GC/MS Semivolatiles

SIMPAH

Case Narrative

COGCC

Vondy #3

Work Order Number: 1701016

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 01/04/17.

2. The sample was prepared and analyzed according to SW-846, 3rd Edition procedures. Specifically, the water sample was extracted using continuous liquid-liquid extractors, according to SW-846 Method 3520C, utilizing the current revision of SOP 617.

3. The extract was analyzed using GC/MS with a DB-5MS capillary column according to the current revision of SOP 506 based on SW-846 Method 8270D. The samples were analyzed using selective ion monitoring (SIM), in order to achieve lower reporting limits. All positive results were quantitated against the initial calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and a limited number of major ions from the mass spectrum of the sample versus the daily calibration standard.

4. All initial calibration criteria were met. If average response factors were used in the initial calibration, %RSD was ≤20%. If linear or higher order regression calibrations were used in the initial calibration, the coefficient of determination (r^2) ≥0.99.

5. All initial calibration standards are verified by comparing a second source standard initial calibration verification (ICV) against the calibration curve. All target compounds in the second source verification had a %D ≤30%.

6. All compounds in the daily (continuing) calibration verifications were within 20%D.

7. All method blank criteria were met.

8. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria.

9. A matrix spike and matrix spike duplicate were not performed. A laboratory control sample and laboratory control sample duplicate were performed instead.

10. The sample was extracted and analyzed within the established holding times.

11. All surrogate recoveries were within acceptance criteria.

12. All internal standard recoveries were within acceptance criteria.

13. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in the current revision of SOP 939.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Emily Lyons — 1/16/17
Organics Primary Data Reviewer — Date

Organics Final Data Reviewer — 1/18/17
Date

ALS
Data Qualifier Flags
Organics

U or ND:	**This flag indicates that the compound was analyzed for but not detected.**
J:	**This flag indicates an estimated value. This flag is used as follows : (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the retention time data indicate the presence of a compound that meets the GC identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.**
B:	**This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.**
E:	**This flag identifies compounds whose concentration exceeds the upper level of the calibration range.**
A:	**This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.**
X:	**This flag indicates that the analyte was diluted below an accurate quantitation level.**
***:**	**This flag indicates that a spike recovery is equal to or outside the control criteria used.**
+:	**This flag indicates that the relative percent difference (RPD) equals or exceeds the control criteria.**

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1701016
Client Name: COGCC
Client Project Name: Vondy #3
Client Project Number:
Client PO Number: CT 2017-0221

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Vondy #3	1701016-1		WATER	30-Dec-16	12:30
TB	1701016-2		WATER	30-Dec-16	

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.
Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #	
1701016	
PAGE	of
DISPOSAL	BY LAB or RETURN

TURNAROUND TIME	Std.	SAMPLER	Robert Young

PROJECT NAME	Vondy #3	SITE ID	
PROJECT No.		EDD FORMAT	
		PURCHASE ORDER	CT 2017-0221
COMPANY NAME	COGCC	BILL TO COMPANY	
SEND REPORT TO	Robert Young	INVOICE ATTN TO	
ADDRESS		ADDRESS	
CITY / STATE / ZIP		CITY / STATE / ZIP	
PHONE	303-252-0126	PHONE	
FAX		FAX	
E-MAIL	rob.young@state.co.us	E-MAIL	

PARAMETER/METHOD REQUEST FOR ANALYSIS

A	Alkalinity/Conductivity/Anions/pH (1L amber glass)
B	Dissolved metals/SAR (lab filtration)
C	Nitrate/Nitrite
D	8260 - BTEX SS 1/5/17
E	RSK-175
F	8015-GRO
G	TDS
H	8015-DRO
I	8270 SIM SS 1/5/17
J	TB

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
1	Vondy #3	Aq	12/30/16	1230	1	None		X										
2					1	None			X									
3					1	Sulfuric				X								
4					3	HCL					X							
5					3	HCL						X						
6					3	HCL							X					
7					1	None								X				
8					1	None									X			
9					1	None										X		
10					2	HCL											X	

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES	REPORT LEVEL / QC REQUIRED
	Summary (Standard QC)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

PRESERVATION KEY: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Robert J. Young	Robert Young	1-4-2017	1445
RECEIVED BY		JOSHUA NORTH-SILCA	1.4.17	1450
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCC Workorder No: COGCC1701016

Project Manager: SS Initials: JWS Date: ~~1/5/17~~ 1/5/17

1.	Does this project require any special handling in addition to standard ALS procedures?		YES	(NO)
2.	Are custody seals on shipping containers intact?	(NONE)	YES	NO
3.	Are Custody seals on sample containers intact?	(NONE)	YES	NO
4.	Is there a COC (Chain-of-Custody) present or other representative documents?		(YES)	NO
5.	Are the COC and bottle labels complete and legible?		(YES)	NO
6.	Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	NO
7.	Were airbills / shipping documents present and/or removable?	(DROP OFF)	YES	NO
8.	Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	(YES)	NO
9.	Are all aqueous non-preserved samples pH 4-9?	N/A	(YES)	NO
10.	Is there sufficient sample for the requested analyses?		(YES)	NO
11.	Were all samples placed in the proper containers for the requested analyses?		(YES)	NO
12.	Are all samples within holding times for the requested analyses?		(YES)	NO
13.	Were all sample containers received intact? (not broken or leaking, etc.)		(YES)	NO
14.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	(N/A)	YES	NO
15.	Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	N/A	YES	(NO)
16.	Were the samples shipped on ice?		(YES)	NO
17.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 #4	RAD ONLY	(YES)	NO

Cooler #:	1								
Temperature (°C):	2.7								
No. of custody seals on cooler:	Ø								
DOT Survey/ Acceptance Information: External µR/hr reading:	—								
Background µR/hr reading:	—								

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / (NA) (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

Handwriting on labels faded and hard to make out.

If applicable, was the client contacted? YES / NO / N/A Contact: _____ Date/Time: _____

Project Manager Signature / Date: Shilds Lemmy

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

GC/MS Semi-volatiles

Method SW8270SIMD

Method Blank

Lab Name: ALS -- Fort Collins
Work Order Number: 1701016
Client Name: COGCC
ClientProject ID: Vondy #3

Lab ID: EX170106-1MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 06-Jan-17
Date Analyzed: 10-Jan-17

Prep Batch: EX170106-1
QCBatchID: EX170106-1-1
Run ID: SV170110-33
Cleanup: NONE
Basis: N/A
File Name: R7250

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
91-20-3	NAPHTHALENE	1	0.1	0.1	0.03	U	
91-57-6	2-METHYLNAPHTHALENE	1	0.1	0.1	0.03	U	
90-12-0	1-METHYLNAPHTHALENE	1	0.1	0.1	0.03	U	
208-96-8	ACENAPHTHYLENE	1	0.1	0.1	0.03	U	
83-32-9	ACENAPHTHENE	1	0.1	0.1	0.03	U	
86-73-7	FLUORENE	1	0.1	0.1	0.031	U	
85-01-8	PHENANTHRENE	1	0.1	0.1	0.034	U	
120-12-7	ANTHRACENE	1	0.1	0.1	0.032	U	
206-44-0	FLUORANTHENE	1	0.1	0.1	0.033	U	
129-00-0	PYRENE	1	0.1	0.1	0.03	U	
56-55-3	BENZO(A)ANTHRACENE	1	0.1	0.1	0.03	U	
218-01-9	CHRYSENE	1	0.1	0.1	0.03	U	
205-99-2	BENZO(B)FLUORANTHENE	1	0.1	0.1	0.03	U	
207-08-9	BENZO(K)FLUORANTHENE	1	0.1	0.1	0.033	U	
50-32-8	BENZO(A)PYRENE	1	0.1	0.1	0.03	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	0.1	0.1	0.03	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	0.1	0.1	0.03	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	0.1	0.1	0.03	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
321-60-8	2-FLUOROBIPHENYL	1.75		2	88	21 - 106
4165-60-0	NITROBENZENE-D5	1.9		2	95	34 - 111
1718-51-0	TERPHENYL-D14	1.83		2	91	33 - 111

Data Package ID: *SV1701016-1*

GC/MS Semi-volatiles

Method SW8270SIMD

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1701016
Client Name: COGCC
ClientProject ID: Vondy #3

Field ID: Vondy #3
Lab ID: 1701016-1

Analysis ReqCode: SIM PAH from S

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 30-Dec-16
Date Extracted: 06-Jan-17
Date Analyzed: 10-Jan-17
Prep Method: SW3520BN Rev C

Prep Batch: EX170106-1
QCBatchID: EX170106-1-1
Run ID: SV170110-33
Cleanup: NONE
Basis: As Received
File Name: R7254

Analyst: Tyler Knaebel
Sample Aliquot: 1060 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
91-20-3	NAPHTHALENE	1	0.094	0.094	0.028	U	
91-57-6	2-METHYLNAPHTHALENE	1	0.094	0.094	0.028	U	
90-12-0	1-METHYLNAPHTHALENE	1	0.094	0.094	0.028	U	
208-96-8	ACENAPHTHYLENE	1	0.094	0.094	0.028	U	
83-32-9	ACENAPHTHENE	1	0.094	0.094	0.028	U	
86-73-7	FLUORENE	1	0.094	0.094	0.029	U	
85-01-8	PHENANTHRENE	1	0.094	0.094	0.032	U	
120-12-7	ANTHRACENE	1	0.094	0.094	0.03	U	
206-44-0	FLUORANTHENE	1	0.094	0.094	0.031	U	
129-00-0	PYRENE	1	0.094	0.094	0.028	U	
56-55-3	BENZO(A)ANTHRACENE	1	0.094	0.094	0.028	U	
218-01-9	CHRYSENE	1	0.094	0.094	0.028	U	
205-99-2	BENZO(B)FLUORANTHENE	1	0.094	0.094	0.028	U	
207-08-9	BENZO(K)FLUORANTHENE	1	0.094	0.094	0.031	U	
50-32-8	BENZO(A)PYRENE	1	0.094	0.094	0.028	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	0.094	0.094	0.028	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	0.094	0.094	0.028	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	0.094	0.094	0.028	U	

Data Package ID: *SV1701016-1*

GC/MS Semi-volatiles

Method SW8270SIMD

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1701016
Client Name: COGCC
ClientProject ID: Vondy #3

Field ID: Vondy #3
Lab ID: 1701016-1

Analysis ReqCode: SIM PAH from S

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 30-Dec-16
Date Extracted: 06-Jan-17
Date Analyzed: 10-Jan-17
Prep Method: SW3520BN Rev C

Prep Batch: EX170106-1
QCBatchID: EX170106-1-1
Run ID: SV170110-33
Cleanup: NONE
Basis: As Received
File Name: R7254

Analyst: Tyler Knaebel
Sample Aliquot: 1060 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
321-60-8	2-FLUOROBIPHENYL	1.75		1.89	93	21 - 106
4165-60-0	NITROBENZENE-D5	1.88		1.89	100	34 - 111
1718-51-0	TERPHENYL-D14	1.8		1.89	95	33 - 111

Data Package ID: *SV1701016-1*

GC/MS Semi-volatiles

Method SW8270SIMD

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1701016
Client Name: COGCC
ClientProject ID: Vondy #3

Lab ID: EX170106-1LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 01/06/2017
Date Analyzed: 01/10/2017
Prep Method: SW3520BNC

Prep Batch: EX170106-1
QCBatchID: EX170106-1-1
Run ID: SV170110-33
Cleanup: NONE
Basis: N/A
File Name: R7251

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
91-20-3	NAPHTHALENE	2	1.61	0.1		81	39 - 102%
91-57-6	2-METHYLNAPHTHALENE	2	1.59	0.1		79	46 - 104%
90-12-0	1-METHYLNAPHTHALENE	2	1.73	0.1		87	60 - 100%
208-96-8	ACENAPHTHYLENE	2	1.72	0.1		86	33 - 127%
83-32-9	ACENAPHTHENE	2	1.69	0.1		84	47 - 108%
86-73-7	FLUORENE	2	1.69	0.1		84	50 - 112%
85-01-8	PHENANTHRENE	2	1.62	0.1		81	51 - 117%
120-12-7	ANTHRACENE	2	1.66	0.1		83	54 - 112%
206-44-0	FLUORANTHENE	2	1.68	0.1		84	39 - 133%
129-00-0	PYRENE	2	1.76	0.1		88	50 - 117%
56-55-3	BENZO(A)ANTHRACENE	2	1.77	0.1		89	47 - 132%
218-01-9	CHRYSENE	2	1.74	0.1		87	52 - 112%
205-99-2	BENZO(B)FLUORANTHENE	2	1.53	0.1		77	51 - 124%
207-08-9	BENZO(K)FLUORANTHENE	2	1.79	0.1		89	53 - 128%
50-32-8	BENZO(A)PYRENE	2	1.58	0.1		79	45 - 116%
193-39-5	INDENO(1,2,3-CD)PYRENE	2	1.83	0.1		92	43 - 141%
53-70-3	DIBENZO(A,H)ANTHRACENE	2	1.88	0.1		94	43 - 141%
191-24-2	BENZO(G,H,I)PERYLENE	2	1.81	0.1		90	38 - 123%

Data Package ID: *SV1701016-1*

GC/MS Semi-volatiles

Method SW8270SIMD

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1701016
Client Name: COGCC
ClientProject ID: Vondy #3

Lab ID: EX170106-1LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 01/06/2017
Date Analyzed: 01/10/2017
Prep Method: SW3520BNC

Prep Batch: EX170106-1
QCBatchID: EX170106-1-1
Run ID: SV170110-33
Cleanup: NONE
Basis: N/A
File Name: R7252

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

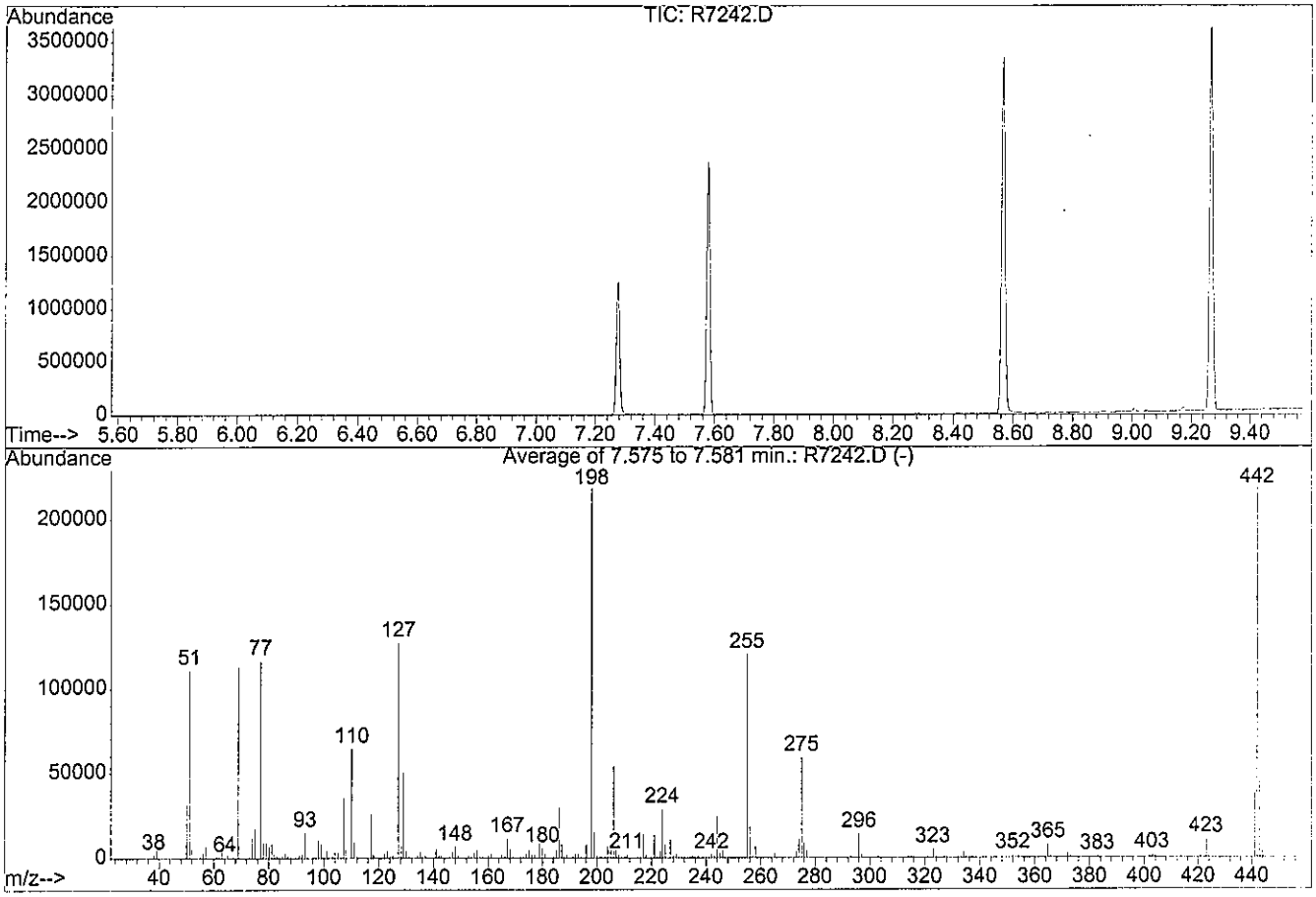
CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
91-20-3	NAPHTHALENE	2	1.6	0.1		80	20	1
91-57-6	2-METHYLNAPHTHALENE	2	1.54	0.1		77	20	3
90-12-0	1-METHYLNAPHTHALENE	2	1.69	0.1		85	20	3
208-96-8	ACENAPHTHYLENE	2	1.64	0.1		82	20	4
83-32-9	ACENAPHTHENE	2	1.62	0.1		81	20	4
86-73-7	FLUORENE	2	1.62	0.1		81	20	4
85-01-8	PHENANTHRENE	2	1.63	0.1		81	20	0
120-12-7	ANTHRACENE	2	1.66	0.1		83	20	0
206-44-0	FLUORANTHENE	2	1.7	0.1		85	20	1
129-00-0	PYRENE	2	1.73	0.1		87	20	2
56-55-3	BENZO(A)ANTHRACENE	2	1.76	0.1		88	20	1
218-01-9	CHRYSENE	2	1.73	0.1		87	20	0
205-99-2	BENZO(B)FLUORANTHENE	2	1.56	0.1		78	20	2
207-08-9	BENZO(K)FLUORANTHENE	2	1.71	0.1		86	20	4
50-32-8	BENZO(A)PYRENE	2	1.61	0.1		81	20	2
193-39-5	INDENO(1,2,3-CD)PYRENE	2	1.84	0.1		92	20	1
53-70-3	DIBENZO(A,H)ANTHRACENE	2	1.89	0.1		94	20	0
191-24-2	BENZO(G,H,I)PERYLENE	2	1.82	0.1		91	20	1

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
321-60-8	2-FLUOROBIPHENYL	2	93		90		21 - 106
4165-60-0	NITROBENZENE-D5	2	98		97		34 - 111
1718-51-0	TERPHENYL-D14	2	99		98		33 - 111

Data Package ID: *SV1701016-1*

Data File : E:\HPCHEM\1\DATA\2016\011017\R7242.D Vial: 2
Acq On : 10 Jan 2017 9:54 Operator: twk SOP 5
Sample : DFTPP TUNE Inst : HPSV-3
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\DFTPP1.M (RTE Integrator)
Title : DFTPP



AutoFind: Scans 1510, 1511, 1512; Background Corrected with Scan 1503

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	50.9	111363	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.6	112952	PASS
70	69	0.00	2	0.2	237	PASS
127	198	10	80	58.1	127304	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	218944	PASS
199	198	5	9	7.0	15403	PASS
275	198	10	60	27.1	59392	PASS
365	198	1	100	3.5	7740	PASS
441	443	0.01	100	84.6	37763	PASS
442	198	50	300	100.0	218837	PASS
443	442	15	24	20.4	44632	PASS

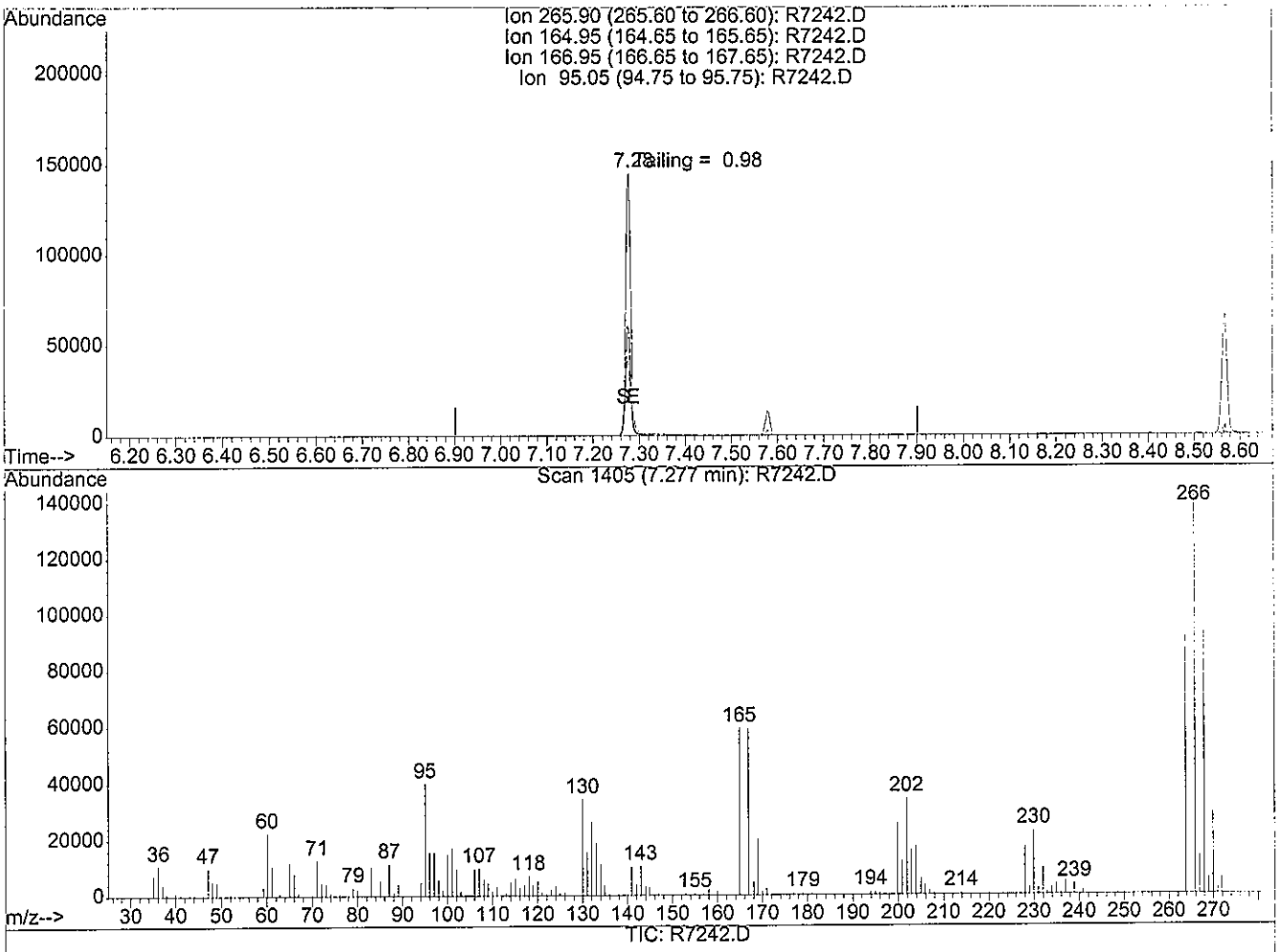
1/10/17

R7242.D DFTPP1.M Tue Jan 10 15:42:42 2017

Quantitation Report (Qedit)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7242.D Vial: 2
Acq On : 10 Jan 2017 9:54 Operator: twk SOP 5
Sample : DFTPP TUNE Inst : HPSV-3
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 10:08 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP1.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Oct 25 10:16:12 2016
Response via : Single Level Calibration



(1) Pentachlorophenol (T)

7.28min 37.18

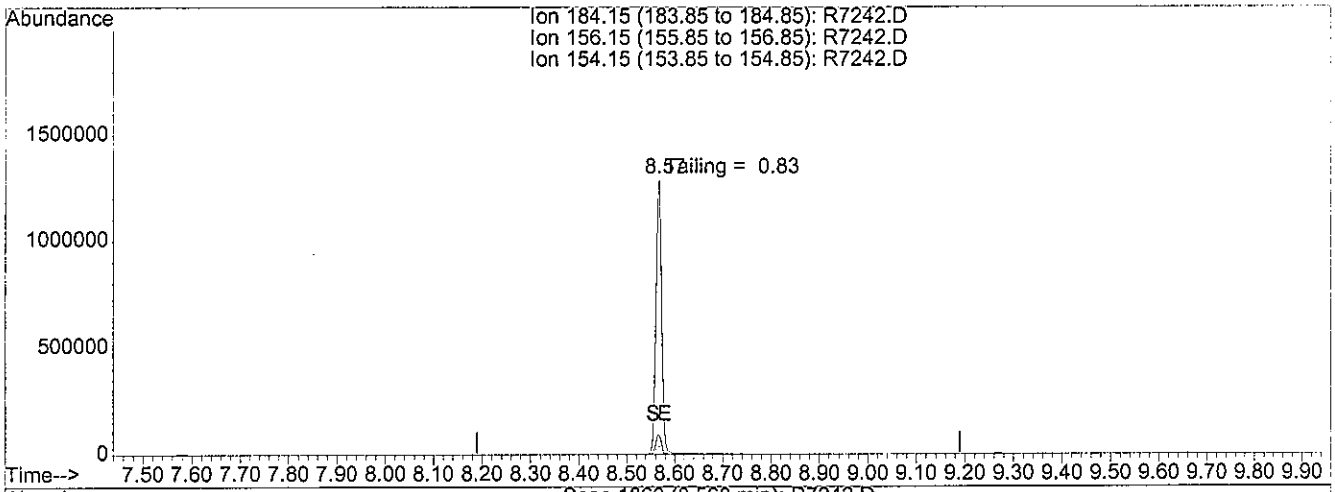
response 117295

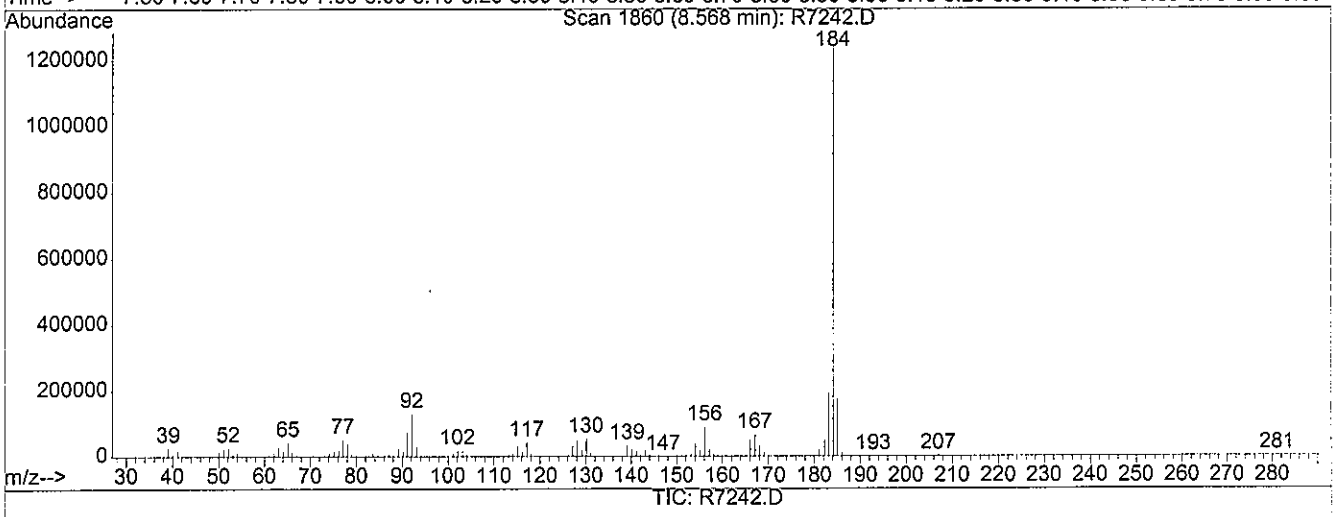
Ion	Exp%	Act%
265.90	100	100
164.95	0.00	42.16#
166.95	0.00	40.83#
95.05	0.00	29.22#

Quantitation Report (Qedit)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7242.D Vial: 2
Acq On : 10 Jan 2017 9:54 Operator: twk SOP 5
Sample : DFTPP TUNE Inst : HPSV-3
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 10:08 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP1.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Oct 25 10:16:12 2016
Response via : Single Level Calibration





(3) Benzidine (T)

8.57min 66.36

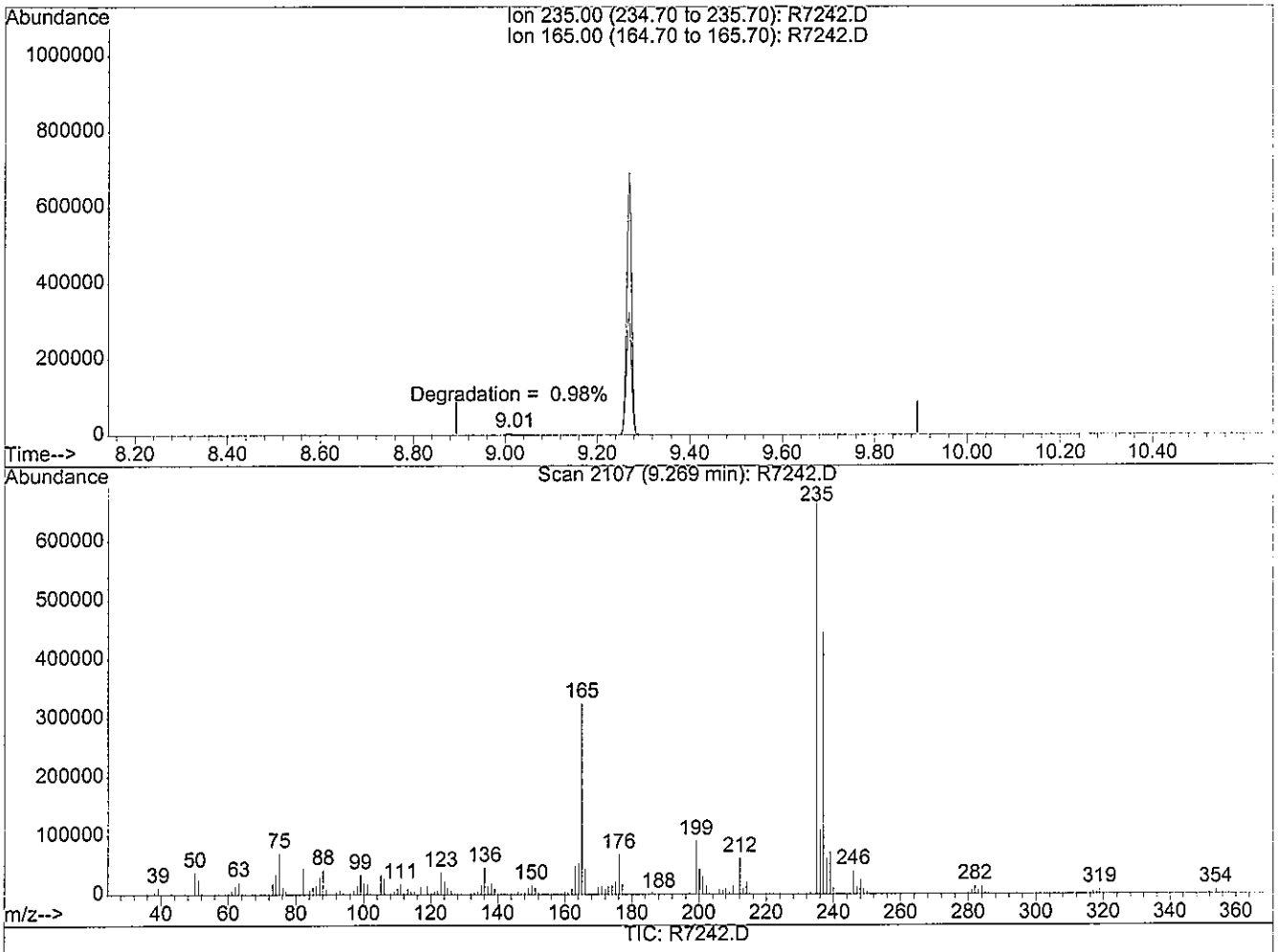
response 1053217

Ion	Exp%	Act%
184.15	100	100
156.15	0.00	7.39#
154.15	0.00	2.96#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7242.D Vial: 2
Acq On : 10 Jan 2017 9:54 Operator: twk SOP 5
Sample : DFTPP TUNE Inst : HPSV-3
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 10:08 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP1.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Oct 25 10:16:12 2016
Response via : Single Level Calibration



(4) DDT (T)

9.27min 47.7250

response 516628

Ion	Exp%	Act%
235.00	100	100
165.00	0.00	48.73#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7249.D Vial: 9
Acq On : 10 Jan 2017 12:48 Operator: twk SOP 506 Re
Sample : SV170110-33CCV Inst : HPSV-3
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Quant Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration
DataAcq Meth : 112816S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.50	136	286924	2000.00	ng/mL	0.00
6) Acenaphthene-d10	7.14	164	122613	2000.00	ng/mL	0.00
11) Phenanthrene-d10	8.44	188	215559	2000.00	ng/mL	0.00
15) Chrysene-d12	10.74	240	206221	2000.00	ng/mL	0.00
20) Perylene-d12	12.37	264	191216	2000.00	ng/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.77	82	49778	1167.40	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery =	58.37%#		
7) 2-Fluorobiphenyl	6.50	172	118818	1095.98	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery =	54.80%#		
17) p-Terphenyl-d14	9.77	244	105422	1106.43	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery =	55.32%#		
Target Compounds						Qvalue
3) Naphthalene	5.52	128	175661	1062.93	ng/mL	100
4) 2-Methylnaphthalene	6.17	142	121322	1086.22	ng/mL	100
5) 1-Methylnaphthalene	6.27	142	104988	1091.80	ng/mL	100
8) Acenaphthylene	7.02	152	168406	1103.76	ng/mL	100
9) Acenaphthene	7.16	154	101993	1089.60	ng/mL	100
10) Fluorene	7.62	166	117679	1078.50	ng/mL	100
12) Phenanthrene	8.46	178	164776	1021.09	ng/mL	100
13) Anthracene	8.51	178	160345	1053.17	ng/mL	100
14) Fluoranthene	9.50	202	165371	1062.78	ng/mL	100
16) Pyrene	9.70	202	166589	1065.85	ng/mL	100
18) Benzo[a]anthracene	10.73	228	143039	1078.41	ng/mL	100
19) Chrysene	10.77	228	132555	1046.23	ng/mL	100
21) Benzo[b]fluoranthene	11.87	252	142015	1032.85	ng/mL	100
22) Benzo[k]fluoranthene	11.90	252	121079	1001.85	ng/mL	100
23) Benzo[a]pyrene	12.29	252	124811	1049.33	ng/mL	100
24) Indeno(1,2,3-c,d)pyrene	14.00	276	132769	1124.10	ng/mL	100
25) Dibenzo[a,h]anthracene	13.99	278	109461	1157.20	ng/mL	100
26) Benzo[g,h,i]perylene	14.51	276	114870	1114.83	ng/mL	100

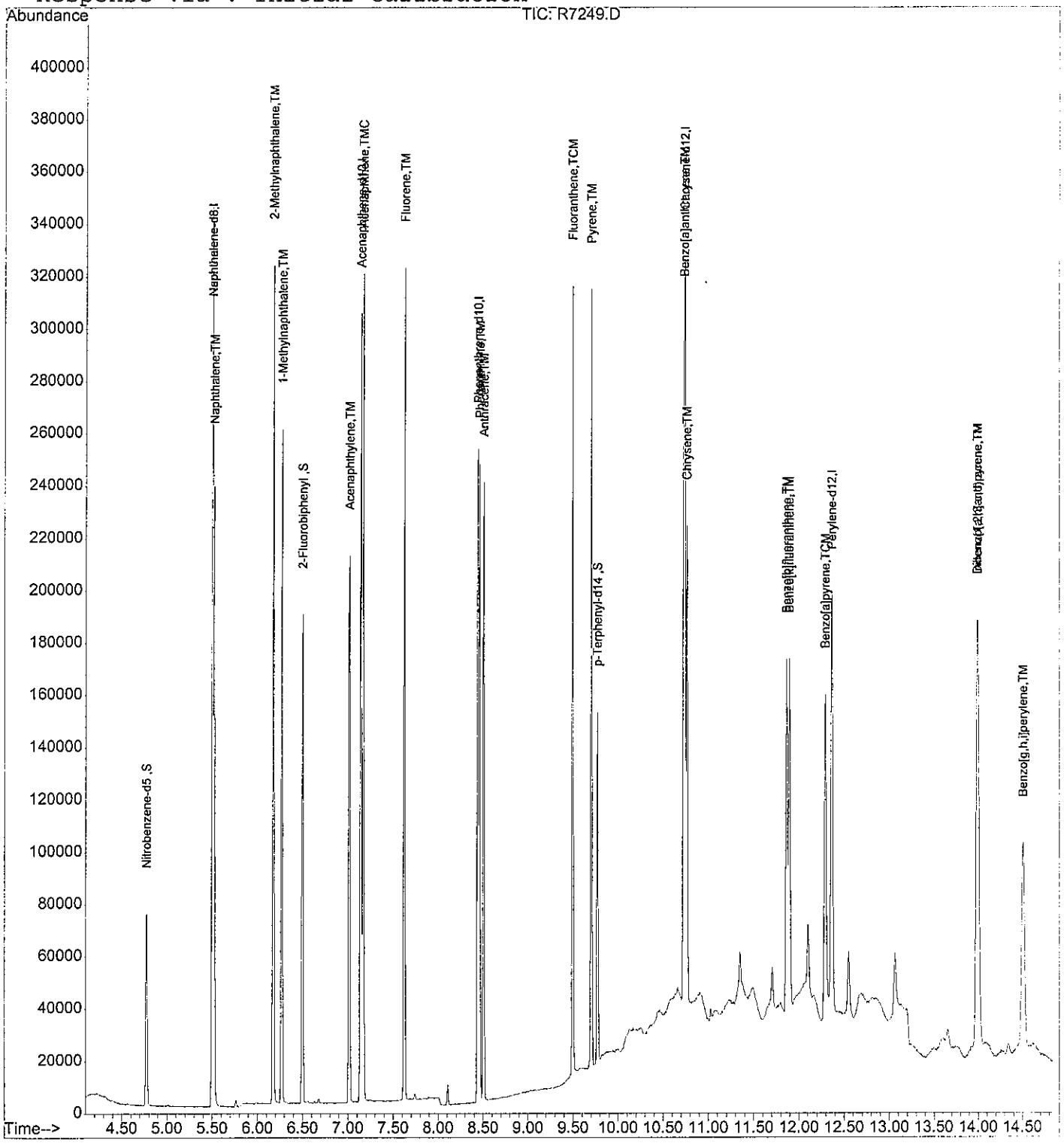
1/10/17

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : E:\HPCHEM\1\DATA\2016\011017\R7249.D Vial: 9
Acq On : 10 Jan 2017 12:48 Operator: twk SOP 506
Sample : SV170110-33CCV Inst : HPSV-3
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7250.D Vial: 10
Acq On : 10 Jan 2017 13:09 Operator: twk SOP 506 Re
Sample : EX170106-1MB Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Quant Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration
DataAcq Meth : 112816S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.50	136	187547	2000.00	ng/mL	0.00
6) Acenaphthene-d10	7.14	164	79914	2000.00	ng/mL	0.00
11) Phenanthrene-d10	8.44	188	137539	2000.00	ng/mL	0.00
15) Chrysene-d12	10.74	240	133402	2000.00	ng/mL	0.00
20) Perylene-d12	12.37	264	126499	2000.00	ng/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.77	82	52997	1901.48	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery =	95.07%		
7) 2-Fluorobiphenyl	6.50	172	123941	1754.07	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery =	87.70%		
17) p-Terphenyl-d14	9.77	244	112694	1828.36	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery =	91.42%		

Target Compounds Qvalue

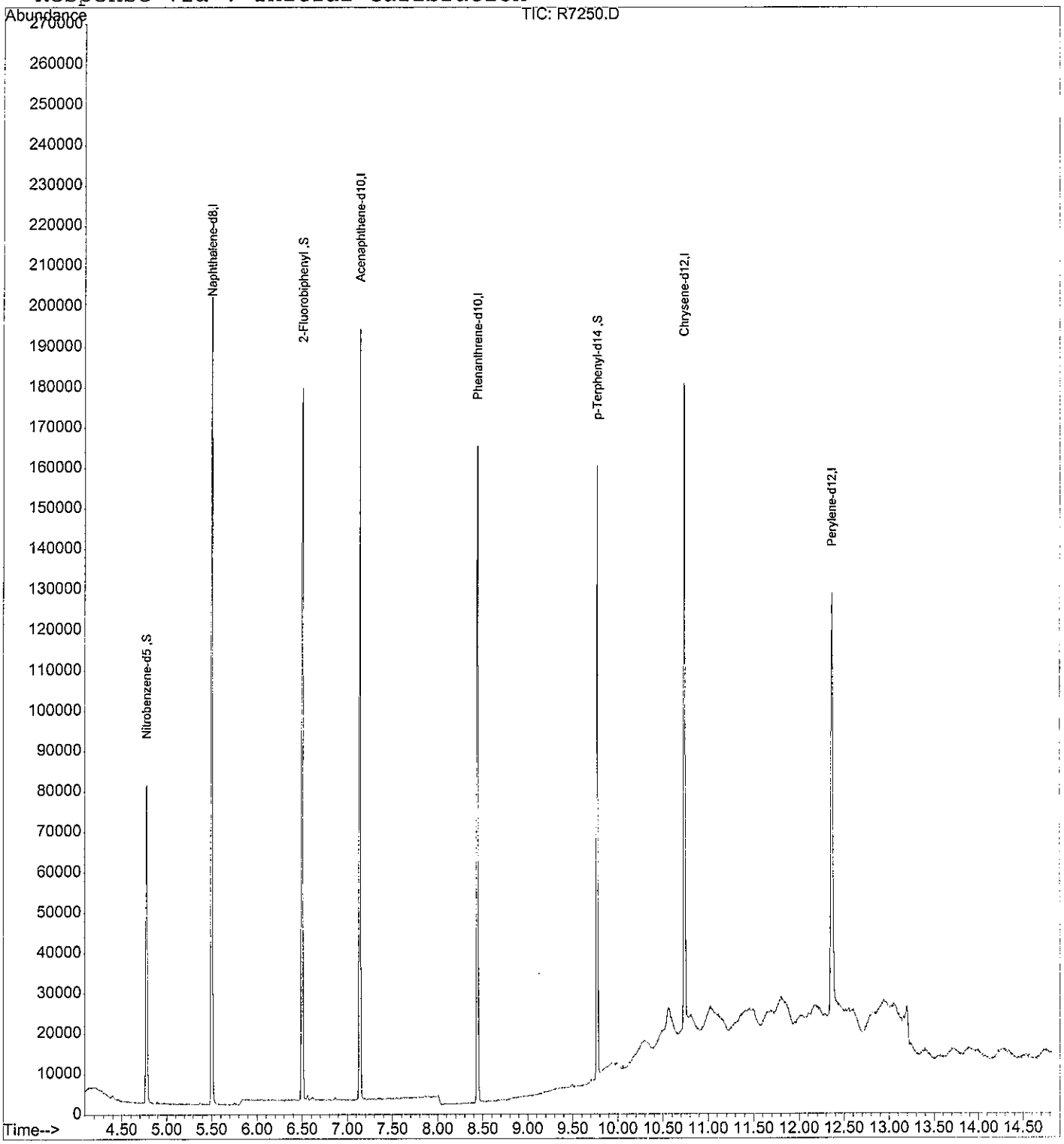
Jan 1/10/17

(#) = qualifier out of range (m) = manual integration
R7250.D 112816S.M Tue Jan 10 15:53:53 2017 Page 1

Quantitation Report

Data File : E:\HPCHEM\1\DATA\2016\011017\R7250.D Vial: 10
Acq On : 10 Jan 2017 13:09 Operator: twk SOP 506
Sample : EX170106-1MB Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7251.D Vial: 11
Acq On : 10 Jan 2017 13:29 Operator: twk SOP 506 Re
Sample : EX170106-1LCS Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Quant Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration
DataAcq Meth : 112816S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.50	136	190600	2000.00	ng/mL	0.00
6) Acenaphthene-d10	7.13	164	79542	2000.00	ng/mL	0.00
11) Phenanthrene-d10	8.44	188	137579	2000.00	ng/mL	0.00
15) Chrysene-d12	10.74	240	126892	2000.00	ng/mL	0.00
20) Perylene-d12	12.36	264	117834	2000.00	ng/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.77	82	55334	1953.53	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 97.68%			
7) 2-Fluorobiphenyl	6.49	172	130227	1851.66	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 92.58%			
17) p-Terphenyl-d14	9.77	244	116015	1978.81	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 98.94%			
Target Compounds						Qvalue
3) Naphthalene	5.52	128	177045	1612.71	ng/mL	99
4) 2-Methylnaphthalene	6.18	142	117761	1587.18	ng/mL	99
5) 1-Methylnaphthalene	6.27	142	110794	1734.46	ng/mL	100
8) Acenaphthylene	7.01	152	169908	1716.60	ng/mL	100
9) Acenaphthene	7.17	154	102337	1685.27	ng/mL	100
10) Fluorene	7.62	166	119538	1688.76	ng/mL	100
12) Phenanthrene	8.46	178	167239	1623.75	ng/mL	99
13) Anthracene	8.50	178	161691	1663.97	ng/mL	100
14) Fluoranthene	9.50	202	166645	1678.00	ng/mL	97
16) Pyrene	9.70	202	169642	1763.93	ng/mL	99
18) Benzo[a]anthracene	10.72	228	144751	1773.58	ng/mL	99
19) Chrysene	10.76	228	135644	1739.92	ng/mL	99
21) Benzo[b]fluoranthene	11.86	252	129767	1531.51	ng/mL#	91
22) Benzo[k]fluoranthene	11.89	252	133240	1789.04	ng/mL	93
23) Benzo[a]pyrene	12.28	252	116172	1584.94	ng/mL#	79
24) Indeno(1,2,3-c,d)pyrene	13.98	276	133304	1831.50	ng/mL	97
25) Dibenzo[a,h]anthracene	13.98	278	109723	1882.35	ng/mL	98
26) Benzo[g,h,i]perylene	14.49	276	114886	1809.35	ng/mL	98

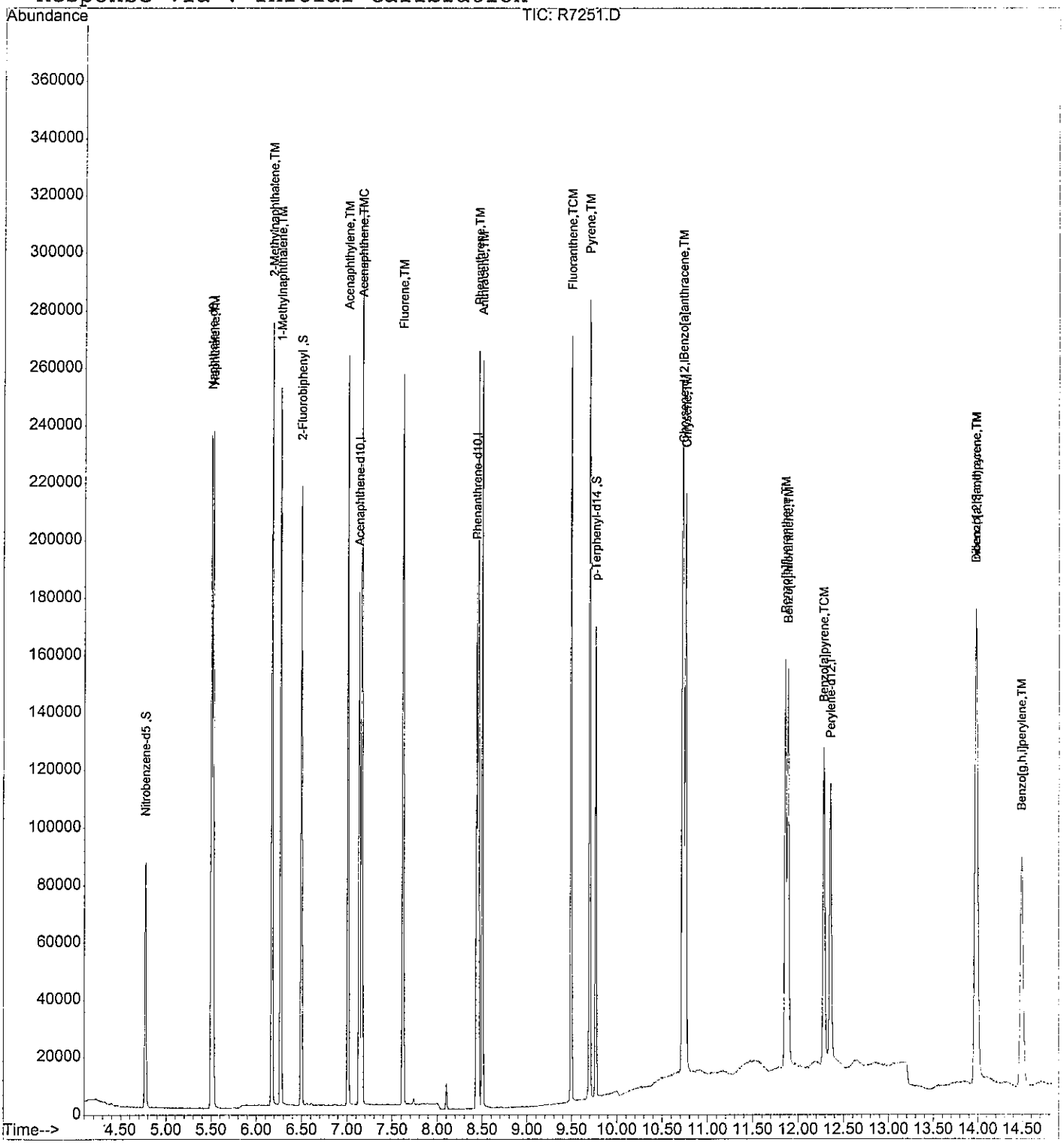
Jan/10/17

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : E:\HPCHEM\1\DATA\2016\011017\R7251.D Vial: 11
Acq On : 10 Jan 2017 13:29 Operator: twk SOP 506
Sample : EX170106-1LCS Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7252.D Vial: 12
Acq On : 10 Jan 2017 13:49 Operator: twk SOP 506 Re
Sample : EX170106-1LCSD Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Quant Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration
DataAcq Meth : 112816S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.50	136	178499	2000.00	ng/mL	0.00
6) Acenaphthene-d10	7.13	164	75823	2000.00	ng/mL	0.00
11) Phenanthrene-d10	8.44	188	128585	2000.00	ng/mL	0.00
15) Chrysene-d12	10.74	240	121031	2000.00	ng/mL	0.00
20) Perylene-d12	12.35	264	113233	2000.00	ng/mL	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.77	82	51671	1947.88	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 97.39%			
7) 2-Fluorobiphenyl	6.49	172	120240	1793.51	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 89.68%			
17) p-Terphenyl-d14	9.77	244	109628	1960.42	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 98.02%			
Target Compounds						Qvalue
3) Naphthalene	5.52	128	164001	1595.17	ng/mL	99
4) 2-Methylnaphthalene	6.18	142	106717	1535.84	ng/mL	99
5) 1-Methylnaphthalene	6.27	142	101149	1690.82	ng/mL	99
8) Acenaphthylene	7.01	152	154859	1641.30	ng/mL	99
9) Acenaphthene	7.17	154	93685	1618.46	ng/mL	99
10) Fluorene	7.62	166	109528	1623.24	ng/mL	100
12) Phenanthrene	8.46	178	156591	1626.71	ng/mL	99
13) Anthracene	8.50	178	150451	1656.59	ng/mL	99
14) Fluoranthene	9.49	202	157582	1697.73	ng/mL	96
16) Pyrene	9.70	202	158965	1732.96	ng/mL	99
18) Benzo[a]anthracene	10.72	228	136732	1756.45	ng/mL	99
19) Chrysene	10.76	228	128834	1732.60	ng/mL	100
21) Benzo[b]fluoranthene	11.86	252	127407	1564.76	ng/mL#	95
22) Benzo[k]fluoranthene	11.89	252	122556	1712.45	ng/mL	96
23) Benzo[a]pyrene	12.28	252	113713	1614.43	ng/mL#	77
24) Indeno(1,2,3-c,d)pyrene	13.98	276	128933	1843.42	ng/mL	96
25) Dibenzo[a,h]anthracene	13.98	278	105775	1888.35	ng/mL	97
26) Benzo[g,h,i]perylene	14.49	276	111144	1821.54	ng/mL	99

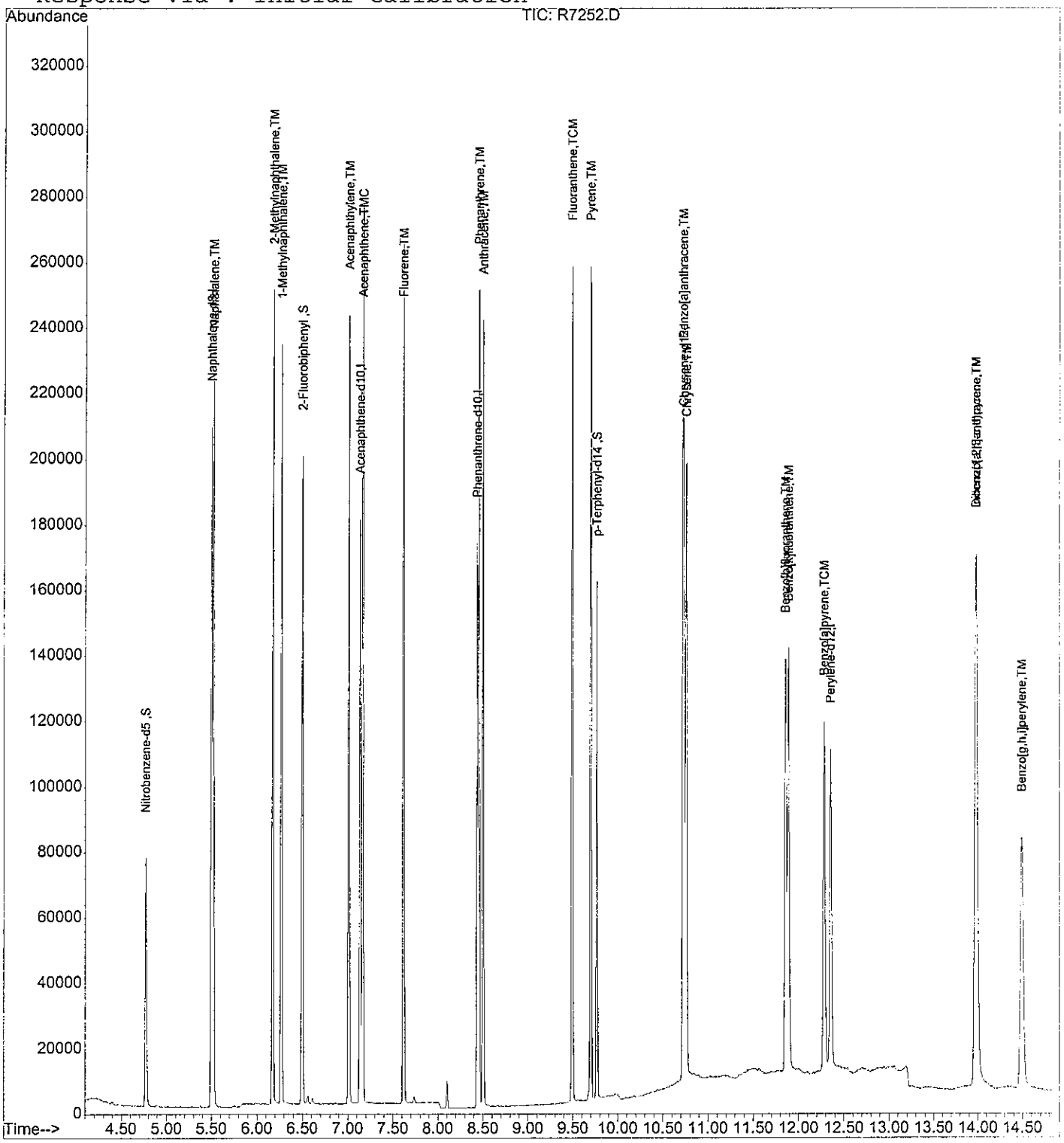
Jan 10 17

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : E:\HPCHEM\1\DATA\2016\011017\R7252.D Vial: 12
Acq On : 10 Jan 2017 13:49 Operator: twk SOP 506
Sample : EX170106-1LCSD Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:53 2017 Quant Results File: 112816S.RES

Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : E:\HPCHEM\1\DATA\2016\011017\R7254.D Vial: 14
Acq On : 10 Jan 2017 14:30 Operator: twk SOP 506 Re
Sample : 1701016-1 Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:54 2017 Quant Results File: 112816S.RES

Quant Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration
DataAcq Meth : 112816S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.50	136	178728	2000.00	ng/mL	0.00
6) Acenaphthene-d10	7.13	164	73884	2000.00	ng/mL	0.00
11) Phenanthrene-d10	8.44	188	125881	2000.00	ng/mL	0.00
15) Chrysene-d12	10.73	240	114345	2000.00	ng/mL	-0.01
20) Perylene-d12	12.35	264	103135	2000.00	ng/mL	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.77	82	52915	1992.22	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 99.61%			
7) 2-Fluorobiphenyl	6.49	172	121347	1857.52	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 92.88%			
17) p-Terphenyl-d14	9.77	244	100793	1907.82	ng/mL	0.00
Spiked Amount 2000.000	Range 60 - 140		Recovery = 95.39%			
Target Compounds						Qvalue

Jan 1/10/17

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : E:\HPCHEM\1\DATA\2016\011017\R7254.D Vial: 14
Acq On : 10 Jan 2017 14:30 Operator: twk SOP 506
Sample : 1701016-1 Inst : HPSV-3
Misc : EX170106-1 WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 10 15:54 2017 Quant Results File: 112816S.RES

Method : C:\HPCHEM\1\METHODS\112816S.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue Jan 10 15:53:16 2017
Response via : Initial Calibration