875
Conc: 330.38 pg/uL



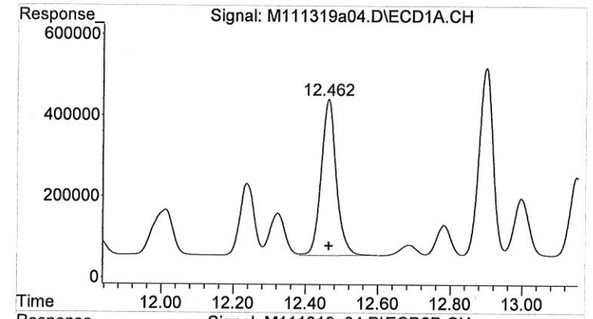
#6 1016-5

R.T.: 9.696 min
Delta R.T.: -0.002 min
Response: 159016
Conc: 331.48 pg/uL



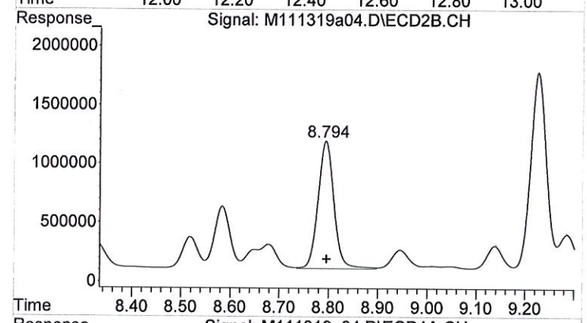
#6 1016-5

R.T.: 6.568 min
Delta R.T.: 0.000 min
Response: 442379
Conc: 311.17 pg/uL



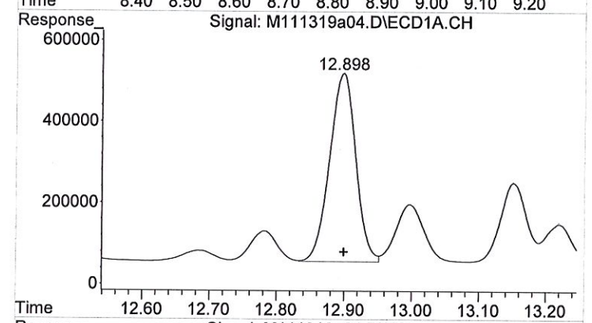
#7 1260-1

R.T.: 12.462 min
Delta R.T.: -0.002 min
Response: 384624
Conc: 405.53 pg/uL



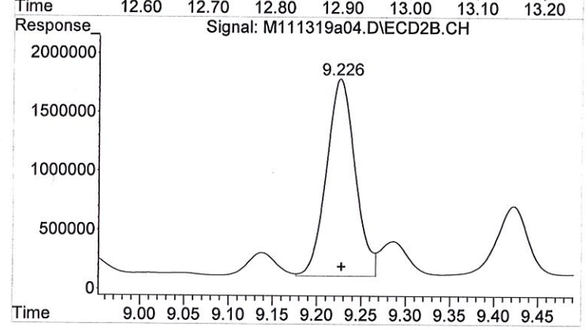
#7 1260-1

R.T.: 8.794 min
Delta R.T.: -0.002 min
Response: 1081044
Conc: 356.25 pg/uL



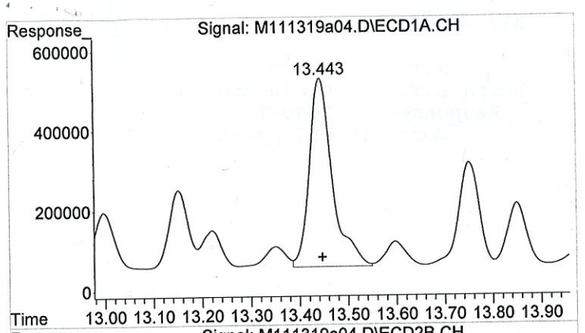
#8 1260-2

R.T.: 12.898 min
Delta R.T.: -0.002 min
Response: 462664
Conc: 416.08 pg/uL



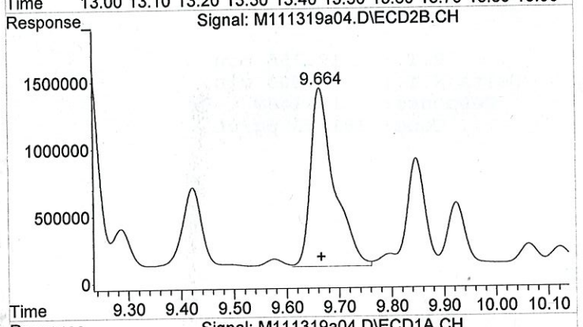
#8 1260-2

R.T.: 9.226 min
Delta R.T.: -0.002 min
Response: 1672165
Conc: 370.06 pg/uL



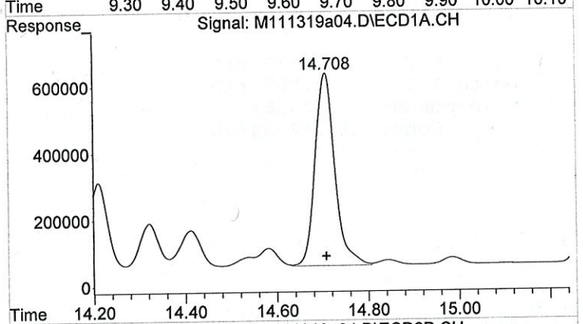
#9 1260-3

R.T.: 13.444 min
Delta R.T.: -0.003 min
Response: 470102
Conc: 388.13 pg/uL



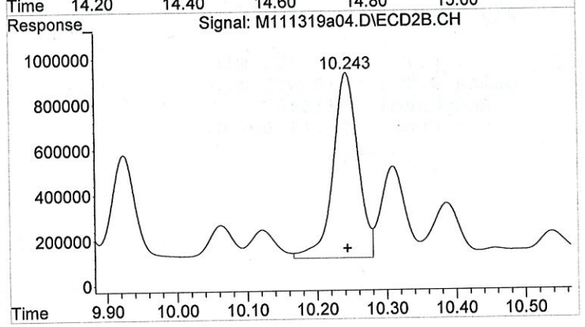
#9 1260-3

R.T.: 9.664 min
Delta R.T.: -0.002 min
Response: 1326045
Conc: 353.73 pg/uL



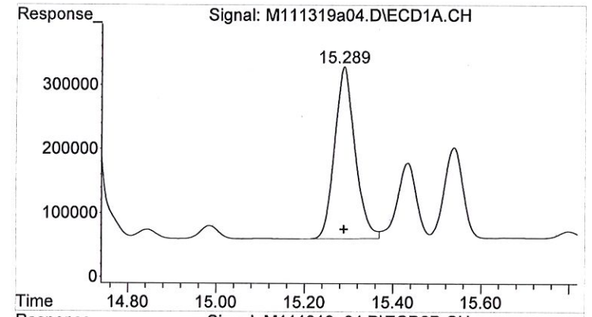
#10 1260-4

R.T.: 14.708 min
Delta R.T.: 0.000 min
Response: 576757
Conc: 398.34 pg/uL



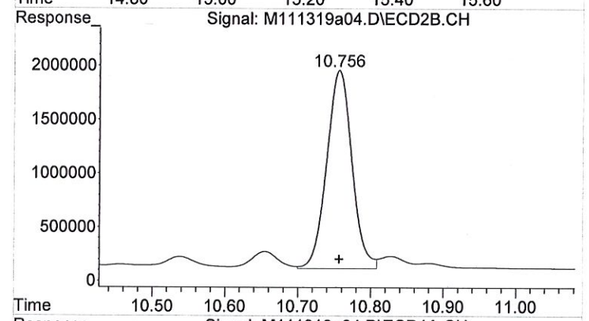
#10 1260-4

R.T.: 10.243 min
Delta R.T.: 0.000 min
Response: 816505
Conc: 361.58 pg/uL



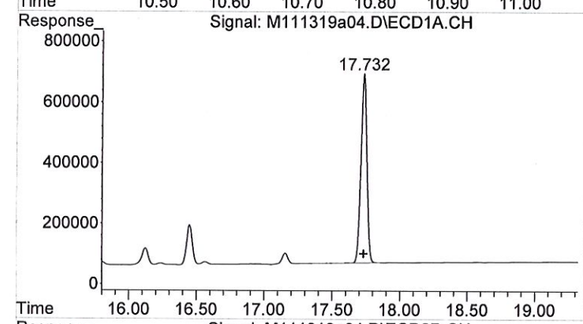
#11 1260-5

R.T.: 15.289 min
Delta R.T.: 0.000 min
Response: 268021
Conc: 400.36 pg/uL



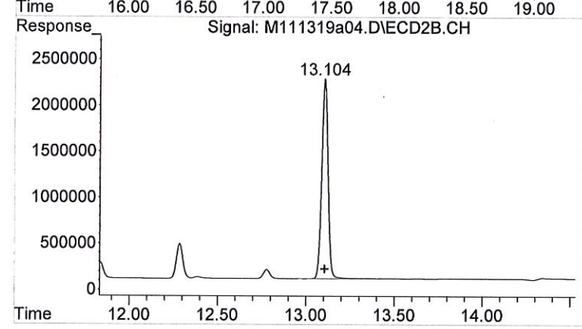
#11 1260-5

R.T.: 10.756 min
Delta R.T.: 0.000 min
Response: 1841469
Conc: 381.83 pg/uL



#12 dcb

R.T.: 17.732 min
Delta R.T.: 0.000 min
Response: 622383
Conc: 53.67 pg/uL



#12 dcb

R.T.: 13.105 min
Delta R.T.: -0.002 min
Response: 2164671
Conc: 53.11 pg/uL

PCB

PCB Sample Results Summary

920110419L2

Sample.....: 920110419L2
Data File....: M111319a05.D
Project.....: OCE-009E
Matrix.....: 42 - Wipe
Analyzed.....: 11/13/2019 12:33
Type.....: L2
Additional Info..: SKY Valley PCB Wipes 10mL fv
DP Method Path...: J:\Organics\Minerva\Methods\M111219PCB1260.M
Datafile Path....: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a05.D

Date Prepped...: 11/4/2019
ICAL Date.....: 11/12/2019
Prep Method....: 3580A
Analysis Method: 8082A
Quant Column...: 1

Prepped By.: DWOOD
Analyst....: DWOOD
CID.....: 0
Acq. Method: M012116PCB2B.M
ASEQ Number: 5

Instrument.....: Minerva
Amount Extracted.: 10 wipe
Percent Solids...: NA
Final Volume.....: 10 mL
Dilution.....: 1x D0

m = manual integration
d = deleted
U = Undetected
J = Below calibrated range
E = Exceeds calibrated range

Pk	Low Cal (pg)¹	High Cal (pg)¹	Compound Name	RT	Exp RT	Response	Spike (pg)¹	Amount (pg)¹	Result	Units	Q
1	2.5	250	tmx (1)	6.96	6.96	1292160	50	46	91	%Rec	
12	2.5	250	dcb	17.73	17.73	644146	50	56	111	%Rec	
14	2.5	250	tmx (1) #2	4.71	4.71	4177060	50	47	94	%Rec	
25	2.5	250	dcb #2	13.11	13.11	2211330	50	54	109	%Rec	
2	25	2500	1016 -1	7.57	7.57	143507	400	345	3.5	ug	
3	25	2500	1016-2	8.63	8.63	190817	400	342	3.4	ug	
4	25	2500	1016-3	9.28	9.28	243555	400	338	3.4	ug	
5	25	2500	1016-4	9.43	9.43	153731	400	329	3.3	ug	
6	25	2500	1016-5	9.70	9.70	168227	400	351	3.5	ug	
7	25	2500	1260-1	12.46	12.46	397644	400	419	4.2	ug	
8	25	2500	1260-2	12.90	12.90	485654	400	437	4.4	ug	
9	25	2500	1260-3	13.44	13.45	510767	400	422	4.2	ug	
10	25	2500	1260-4	14.71	14.71	637747	400	440	4.4	ug	
11	25	2500	1260-5	15.29	15.29	284164	400	425	4.2	ug	
15	25	2500	1016 -1 #2	5.26	5.26	519237	400	359	3.6	ug	
16	25	2500	1016-2 #2	5.71	5.71	879673	400	349	3.5	ug	
17	25	2500	1016-3 #2	6.31	6.32	1246380	400	358	3.6	ug	
18	25	2500	1016-4 #2	6.49	6.49	693246	400	356	3.6	ug	
19	25	2500	1016-5 #2	6.57	6.57	484225	400	341	3.4	ug	
20	25	2500	1260-1 #2	8.79	8.80	1132990	400	374	3.7	ug	
21	25	2500	1260-2 #2	9.23	9.23	1723920	400	382	3.8	ug	
22	25	2500	1260-3 #2	9.66	9.67	1436230	400	383	3.8	ug	
23	25	2500	1260-4 #2	10.24	10.24	857814	400	380	3.8	ug	
24	25	2500	1260-5 #2	10.76	10.76	1883570	400	391	3.9	ug	

CAS#	Name	Avg	Unit	n	%RSD	Column RPD²
12674112	1016 Column 1	85	%Rec	5	2 %	
12674112	1016 Column 2	88	%Rec	5	2 %	3 %
11096825	1260 Column 1	107	%Rec	5	2 %	
11096825	1260 Column 2	95	%Rec	5	2 %	12 %

Results will be reported from Column 1

Note that avg results for LCS/MS samples do not reflect native amount adjustment.

¹'Amount' units are pg or pg/uL on column. ²RPD (Relative Percent Difference) is the percent difference between the result of column 1 and the result of column 2. The values are calculated using the non-rounded average result values. (|A-B|/((A+B)*0.5))*100 is the formula used for the calculation. The value should nominally be <= 40%.

Sample Concentration = (Amt)*(Final Volume[mL])*(Dilution)/Amount Extracted = ug/L, ug/kg, ug/g, or ug.

Generated Tue Dec 10 11:40:48 2019

Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a05.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 12:33 pm
Operator : DWOOD
Sample : 92O110419L2
Misc : SKY Valley PCB Wipes 10mL fv
ALS Vial : 0 (Sig #1); 5 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:08:53 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.958	4.714	1292162	4177061	45.553	46.868
12) S2 dcb	17.731	13.106	644146	2211327	55.568	54.261
Target Compounds						
2) L1 1016 -1	7.569	5.256	143507	519237	345.361	358.558
3) L1 1016-2	8.629	5.713	190817	879673	341.950	348.532
4) L1 1016-3	9.282	6.315	243555	1246375	337.641	357.915
5) L1 1016-4	9.425	6.486	153731	693246	329.346	356.216
6) L1 1016-5	9.696	6.568	168227	484225	351.188	341.070
Sum 1016 -1			899837	3822756	1705.487	1762.291
Average 1016 -1					341.097	352.458
7) L2 1260-1	12.461	8.794	397644	1132988	419.471	373.722
8) L2 1260-2	12.896	9.226	485654	1723923	436.979	381.692
9) L2 1260-3	13.444	9.665	510767	1436225	421.929	383.357
10) L2 1260-4	14.705	10.243	637747	857814	440.493	380.088
11) L2 1260-5	15.288	10.757	284164	1883565	424.564	390.559
Sum 1260-1			2315975	7034516	2143.436	1909.418
Average 1260-1					428.687	381.884

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

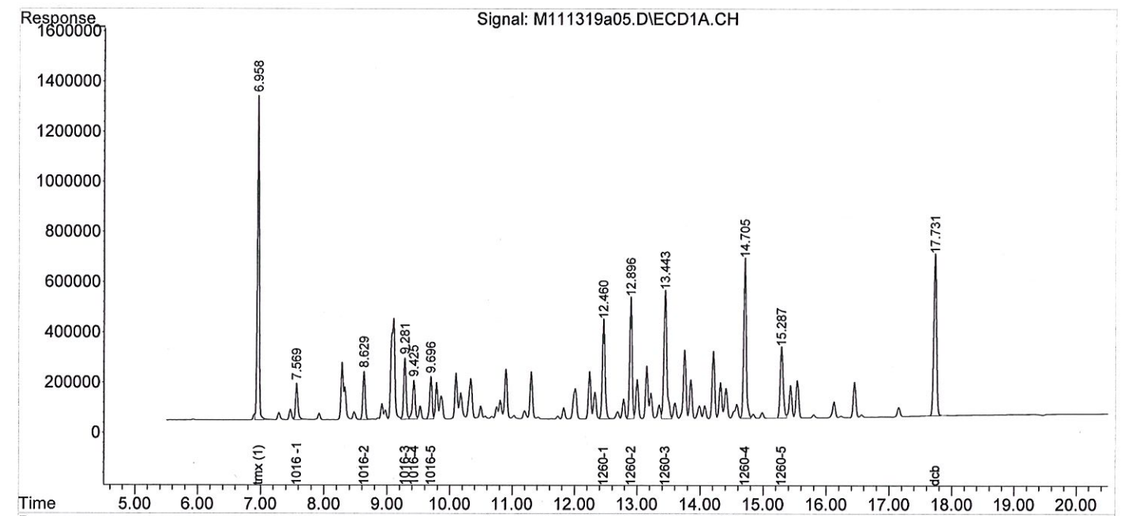
LW
12/6/19

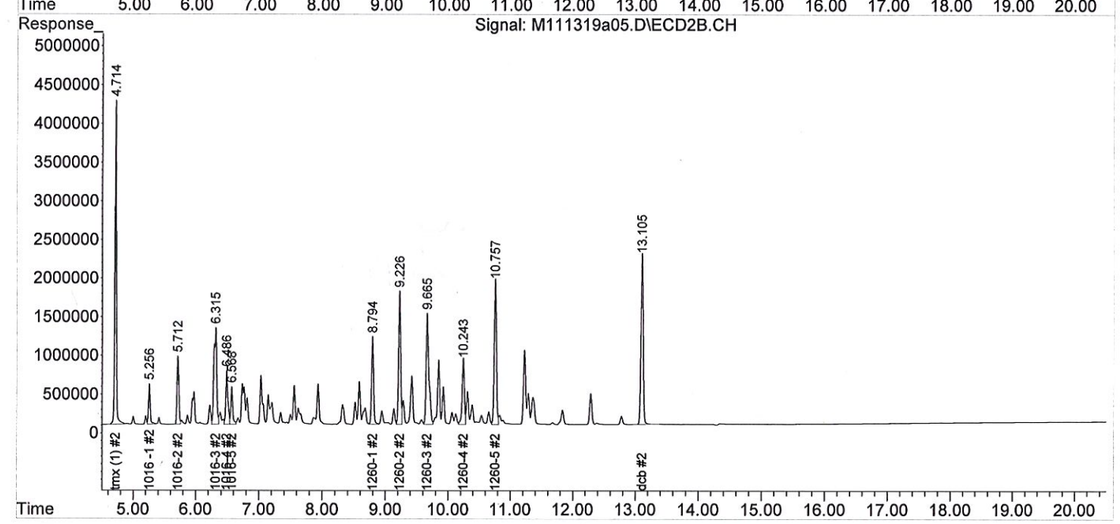
Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a05.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 12:33 pm
Operator : DWOOD
Sample : 920110419L2
Misc : SKY Valley PCB Wipes 10mL fv
ALS Vial : 0 (Sig #1); 5 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:08:53 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32





Quantitation Report (Not Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a05.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 12:33 pm
Operator : DWOOD
Sample : 920110419L2
Misc : SKY Valley PCB Wipes 10mL fv
ALS Vial : 0 (Sig #1); 5 (Sig #2) Sample Multiplier: 1

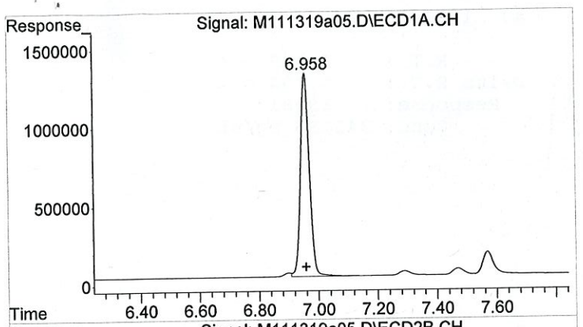
Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:08:53 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.958	4.714	1292162	4177061	45.553	46.868
12) S2 dcb	17.731	13.106	644146	2211327	55.568	54.261
Target Compounds						
2) L1 1016 -1	7.569	5.256	143507	519237	345.361	358.558
3) L1 1016-2	8.629	5.713	190817	879673	341.950	348.532
4) L1 1016-3	9.282	6.315	243555	1246375	337.641	357.915
5) L1 1016-4	9.425	6.486	153731	693246	329.346	356.216
6) L1 1016-5	9.696	6.568	168227	484225	351.188	341.070
Sum 1016 -1			899837	3822756	1705.487	1762.291
Average 1016 -1					341.097	352.458
7) L2 1260-1	12.461	8.794	397644	1132988	419.471	373.722
8) L2 1260-2	12.896	9.226	485654	1723923	436.979	381.692
9) L2 1260-3	13.444	9.665	510767	1436225	421.929	383.357
10) L2 1260-4	14.705	10.243	637747	857814	440.493	380.088
11) L2 1260-5	15.288	10.757	284164	1883565	424.564	390.559
Sum 1260-1			2315975	7034516	2143.436	1909.418
Average 1260-1					428.687	381.884

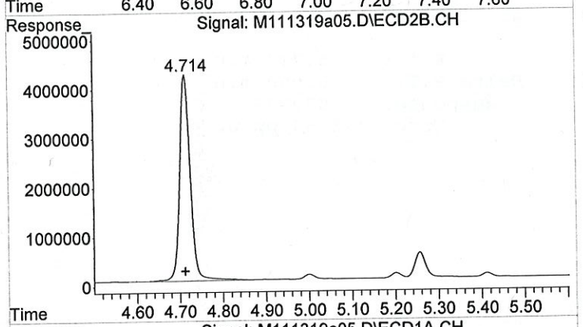
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

lw
11/15/19



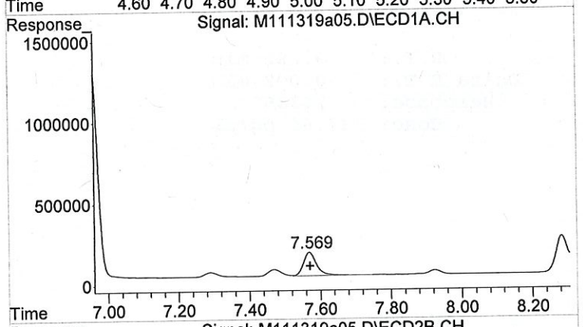
#1 tmx (1)

R.T.: 6.958 min
Delta R.T.: 0.000 min
Response: 1292162
Conc: 45.55 pg/uL



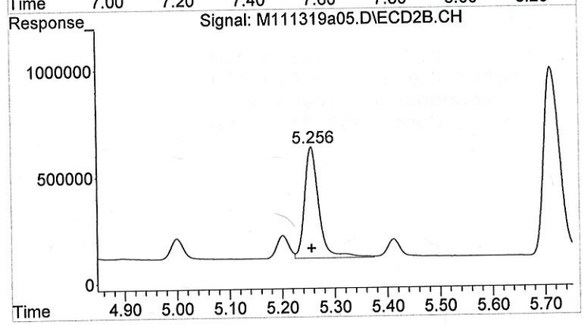
#1 tmx (1)

R.T.: 4.714 min
Delta R.T.: 0.000 min
Response: 4177061
Conc: 46.87 pg/uL



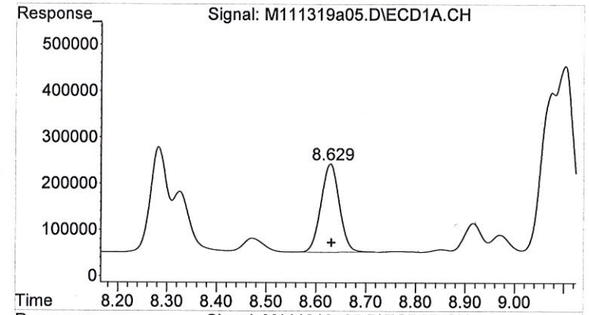
#2 1016 -1

R.T.: 7.569 min
Delta R.T.: -0.002 min
Response: 143507
Conc: 345.36 pg/uL



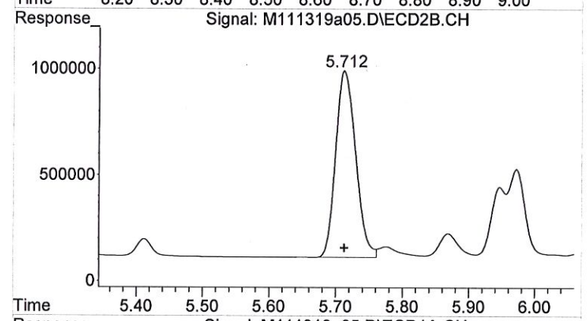
#2 1016 -1

R.T.: 5.256 min
Delta R.T.: 0.000 min
Response: 519237
Conc: 358.56 pg/uL



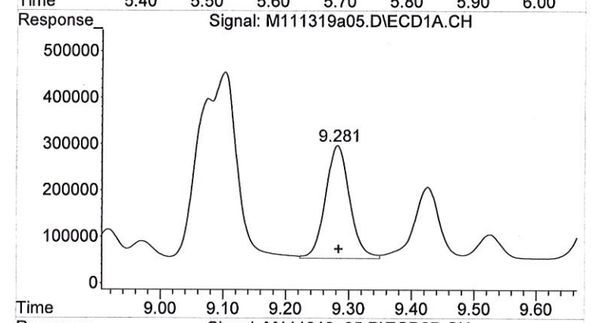
#3 1016-2

R.T.: 8.629 min
Delta R.T.: -0.002 min
Response: 190817
Conc: 341.95 pg/uL



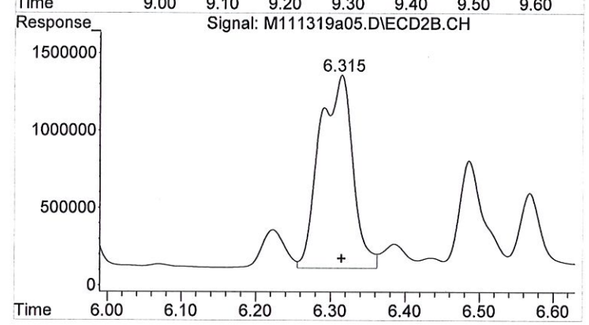
#3 1016-2

R.T.: 5.713 min
Delta R.T.: 0.000 min
Response: 879673
Conc: 348.53 pg/uL



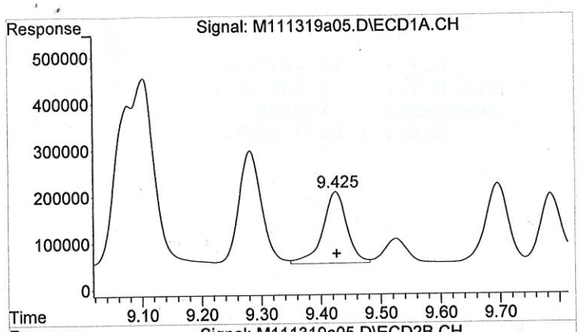
#4 1016-3

R.T.: 9.282 min
Delta R.T.: -0.002 min
Response: 243555
Conc: 337.64 pg/uL



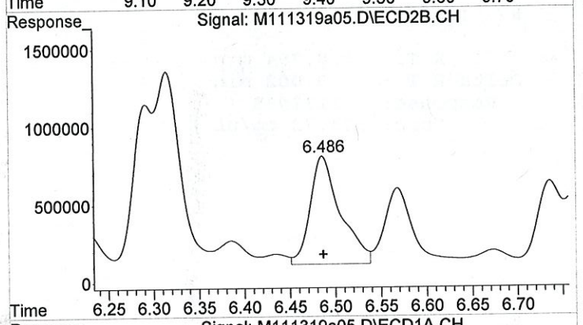
#4 1016-3

R.T.: 6.315 min
Delta R.T.: 0.000 min
Response: 1246375
Conc: 357.91 pg/uL



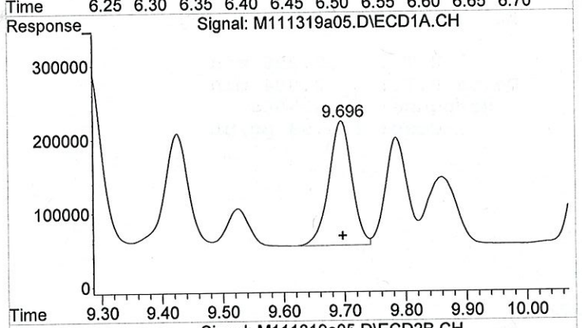
#5 1016-4

R.T.: 9.425 min
Delta R.T.: -0.002 min
Response: 153731
Conc: 329.35 pg/uL



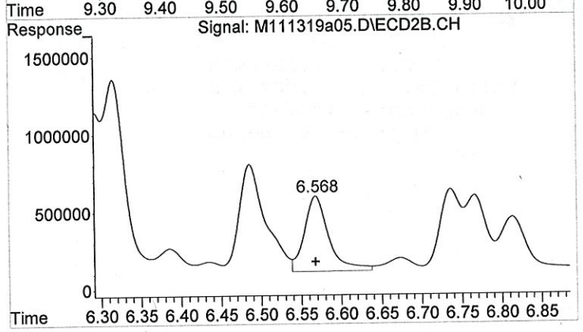
#5 1016-4

R.T.: 6.486 min
Delta R.T.: 0.000 min
Response: 693246
Conc: 356.22 pg/uL



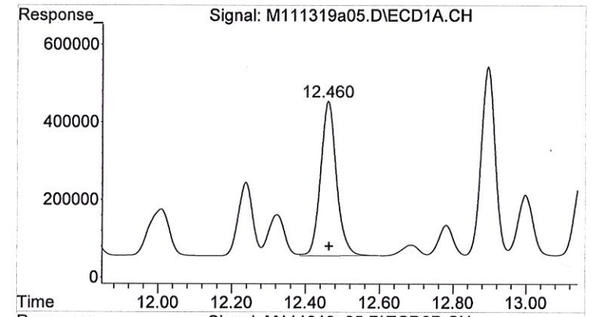
#6 1016-5

R.T.: 9.696 min
Delta R.T.: -0.002 min
Response: 168227
Conc: 351.19 pg/uL



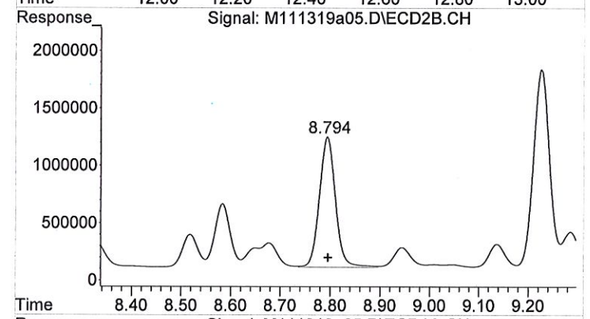
#6 1016-5

R.T.: 6.568 min
Delta R.T.: 0.000 min
Response: 484225
Conc: 341.07 pg/uL



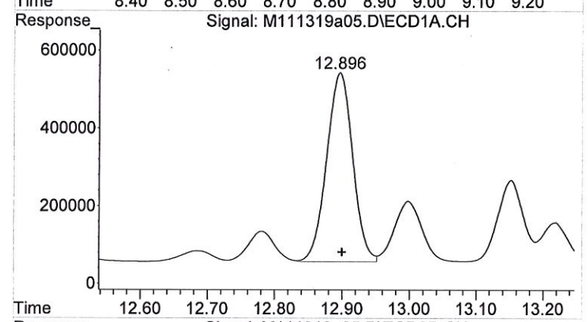
#7 1260-1

R.T.: 12.461 min
Delta R.T.: -0.003 min
Response: 397644
Conc: 419.47 pg/uL



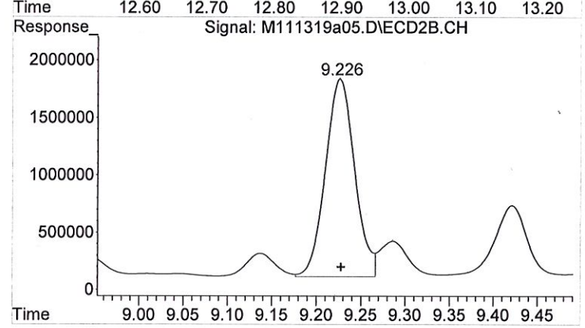
#7 1260-1

R.T.: 8.794 min
Delta R.T.: -0.002 min
Response: 1132988
Conc: 373.72 pg/uL



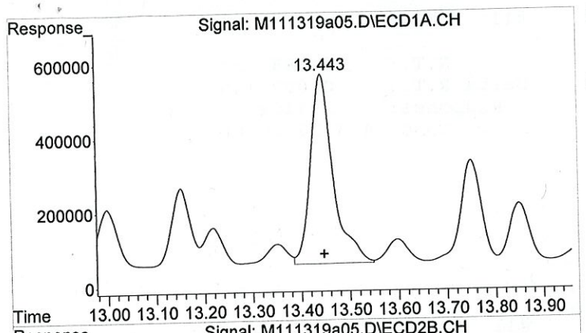
#8 1260-2

R.T.: 12.896 min
Delta R.T.: -0.004 min
Response: 485654
Conc: 436.98 pg/uL



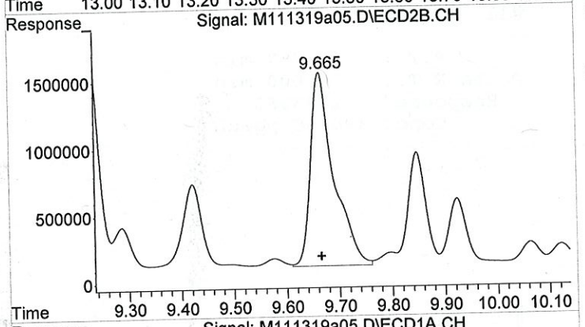
#8 1260-2

R.T.: 9.226 min
Delta R.T.: -0.002 min
Response: 1723923
Conc: 381.69 pg/uL



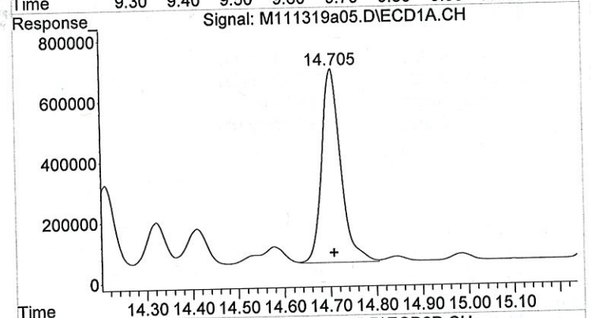
#9 1260-3

R.T.: 13.444 min
Delta R.T.: -0.003 min
Response: 510767
Conc: 421.93 pg/uL



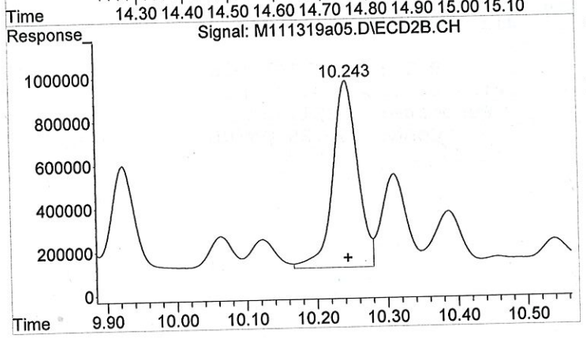
#9 1260-3

R.T.: 9.665 min
Delta R.T.: -0.001 min
Response: 1436225
Conc: 383.36 pg/uL



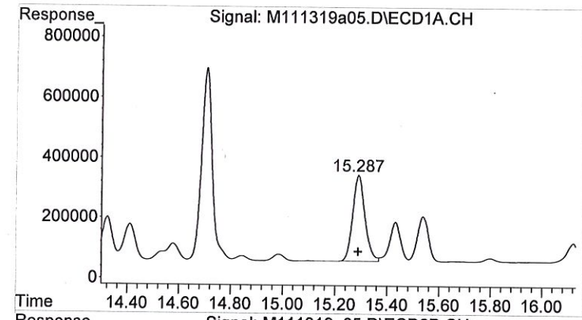
#10 1260-4

R.T.: 14.705 min
Delta R.T.: -0.003 min
Response: 637747
Conc: 440.49 pg/uL



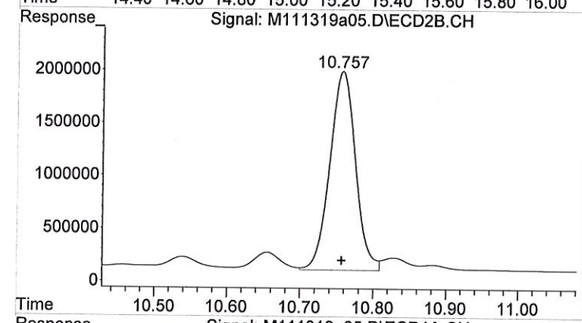
#10 1260-4

R.T.: 10.243 min
Delta R.T.: 0.000 min
Response: 857814
Conc: 380.09 pg/uL



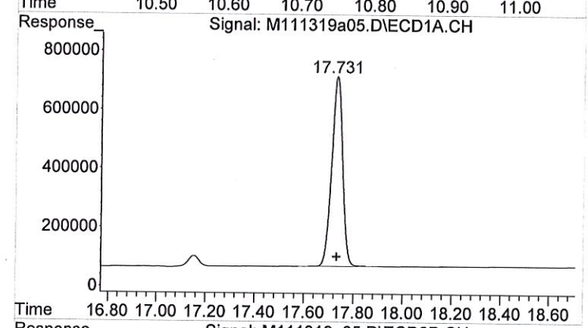
#11 1260-5

R.T.: 15.288 min
Delta R.T.: 0.000 min
Response: 284164
Conc: 424.56 pg/uL



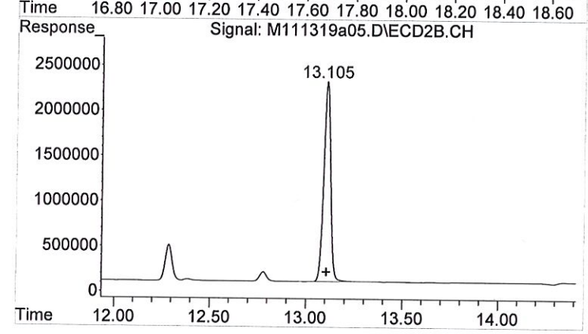
#11 1260-5

R.T.: 10.757 min
Delta R.T.: 0.000 min
Response: 1883565
Conc: 390.56 pg/uL



#12 dcb

R.T.: 17.731 min
Delta R.T.: -0.002 min
Response: 644146
Conc: 55.57 pg/uL



#12 dcb

R.T.: 13.106 min
Delta R.T.: -0.001 min
Response: 2211327
Conc: 54.26 pg/uL

PCB QC Recovery Report

92S110719B1
92S110719L1
92S110719L2

Matrix: 40 - Soil

Sample ID	Filename	Date/Time Acquired	Initial Extracted Amount (g)	Final Extract Volume (mL)	Spiking Std Concentration (ng/uL)	Spike Volume (uL)	Total Spike Amount per sample (ng)
92S110719B1	M111319a17.D	11/13/2019 17:29	2	2	0	0	0
92S110719L1	M111319a18.D	11/13/2019 17:53	2	2	4	200	800
92S110719L2	M111319a19.D	11/13/2019 18:18	2	2	4	200	800

Data Paths

Reference...: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a17.D
LCS or MS...: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a18.D
LCSD or MSD.: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a19.D

Compound Name	Ref. Amt ug/kg	Spk1 Amt ug/kg	ExpSpk1 Amt ug/kg	Spk1 LCS/MS %Rec	Spk2 Amt ug/kg	ExpSpk2 Amt ug/kg	Spk2 LCSD/MSD %Rec	Recovery Limits %	RPD %	RPD Limit %
1016 Column 1	0	334	400	83%	365	400	91%	48-132	9	30
1016 Column 2	0	332	400	83%	369	400	92%	48-132	10	30
1260 Column 1	0	390	400	97%	430	400	108%	56-139	10	30
1260 Column 2	0	353	400	88%	388	400	97%	56-139	10	30

Laboratory control spiked sample recoveries are NOT corrected for the amount found in the reference (BL) sample.

Generated Tue Dec 10 11:58:05 2019

PCB

PCB Sample Results Summary

Sample.....: 92S110719L1
Data File....: M111319a18.D
Project.....: OCE-009E
Matrix.....: 40 - Soil
Analyzed.....: 11/13/2019 17:53
Type.....: L1

Date Prepped...: 11/7/2019
ICAL Date.....: 11/12/2019
Prep Method....: 3541
Analysis Method: 8082A
Quant Column...: 1

Prepped By.: DWOOD
Analyst....: DWOOD
CID.....: 0
Acq. Method: M012116PCB2B.M
ASEQ Number: 18

Instrument.....: Minerva
Amount Extracted.: 2 g
Percent Solids...: 100
Final Volume.....: 2 mL
Dilution.....: 1x D0

Additional Info..: SKY Valley PCB Solid 2g 2mL fv
DP Method Path...: J:\Organics\Minerva\Methods\M111219PCB1260.M
Datafile Path....: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a18.D

m = manual integration
d = deleted
U = Undetected
J = Below calibrated range
E = Exceeds calibrated range

Pk	Low Cal (pg)¹	High Cal (pg)¹	Compound Name	RT	Exp RT	Response	Spike (pg)¹	Amount (pg)¹	Result Units	Q
1	2.5	250	tmx (1)	6.96	6.96	2451540	100	87	87 %Rec >0	
12	2.5	250	dcb	17.73	17.73	1215010	100	110	105 %Rec >0	
14	2.5	250	tmx (1) #2	4.71	4.71	7794240	100	88	88 %Rec >0	
25	2.5	250	dcb #2	13.11	13.11	4154270	100	100	102 %Rec >0	
2	25	2500	1016 -1	7.57	7.57	140209	400	337	340 ug/kg	
3	25	2500	1016-2	8.63	8.63	182336	400	326	330 ug/kg	
4	25	2500	1016-3	9.28	9.28	243606	400	338	340 ug/kg	
5	25	2500	1016-4	9.42	9.43	155049	400	332	330 ug/kg	
6	25	2500	1016-5	9.70	9.70	161069	400	336	340 ug/kg	
7	25	2500	1260-1	12.46	12.46	352860	400	372	370 ug/kg	
8	25	2500	1260-2	12.90	12.90	437047	400	393	390 ug/kg	
9	25	2500	1260-3	13.44	13.45	479929	400	396	400 ug/kg	
10	25	2500	1260-4	14.71	14.71	595061	400	411	410 ug/kg	
11	25	2500	1260-5	15.29	15.29	252795	400	378	380 ug/kg	
15	25	2500	1016 -1 #2	5.26	5.26	531843	400	367	370 ug/kg	
16	25	2500	1016-2 #2	5.71	5.71	840737	400	333	330 ug/kg	
17	25	2500	1016-3 #2	6.31	6.32	1157570	400	332	330 ug/kg	
18	25	2500	1016-4 #2	6.49	6.49	626994	400	322	320 ug/kg	
19	25	2500	1016-5 #2	6.57	6.57	436077	400	307	310 ug/kg	
20	25	2500	1260-1 #2	8.79	8.80	1033550	400	340	340 ug/kg	
21	25	2500	1260-2 #2	9.23	9.23	1597240	400	353	350 ug/kg	
22	25	2500	1260-3 #2	9.66	9.67	1344010	400	359	360 ug/kg	
23	25	2500	1260-4 #2	10.24	10.24	794052	400	352	350 ug/kg	
24	25	2500	1260-5 #2	10.76	10.76	1741050	400	361	360 ug/kg	

CAS#	Name	Avg	Unit	n	%RSD	Column RPD²
12674112	1016 Column 1	83	%Rec	5	1 %	
12674112	1016 Column 2	83	%Rec	5	7 %	1 %
11096825	1260 Column 1	97	%Rec	5	4 %	
11096825	1260 Column 2	88	%Rec	5	2 %	10 %

Results will be reported from Column 1

Note that avg results for LCS/MS samples do not reflect native amount adjustment.

¹'Amount' units are pg or pg/uL on column. ²RPD (Relative Percent Difference) is the percent difference between the result of column 1 and the result of column 2. The values are calculated using the non-rounded average result values. (|A-B|/((A+B)*0.5))*100 is the formula used for the calculation. The value should nominally be <= 40%.

Sample Concentration = (Amt)*(Final Volume[mL])*(Dilution)/Amount Extracted = ug/L, ug/kg, ug/g, or ug.

Generated Tue Dec 10 11:41:32 2019

Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a18.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 5:53 pm
Operator : DWOOD
Sample : 92S110719L1
Misc : SKY Valley PCB Solid 2g 2mL fv
ALS Vial : 0 (Sig #1); 16 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 14:14:42 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.958	4.714	2451540	7794243	86.724	87.743
12) S2 dcb	17.731	13.106	1215007	4154274	105.242	102.150
Target Compounds						
2) L1 1016 -1	7.568	5.257	140209	531843	337.182	367.497
3) L1 1016-2	8.630	5.713	182336	840737	326.226	332.729
4) L1 1016-3	9.281	6.314	243606	1157572	337.714	332.078
5) L1 1016-4	9.424	6.486	155049	626994	332.201	321.545
6) L1 1016-5	9.696	6.568	161069	436077	335.876	306.669
Sum 1016 -1			882269	3593223	1669.199	1660.518
Average 1016 -1					333.840	332.104
7) L2 1260-1	12.461	8.795	352860	1033552	371.526	340.269
8) L2 1260-2	12.898	9.227	437047	1597238	392.783	353.214
9) L2 1260-3	13.442	9.664	479929	1344007	396.300	358.562
10) L2 1260-4	14.706	10.244	595061	794052	410.990	351.515
11) L2 1260-5	15.289	10.756	252795	1741051	377.527	360.998
Sum 1260-1			2117692	6509900	1949.127	1764.558
Average 1260-1					389.825	352.912

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

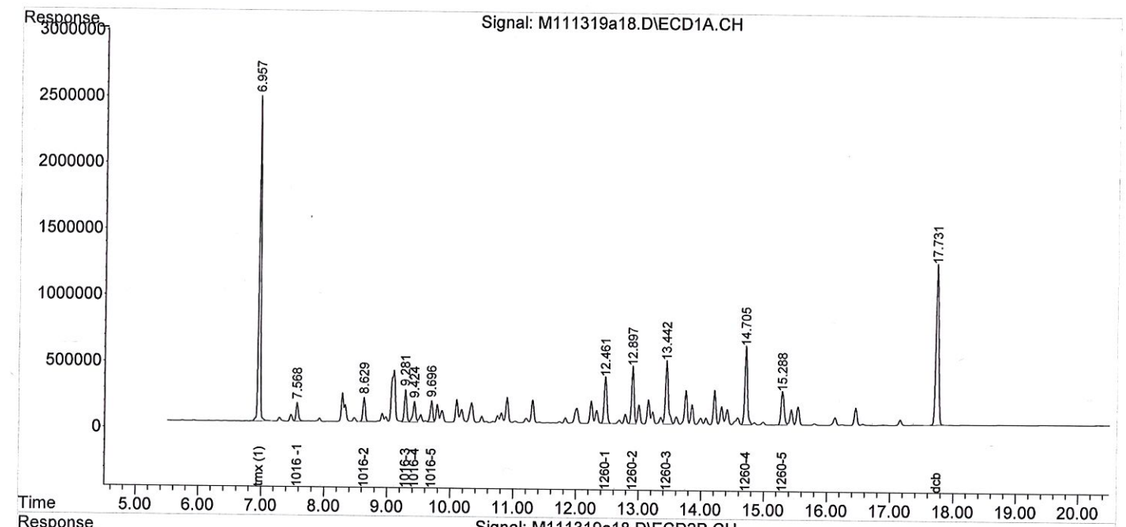
lw
12/6/19

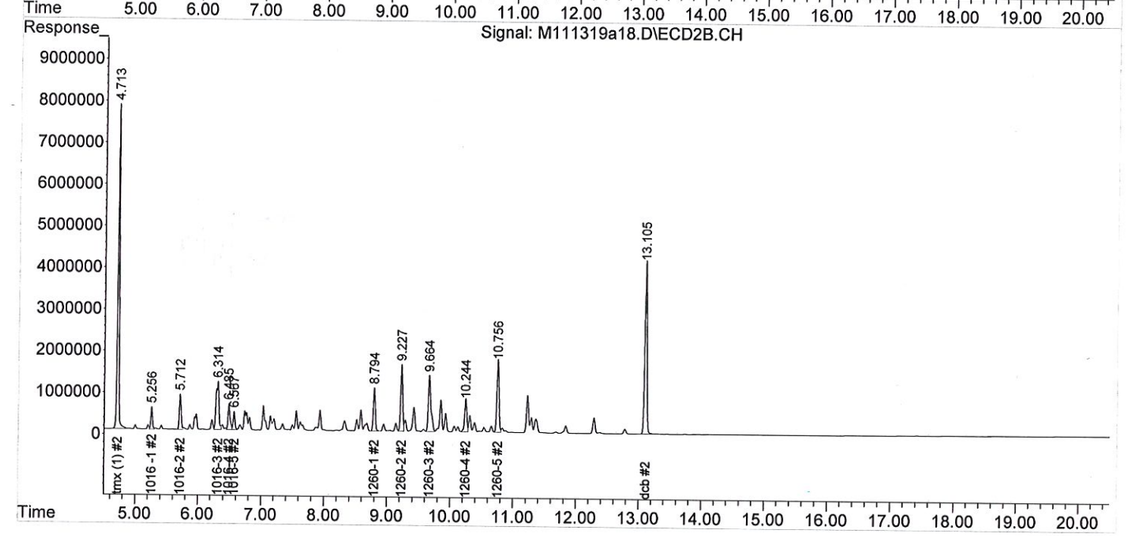
Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a18.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 5:53 pm
Operator : DWOOD
Sample : 92S110719L1
Misc : SKY Valley PCB Solid 2g 2mL fv
ALS Vial : 0 (Sig #1); 16 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 14:14:42 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32





Quantitation Report (Not Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a18.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 5:53 pm
Operator : DWOOD
Sample : 92S110719L1
Misc : SKY Valley PCB Solid 2g 2mL fv
ALS Vial : 0 (Sig #1); 16 (Sig #2) Sample Multiplier: 1

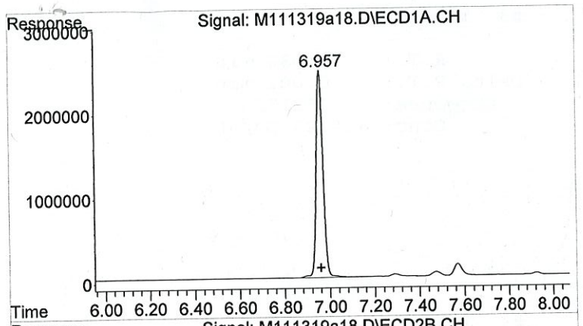
Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:09:33 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.958	4.714	2451540	7794243	86.724	87.743
12) S2 dcb	17.731	13.106	1215007	4154274	105.242	102.150
Target Compounds						
2) L1 1016 -1	7.568	5.257	140209	531843	337.182	367.497
3) L1 1016-2	8.630	5.713	182336	840737	326.226	332.729
4) L1 1016-3	9.281	6.314	243606	1157572	337.714	332.078
5) L1 1016-4	9.424	6.486	155049	626994	332.201	321.545
6) L1 1016-5	9.696	6.568	161069	436077	335.876	306.669
Sum 1016 -1			882269	3593223	1669.199	1660.518
Average 1016 -1					333.840	332.104
7) L2 1260-1	12.461	8.795	352860	1033552	371.526	340.269
8) L2 1260-2	12.898	9.227	437047	1597238	392.783	353.214
9) L2 1260-3	13.442	9.664	479929	1344007	396.300	358.562
10) L2 1260-4	14.706	10.244	595061	794052	410.990	351.515
11) L2 1260-5	15.289	10.756	252795	1741051	377.527	360.998
Sum 1260-1			2117692	6509900	1949.127	1764.558
Average 1260-1					389.825	352.912

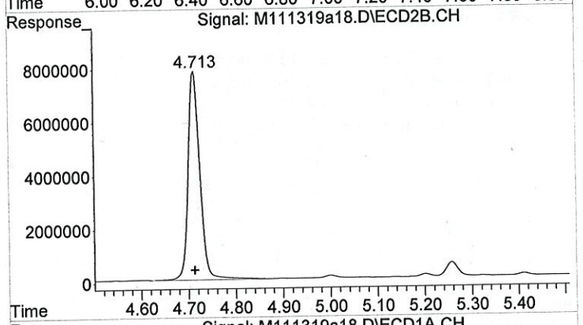
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

lw
11/15/19



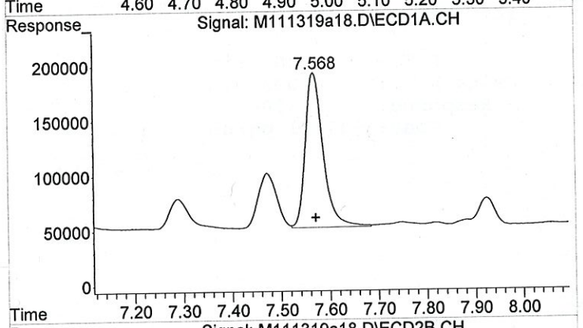
#1 tmx (1)

R.T.: 6.958 min
Delta R.T.: -0.001 min
Response: 2451540
Conc: 86.72 pg/uL



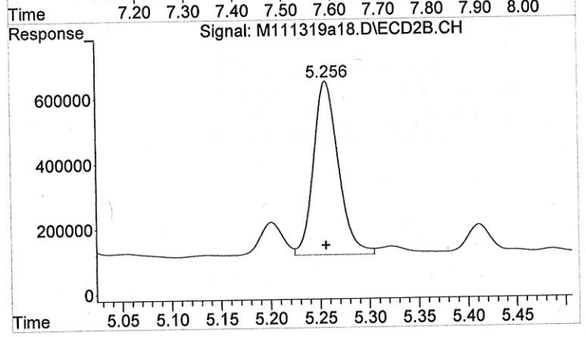
#1 tmx (1)

R.T.: 4.714 min
Delta R.T.: 0.000 min
Response: 7794243
Conc: 87.74 pg/uL



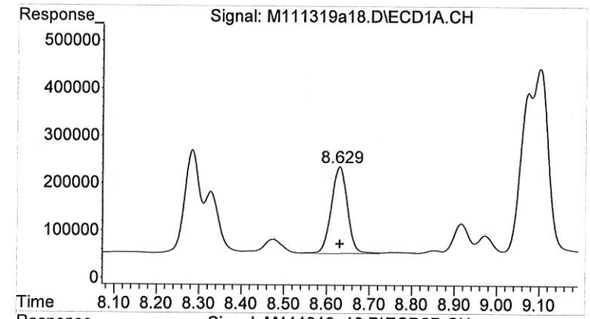
#2 1016 -1

R.T.: 7.568 min
Delta R.T.: -0.003 min
Response: 140209
Conc: 337.18 pg/uL



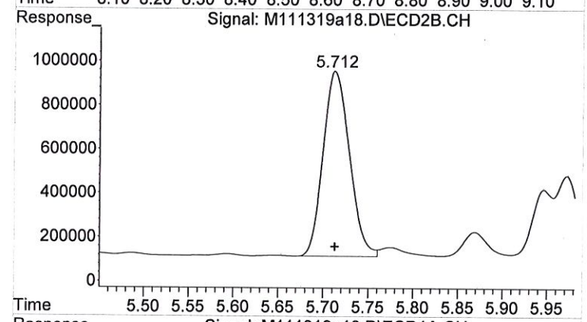
#2 1016 -1

R.T.: 5.257 min
Delta R.T.: 0.000 min
Response: 531843
Conc: 367.50 pg/uL



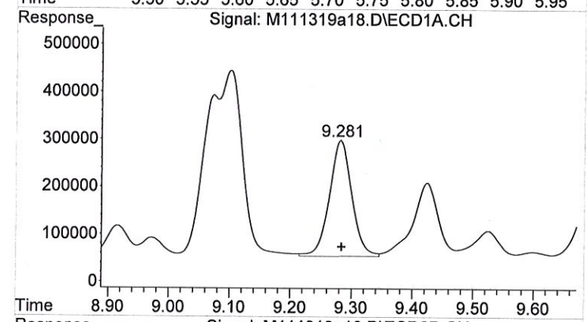
#3 1016-2

R.T.: 8.630 min
Delta R.T.: -0.001 min
Response: 182336
Conc: 326.23 pg/uL



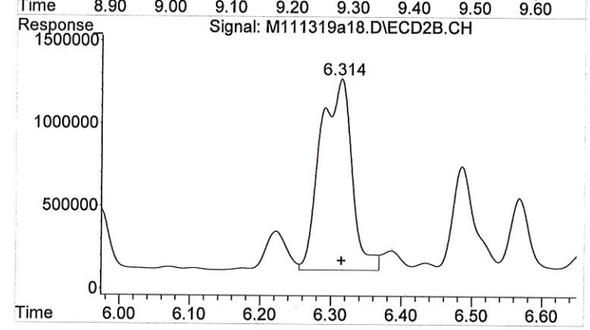
#3 1016-2

R.T.: 5.713 min
Delta R.T.: 0.000 min
Response: 840737
Conc: 332.73 pg/uL



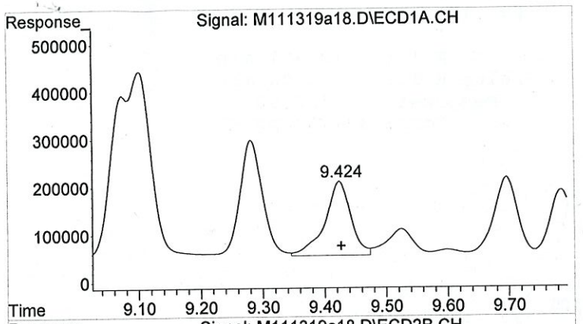
#4 1016-3

R.T.: 9.281 min
Delta R.T.: -0.003 min
Response: 243606
Conc: 337.71 pg/uL



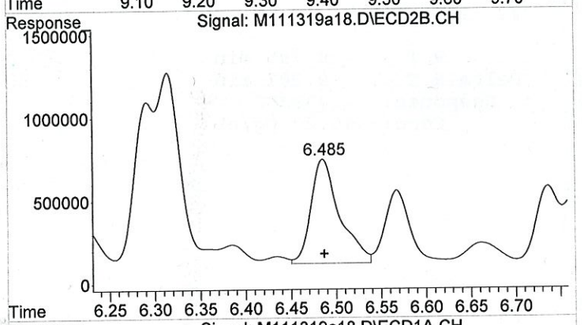
#4 1016-3

R.T.: 6.314 min
Delta R.T.: 0.000 min
Response: 1157572
Conc: 332.08 pg/uL



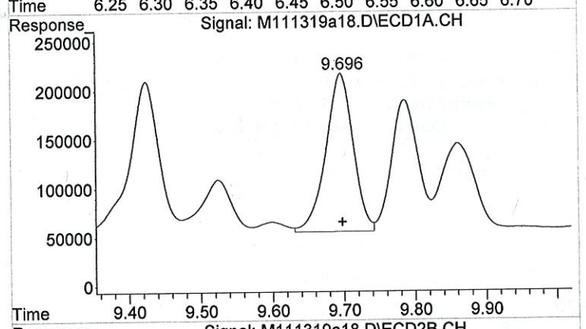
#5 1016-4

R.T.: 9.424 min
Delta R.T.: -0.003 min
Response: 155049
Conc: 332.20 pg/uL



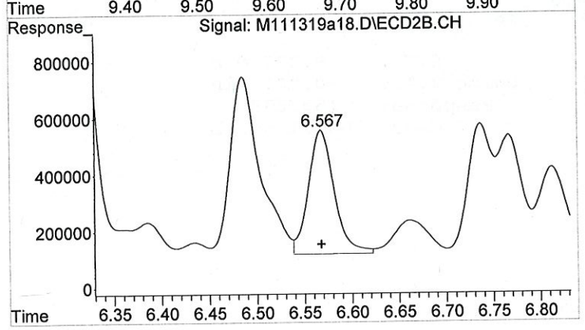
#5 1016-4

R.T.: 6.486 min
Delta R.T.: -0.001 min
Response: 626994
Conc: 321.54 pg/uL



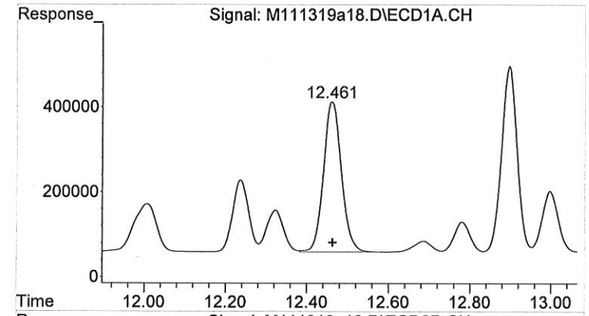
#6 1016-5

R.T.: 9.696 min
Delta R.T.: -0.002 min
Response: 161069
Conc: 335.88 pg/uL



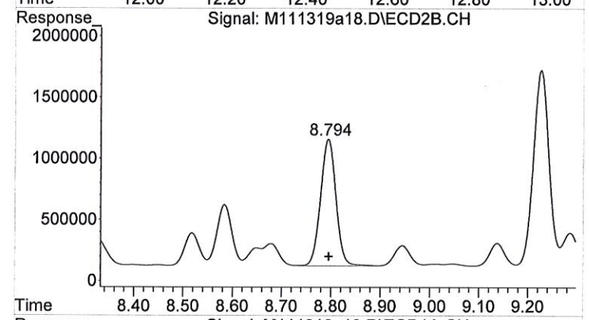
#6 1016-5

R.T.: 6.568 min
Delta R.T.: 0.000 min
Response: 436077
Conc: 306.67 pg/uL



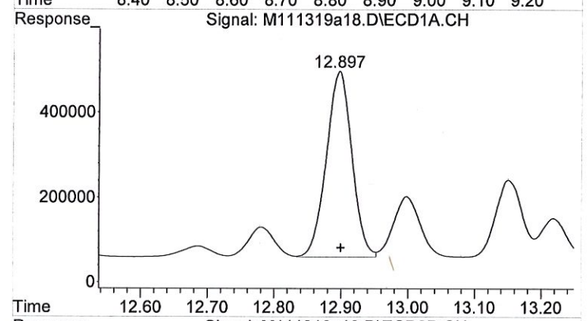
#7 1260-1

R.T.: 12.461 min
Delta R.T.: -0.003 min
Response: 352860
Conc: 371.53 pg/uL



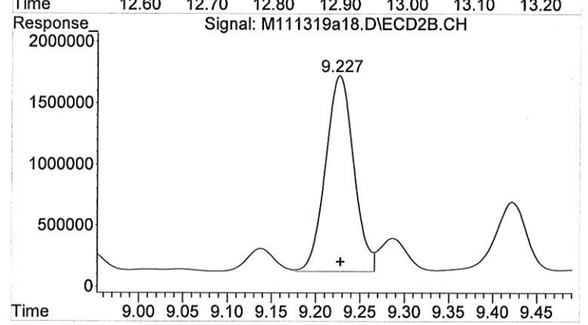
#7 1260-1

R.T.: 8.795 min
Delta R.T.: -0.001 min
Response: 1033552
Conc: 340.27 pg/uL



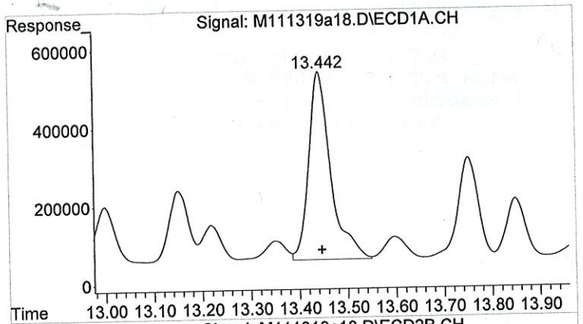
#8 1260-2

R.T.: 12.898 min
Delta R.T.: -0.002 min
Response: 437047
Conc: 392.78 pg/uL



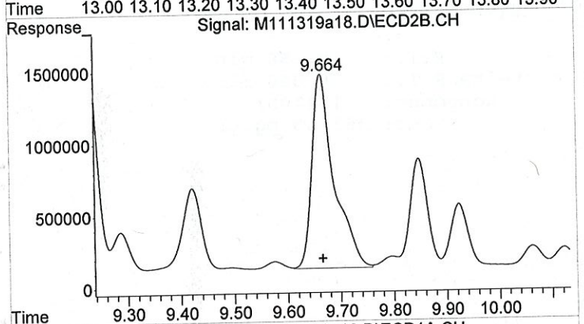
#8 1260-2

R.T.: 9.227 min
Delta R.T.: -0.001 min
Response: 1597238
Conc: 353.21 pg/uL



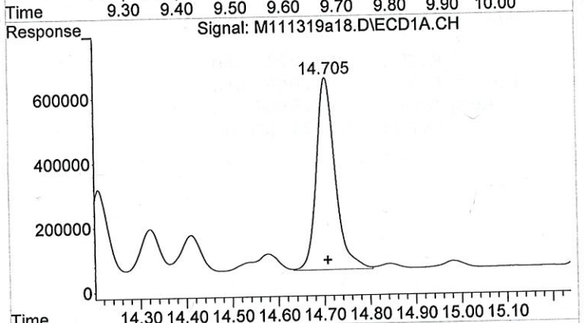
#9 1260-3

R.T.: 13.442 min
Delta R.T.: -0.005 min
Response: 479929
Conc: 396.30 pg/uL



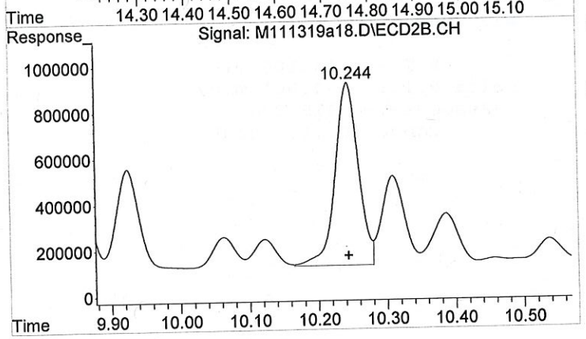
#9 1260-3

R.T.: 9.664 min
Delta R.T.: -0.002 min
Response: 1344007
Conc: 358.56 pg/uL



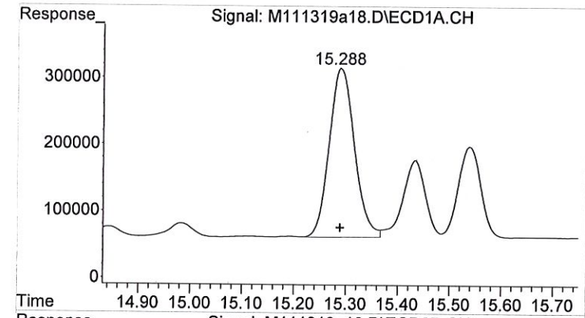
#10 1260-4

R.T.: 14.706 min
Delta R.T.: -0.002 min
Response: 595061
Conc: 410.99 pg/uL



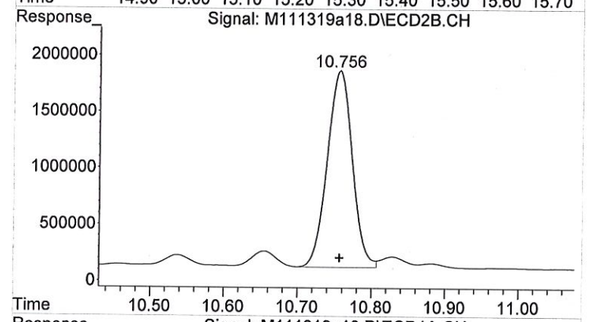
#10 1260-4

R.T.: 10.244 min
Delta R.T.: 0.000 min
Response: 794052
Conc: 351.51 pg/uL



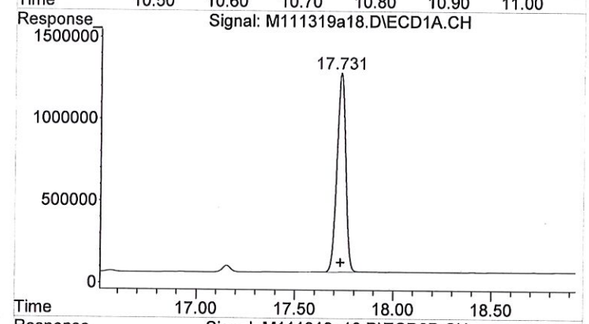
#11 1260-5

R.T.: 15.289 min
Delta R.T.: 0.000 min
Response: 252795
Conc: 377.53 pg/uL



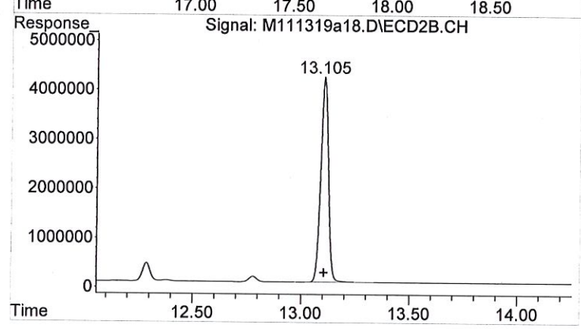
#11 1260-5

R.T.: 10.756 min
Delta R.T.: 0.000 min
Response: 1741051
Conc: 361.00 pg/uL



#12 dcb

R.T.: 17.731 min
Delta R.T.: -0.002 min
Response: 1215007
Conc: 105.24 pg/uL



#12 dcb

R.T.: 13.106 min
Delta R.T.: -0.001 min
Response: 4154274
Conc: 102.15 pg/uL

PCB Sample Results Summary

Sample.....: 92S110719L2
Data File....: M111319a19.D
Project.....: OCE-009E
Matrix.....: 40 - Soil
Analyzed.....: 11/13/2019 18:18
Type.....: L2
Additional Info..: SKY Valley PCB Solid 2g 2mL fv
DP Method Path...: J:\Organics\Minerva\Methods\M111219PCB1260.M
Datafile Path....: J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\M111319a19.D

Date Prepped...: 11/7/2019
ICAL Date.....: 11/12/2019
Prep Method....: 3541
Analysis Method: 8082A
Quant Column...: 1

Prepped By.: DWOOD
Analyst....: DWOOD
CID.....: 0
Acq. Method: M012116PCB2B.M
ASEQ Number: 19

Instrument.....: Minerva
Amount Extracted.: 2 g
Percent Solids...: 100
Final Volume.....: 2 mL
Dilution.....: 1x D0

m = manual integration
d = deleted
U = Undetected
J = Below calibrated range
E = Exceeds calibrated range

Pk	Low Cal (pg)¹	High Cal (pg)¹	Compound Name	RT	Exp RT	Response	Spike (pg)¹	Amount (pg)¹	Result	Units	Q
1	2.5	250	tmx (1)	6.96	6.96	2717760	100	96	96	%Rec	>0
12	2.5	250	dcb	17.73	17.73	1379350	100	120	120	%Rec	>0
14	2.5	250	tmx (1) #2	4.71	4.71	8550460	100	96	96	%Rec	>0
25	2.5	250	dcb #2	13.11	13.11	4654330	100	110	114	%Rec	>0
2	25	2500	1016 -1	7.57	7.57	159916	400	386	390	ug/kg	
3	25	2500	1016-2	8.63	8.63	199046	400	357	360	ug/kg	
4	25	2500	1016-3	9.28	9.28	261053	400	362	360	ug/kg	
5	25	2500	1016-4	9.42	9.43	168936	400	362	360	ug/kg	
6	25	2500	1016-5	9.70	9.70	171359	400	358	360	ug/kg	
7	25	2500	1260-1	12.46	12.46	402892	400	425	430	ug/kg	
8	25	2500	1260-2	12.90	12.90	472242	400	425	420	ug/kg	
9	25	2500	1260-3	13.45	13.45	518954	400	429	430	ug/kg	
10	25	2500	1260-4	14.71	14.71	643122	400	444	440	ug/kg	
11	25	2500	1260-5	15.29	15.29	286498	400	428	430	ug/kg	
15	25	2500	1016 -1 #2	5.26	5.26	591786	400	410	410	ug/kg	
16	25	2500	1016-2 #2	5.71	5.71	910679	400	361	360	ug/kg	
17	25	2500	1016-3 #2	6.31	6.32	1289070	400	370	370	ug/kg	
18	25	2500	1016-4 #2	6.49	6.49	701912	400	361	360	ug/kg	
19	25	2500	1016-5 #2	6.57	6.57	483505	400	341	340	ug/kg	
20	25	2500	1260-1 #2	8.80	8.80	1142480	400	377	380	ug/kg	
21	25	2500	1260-2 #2	9.23	9.23	1762980	400	390	390	ug/kg	
22	25	2500	1260-3 #2	9.67	9.67	1460830	400	390	390	ug/kg	
23	25	2500	1260-4 #2	10.24	10.24	856606	400	380	380	ug/kg	
24	25	2500	1260-5 #2	10.76	10.76	1947650	400	404	400	ug/kg	

CAS#	Name	Avg	Unit	n	%RSD	Column RPD²
12674112	1016 Column 1	91	%Rec	5	3 %	
12674112	1016 Column 2	92	%Rec	5	7 %	1 %
11096825	1260 Column 1	108	%Rec	5	2 %	
11096825	1260 Column 2	97	%Rec	5	3 %	10 %

Results will be reported from Column 1

Note that avg results for LCS/MS samples do not reflect native amount adjustment.

¹'Amount' units are pg or pg/uL on column. ²RPD (Relative Percent Difference) is the percent difference between the result of column 1 and the result of column 2. The values are calculated using the non-rounded average result values. (|A-B|/((A+B)*0.5))*100 is the formula used for the calculation. The value should nominally be <= 40%.

Sample Concentration = (Amt)*(Final Volume[mL])*(Dilution)/Amount Extracted = ug/L, ug/kg, ug/g, or ug.

Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a19.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 6:18 pm
Operator : DWOOD
Sample : 92S110719L2
Misc : SKY Valley PCB Solid 2g 2mL fv
ALS Vial : 0 (Sig #1); 17 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 14:15:13 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.959	4.715	2717758	8550464	96.178	96.288
12) S2 dcb	17.734	13.106	1379351	4654333	119.542	114.475
Target Compounds						
2) L1 1016 -1	7.569	5.257	159916	591786	386.049	410.002
3) L1 1016-2	8.630	5.713	199046	910679	357.205	361.116
4) L1 1016-3	9.283	6.315	261053	1289070	362.420	370.337
5) L1 1016-4	9.425	6.486	168936	701912	362.294	360.751
6) L1 1016-5	9.698	6.568	171359	483505	357.889	340.556
Sum 1016 -1			960310	3976953	1825.857	1842.762
Average 1016 -1					365.171	368.552
7) L2 1260-1	12.463	8.796	402892	1142477	425.090	376.915
8) L2 1260-2	12.898	9.228	472242	1762977	424.784	390.471
9) L2 1260-3	13.446	9.665	518954	1460830	428.733	389.973
10) L2 1260-4	14.707	10.244	643122	856606	444.208	379.546
11) L2 1260-5	15.290	10.758	286498	1947654	428.062	403.853
Sum 1260-1			2323707	7170544	2150.877	1940.757
Average 1260-1					430.175	388.151

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

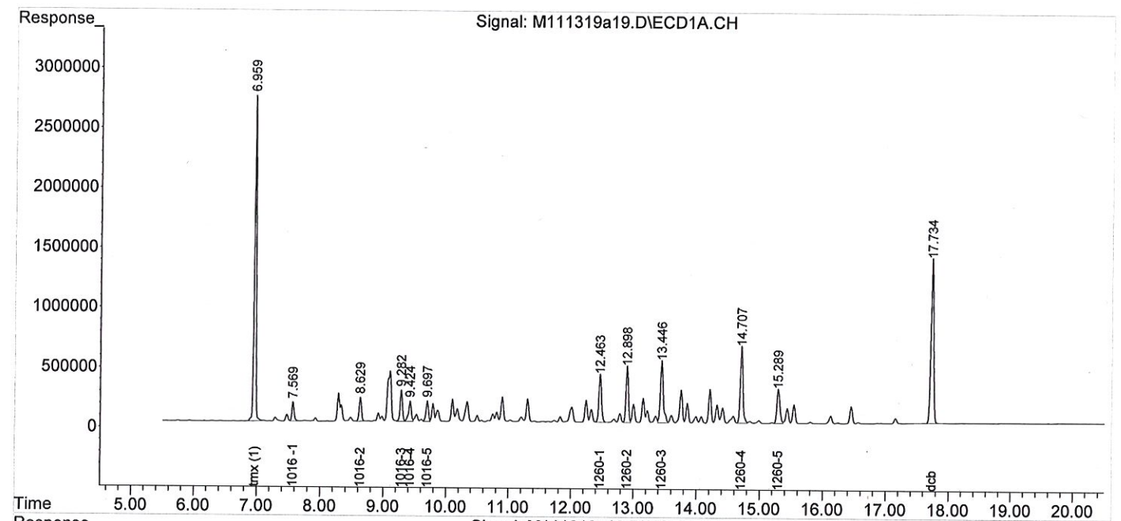
mw
12/6/19

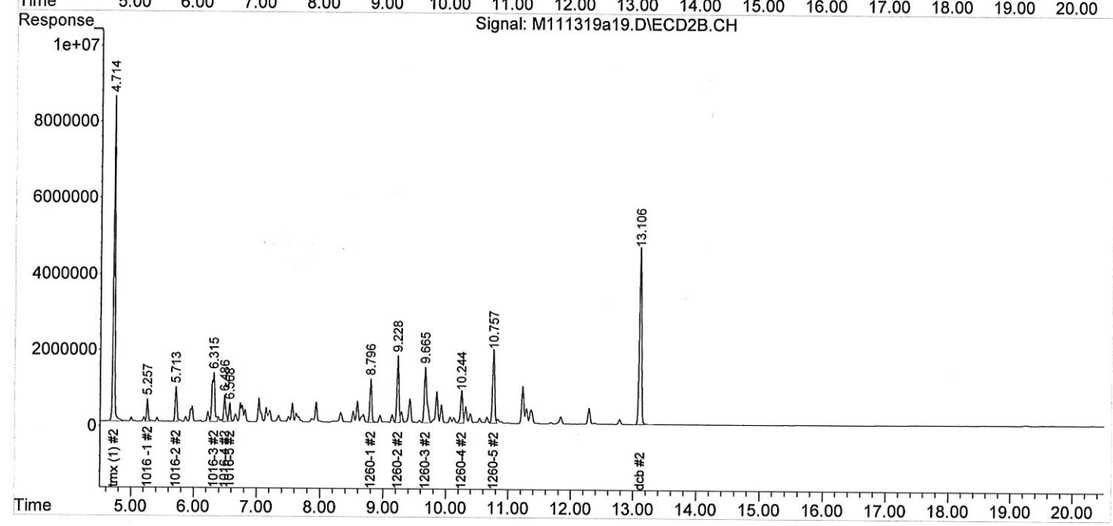
Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a19.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 6:18 pm
Operator : DWOOD
Sample : 92S110719L2
Misc : SKY Valley PCB Solid 2g 2mL fv
ALS Vial : 0 (Sig #1); 17 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 14:15:13 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32





Quantitation Report (Not Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a19.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 6:18 pm
Operator : DWOOD
Sample : 92S110719L2
Misc : SKY Valley PCB Solid 2g 2mL fv
ALS Vial : 0 (Sig #1); 17 (Sig #2) Sample Multiplier: 1

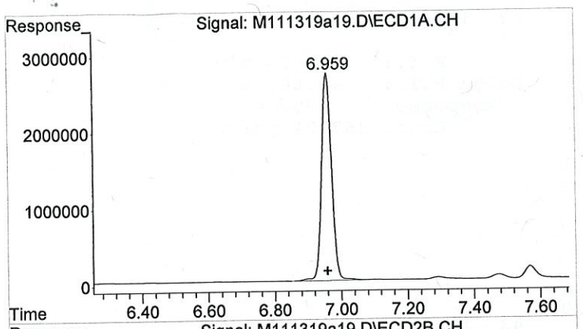
Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:09:36 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.959	4.715	2717758	8550464	96.178	96.288
12) S2 dcb	17.734	13.106	1379351	4654333	119.542	114.475
Target Compounds						
2) L1 1016 -1	7.569	5.257	159916	591786	386.049	410.002
3) L1 1016-2	8.630	5.713	199046	910679	357.205	361.116
4) L1 1016-3	9.283	6.315	261053	1289070	362.420	370.337
5) L1 1016-4	9.425	6.486	168936	701912	362.294	360.751
6) L1 1016-5	9.698	6.568	171359	483505	357.889	340.556
Sum 1016 -1			960310	3976953	1825.857	1842.762
Average 1016 -1					365.171	368.552
7) L2 1260-1	12.463	8.796	402892	1142477	425.090	376.915
8) L2 1260-2	12.898	9.228	472242	1762977	424.784	390.471
9) L2 1260-3	13.446	9.665	518954	1460830	428.733	389.973
10) L2 1260-4	14.707	10.244	643122	856606	444.208	379.546
11) L2 1260-5	15.290	10.758	286498	1947654	428.062	403.853
Sum 1260-1			2323707	7170544	2150.877	1940.757
Average 1260-1					430.175	388.151

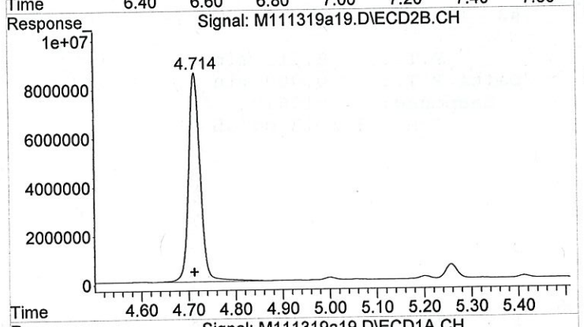
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

lw
11/15/19



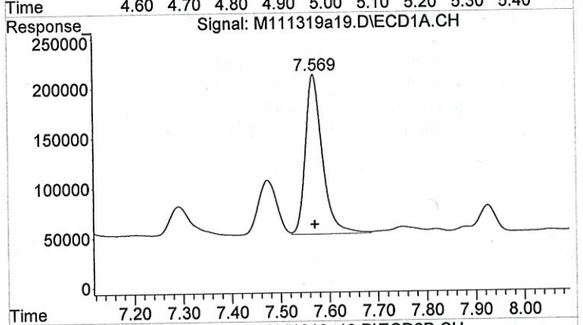
#1 tmx (1)

R.T.: 6.959 min
Delta R.T.: 0.000 min
Response: 2717758
Conc: 96.18 pg/uL



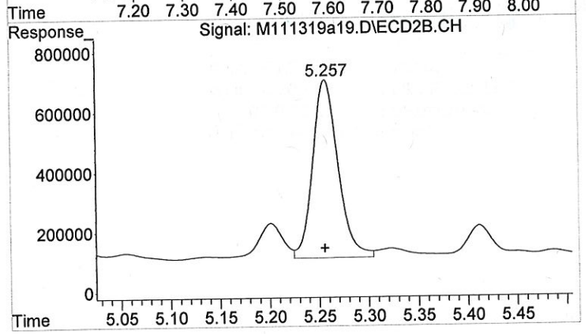
#1 tmx (1)

R.T.: 4.715 min
Delta R.T.: 0.002 min
Response: 8550464
Conc: 96.29 pg/uL



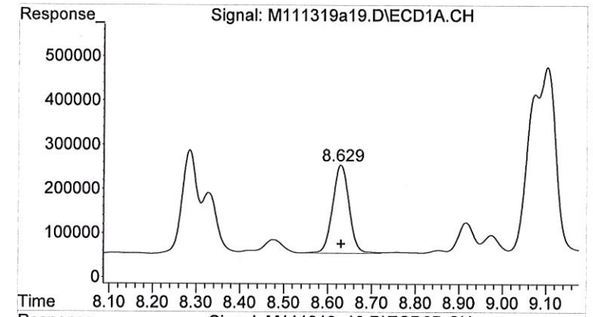
#2 1016 -1

R.T.: 7.569 min
Delta R.T.: -0.002 min
Response: 159916
Conc: 386.05 pg/uL



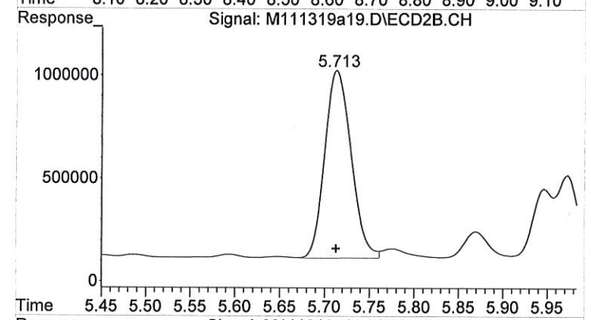
#2 1016 -1

R.T.: 5.257 min
Delta R.T.: 0.001 min
Response: 591786
Conc: 410.00 pg/uL



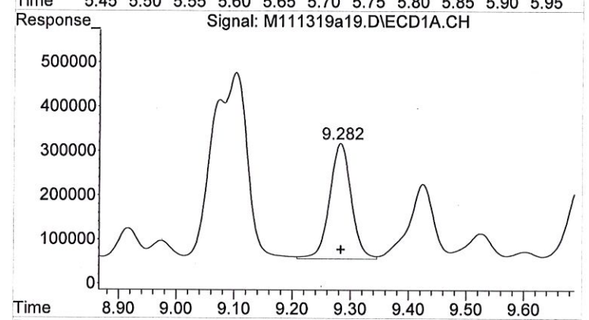
#3 1016-2

R.T.: 8.630 min
Delta R.T.: -0.001 min
Response: 199046
Conc: 357.21 pg/uL



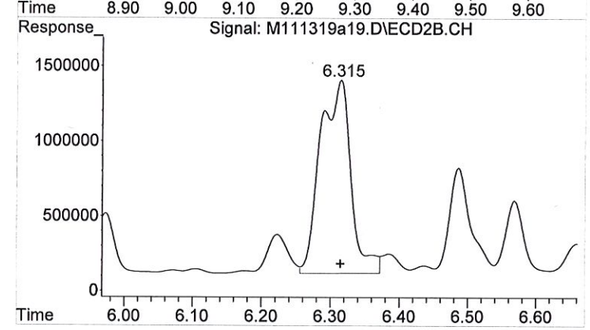
#3 1016-2

R.T.: 5.713 min
Delta R.T.: 0.000 min
Response: 910679
Conc: 361.12 pg/uL



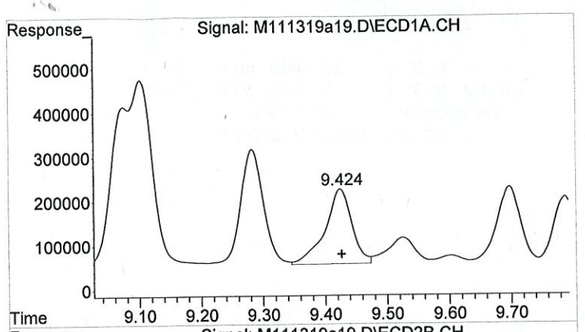
#4 1016-3

R.T.: 9.283 min
Delta R.T.: -0.001 min
Response: 261053
Conc: 362.42 pg/uL



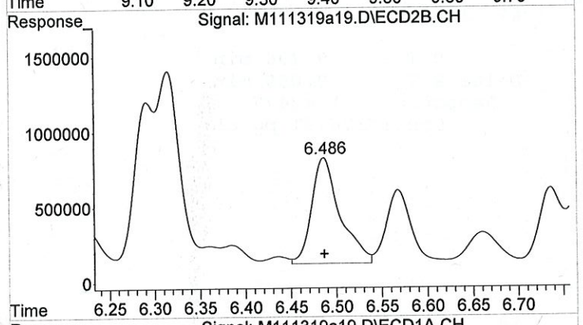
#4 1016-3

R.T.: 6.315 min
Delta R.T.: 0.000 min
Response: 1289070
Conc: 370.34 pg/uL



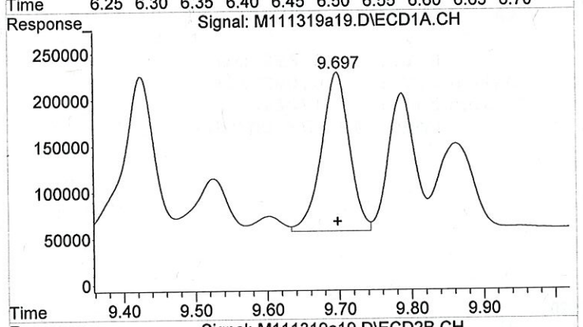
#5 1016-4

R.T.: 9.425 min
Delta R.T.: -0.002 min
Response: 168936
Conc: 362.29 pg/uL



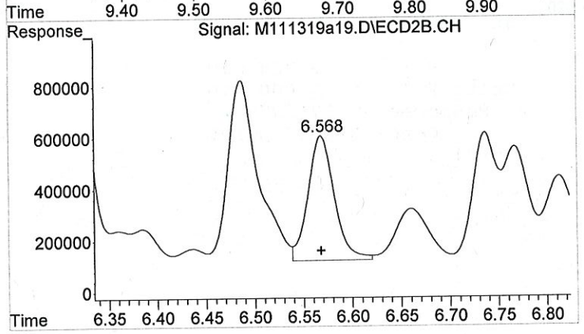
#5 1016-4

R.T.: 6.486 min
Delta R.T.: 0.000 min
Response: 701912
Conc: 360.75 pg/uL



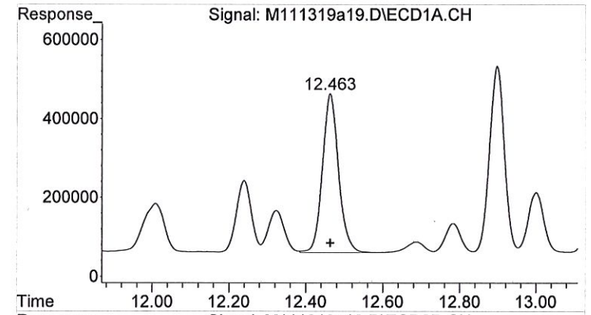
#6 1016-5

R.T.: 9.698 min
Delta R.T.: 0.000 min
Response: 171359
Conc: 357.89 pg/uL



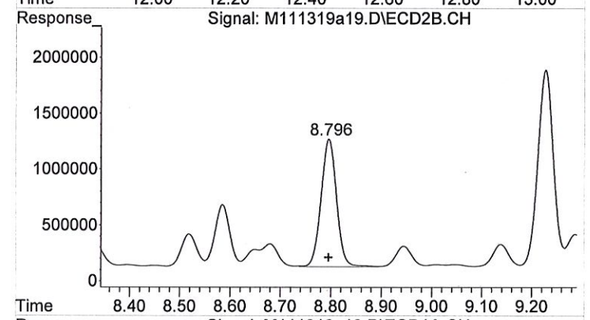
#6 1016-5

R.T.: 6.568 min
Delta R.T.: 0.000 min
Response: 483505
Conc: 340.56 pg/uL



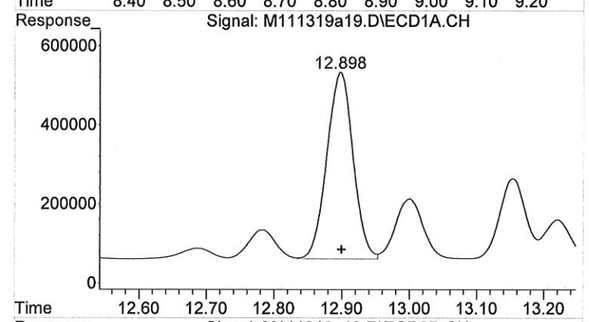
#7 1260-1

R.T.: 12.463 min
Delta R.T.: -0.001 min
Response: 402892
Conc: 425.09 pg/uL



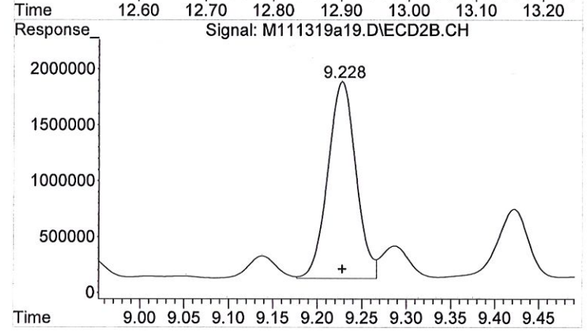
#7 1260-1

R.T.: 8.796 min
Delta R.T.: 0.000 min
Response: 1142477
Conc: 376.91 pg/uL



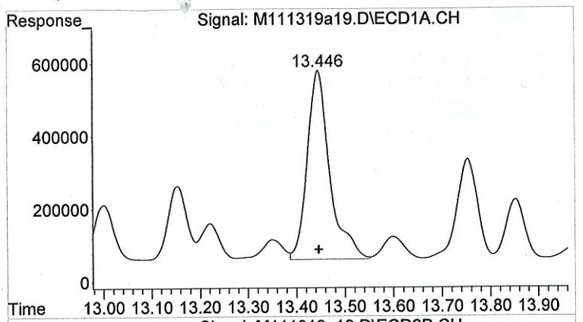
#8 1260-2

R.T.: 12.898 min
Delta R.T.: -0.002 min
Response: 472242
Conc: 424.78 pg/uL



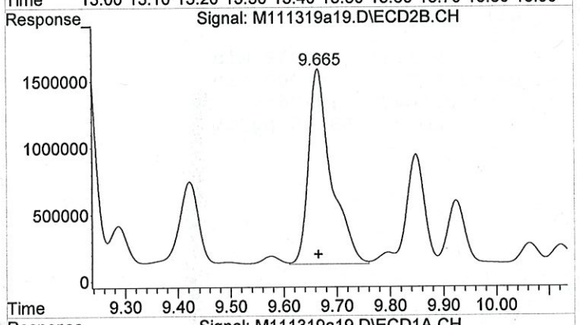
#8 1260-2

R.T.: 9.228 min
Delta R.T.: 0.000 min
Response: 1762977
Conc: 390.47 pg/uL



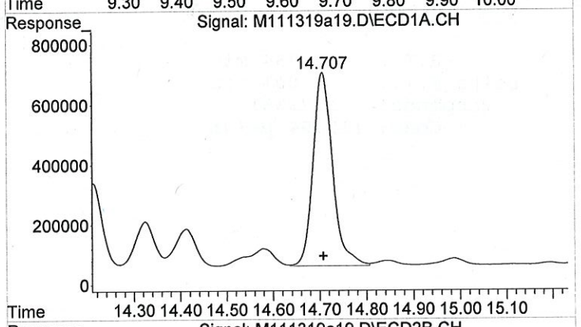
#9 1260-3

R.T.: 13.446 min
Delta R.T.: 0.000 min
Response: 518954
Conc: 428.73 pg/uL



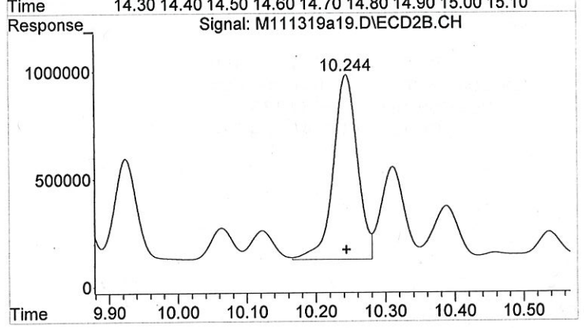
#9 1260-3

R.T.: 9.665 min
Delta R.T.: 0.000 min
Response: 1460830
Conc: 389.97 pg/uL



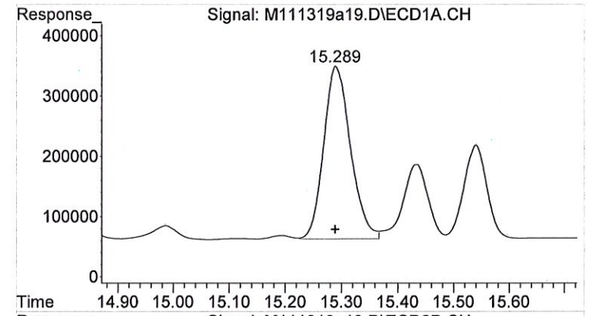
#10 1260-4

R.T.: 14.707 min
Delta R.T.: -0.001 min
Response: 643122
Conc: 444.21 pg/uL



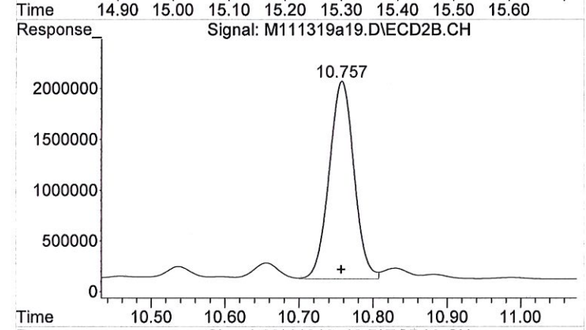
#10 1260-4

R.T.: 10.244 min
Delta R.T.: 0.000 min
Response: 856606
Conc: 379.55 pg/uL



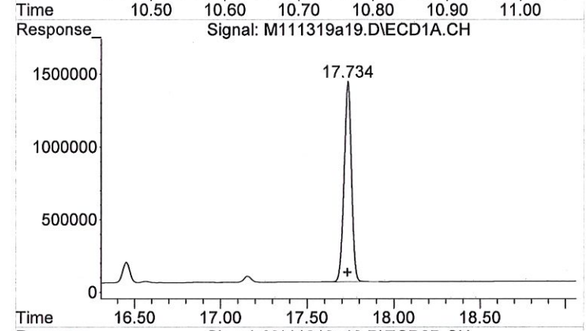
#11 1260-5

R.T.: 15.290 min
Delta R.T.: 0.000 min
Response: 286498
Conc: 428.06 pg/uL



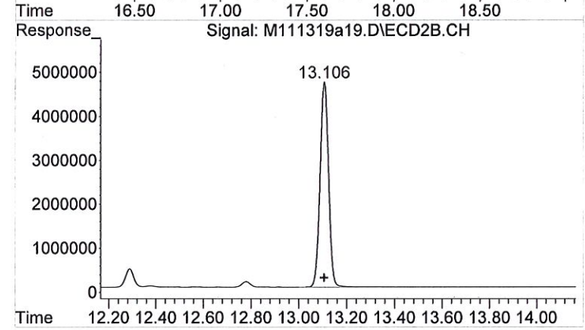
#11 1260-5

R.T.: 10.758 min
Delta R.T.: 0.000 min
Response: 1947654
Conc: 403.85 pg/uL



#12 dcb

R.T.: 17.734 min
Delta R.T.: 0.001 min
Response: 1379351
Conc: 119.54 pg/uL



#12 dcb

R.T.: 13.106 min
Delta R.T.: 0.000 min
Response: 4654333
Conc: 114.48 pg/uL

PCB QC Recovery Report

92S111919B1
92S111919L1
92S111919L2

Matrix: ~~40 - Soil~~ Air Filter

Sample ID	Filename	Date/Time Acquired	Initial Extracted Amount (g)	Final Extract Volume (mL)	Spiking Std Concentration (ng/uL)	Spike Volume (uL)	Total Spike Amount per sample (ng)
92S111919B1	M112019a03.D	11/20/2019 10:43	5	2	0	0	0
92S111919L1	M112019a04.D	11/20/2019 11:08	5	2	4	200	800
92S111919L2	M112019a05.D	11/20/2019 11:32	5	2	4	200	800

Data Paths

Reference...: J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\M112019a03.D
LCS or MS...: J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\M112019a04.D
LCSD or MSD.: J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\M112019a05.D

Compound Name	Ref. Amt ug/kg	Spk1 Amt ug/kg	ExpSpk1 Amt ug/kg	Spk1 LCS/MS %Rec	Spk2 Amt ug/kg	ExpSpk2 Amt ug/kg	Spk2 LCSD/MSD %Rec	Recovery Limits %	RPD %	RPD Limit %
1016 Column 1	0	137	160	86%	123	160	77%	48-132	11	30
1016 Column 2	0	138	160	86%	119	160	74%	48-132	15	30
1260 Column 1	0	130	160	81%	120	160	75%	56-139	8	30
1260 Column 2	0	137	160	86%	122	160	77%	56-139	11	30

Laboratory control spiked sample recoveries are NOT corrected for the amount found in the reference (BL) sample.

Sample.....: 92S111919L1
Data File....: M112019a04.D
Project.....: OCE-009E
Matrix.....: ~~40 - Soil~~ Air Filter
Analyzed.....: 11/20/2019 11:08
Type.....: L1
Additional Info..: SKY Valley PCB Air Filter Dust 2mL fv
DP Method Path...: J:\Organics\Minerva\Methods\M111219PCB1260.M
Datafile Path....: J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\M112019a04.D

Date Prepped...: 11/19/2019
ICAL Date.....: 11/12/2019
Prep Method....: 3541
Analysis Method: 8082A
Quant Column...: 1

Prepped By.: DWOOD
Analyst....: DWOOD
CID.....: 0
Acq. Method: M012116PCB2B.M
ASEQ Number: 4

Instrument.....: Minerva
Amount Extracted.: 5 g
Percent Solids...: 100
Final Volume.....: 2 mL
Dilution.....: 1x D0

m = manual integration
d = deleted
U = Undetected
J = Below calibrated range
E = Exceeds calibrated range

Pk	Low Cal (pg)¹	High Cal (pg)¹	Compound Name	RT	Exp RT	Response	Spike (pg)¹	Amount (pg)¹	Result	Units	Q
1	2.5	250	tmx (1)	6.96	6.96	2640090	100	93	93	%Rec	>0
12	2.5	250	dcb	17.73	17.73	1080840	100	94	94	%Rec	>0
14	2.5	250	tmx (1) #2	4.71	4.71	8251360	100	93	93	%Rec	>0
25	2.5	250	dcb #2	13.10	13.11	3784170	100	93	93	%Rec	>0
2	25	2500	1016 -1	7.57	7.57	155686	400	376	150	ug/kg	
3	25	2500	1016-2	8.63	8.63	192217	400	345	140	ug/kg	
4	25	2500	1016-3	9.28	9.28	245285	400	340	140	ug/kg	
5	25	2500	1016-4	9.42	9.43	155940	400	334	130	ug/kg	
6	25	2500	1016-5	9.69	9.70	155688	400	324	130	ug/kg	
7	25	2500	1260-1	12.46	12.46	310593	400	326	130	ug/kg	
8	25	2500	1260-2	12.90	12.90	370447	400	332	130	ug/kg	
9	25	2500	1260-3	13.44	13.45	393777	400	325	130	ug/kg	
10	25	2500	1260-4	14.71	14.71	464577	400	321	130	ug/kg	
11	25	2500	1260-5	15.29	15.29	215415	400	321	130	ug/kg	
15	25	2500	1016 -1 #2	5.26	5.26	563045	400	390	160	ug/kg	
16	25	2500	1016-2 #2	5.71	5.71	838028	400	332	130	ug/kg	
17	25	2500	1016-3 #2	6.31	6.32	1203190	400	345	140	ug/kg	
18	25	2500	1016-4 #2	6.48	6.49	664719	400	341	140	ug/kg	
19	25	2500	1016-5 #2	6.57	6.57	446452	400	314	130	ug/kg	
20	25	2500	1260-1 #2	8.79	8.80	1009240	400	332	130	ug/kg	
21	25	2500	1260-2 #2	9.22	9.23	1558450	400	344	140	ug/kg	
22	25	2500	1260-3 #2	9.66	9.67	1304910	400	348	140	ug/kg	
23	25	2500	1260-4 #2	10.24	10.24	758611	400	336	130	ug/kg	
24	25	2500	1260-5 #2	10.75	10.76	1713250	400	355	140	ug/kg	

CAS#	Name	Avg	Unit	n	%RSD	Column RPD²
12674112	1016 Column 1	86	%Rec	5	6 %	
12674112	1016 Column 2	86	%Rec	5	8 %	0 %
11096825	1260 Column 1	81	%Rec	5	1 %	
11096825	1260 Column 2	86	%Rec	5	3 %	5 %

Results will be reported from Column 1

Note that avg results for LCS/MS samples do not reflect native amount adjustment.

¹'Amount' units are pg or pg/uL on column. ²RPD (Relative Percent Difference) is the percent difference between the result of column 1 and the result of column 2. The values are calculated using the non-rounded average result values. (|A-B|/((A+B)*0.5))*100 is the formula used for the calculation. The value should nominally be <= 40%.

Sample Concentration = (Amt)*(Final Volume[mL])*(Dilution)/Amount Extracted = ug/L, ug/kg, ug/g, or ug.

Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\
Data File : M112019a04.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Nov 2019 11:08 am
Operator : DWOOD
Sample : 92S111919L1
Misc : SKY Valley PCB Air Filter Dust 2mL fv
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Dec 06 12:39:38 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.958	4.713	2640085	8251362	93.420	92.908
12) S2 dcb	17.730	13.104	1080840	3784167	93.567	93.028
Target Compounds						
2) L1 1016 -1	7.567	5.255	155686	563045	375.560	389.622
3) L1 1016-2	8.627	5.712	192217	838028	344.544	331.629
4) L1 1016-3	9.280	6.313	245285	1203191	340.091	345.351
5) L1 1016-4	9.422	6.484	155940	664719	334.133	341.287
6) L1 1016-5	9.695	6.566	155688	446452	324.362	314.082
Sum 1016 -1			904816	3715435	1718.691	1721.971
Average 1016 -1					343.738	344.394
7) L2 1260-1	12.460	8.793	310593	1009240	326.274	332.089
8) L2 1260-2	12.896	9.225	370447	1558447	332.228	344.494
9) L2 1260-3	13.444	9.662	393777	1304905	324.702	348.049
10) L2 1260-4	14.705	10.242	464577	758611	320.803	335.634
11) L2 1260-5	15.288	10.755	215415	1713252	321.478	355.232
Sum 1260-1			1754808	6344455	1625.485	1715.498
Average 1260-1					325.097	343.100

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

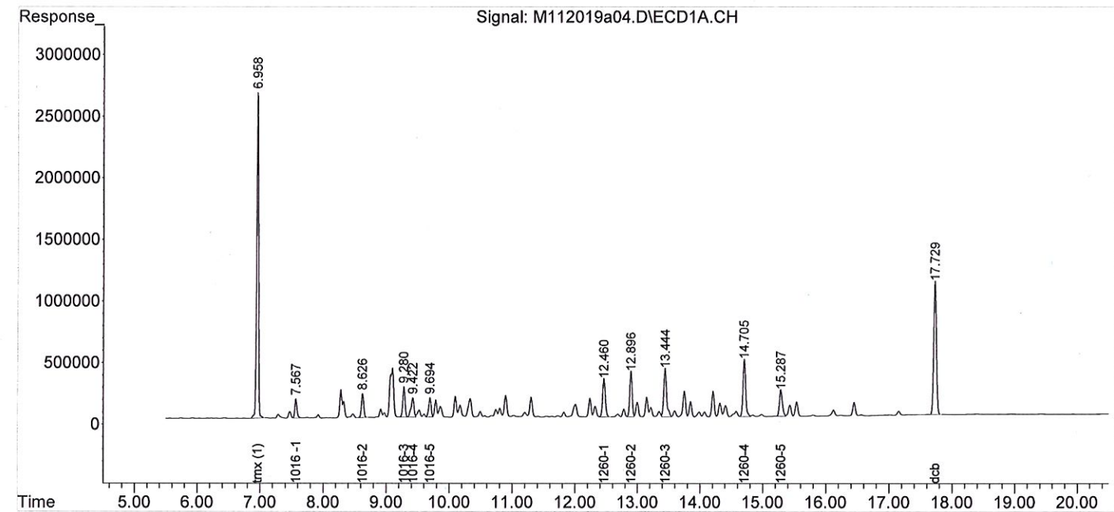
lw
12/6/19

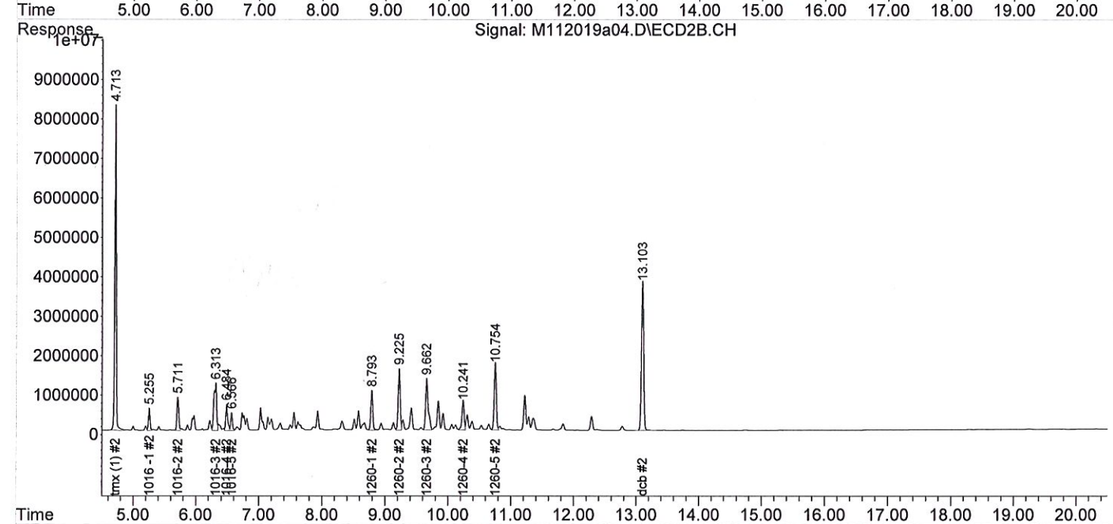
Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\
Data File : M112019a04.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Nov 2019 11:08 am
Operator : DWOOD
Sample : 92S111919L1
Misc : SKY Valley PCB Air Filter Dust 2mL fv
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Dec 06 12:39:38 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32





Quantitation Report (Not Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\
Data File : M112019a04.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Nov 2019 11:08 am
Operator : DWOOD
Sample : 92S111919L1
Misc : SKY Valley PCB Air Filter Dust 2mL fv
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

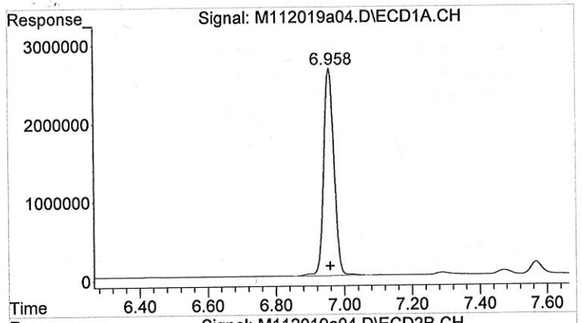
Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Dec 06 12:39:38 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.958	4.713	2640085	8251362	93.420	92.908
12) S2 dcb	17.730	13.104	1080840	3784167	93.567	93.028
Target Compounds						
2) L1 1016 -1	7.567	5.255	155686	563045	375.560	389.622
3) L1 1016-2	8.627	5.712	192217	838028	344.544	331.629
4) L1 1016-3	9.280	6.313	245285	1203191	340.091	345.351
5) L1 1016-4	9.422	6.484	155940	664719	334.133	341.287
6) L1 1016-5	9.695	6.566	155688	446452	324.362	314.082
Sum 1016 -1			904816	3715435	1718.691	1721.971
Average 1016 -1					343.738	344.394
7) L2 1260-1	12.460	8.793	310593	1009240	326.274	332.089
8) L2 1260-2	12.896	9.225	370447	1558447	332.228	344.494
9) L2 1260-3	13.444	9.662	393777	1304905	324.702	348.049
10) L2 1260-4	14.705	10.242	464577	758611	320.803	335.634
11) L2 1260-5	15.288	10.755	215415	1713252	321.478	355.232
Sum 1260-1			1754808	6344455	1625.485	1715.498
Average 1260-1					325.097	343.100

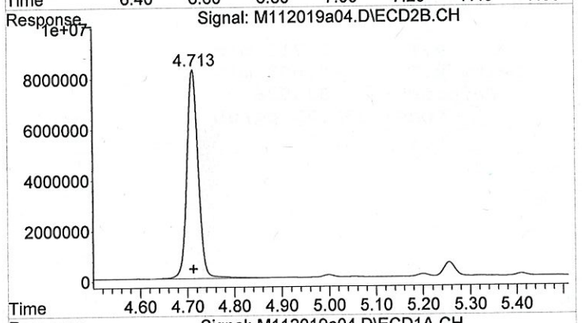
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

MW
12/16/19



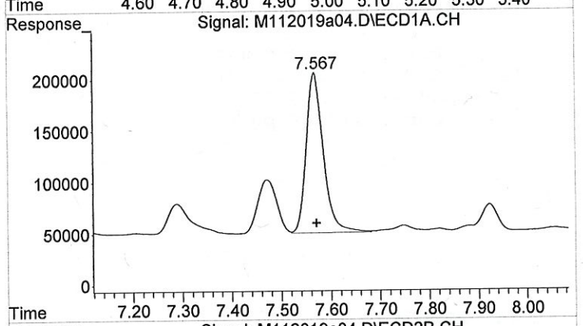
#1 tmx (1)

R.T.: 6.958 min
Delta R.T.: -0.001 min
Response: 2640085
Conc: 93.42 pg/uL



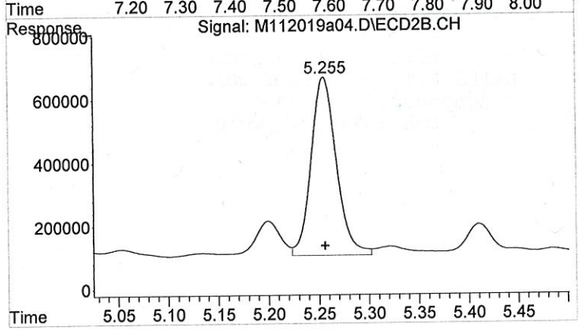
#1 tmx (1)

R.T.: 4.713 min
Delta R.T.: 0.000 min
Response: 8251362
Conc: 92.91 pg/uL



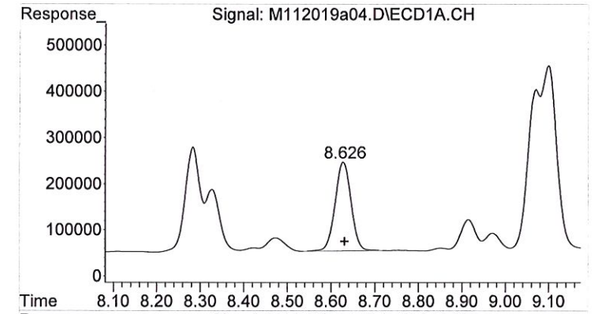
#2 1016 -1

R.T.: 7.567 min
Delta R.T.: -0.004 min
Response: 155686
Conc: 375.56 pg/uL



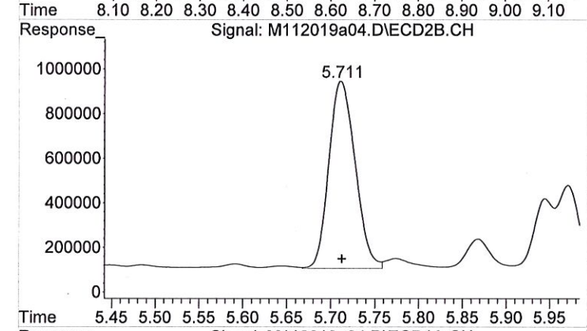
#2 1016 -1

R.T.: 5.255 min
Delta R.T.: 0.000 min
Response: 563045
Conc: 389.62 pg/uL



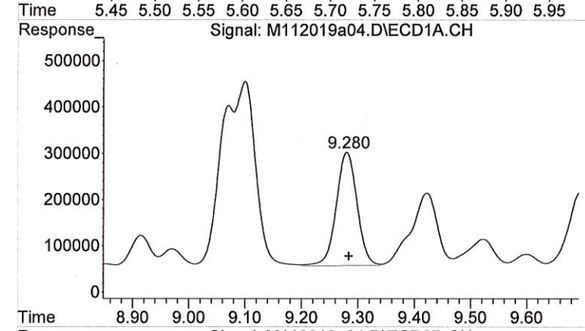
#3 1016-2

R.T.: 8.627 min
Delta R.T.: -0.004 min
Response: 192217
Conc: 344.54 pg/uL



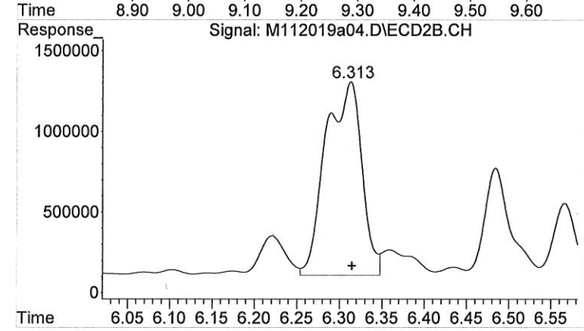
#3 1016-2

R.T.: 5.712 min
Delta R.T.: -0.002 min
Response: 838028
Conc: 331.63 pg/uL



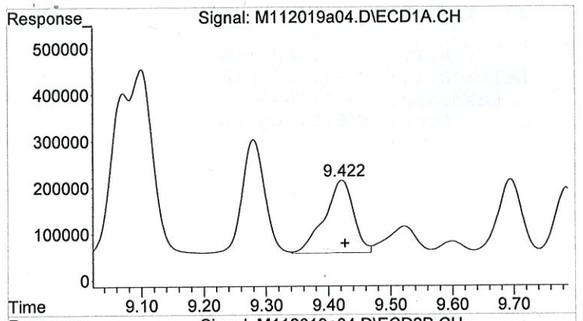
#4 1016-3

R.T.: 9.280 min
Delta R.T.: -0.004 min
Response: 245285
Conc: 340.09 pg/uL



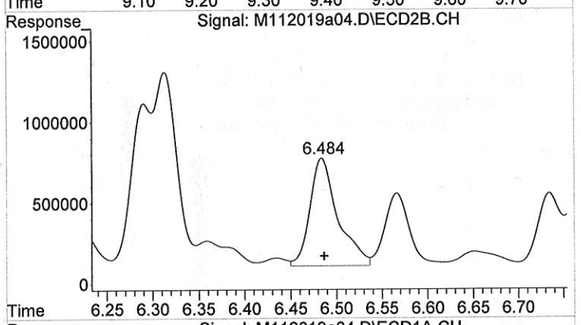
#4 1016-3

R.T.: 6.313 min
Delta R.T.: -0.002 min
Response: 1203191
Conc: 345.35 pg/uL



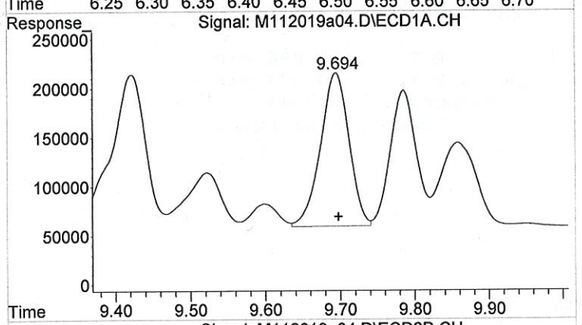
#5 1016-4

R.T.: 9.422 min
Delta R.T.: -0.005 min
Response: 155940
Conc: 334.13 pg/uL



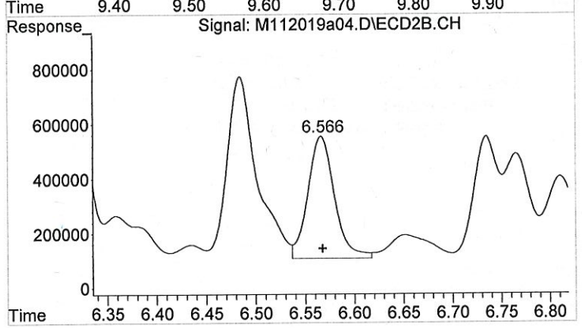
#5 1016-4

R.T.: 6.484 min
Delta R.T.: -0.003 min
Response: 664719
Conc: 341.29 pg/uL



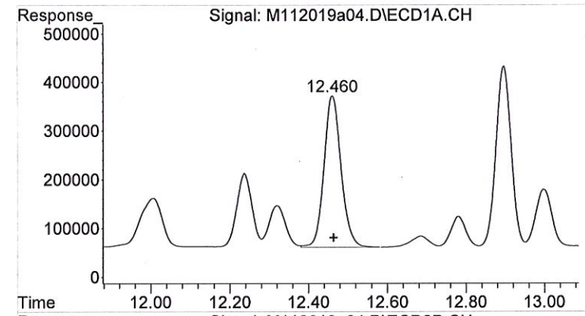
#6 1016-5

R.T.: 9.695 min
Delta R.T.: -0.003 min
Response: 155688
Conc: 324.36 pg/uL



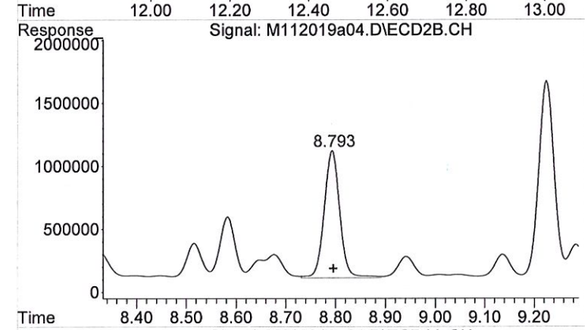
#6 1016-5

R.T.: 6.566 min
Delta R.T.: -0.002 min
Response: 446452
Conc: 314.08 pg/uL



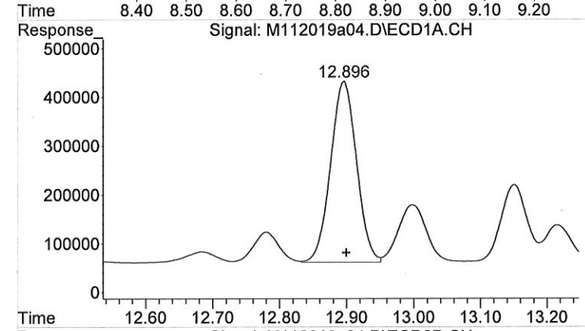
#7 1260-1

R.T.: 12.460 min
Delta R.T.: -0.004 min
Response: 310593
Conc: 326.27 pg/uL



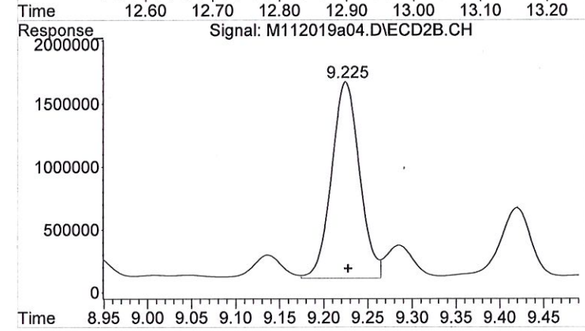
#7 1260-1

R.T.: 8.793 min
Delta R.T.: -0.003 min
Response: 1009240
Conc: 332.09 pg/uL



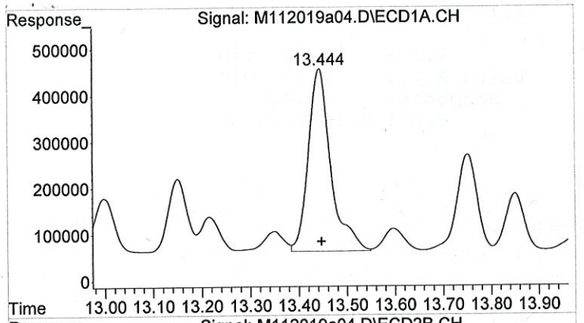
#8 1260-2

R.T.: 12.896 min
Delta R.T.: -0.004 min
Response: 370447
Conc: 332.23 pg/uL



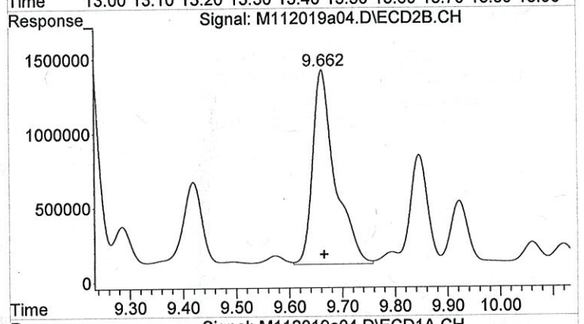
#8 1260-2

R.T.: 9.225 min
Delta R.T.: -0.003 min
Response: 1558447
Conc: 344.49 pg/uL



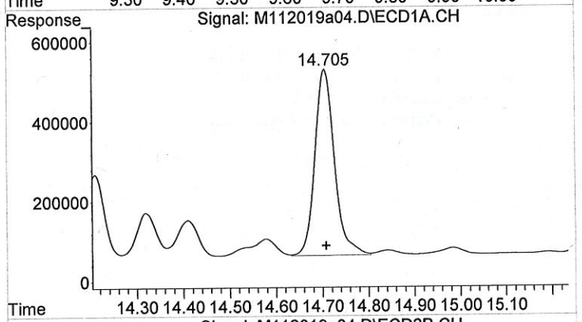
#9 1260-3

R.T.: 13.444 min
Delta R.T.: -0.003 min
Response: 393777
Conc: 324.70 pg/uL



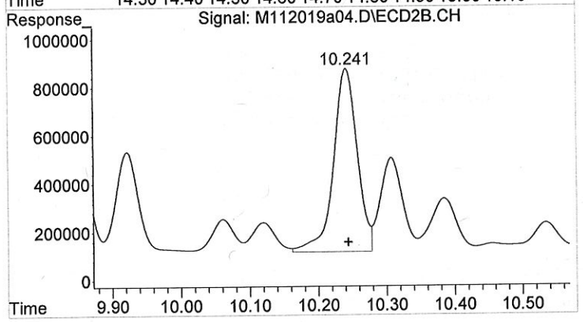
#9 1260-3

R.T.: 9.662 min
Delta R.T.: -0.004 min
Response: 1304905
Conc: 348.05 pg/uL



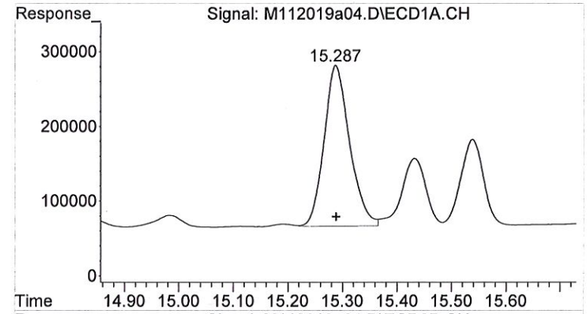
#10 1260-4

R.T.: 14.705 min
Delta R.T.: -0.003 min
Response: 464577
Conc: 320.80 pg/uL



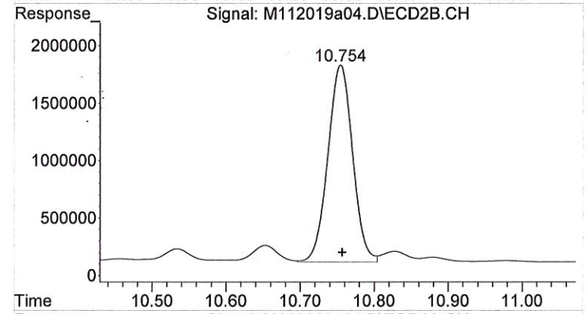
#10 1260-4

R.T.: 10.242 min
Delta R.T.: -0.002 min
Response: 758611
Conc: 335.63 pg/uL



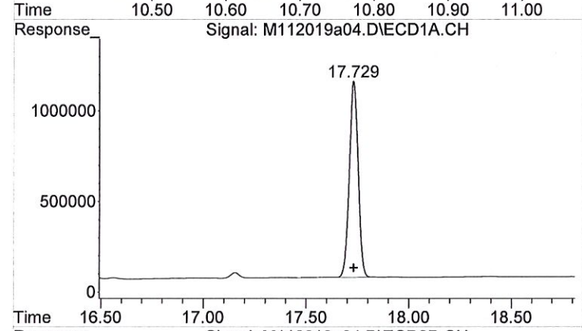
#11 1260-5

R.T.: 15.288 min
Delta R.T.: -0.001 min
Response: 215415
Conc: 321.48 pg/uL



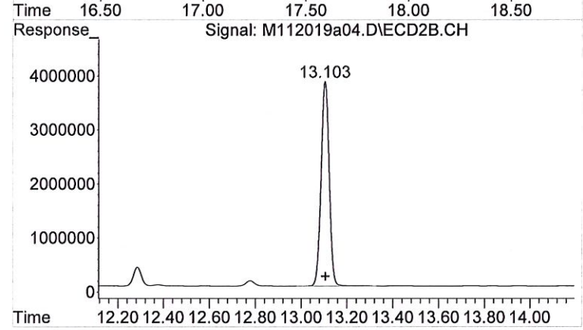
#11 1260-5

R.T.: 10.755 min
Delta R.T.: -0.002 min
Response: 1713252
Conc: 355.23 pg/uL



#12 dcb

R.T.: 17.730 min
Delta R.T.: -0.003 min
Response: 1080840
Conc: 93.57 pg/uL



#12 dcb

R.T.: 13.104 min
Delta R.T.: -0.003 min
Response: 3784167
Conc: 93.03 pg/uL

PCB Sample Results Summary

Sample.....: 92S111919L2
Data File....: M112019a05.D
Project.....: OCE-009E
Matrix.....: ~~SO~~ ~~SOIL~~ Air Filter
Analyzed.....: 11/20/2019 11:32
Type.....: L2
Additional Info..: SKY Valley PCB Air Filter Dust 2mL fv
DP Method Path...: J:\Organics\Minerva\Methods\M111219PCB1260.M
Datafile Path....: J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\M112019a05.D

Date Prepped...: 11/19/2019
ICAL Date.....: 11/12/2019
Prep Method....: 3541
Analysis Method: 8082A
Quant Column...: 1

Prepped By.: DWOOD
Analyst....: DWOOD
CID.....: 0
Acq. Method: M012116PCB2B.M
ASEQ Number: 5

Instrument.....: Minerva
Amount Extracted.: 5 g
Percent Solids...: 100
Final Volume.....: 2 mL
Dilution.....: 1x D0

m = manual integration
d = deleted
U = Undetected
J = Below calibrated range
E = Exceeds calibrated range

Pk	Low Cal (pg)¹	High Cal (pg)¹	Compound Name	RT	Exp RT	Response	Spike (pg)¹	Amount (pg)¹	Result	Units	Q
1	2.5	250	tmx (1)	6.96	6.96	2344600	100	83	83	%Rec >0	
12	2.5	250	dcb	17.73	17.73	979071	100	85	85	%Rec >0	
14	2.5	250	tmx (1) #2	4.71	4.71	7039020	100	79	79	%Rec >0	
25	2.5	250	dcb #2	13.10	13.11	3439170	100	85	85	%Rec >0	
2	25	2500	1016 -1	7.57	7.57	137824	400	331	130	ug/kg	
3	25	2500	1016-2	8.63	8.63	169842	400	303	120	ug/kg	
4	25	2500	1016-3	9.28	9.28	216291	400	299	120	ug/kg	
5	25	2500	1016-4	9.42	9.43	139483	400	298	120	ug/kg	
6	25	2500	1016-5	9.69	9.70	144600	400	301	120	ug/kg	
7	25	2500	1260-1	12.46	12.46	287458	400	302	120	ug/kg	
8	25	2500	1260-2	12.89	12.90	332385	400	298	120	ug/kg	
9	25	2500	1260-3	13.44	13.45	368503	400	304	120	ug/kg	
10	25	2500	1260-4	14.70	14.71	436693	400	302	120	ug/kg	
11	25	2500	1260-5	15.29	15.29	198409	400	296	120	ug/kg	
15	25	2500	1016 -1 #2	5.26	5.26	490557	400	338	140	ug/kg	
16	25	2500	1016-2 #2	5.71	5.71	737093	400	291	120	ug/kg	
17	25	2500	1016-3 #2	6.31	6.32	1029790	400	295	120	ug/kg	
18	25	2500	1016-4 #2	6.48	6.49	577829	400	296	120	ug/kg	
19	25	2500	1016-5 #2	6.57	6.57	376034	400	264	110	ug/kg	
20	25	2500	1260-1 #2	8.79	8.80	891528	400	292	120	ug/kg	
21	25	2500	1260-2 #2	9.22	9.23	1394740	400	308	120	ug/kg	
22	25	2500	1260-3 #2	9.66	9.67	1150000	400	306	120	ug/kg	
23	25	2500	1260-4 #2	10.24	10.24	686441	400	303	120	ug/kg	
24	25	2500	1260-5 #2	10.75	10.76	1546320	400	321	130	ug/kg	

CAS#	Name	Avg	Unit	n	%RSD	Column RPD²
12674112	1016 Column 1	77	%Rec	5	5 %	
12674112	1016 Column 2	74	%Rec	5	9 %	3 %
11096825	1260 Column 1	75	%Rec	5	1 %	
11096825	1260 Column 2	77	%Rec	5	3 %	2 %

Results will be reported from Column 1

Note that avg results for LCS/MS samples do not reflect native amount adjustment.

¹'Amount' units are pg or pg/uL on column. ²RPD (Relative Percent Difference) is the percent difference between the result of column 1 and the result of column 2. The values are calculated using the non-rounded average result values. (|A-B|/((A+B)*0.5))*100 is the formula used for the calculation. The value should nominally be <= 40%.

Sample Concentration = (Amt)*(Final Volume[mL])*(Dilution)/Amount Extracted = ug/L, ug/kg, ug/g, or ug.

Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\
Data File : M112019a05.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Nov 2019 11:32 am
Operator : DWOOD
Sample : 92S111919L2
Misc : SKY Valley PCB Air Filter Dust 2mL fv
ALS Vial : 0 (Sig #1); 5 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Dec 06 12:39:41 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.956	4.714	2344603	7039024	82.927	79.209
12) S2 dcb	17.728	13.102	979071	3439167	84.712	84.524
Target Compounds						
2) L1 1016 -1	7.567	5.256	137824	490557	331.269	338.221
3) L1 1016-2	8.626	5.712	169842	737093	303.062	290.663
4) L1 1016-3	9.280	6.313	216291	1029787	299.034	294.900
5) L1 1016-4	9.421	6.484	139483	577829	298.471	295.815
6) L1 1016-5	9.694	6.566	144600	376034	300.642	263.769
Sum 1016 -1			808040	3211300	1532.479	1483.369
Average 1016 -1					306.496	296.674
7) L2 1260-1	12.458	8.793	287458	891528	301.505	292.488
8) L2 1260-2	12.894	9.224	332385	1394743	297.621	307.694
9) L2 1260-3	13.441	9.661	368503	1149995	303.697	306.398
10) L2 1260-4	14.704	10.240	436693	686441	301.531	303.293
11) L2 1260-5	15.287	10.752	198409	1546315	295.979	320.605
Sum 1260-1			1623449	5669022	1500.334	1530.478
Average 1260-1					300.067	306.096

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

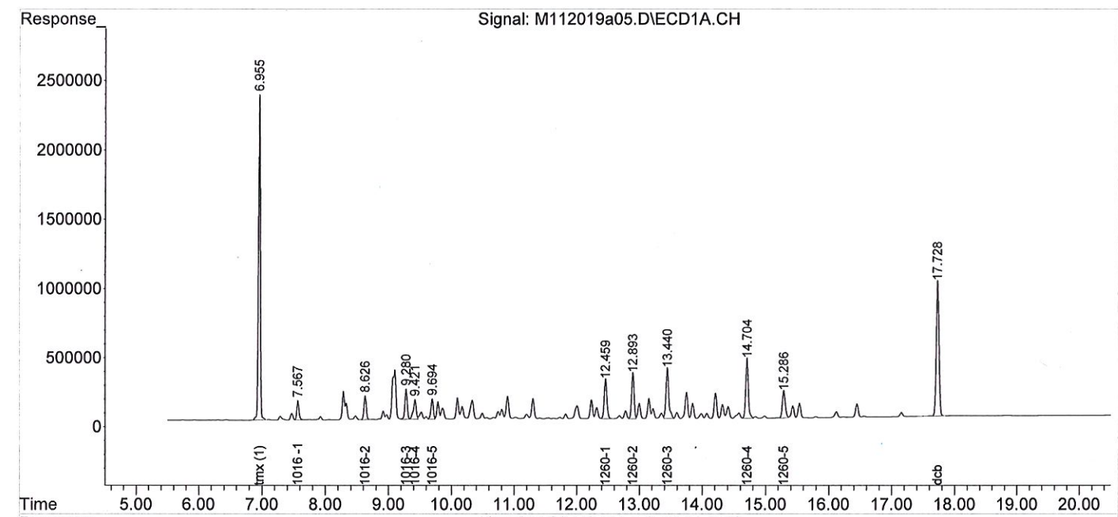
hw
12/6/19

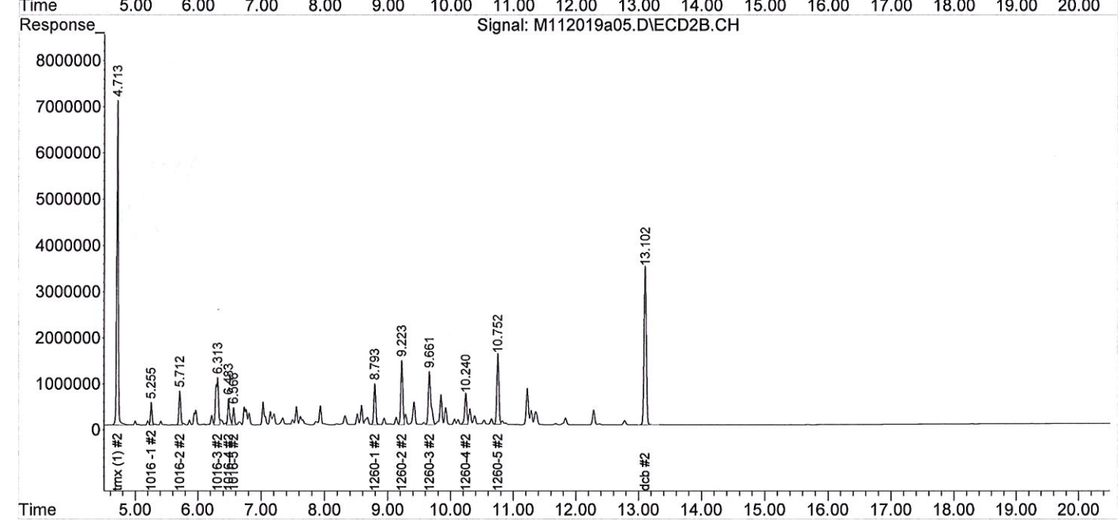
Quantitation Report (QT Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\
Data File : M112019a05.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Nov 2019 11:32 am
Operator : DWOOD
Sample : 92S111919L2
Misc : SKY Valley PCB Air Filter Dust 2mL fv
ALS Vial : 0 (Sig #1); 5 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Dec 06 12:39:41 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32





Quantitation Report (Not Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M112019PCBDW\
Data File : M112019a05.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 Nov 2019 11:32 am
Operator : DWOOD
Sample : 92S111919L2
Misc : SKY Valley PCB Air Filter Dust 2mL fv
ALS Vial : 0 (Sig #1); 5 (Sig #2) Sample Multiplier: 1

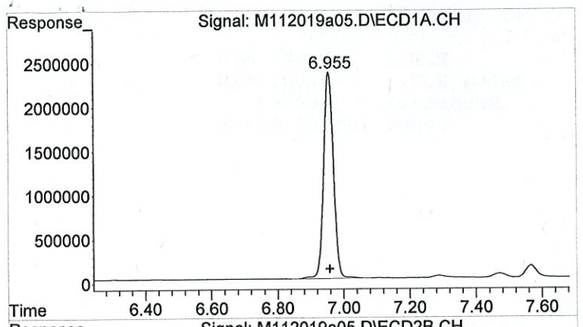
Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Dec 06 12:39:41 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32
Signal #2 Phase: CLPest2
Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.956	4.714	2344603	7039024	82.927	79.209
12) S2 dcb	17.728	13.102	979071	3439167	84.712	84.524
Target Compounds						
2) L1 1016 -1	7.567	5.256	137824	490557	331.269	338.221
3) L1 1016-2	8.626	5.712	169842	737093	303.062	290.663
4) L1 1016-3	9.280	6.313	216291	1029787	299.034	294.900
5) L1 1016-4	9.421	6.484	139483	577829	298.471	295.815
6) L1 1016-5	9.694	6.566	144600	376034	300.642	263.769
Sum 1016 -1			808040	3211300	1532.479	1483.369
Average 1016 -1					306.496	296.674
7) L2 1260-1	12.458	8.793	287458	891528	301.505	292.488
8) L2 1260-2	12.894	9.224	332385	1394743	297.621	307.694
9) L2 1260-3	13.441	9.661	368503	1149995	303.697	306.398
10) L2 1260-4	14.704	10.240	436693	686441	301.531	303.293
11) L2 1260-5	15.287	10.752	198409	1546315	295.979	320.605
Sum 1260-1			1623449	5669022	1500.334	1530.478
Average 1260-1					300.067	306.096

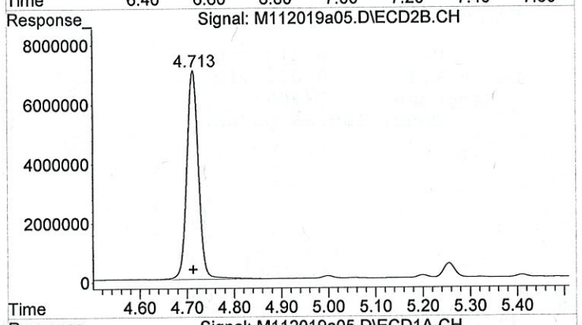
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

LW
12/6/19



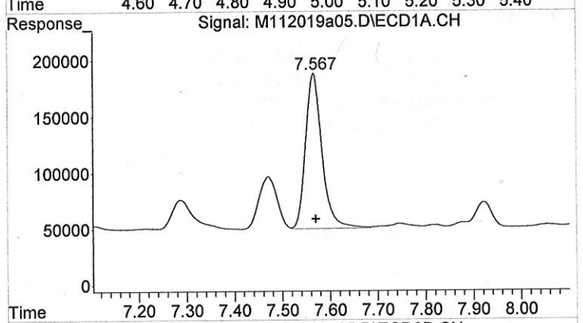
#1 tmx (1)

R.T.: 6.956 min
Delta R.T.: -0.003 min
Response: 2344603
Conc: 82.93 pg/uL



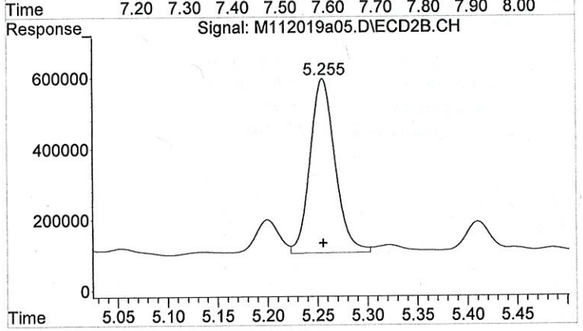
#1 tmx (1)

R.T.: 4.714 min
Delta R.T.: 0.000 min
Response: 7039024
Conc: 79.21 pg/uL



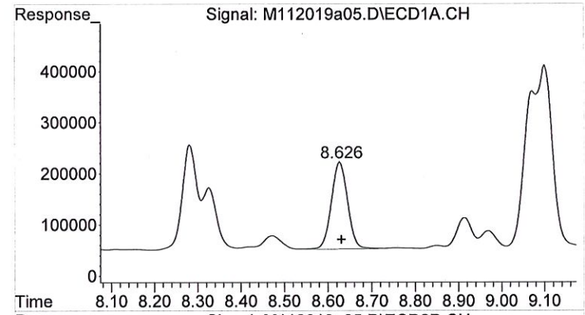
#2 1016 -1

R.T.: 7.567 min
Delta R.T.: -0.004 min
Response: 137824
Conc: 331.27 pg/uL



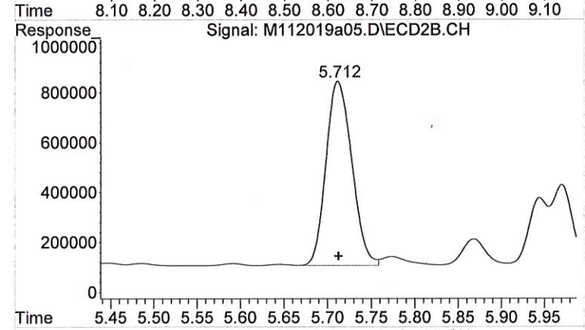
#2 1016 -1

R.T.: 5.256 min
Delta R.T.: 0.000 min
Response: 490557
Conc: 338.22 pg/uL



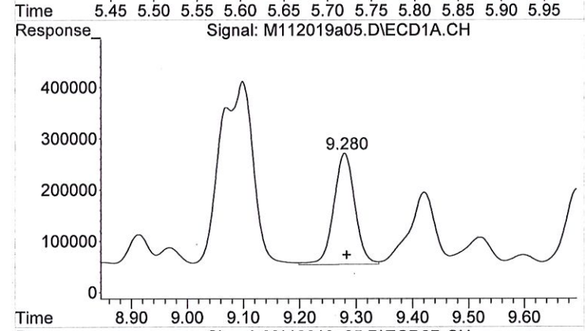
#3 1016-2

R.T.: 8.626 min
Delta R.T.: -0.005 min
Response: 169842
Conc: 303.06 pg/uL



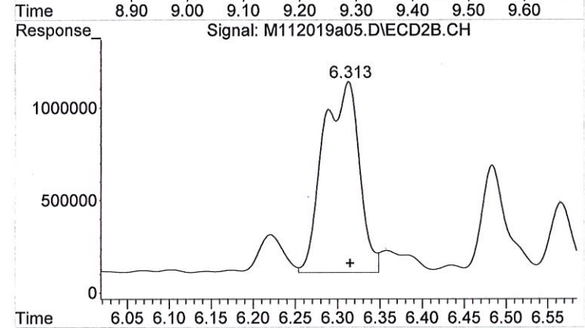
#3 1016-2

R.T.: 5.712 min
Delta R.T.: 0.000 min
Response: 737093
Conc: 290.66 pg/uL



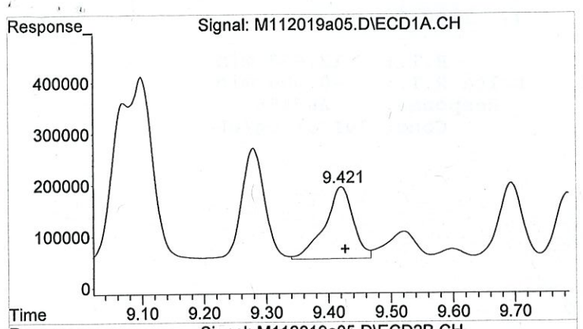
#4 1016-3

R.T.: 9.280 min
Delta R.T.: -0.004 min
Response: 216291
Conc: 299.03 pg/uL



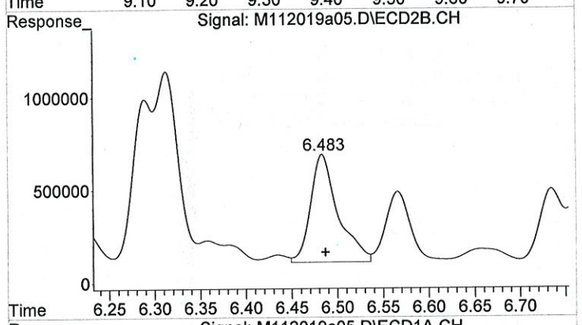
#4 1016-3

R.T.: 6.313 min
Delta R.T.: -0.002 min
Response: 1029787
Conc: 294.90 pg/uL



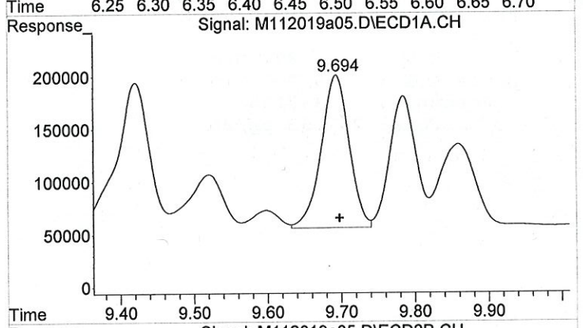
#5 1016-4

R.T.: 9.421 min
Delta R.T.: -0.006 min
Response: 139483
Conc: 298.47 pg/uL



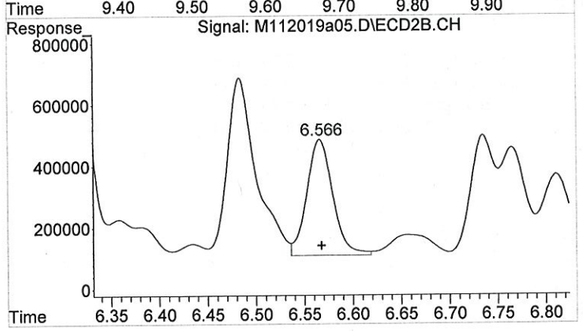
#5 1016-4

R.T.: 6.484 min
Delta R.T.: -0.003 min
Response: 577829
Conc: 295.82 pg/uL



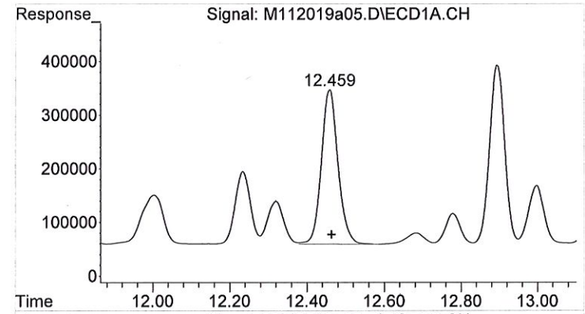
#6 1016-5

R.T.: 9.694 min
Delta R.T.: -0.004 min
Response: 144600
Conc: 300.64 pg/uL



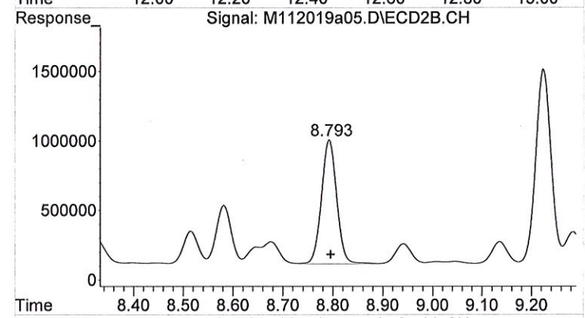
#6 1016-5

R.T.: 6.566 min
Delta R.T.: -0.002 min
Response: 376034
Conc: 263.77 pg/uL



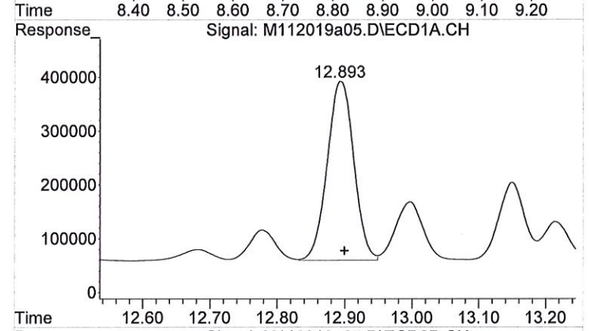
#7 1260-1

R.T.: 12.458 min
Delta R.T.: -0.006 min
Response: 287458
Conc: 301.51 pg/uL



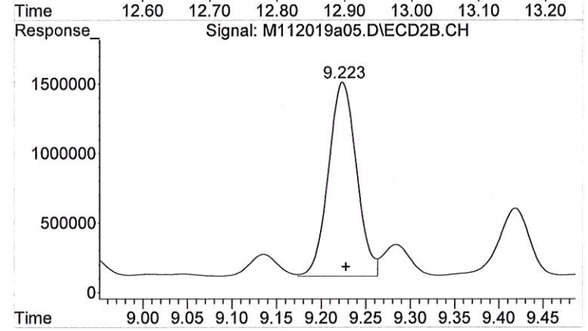
#7 1260-1

R.T.: 8.793 min
Delta R.T.: -0.003 min
Response: 891528
Conc: 292.49 pg/uL



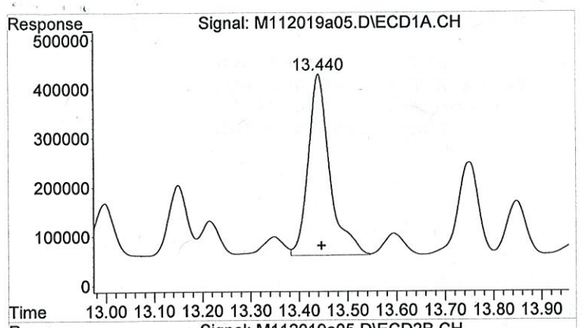
#8 1260-2

R.T.: 12.894 min
Delta R.T.: -0.006 min
Response: 332385
Conc: 297.62 pg/uL



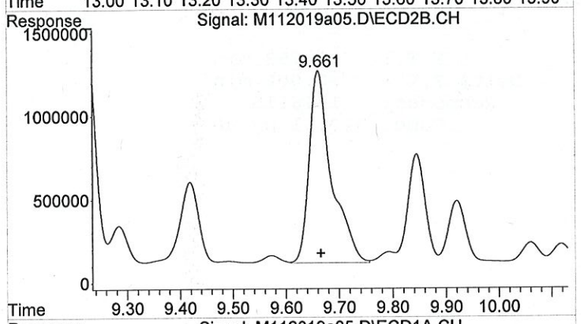
#8 1260-2

R.T.: 9.224 min
Delta R.T.: -0.004 min
Response: 1394743
Conc: 307.69 pg/uL



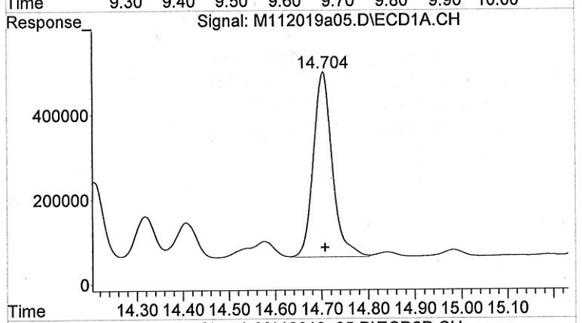
#9 1260-3

R.T.: 13.441 min
Delta R.T.: -0.006 min
Response: 368503
Conc: 303.70 pg/uL



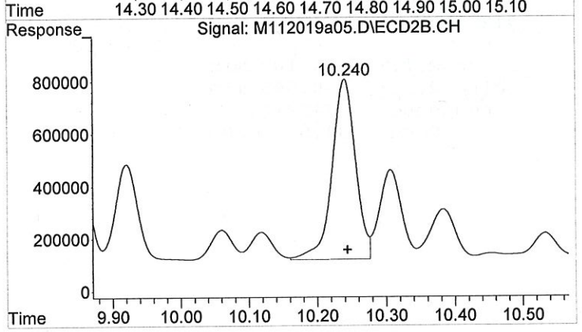
#9 1260-3

R.T.: 9.661 min
Delta R.T.: -0.005 min
Response: 1149995
Conc: 306.40 pg/uL



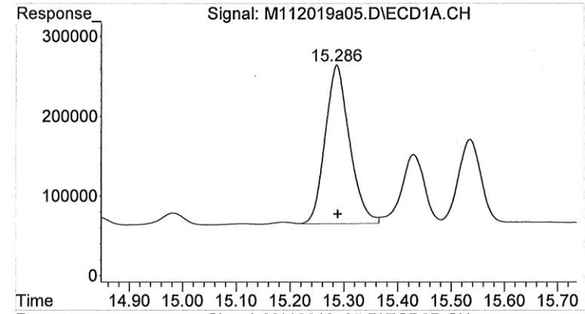
#10 1260-4

R.T.: 14.704 min
Delta R.T.: -0.004 min
Response: 436693
Conc: 301.53 pg/uL



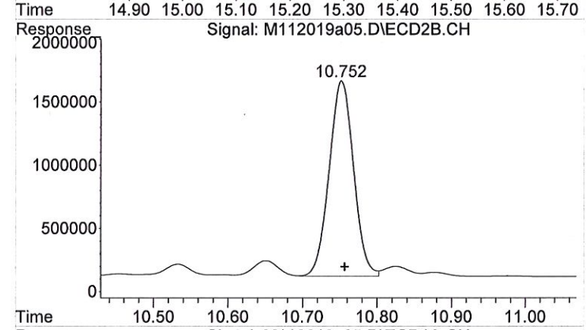
#10 1260-4

R.T.: 10.240 min
Delta R.T.: -0.004 min
Response: 686441
Conc: 303.29 pg/uL



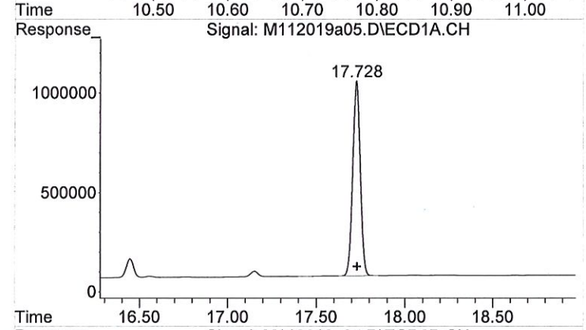
#11 1260-5

R.T.: 15.287 min
Delta R.T.: -0.002 min
Response: 198409
Conc: 295.98 pg/uL



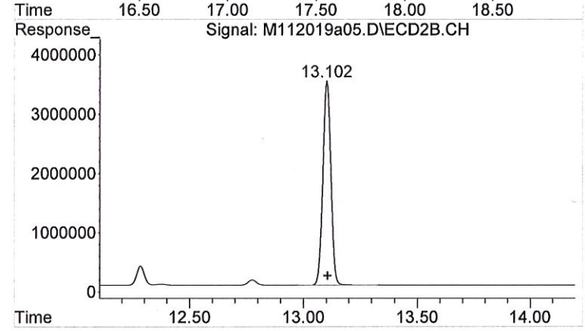
#11 1260-5

R.T.: 10.752 min
Delta R.T.: -0.005 min
Response: 1546315
Conc: 320.61 pg/uL



#12 dcb

R.T.: 17.728 min
Delta R.T.: -0.005 min
Response: 979071
Conc: 84.71 pg/uL



#12 dcb

R.T.: 13.102 min
Delta R.T.: -0.005 min
Response: 3439167
Conc: 84.52 pg/uL

- Supporting Data
  a. Extraction Documentation
  b. Standard Documentation
  c. COCs

11/4/19 Sky Valley Education Center PCB

Sor Or P0424

Sample	Time
920110419B1	1130
L1	
L2	
19434301	
19434303	
19434304	
19434305	
19434306	
19434307	
19434308	
19434309	
19434310	

All Samples received 100ml 87PCB032819A PCB Surrogate. Sample 920110419L1 +L2 also received 1000 ml 87PCB032519A PCB matrix spike.

Samples extracted with 40ml hexane. A 10ml aliquot of each sample was concentrated to 2.5 ml for a final volume of 10ml. A 1ml fraction of each sample received H_2SO_4 and Florisil cleanup.

DW

Lot #'s
Hexane DW954
H_2SO_4 147510
Florisil 1712B604KF

DW

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11/7/19 Sky Valley Education Center PCB

Sample	wt ext (g)
92511071941	2
L1	2
L2	2
19434302	1.86
19434311	2

All Samples received 40 ul 8-7PCB032819A Surrogate.
Samples 92511071941 + L2 also received 200 ul
8-7PCB072519A PCB Matrix Spike. DW

Lot #'s
DCM DT029
Acetone DV595-US
Hexane DW984
H_2SO_4 143510
Florisil 1712B604KF

All Samples except 19434302 were concentrated to a final Volume of 2 ml in hexane. Sample 19434302 was taken to a final volume of 10 ml in hexane. All samples received H_2SO_4 and Florisil cleanup.

DW

11/19/19 Sky Valley Education Center PCB

Sample	~~tare~~ in	wt ext (g)
915111919B1		5
L1		5
L2		5
19434312		5
19434313	~~15.097~~ m	5.56
19434314	~~14.776~~ m	4.09

All Samples received 40ul 87PCB032819A Surrogate.
Samples 915111919L1 + L2 also received 200ul 87PCB0725-19A PCB Matrix spike.
All Samples except 19434313 + 14 were concentrated to a final volume of 2 ml in hexane. Samples 19434313 + 14 have a final volume of 10ml with hexane.
All Samples received H_2SO_4 and florisil cleanup.

DW

Lot #'s
Dcm DT029
Acetone DV595-US
Hexane DW854
H_2SO_4 143570
Florisil 1712-8604KF

DW

3/28/19 Aroclor 1016/1260 Stock
@ 5ug/ml in hexane
Surrogate @ 0.5ug/ml
[87PCB032819J]

250ul Restek 3299 Aroclor 1016/1260 mix
Lot A 0126 345 200 ug/ml X: 6/2023

1000ul 87PCB032819B Surrogate

Diluted to 10ml in hexane X 3/2020 DW

3/28/19 Aroclor 1016/1260 Initial Calibration
in hexane

Std	Stock 87PCB032819J (ul)	Final Volume (ml)	Final PCB Conc. (pg/ul)	Final Surr Conc. (pg/ul)
[87PCB032819K]	5	1	25	2.5
L	10		50	5
M	20		100	10
N	50		250	25
O	100		500	50
P	200		1000	100
Q	500		2500	250

X 3/2020 DW

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11/14/19 Aroclor 1242 Stock
@ 5mg/ml in hexane
[87PCB111419A]
250ml Accustandard C-2425-TP Aroclor 1242
Lot B1020035 100mg/ml x 1/2022

Diluted to 5ml with hexane
x 11/2020 DW

11/14/19 Aroclor 1242 Initial Calibration
in hexane

Std	Stock 87PCB111419A (ul)	Final Volume (ml)	Final Conc. (pg/ml)
[87PCB111419B]	5	1	25
C	10	1	50
D	20	1	100
E	50	1	250
F	100	1	500
G	200	1	1000
H	500	1	2500

x 11/2020
DW

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5/6/19 Aroclor 1254 Stock Std
5 mg/ml

[87PCB050619H]

500 ul Accustandard C-2545-TS Aroclor 1254
Lot 211021334 1000 mg/ml X: 2/2021

1000 ul 87PCB032819A Surrogate

Diluted to 10 ml in hexane Lot DU-379

X 5/2020

5/6/19 Aroclor 1254 Initial Calibration
in hexane

Std	Stock 87PCB050619H (ul)	Final Volume (ml)	Final Aroclor Conc (pg/ul)	Final Surr. Conc. (pg/ul)
[87PCB050619I]	5	1	25	2.5
J	10	1	50	5
K	~~20~~ 20	1	100	10
L	50	1	250	25
M	100	1	500	50
N	200	1	1000	100

X 5/2020
DW

11/12/19 Aroclor 1016 Second Source
@ 100 µg/ml in hexane

[87PCB111219A]

10 ml Accustandard C-2165-TP Aroclor 1016
Lot 21101126 100 mg/ml x 1/2021

Diluted to 10 ml with hexane
x 5/2020 TJW

11/12/19 Aroclor 1260 Second Source
@ 100 µg/ml in hexane

[87PCB111219B]

10 ml Accustandard C-2605-TP Aroclor 1260
Lot 21211284 100 mg/ml x 11/2022

Diluted to 10 ml with hexane
x 5/2020 TJW

11/12/19 Aroclor Second Source / Single point STDs
@ 100 µg/ml, Aroclor 1221 @ 200 µg/ml

[87PCB111219C]

CLP-282-1
Lot T-0009Y
Exp: 09/30/2019
ULTRA 1 mL
Aroclor 1221 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

[87PCB111219D]

CLP-283-1
Lot: T-0010Y
Exp: 09/30/2019
ULTRA 1 mL
Aroclor 1232 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
For Lab Use Only

[87PCB111219E]

CLP-284-1
Lot: T-0018Y
Exp: 09/30/2019
ULTRA 1 mL
Aroclor 1242 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

[87PCB111219F]

CLP-285-1
Lot. T-0033Y
Exp: 09/30/2019
ULTRA 1 mL
Aroclor 1248 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

[87PCB111219G]

CLP-286-1
Lot: T-0034Y
Exp: 09/30/2019
ULTRA 1 mL
Aroclor 1254 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

x 5/2020 TJW

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12/4/19 Aroclor Second Source/Single point Stds @ 100pg/ml, Aroclor 1221 @ 200pg/ml

[87PCB120419A]

Agilent Technologies
Aroclor 1221 Standard 1 mL
DANGER
Item: CLP-282-1
Lot No: CS-6294
Expires: 31-Jan 2023
Full safety on outer box
Contains 2,2,4-trimethylpentane

[87PCB120419B]

Agilent Technologies
Aroclor 1232 Standard 1 mL
DANGER
Item: CLP-283-1
Lot No: 0006470974
Expires: 31-Jul 2023
Full safety on outer box
Contains 2,2,4-trimethylpentane

[87PCB120419C]

Agilent Technologies
Aroclor 1242 Standard 1 mL
DANGER
Item: CLP-284-1
Lot No: 0006470978
Expires: 31-Jul 2023
Full safety on outer box
Contains 2,2,4-trimethylpentane

[87PCB120419D]

Agilent Technologies
Aroclor 1248 Standard 1 mL
DANGER
Item: CLP-285-1
Lot No: 0006470979
Expires: 31-Jul 2023
Full safety on outer box
Contains 2,2,4-trimethylpentane

[87PCB120419E]

Agilent Technologies
Aroclor 1254 Standard 1 mL
DANGER
Item: CLP-286-1
Lot No: CS-6304
Expires: 31-Jan 2023
Full safety on outer box
Contains 2,2,4-trimethylpentane

X 6/2020 DW

3/28/19 PCB Surrogate
@ 5ug/ml

[87PCB032819A]

Accustandard CLP-032R-WL-5x-50mL
pesticide Surrogate mix
5ug/ml in Acetone
Lot 21307100 7 X 7/2023

X: 3/2020
DW

3/28/19 Aroclor 1016 Second Source
@ 100 pg/ul in hexane

[87PCB032819B]

10ul Accustandard C-2165-TP Aroclor 1016
Lot 2110111 26 100ug/ml X: 1/2021

Diluted to 10ml in hexane
X 9/2019 DW

3/28/19 Aroclor 1260 Second Source
@ 100 pg/ul in hexane

[87PCB032819C]

10ul Accustandard C-2605-TP Aroclor 1260
Lot 21211284 100ug/ml X 11/2022

Diluted to 10ml in hexane
X 9/2019 DW

3/28/19 PCB Instrument Blank
@ 100 pg/ul

[87PCB032819D]

200 ul 87PCB032819A ⇒ 10 ml hexane

X 3/2020 DW

3/28/19 Aroclor Second Source / Single point Stds
@ 100 pg/ul, Aroclor 1221 @ 200 pg/ul

[87PCB032819E]

CLP-282-1
Lot T-0009Y
Exp. 09/30/2019
ULTRA
1 mL
Aroclor 1221 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
For Lab Use Only
250 Smith St, No Kingstown, RI 02852 USA

[87PCB032819F]

CLP-283-1
Lot T-0010Y
Exp 09/30/2019
ULTRA
1 mL
Aroclor 1232 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
For Lab Use Only
250 Smith St, No Kingstown, RI 02852 USA

[87PCB032819G]

CLP-284-1
Lot T-0018Y
Exp 09/30/2019
ULTRA
1 mL
Aroclor 1242 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
For Lab Use Only
250 Smith St, No Kingstown, RI 02852 USA

[87PCB032819H]

CLP-285-1
Lot T-0033Y
Exp: 09/30/2019
ULTRA
1 mL
Aroclor 1248 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
For Lab Use Only
250 Smith St, No Kingstown, RI 02852 USA

[87PCB032819I]

CLP-286-1
Lot: T-0034Y
Exp: 09/30/2019
ULTRA
1 mL
Aroclor 1254 Standard
3 analyte(s) at various concentrations in isooctane (2,2,4-trimethylpentane)
For Lab Use Only
250 Smith St, No Kingstown, RI 02852 USA

X 9/2019 DW

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7/25/19 Low level 1016/1260 Spike

[87PCB072579A]

200ul Restek 32299 Aroclors 1016+1260
Lot A0 126 345 200ug/ml
X 6/2023

Diluted to 10ml in Acetone
X 7/2020 DW

EPA Region 10, 1200 Sixth Avenue, Seattle, WA 98101

Sample Custody & Analysis Required Form

Form Effective Date: July 2005

EPA Manchester Laboratory, 7411 Beach Drive East, Port Orchard, WA 98366, 360-871-8700

Revision 1

Project Name: Sky Valley Education Center

Project Code: OCE-009E

Method of Shipment/carrier:

Airbill Number (if known prior to sealing):

Account Code: 202D2021B1DP501E5D

EPA Project Manager/phone number: MICHELLE MULLIN

Check all that apply: ☒ Enforce/Custody ☐ Possible Toxic/Hazardous ☐ Data Confidential

Sampler Names (Print & Sign). *Mark (R) after name of principal recorder.*

Randall Moore

Randall Moore

If applicable, circle the set of selected metals:

Al	Sb	As	Ba	Be
B	Cd	Ca	Cr	Co
Cu	Fe	Pb	Mg	Mn
Mo	Ni	K	Se	Ag
Na	Sn	Tl	V	Zn

(see reverse for more to add/circle)

① Matrix Codes:
10 Water/Liquid (Total)
20 Water/Liquid (Filtered)
40 Sediment/Soil, Solid, Bulk
70 Tissue
80 Oil/Solvent
44 Air filter
46 Wipe/Swab[1]
00 _____

[1] PCB wipe is to be 10cm x 10cm (100 cm²)

#C ② enter the number of containers for each preservative type followed by the appropriate preservation code P ③:

A - HCl
B - HNO_3
C - NaOH
D - H_2SO_4
E - $Na_2S_2O_3$
F - ascorbic acid[2], then HCl
G - $Na_2S_2O_3$+EDTA
H - EDTA
N - No chemical preservation
P - Bottles pre-preserved at lab
T - To be preserved at the lab

[2] $Na_2S_2O_3$ if required by plan.

W - _____

☐ Check here if the cooler is iced

④ Enter the letter or range of letters on each container for each group of containers with the same preservative type. Each container for each unique sample number must have a unique letter on it.

Laboratory: *see the applicable QAPP, SOW and/or Analytical Support Request for specific methods and detection, reporting, and/or quantitation limits*

Sampler's comments for the laboratory:

K. Wood R. Dorly

EPA Sample number (Yr Wk Sequence)	Sampling Date & Time (Yr Mo Day Time)	Matrix ①	#C ②	P ③	#C ②	P ③	#C ②	P ③	#C ②	P ③	Sampler Initials	Sample/Station Description/Field Measurements	Organics (see reverse): VOA	BNA	Pest	PCB	PAH	Metals (see reverse): CLP	Selected	Mercury	Micro (see reverse): E. Coli	F. Coliform	M. Coliform	General Chemistry (see reverse): TSS	TDS	BOD 5	NO2+NO3	Oil & Grease	Alkalinity		Additional Write in Analyses (see reverse)			
194345 01	19/15 23 1315	42	1	N							KM	S01 ADMIN STORAGE ROOM				X																	
02	231225	40	1	N							KM	S02 ADMIN STORAGE ROOM				X																	
03	231230	42	1	N							KM	S03 ADMIN STORAGE ROOM Future [illegible]				X																	
04	231320	42	1	N							KM	S04 GYM CTE ROOM Fridge top				X																	
05	231325	42	1	N							KM	S05 GYM CTE WINDOW ENCAPSULATION				X																	
06	231330	42	1	N							KM	S06 ANNEX COM. CAGE P. window ENCAPSULATION				X																	
07	231335	42	1	N							KM	S07 ANNEX COP top of fridge				X																	
08	241115	42	1	N							KM	S08 ANNEX HEATER INTERNAL				X																	
09	241120	42	1	N							KM	S09 ANNEX Heater External				X																	
10	231205	42	1	N							KM	R01 Admin Storage Room Blank				X																	
11	231204	40	1	N							KM	R02 " " Blank (solid)				X																	
12	231315	44	1	N							KM	R03 room 8 ventilator filter blank				X																	
13	231100	41	1	N							KM	F01 Dirty Ventilator Filters				X																	
14	231100	44	1	N							KM	F02 Dirty ventilator Filters				X																	

Chain of Custody Record

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
Randall Moore	10/24/19	3:25pm	[illegible]	10/24/19	1525
Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
Relinquished by (Signature)	Date	Time	Received by Mobile Lab for Field Analysis (Signature)	Date	Time
Shipped by (Signature)	Date	Time	Received for lab by (Signature)	Date	Time

Receiving Laboratory Information Condition of Samples upon Receipt at Lab:

Hand DELIVERED

Custody Seals Intact: ☐ yes ☐ no ☐ none

Distribution: White - Laboratory Copy; Yellow - Regional Sample Control Center (RSCC) Copy; Pink - Field or Office Copy

- Supplemental Data
  a. IDOC/MDL (if in time-frame)
  b. Other runs not reported

- Archive Disk

Quantitation Report (Not Reviewed)

Data Not Reported

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M120519PCBDW\
Data File : M120519a07.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:45 pm
Operator : DWOOD
Sample : 19434303X10
Misc : SKY Valley PCB Wipes 1:10 dilution
ALS Vial : 0 (Sig #1); 7 (Sig #2) Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events3.e
Quant Time: Dec 09 13:49:02 2019
Quant Method : J:\Organics\Minerva\Methods\M120419PCB1242.M
Quant Title : AROCLOR 1254 ANALYSIS
QLast Update : Wed Dec 04 16:34:32 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32

	Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL	
	System Monitoring Compounds							
1)	S2 tmx (1)	0.000	0.000	0	0	N.D.	N.D.	
7)	S2 dcb	11.316	8.207	47728	11948	274.845	229.600	
	Target Compounds							
2)	L1 1242 -1	9.796	7.038	46120	247972	124.723	175.833	#
3)	L1 1242-2	10.105	7.155	61808	189975	126.501	217.754	#
4)	L1 1242-3	10.187	7.209	66560	222485	236.563	321.827	#
5)	L1 1242-4	10.759	7.506	81736	250595	272.277	347.592	#
6)	L1 1242-5	10.816	7.890	127425	229523	246.878	326.290	#
	Sum 1242 -1			383648	1140549	1006.942	1389.295	
	Average 1242 -1					201.388	277.859	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

lw 12/9/19

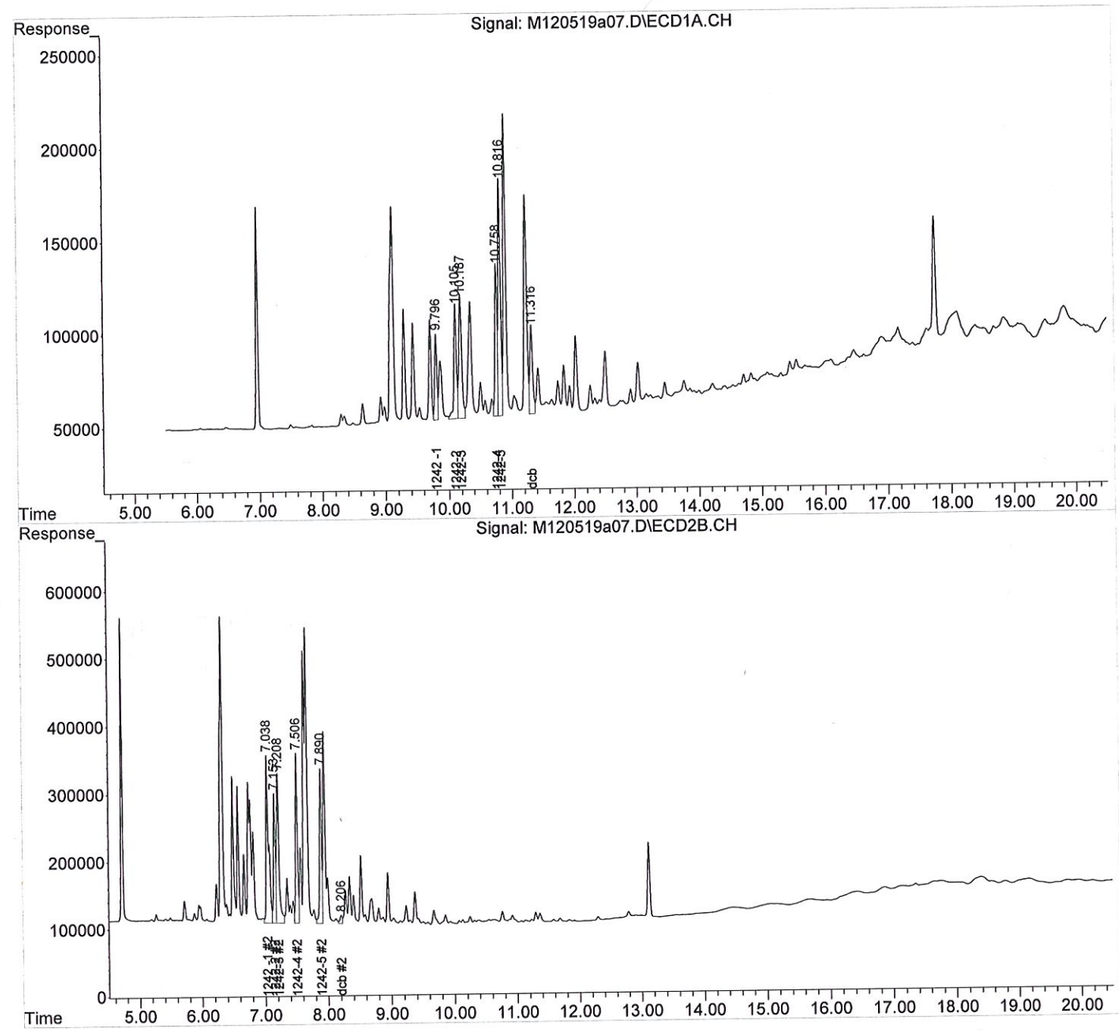
Quantitation Report (Not Reviewed)

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M120519PCBDW\
Data File : M120519a07.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Dec 2019 12:45 pm
Operator : DWOOD
Sample : 19434303X10
Misc : SKY Valley PCB Wipes 1:10 dilution
ALS Vial : 0 (Sig #1); 7 (Sig #2) Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events3.e
Quant Time: Dec 09 13:49:02 2019
Quant Method : J:\Organics\Minerva\Methods\M120419PCB1242.M
Quant Title : AROCLOR 1254 ANALYSIS
QLast Update : Wed Dec 04 16:34:32 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest
Signal #1 Info : .32

Signal #2 Phase: CLPest2
Signal #2 Info : .32



Quantitation Report (Not Reviewed)

Do Not Report

Data Path : J:\Organics\Minerva\MINERVA 2019 DATA\M111319PCBDW\
Data File : M111319a24.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 Nov 2019 8:21 pm
Operator : DWOOD
Sample : 87PCB032819M
Misc : PCB 1016/1260 Cont Cal 100 pg/uL
ALS Vial : 0 (Sig #1); 2 (Sig #2) Sample Multiplier: 1

Integration File signal 1: EVENTS1.E
Integration File signal 2: EVENTS1.E
Quant Time: Nov 14 10:09:51 2019
Quant Method : J:\Organics\Minerva\Methods\M111219PCB1260.M
Quant Title : AROCLOR 1016/1260 ANALYSIS
QLast Update : Tue Nov 12 15:48:19 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 2 uL
Signal #1 Phase : CLPest Signal #2 Phase: CLPest2
Signal #1 Info : .32 Signal #2 Info : .32

Compound	RT#1	RT#2	Resp#1	Resp#2	pg/uL	pg/uL
System Monitoring Compounds						
1) S2 tmx (1)	6.961	4.715	296028	965737	10.179	10.579
12) S2 dcb	17.735	13.107	112104	313923	9.273	7.494
Target Compounds						
2) L1 1016 -1	7.572	5.257	44500	172878	99.860	112.961
3) L1 1016-2	8.633	5.714	54039	291117	88.369	109.656
4) L1 1016-3	9.286	6.316	64427	386981	83.983	107.879 #
5) L1 1016-4	9.430	6.488	40983	224111	85.030	110.705 #
6) L1 1016-5	9.700	6.569	43846	158244	85.098	108.160 #
Sum 1016 -1			247794	1233330	442.341	549.361
Average 1016 -1					88.468	109.872
7) L2 1260-1	12.465	8.797	88653	320466	88.664	100.364
8) L2 1260-2	12.901	9.229	99862	456400	86.202	96.758
9) L2 1260-3	13.448	9.667	107612	371402	86.878	97.058
10) L2 1260-4	14.710	10.246	126855	220018	87.379	94.284
11) L2 1260-5	15.291	10.760	58133	445522	85.645	92.275
Sum 1260-1			481115	1813809	434.768	480.739
Average 1260-1					86.954	96.148

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.